Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-48 **COUNTY: Richland**
Name: Clouds Chevron

Street Address: 1600 Two Notch Rd.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Silty Sand	8	8
Red Brown Clavey Sand	8	16
Orange Silty Sand	10	26
Orange Sandy Clay	4	30
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18942 MW-48

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 3/30/05

30 ft Date Completed: 3/30/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 10 ft depth
_____ in. to _____ ft depth

Height: Above/Below
Surface Flush ft
Weight _____ lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 20
Set Between: 10 ft and 30 ft **NOTE: MULTIPLE SCREENS**
_____ ft and _____ ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 24 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ ft. after _____ hrs. Pumping _____ G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 8 ft. to 30 ft
Effective size 20/30 Uniformity Coefficient _____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 8 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ ft ___ direction
Type _____
Well Disinfected [ ] Yes [ ] No Type: _____ Amount: _____

18. PUMP: Date Installed: _____ Not installed [ ]
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe _____ ft Capacity _____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-49 **COUNTY: Richland**
Name: Clouds Chevron

Street Address: 1600 Two Notch Rd.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Black Fill Dirt	8	8
Brown Silty Sand	4	12
Brown Clayey Sand	4	16
Orange Silty Sand	7	23
Tan Silty Clay	7	30
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18942 MW-49

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 3/29/05

30 ft Date Completed: 3/29/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 10 ft depth
_____ in. to _____ ft depth

Height: Above/Below
Surface Flush ft
Weight_____ lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 20
Set Between: 10 ft and 30 ft **NOTE: MULTIPLE SCREENS**
_____ ft and _____ ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 19 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ ft. after _____ hrs. Pumping_____ G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 8 ft. to 30 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 8 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: __ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____ Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ ft Capacity_____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-50 **COUNTY: Richland**
Name: Clouds Chevron

Street Address: 1600 Two Notch Rd.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Black Fill Dirt	8	8
Brown Silty Sand	4	12
Brown Clayey Sand	4	16
Orange Silty Sand	7	23
Tan Silty Clay	7	30
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18942 MW-50

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 3/29/05

30 ft Date Completed: 3/29/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 10 ft depth
_____ in. to _____ ft depth

Height: Above/Below
Surface Flush ft
Weight_____ lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 20
Set Between: 10 ft and 30 ft **NOTE: MULTIPLE SCREENS**
_____ ft and _____ ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 15 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ ft. after _____ hrs. Pumping _____ G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 8 ft. to 30 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other_____
Depth: From 0.5 ft to 8 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____ Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ ft Capacity_____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-51 **COUNTY: Richland**
Name: Clouds Chevron

Street Address: 1600 Two Notch Rd.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Clayey Sand	12	12
Orange Silty Sand	16	28
Grey Silty Clay	7	35
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18942 MW-51

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 3/29/05

35 ft Date Completed: 3/29/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 15 ft depth
_____ in. to _____ ft depth

Height: Above/Below
Surface Flush ft
Weight_____ lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 20
Set Between: 15 ft and 35 ft **NOTE: MULTIPLE SCREENS**
_____ ft and _____ ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 25 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ ft. after _____ hrs. Pumping_____ G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 13 ft. to 35 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 13 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: __ft__ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____ Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ ft Capacity_____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-52 **COUNTY: Richland**
Name: Clouds Chevron

Street Address: 1600 Two Notch Rd.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Clavey Sand	12	12
Orange Silty Sand	16	28
Grey Silty Clay	7	35
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18942 MW-52

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 3/24/05

30 ft Date Completed: 3/24/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 10 ft depth
_____ in. to _____ ft depth

Height: Above/Below
Surface Flush ft
Weight _____ lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 20
Set Between: 10 ft and 30 ft **NOTE: MULTIPLE SCREENS**
_____ ft and _____ ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 22 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ ft. after _____ hrs. Pumping _____ G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 8 ft. to 30 ft
Effective size 20/30 Uniformity Coefficient _____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 8 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _ft_ direction
Type _____
Well Disinfected [ ] Yes [ ] No Type: _____ Amount: _____

18. PUMP: Date Installed: _____ Not installed [ ]
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe _____ ft Capacity _____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-53 **COUNTY: Richland**
Name: Clouds Chevron

Street Address: 1600 Two Notch Rd.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Clavey Sand	16	16
Grey Silty Clay	4	20
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18942 MW-53

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 3/24/05

20 ft Date Completed: 3/24/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 5 ft depth
_____in. to _____ft depth

Height: Above/Below
Surface Flush ft
Weight_____lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 15
Set Between: 5 ft and 20 ft **NOTE: MULTIPLE SCREENS**
_____ft and _____ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 22 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ft. after _____hrs. Pumping_____G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 3 ft. to 20 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other_____
Depth: From 0.5 ft to 3 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: __ft__ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ft Capacity_____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-54 **COUNTY: Richland**
Name: Clouds Chevron

Street Address: 1600 Two Notch Rd.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Clavey Sand	12	12
Brown Sandy Clay	8	20
*Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18942 MW-54

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 3/23/05

20 ft Date Completed: 3/23/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 5 ft depth
_____ in. to _____ ft depth

Height: Above/Below
Surface Flush ft
Weight_____ lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 15
Set Between: 5 ft and 20 ft **NOTE: MULTIPLE SCREENS**
_____ ft and _____ ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 13 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ ft. after _____ hrs. Pumping _____ G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 3 ft. to 20 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 3 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: __ft__ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____ Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ ft Capacity_____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-55 **COUNTY: Richland**
Name: Clouds Chevron

Street Address: 1600 Two Notch Rd.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red Brown Clavey Sand	12	12
Brown Sandy Clay	2	14
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18942 MW-55

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 3/23/05

14 ft Date Completed: 3/23/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 4 ft depth
_____ in. to _____ ft depth

Height Above/Below
Surface Flush ft
Weight_____ lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10
Set Between: 4 ft and 14 ft **NOTE: MULTIPLE SCREENS**
_____ ft and _____ ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 8 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ ft. after _____ hrs. Pumping _____ G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 2 ft. to 14 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other_____
Depth: From 0.5 ft to 2 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: __ft__ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____ Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ ft Capacity_____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-56 **COUNTY: Richland**
Name: Clouds Chevron

Street Address: 1600 Two Notch Rd.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red Brown Clavey Sand	12	12
Brown Sandy Clay	8	20
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18942 MW-56

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 3/22/05

20 ft Date Completed: 3/22/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 5 ft depth
_____ in. to _____ ft depth

Height: Above/Below
Surface Flush ft
Weight_____ lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 15
Set Between: 5 ft and 20 ft **NOTE: MULTIPLE SCREENS**
_____ ft and _____ ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 9 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ ft. after _____ hrs. Pumping_____ G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 3 ft. to 20 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other_____
Depth: From 0.5 ft to 3 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____ Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ ft Capacity_____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-57 **COUNTY: Richland**
Name: Clouds Chevron

Street Address: 1600 Two Notch Rd.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red Brown Clavey Sand	12	12
Brown Sandy Clay	2	14
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18942 MW-57

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 3/22/05

14 ft Date Completed: 3/22/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 4 ft depth
_____in. to _____ft depth

Height: Above/Below
Surface Flush ft
Weight_____lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10
Set Between: 4 ft and 14 ft **NOTE: MULTIPLE SCREENS**
_____ft and _____ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 8 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ft. after _____hrs. Pumping_____G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 2 ft. to 14 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other_____
Depth: From 0.5 ft to 2 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: __ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ft Capacity_____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

D H E C

PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-58 **COUNTY: Richland**
Name: Clouds Chevron

Street Address: 1600 Two Notch Rd.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Silty Sand	12	12
Brown Sandy Clay	7	19
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18942 MW-58

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 3/21/05

19 ft Date Completed: 3/21/05

9. TYPE
[ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 4 ft depth
_____in. to _____ft depth

Height: Above/Below
Surface Flush ft
Weight_____lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 15
Set Between: 4 ft and 19 ft **NOTE: MULTIPLE SCREENS**
_____ft and _____ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 8 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ft. after _____hrs. Pumping_____G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 2 ft. to 19 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other_____
Depth: From 0.5 ft to 2 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ft Capacity_____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-59 **COUNTY: Richland**
Name: Clouds Chevron

Street Address: 1600 Two Notch Rd.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Silty Sand	12	12
Brown Sandy Clay	5	17
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18942 MW-59

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 3/21/05

17 ft Date Completed: 3/21/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 2 ft depth
_____in. to _____ft depth

Height Above/Below
Surface Flush ft
Weight_____lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 15
Set Between: 2 ft and 17 ft **NOTE: MULTIPLE SCREENS**
_____ft and _____ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 5 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ft. after _____hrs. Pumping_____G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 1 ft. to 17 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other_____
Depth: From 0.5 ft to 1 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: __ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ft Capacity_____gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-60 **COUNTY: Richland**
Name: Clouds Chevron

Street Address: 1600 Two Notch Rd.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Silty Sand	8	8
Grey Sandy Clay	6	14
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18942 MW-60

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 3/21/05

14 ft Date Completed: 3/21/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 4 ft depth
_____in. to _____ft depth

Height: Above/Below
Surface Flush ft
Weight_____lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10
Set Between: 4 ft and 14 ft **NOTE: MULTIPLE SCREENS**
_____ft and _____ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 7 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ft. after _____hrs. Pumping_____G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 2 ft. to 14 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other_____
Depth: From 0.5 ft to 2 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: __ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ft Capacity_____gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-61 **COUNTY: Richland**
Name: Handy Pantry #65

Street Address: 2367 Taylor St
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Clavey Sand	16	16
Tan Silty Sand	11	27
Grey Sandy Clay	8	35
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18941 MW-61

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 5/13/05

35 ft Date Completed: 5/13/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 20 ft depth
_____in. to _____ft depth

Height: Above/Below
Surface Flush ft
Weight_____lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 15
Set Between: 20 ft and 35 ft **NOTE: MULTIPLE SCREENS**
_____ft and _____ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 27 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ft. after _____hrs. Pumping_____G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 18 ft. to 35 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 18 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: __ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ft Capacity_____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/20/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-62 **COUNTY: Richland**
Name: Handy Pantry #65

Street Address: 2367 Taylor St
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Clayey Sand	10	10
Tan Silty Sand	13	23
Grey Sandy Clay	12	35
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18941 MW-62

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 5/13/05

35 ft Date Completed: 5/13/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 20 ft depth
_____in. to _____ft depth

Height: Above/Below
Surface Flush ft
Weight_____lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 15
Set Between: 20 ft and 35 ft **NOTE: MULTIPLE SCREENS**
_____ft and _____ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 27 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ft. after _____hrs. Pumping_____G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 18 ft. to 35 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 18 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: __ft__ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ft Capacity_____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/20/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-63 **COUNTY: Richland**
Name: Handy Pantry #65

Street Address: 2367 Taylor St
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Silty Sand	15	15
Tan Clavey Sand	10	25
Grey Sandy Clay	10	35
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18941 MW-63

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 5/13/05

35 ft Date Completed: 5/13/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 20 ft depth
_____ in. to _____ ft depth

Height: Above/Below
Surface Flush ft
Weight_____ lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 15
Set Between: 20 ft and 35 ft **NOTE: MULTIPLE SCREENS**
_____ ft and _____ ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 27 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ ft. after _____ hrs. Pumping_____ G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 18 ft. to 35 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 18 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____ Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ ft Capacity_____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/20/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-64 **COUNTY: Richland**
Name: Handy Pantry #65

Street Address: 2367 Taylor St
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Silty Sand	21	21
Tan Clayey Sand	8	29
Grey Sandy Clay	6	35
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18941 MW-64

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 5/16/05

35 ft Date Completed: 5/16/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 20 ft depth
_____ in. to _____ ft depth

Height: Above/Below
Surface Flush ft.
Weight _____ lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 15
Set Between: 20 ft and 35 ft **NOTE: MULTIPLE SCREENS**
_____ ft and _____ ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 27 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ ft. after _____ hrs. Pumping _____ G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 18 ft. to 35 ft
Effective size 20/30 Uniformity Coefficient _____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 18 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ ft ___ direction
Type _____
Well Disinfected [ ] Yes [ ] No Type: _____ Amount: _____

18. PUMP: Date Installed: _____ Not installed [ ]
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe _____ ft Capacity _____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/20/05
*Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-65 **COUNTY: Richland**
Name: Handy Pantry #65

Street Address: 2367 Taylor St
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Silty Sand	21	21
Tan Clayey Sand	3	24
Grey Sandy Clay	11	35
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18941 MW-65

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 5/16/05

35 ft Date Completed: 5/16/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 20 ft depth
_____ in. to _____ ft depth

Height: Above/Below
Surface Flush ft
Weight_____ lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 15
Set Between: 20 ft and 35 ft **NOTE: MULTIPLE SCREENS**
_____ ft and _____ ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 27 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ ft. after _____ hrs. Pumping_____ G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 18 ft. to 35 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 18 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____ Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ ft Capacity_____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/20/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-66 **COUNTY: Richland**
Name: Handy Pantry #65

Street Address: 2367 Taylor St
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Silty Sand	23	23
Tan Clayey Sand	5	28
Grey Sandy Clay	7	35
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18941 MW-66

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 5/17/05

35 ft Date Completed: 5/17/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 20 ft depth
_____ in. to _____ ft depth

Height: Above/Below
Surface Flush ft
Weight_____ lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 15
Set Between: 20 ft and 35 ft **NOTE: MULTIPLE SCREENS**
_____ ft and _____ ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 27 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ ft. after _____ hrs. Pumping_____ G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 18 ft. to 35 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 18 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: __ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____ Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ ft Capacity_____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/20/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

D H E C
PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-67 **COUNTY: Richland**
Name: Handy Pantry #65

Street Address: 2367 Taylor St
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Silty Sand	19	19
Tan Silty Sand	10	29
Grey Sandy Clay	6	35
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18941 MW-67

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 5/17/05

35 ft Date Completed: 5/17/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 20 ft depth
_____ in. to _____ ft depth

Height: Above/Below
Surface Flush ft
Weight_____ lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 15
Set Between: 20 ft and 35 ft **NOTE: MULTIPLE SCREENS**
_____ ft and _____ ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 27 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ ft. after _____ hrs. Pumping_____ G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 18 ft. to 35 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 18 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____ Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ ft Capacity_____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/20/05
Authorized Representative

D H E C

PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-68 **COUNTY: Richland**
Name: Handy Pantry #65

Street Address: 2367 Taylor St
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Silty Sand	18	18
Tan Clavey Sand	4	22
Grey Sandy Clay	13	35
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18941 MW-68

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 5/18/05

35 ft Date Completed: 5/18/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 20 ft depth
_____ in. to _____ ft depth

Height: Above/Below
Surface Flush ft
Weight _____ lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 15
Set Between: 20 ft and 35 ft **NOTE: MULTIPLE SCREENS**
_____ ft and _____ ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 27 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ ft. after _____ hrs. Pumping _____ G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 18 ft. to 35 ft
Effective size 20/30 Uniformity Coefficient _____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 18 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ ft ___ direction
Type _____
Well Disinfected [ ] Yes [ ] No Type: _____ Amount: _____

18. PUMP: Date Installed: _____ Not installed [ ]
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe _____ ft Capacity _____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/20/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-69 **COUNTY: Richland**
Name: Handy Pantry #65

Street Address: 2367 Taylor St
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Silty Sand	17	17
Tan Clayey Sand	4	21
Grey Sandy Clay	14	35
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18941 MW-69

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 5/18/05

35 ft Date Completed: 5/18/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 20 ft depth
_____ in. to _____ ft depth

Height: Above/Below
Surface Flush ft
Weight _____ lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 15
Set Between: 20 ft and 35 ft **NOTE: MULTIPLE SCREENS**
_____ ft and _____ ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 27 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ ft. after _____ hrs. Pumping _____ G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 18 ft. to 35 ft
Effective size 20/30 Uniformity Coefficient _____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 18 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ ft ___ direction
Type _____
Well Disinfected [ ] Yes [ ] No Type: _____ Amount: _____

18. PUMP: Date Installed: _____ Not installed [ ]
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe _____ ft Capacity _____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/20/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: MW-70 **COUNTY: Richland**
Name: Handy Pantry #65

Street Address: 2367 Taylor St
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Silty Sand	15	15
Tan Clayey Sand	5	20
Grey Sandy Clay	15	35
* Indicate Water Bearing Zones		
Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18941 MW-70

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 5/18/05

35 ft Date Completed: 5/18/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 20 ft depth
_____in. to _____ft depth

Height: Above/Below
Surface Flush ft
Weight_____lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 15
Set Between: 20 ft and 35 ft **NOTE: MULTIPLE SCREENS**
_____ft and _____ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 28 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ft. after _____hrs. Pumping_____G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 18 ft. to 35 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 18 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ft Capacity_____gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/20/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: DW-4 **COUNTY: Richland**
Name: Handy Pantry #65

Street Address: 2367 Taylor St.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Clavey Sand	8	8
Light Brown Silty Sand	20	28
Grey Clavey Sand	4	32
Grey Sandy Clay	78	110
* Indicate Water Bearing Zones		
Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18941 DW-4

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 4/7/05

110 ft Date Completed: 4/7/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 105 ft depth
5" in. to 100 ft depth

Height: Above/Below
Surface Flush ft
Weight_____lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 5
Set Between: 105 ft and 110 ft **NOTE: MULTIPLE SCREENS**
_____ft and _____ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 13 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ft. after _____hrs. Pumping_____G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 103 ft. to 110 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 103 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft___direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ft Capacity_____gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: DW-5 **COUNTY: Richland**
Name: Handy Pantry #65

Street Address: 2367 Taylor St.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Clayey Sand	8	8
Light Brown Silty Sand	20	28
Grey Clayey Sand	4	32
Grey Sandy Clay	38	70
* Indicate Water Bearing Zones		
Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18941 DW-5

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 4/1/05

70 ft Date Completed: 4/1/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 65 ft depth
5" in. to 60 ft depth

Height: Above/Below
Surface Flush ft
Weight_____lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 5
Set Between: 65 ft and 70 ft **NOTE: MULTIPLE SCREENS**
_____ft and _____ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 45 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ft. after _____hrs. Pumping_____G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 63 ft. to 70 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 63 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: __ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ft Capacity_____ gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: DW-6 **COUNTY: Richland**
Name: Handy Pantry #65

Street Address: 2367 Taylor St.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Silty Sand	28	28
Grey Clayey Sand	4	32
Grey Sandy Clay	38	70
* Indicate Water Bearing Zones		
Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18941 DW-6

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 4/5/05

70 ft Date Completed: 4/5/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 65 ft depth
5" in. to 60 ft depth

Height: Above/Below
Surface Flush ft
Weight_____lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 5
Set Between: 65 ft and 70 ft **NOTE: MULTIPLE SCREENS**
_____ft and _____ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 45 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ft. after _____hrs. Pumping_____G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 63 ft. to 70 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 63 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: __ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ft Capacity_____gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: DW-7 **COUNTY: Richland**
Name: Clouds Chevron

Street Address: 1600 Two Notch Rd.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Silty Sand	12	12
Red Brown Sandy Clay	4	16
Grey Sandy Clay	39	55
* Indicate Water Bearing Zones		
Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18942 DW-7

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 4/8/05

55 ft Date Completed: 4/8/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 50 ft depth
5" in. to 45 ft depth

Height: Above/Below
Surface Flush ft
Weight_____lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 5
Set Between: 50 ft and 55 ft **NOTE: MULTIPLE SCREENS**
_____ft and _____ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 25 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ft. after _____hrs. Pumping_____G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 48 ft. to 55 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other_____
Depth: From 0.5 ft to 48 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ft Capacity_____gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: DW-8 **COUNTY: Richland**
Name: Clouds Chevron

Street Address: 1600 Two Notch Rd.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Silty Sand	12	12
Red Brown Sandy Clay	4	16
Grey Sandy Clay	39	55
* Indicate Water Bearing Zones		
Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18942 DW-8

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 4/7/05

55 ft Date Completed: 4/7/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 50 ft depth
5" in. to 45 ft depth

Height: Above/Below
Surface Flush ft
Weight_____lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 5
Set Between: 50 ft and 55 ft **NOTE: MULTIPLE SCREENS**
_____ft and _____ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 25 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ft. after _____hrs. Pumping_____G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 48 ft. to 55 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 48 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: __ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ft Capacity_____gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/02/05
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: SCDHEC

Address: 2600 Bull Street

City: Columbia State: SC Zip: 29201-1708

Telephone: Work: (803) 898-4300 Home:

2. LOCATION OF WELL: DW-9 **COUNTY: Richland**
Name: Clouds Chevron

Street Address: 1600 Two Notch Rd.
City: Columbia, SC Zip: 29301

Latitude: 34° 0' 46" Longitude: 81° 0' 57"

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: [ ] Yes [ ] No

Grouted Depth: from_____ft. to _____ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown Silty Sand	12	12
Red Brown Sandy Clay	4	16
Grey Sandy Clay	49	65
* Indicate Water Bearing Zones Use a 2nd sheet if needed		

5. REMARKS:

6. PERMIT NUMBER: UMW-18942 DW-9

7. USE:
[ ] Residential [ ] Public Supply [ ] Process
[ ] Irrigation [ ] Air Conditioning [ ] Emergency
[ ] Test Well [X] Monitor Well [ ] Replacement

8. WELL DEPTH (completed) Date Started: 5/12/05

65 ft Date Completed: 5/13/05

9. TYPE [ ] Mud Rotary [ ] Jetted [ ] Bored
[ ] Dug [ ] Air Rotary [ ] Driven
[ ] Cable Tool [X] H.S.A. [ ] Other

10. CASING: [X]Threaded [ ] Welded
Diam.: 2"
Type: [X] PVC [ ] Galvanized
[ ] Steel [ ] Other
2" in. to 60 ft depth
5" in. to 55 ft depth

Height: Above/Below
Surface Flush ft
Weight_____lb/ft
Drive Shoe? [ ] Yes [ ] No

11. SCREEN
Type PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 5
Set Between: 60 ft and 65 ft **NOTE: MULTIPLE SCREENS**
_____ft and _____ft **USE SECOND SHEET**

Sieve Analysis [ ] Yes (please enclose) [ ] No

12. STATIC WATER LEVEL 25 below land surface after 24 hrs

13. PUMPING LEVEL Below Land Surface.

_____ft. after _____hrs. Pumping_____G.P.M.

Pumping Test: [ ] Yes (please enclose) [ ] No
Yield: _____

14. WATER QUALITY
Chemical Analysis [ ] Yes [ ] No Bacterial Analysis [ ] Yes [ ] No
Please enclose lab results

15. ARTIFICAL FILTER (filter pack) [X] Yes [ ] No
Installed from 58 ft. to 65 ft
Effective size 20/30 Uniformity Coefficient_____

16. WELL GROUTED? [X] Yes [ ] No
[ ] Neat Cement [ ] Bentonite [X] Bentonite/Cement [ ] Other _____
Depth: From 0.5 ft to 58 ft

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ft___ direction
Type_____
Well Disinfected [ ] Yes [ ] No Type:_____Amount:_____

18. PUMP: Date Installed:_____ Not installed [ ]
Mfr. Name:_____ Model No.:_____
H.P._____ Volts_____ Length of drop pipe_____ft Capacity_____gpm
TYPE: [ ] Submersible [ ] Jet (shallow) [ ] Turbine
[ ] Jet (deep) [ ] Reciprocating [ ] Centrifugal

19. WELL DRILLER: Joe Smith **CERT. NO: 1648**
Address: 4850 Sugarloaf Pkwy, Ste 209, #329, Lawrenceville, GA 30044
Telephone No.: 678-377-5336 Fax No.: 678-377-5336

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: _____ Date: 5/20/05
Authorized Representative

Consultech
Env. Inc.
From: Schrader
art/Tier II Assessment
Report
G.W. Elev. Data
6/29/2005

UST PROGRAM #222B
DOCKETING # [redacted] Tech

APPENDIX 4
Field Data

GROUNDWATER ELEVATION DATA

PROJECT NAME: Handy Pantry #65 & Clouds Chevron **CONSULTECH PROJECT NO.: 04-12-008-009**
DATE: 4/19-21/05 RECORDED BY: Rob Robinson **MEASURING DEVICE: Oil/Water Interface Probe**

WELL NO.	DATE	TIME	DEPTH TO GROUND-WATER	DEPTH to FREE PRODUCT	pH	TEMP	CONDUCTIVITY	DISSOLVED OXYGEN
MW-1	4/19/05	1545	22.89		5.4	18.1	183	3.1
MW-2	4/19/05	1600	24.08		4.8	19.0	125	3.2
MW-3	4/19/05	1615	24.13	23.70	4.9	17.1	845	1.1
MW-4	4/19/05	1630	22.89		6.0	19.1	246	3.6
MW-5	4/19/05	1645	23.58		6.0	19.8	84	2.9
MW-6	4/19/05	1700	24.30		5.4	20.0	762	2.0
MW-7	4/19/05	1715	24.52		5.8	20.1	146	3.4
MW-8	4/19/05	1730	21.90		7.0	19.5	113	4.0
MW-9	4/19/05	1745	23.54		5.2	20.2	794	1.8
MW-10	4/19/05	1800	18.52	17.73	5.1	20.1	1243	1.3
MW-11	4/19/05	1530	20.17		7.2	20.8	346	2.4
MW-12	4/19/05	800	5.25		6.4	19.4	107	3.2
MW-13	4/21/05	815	12.05		6.0	18.3	336	3.6
MW-15	4/21/05	830	18.14		5.4	17.9	813	1.4
MW-16	4/21/05	845	19.60		5.1	18.6	722	1.8
MW-17	4/21/05	900	24.20		4.9	19.2	694	1.4
MW-18	4/20/05	915	26.28	26.26	5.2	19.6	988	1.0
MW-19	4/20/05	930	25.00		5.1	19.6	617	1.2

Measured from top of riser unless otherwise noted.
Collected depth to water/product measurements prior to initiating well development activities.

GROUNDWATER ELEVATION DATA

PROJECT NAME: Handy Pantry #65 & Clouds Chevron **CONSULTECH PROJECT NO.: 04-12-008-009**
DATE: 4/19-21/05 RECORDED BY: Rob Robinson **MEASURING DEVICE: Oil/Water Interface Probe**

WELL NO.	DATE	TIME	DEPTH TO GROUND-WATER	DEPTH to FREE PRODUCT	pH	TEMP	CONDUCTIVITY	DISSOLVED OXYGEN
MW-20	4/20/05	945	25.31		6.3	18.4	139	3.6
MW-22	4/20/05	1000	22.78		6.8	18.3	97	4.1
MW-23	4/20/05	1015	25.32		6.5	19.6	86	2.9
MW-24	4/20/05	1030	24.35		6.4	20.1	72	3.2
MW-25	4/20/05	1045	21.89		6.0	18.4	804	2.4
MW-26	4/21/05	1100	23.36		6.2	19.2	83	2.4
MW-27	4/20/05	1115	17.02		6.4	18.4	94	3.1
MW-28	4/20/05	1130	18.87		7.0	19.1	105	3.6
MW-29	4/20/05	1145	19.06		7.4	18.4	83	3.7
MW-30	4/20/05	1200	22.86		6.3	17.8	41	3.1
MW-31	4/20/05	1215	26.51		6.4	16.1	125	3.0
MW-32	4/21/05	1230	23.66		6.9	18.4	215	2.8
MW-33	4/20/05	1245	25.27		6.4	19.2	106	2.9
MW-34	4/20/05	1300	26.11		7.1	18.3	113	3.1
MW-35	4/20/05	1315	25.14		7.3	19.4	162	3.4
MW-36	4/20/05	1330	24.96		6.1	20.1	168	3.8
MW-37	4/20/05	1345	25.25		6.0	18.1	149	3.9
MW-38	4/20/05	1400	26.78		6.7	20.0	131	2.4

Measured from top of riser unless otherwise noted.
Collected depth to water/product measurements prior to initiating well development activities.

GROUNDWATER ELEVATION DATA

PROJECT NAME: Handy Pantry #65 & Clouds Chevron **CONSULTECH PROJECT NO.: 04-12-008-009**
DATE: 4/19-21/05 RECORDED BY: Rob Robinson **MEASURING DEVICE: Oil/Water Interface Probe**

WELL NO.	DATE	TIME	DEPTH TO GROUND-WATER	DEPTH to FREE PRODUCT	PH	TEMP	CONDUCTIVITY	DISSOLVED OXYGEN
MW-39	4/20/05	1415	27.65		6.0	18.3	189	3.1
MW-40	4/20/05	1430	27.31		6.7	17.9	174	3.0
MW-41	4/20/05	1445	26.68		6.3	19.4	93	3.3
MW-42	4/20/05	1500	27.53		6.3	19.3	62	3.0
MW-43	4/21/05	1515	26.28		6.1	19.7	110	2.6
MW-44	4/21/05	1530	25.03		6.7	18.6	234	2.8
MW-45	4/21/05	1545	23.39		6.2	19.4	185	2.4
MW-46	4/21/05	1600	25.71		6.3	18.3	106	3.0
MW-47	4/21/05	1615	23.61		6.9	18.1	115	3.2
MW-48	4/21/05	1630	20.75		7.0	18.5	245	2.5
MW-49	4/21/05	1645	18.39		6.1	19.8	210	3.0
MW-50	4/21/05	1700	15.15		6.4	18.7	116	3.1
MW-51	4/21/05	1500	24.66		6.7	20.1	84	3.1
MW-52	4/21/05	1515	21.88		6.5	18.8	135	3.0
MW-53	4/21/05	1715	11.55		6.5	18.9	72	3.4
MW-54	4/21/05	1730	12.31		6.7	18.1	64	2.9
MW-55	4/21/05	1745	4.88		6.4	18.9	74	2.8
MW-56	4/21/05	1800	8.90		6.3	19.2	81	3.4

Measured from top of riser unless otherwise noted.
Collected depth to water/product measurements prior to initiating well development activities.

GROUNDWATER ELEVATION DATA

PROJECT NAME: Handy Pantry #65 & Clouds Chevron **CONSULTECH PROJECT NO.: 04-12-008-009**
DATE: 4/19-21/05 RECORDED BY: Rob Robinson **MEASURING DEVICE: Oil/Water Interface Probe**

WELL NO.	DATE	TIME	DEPTH TO GROUND-WATER	DEPTH to FREE PRODUCT	pH	TEMP	CONDUCTIVITY	DISSOLVED OXYGEN
MW-57	4/21/05	1300	4.41		6.2	18.4	76	2.0
MW-58	4/21/05	1315	6.65		6.1	19.1	84	2.1
MW-59	4/21/05	1330	4.64		6.3	18.3	115	3.6
MW-60	4/21/05	1345	5.29		6.4	17.2	96	3.6
MW-5aR	4/20/05	1600	22.68		5.2	18.3	143	3.4
PW-1R	4/20/05	1615	25.16		5.3	19.2	119	3.2
RW-1R	4/20/05	1630	24.69		6.0	18.1	72	2.0
DW-1	4/20/05	1400	45.38		7.8	18.3	484	3.1
DW-2	4/20/05	1415	44.55		7.9	16.9	42	3.0
DW-3	4/20/05	1430	25.27		7.7	18.1	796	1.4
DW-4	4/21/05	1445	12.68		6.3	18.6	142	2.9
DW-5	4/21/05	1500	44.77		6.3	18.7	64	3.1
DW-6	4/20/05	1515	46.38		6.4	19.0	52	3.6
DW-7	4/20/05	1530	24.71		6.0	19.3	144	2.9
DW-8	4/21/05	1545	21.21		5.7	19.0	131	4.0
SW-1	4/20/05	1645	NA		5.1	22.4	319	1.9

Measured from top of riser unless otherwise noted.
Collected depth to water/product measurements prior to initiating well development activities.

GROUNDWATER ELEVATION DATA

PROJECT NAME: Handy Pantry #65 & Clouds Chevron **CONSULTECH PROJECT NO.: 04-12-008-009**
DATE: 5/17-18/05 RECORDED BY: Drew Miller **MEASURING DEVICE: Oil/Water Interface Probe**

WELL NO.	DATE	TIME	DEPTH TO GROUND-WATER	DEPTH to FREE PRODUCT	pH	TEMP	CONDUCTIVITY	DISSOLVED OXYGEN
MW-61	5/17/05	1300	21.25		5.3	24.6	142	4.0
MW-62	5/17/05	1315	24.99		4.8	24.4	398	3.9
MW-63	5/17/05	1330	26.41		5.1	23.5	169	4.1
MW-64	5/17/05	1345	26.74		5.6	23.9	143	2.9
MW-65	5/17/05	1400	26.46		5.4	24.8	217	2.0
MW-66	5/17/05	1415	27.50		5.9	24.2	29	3.2
MW-67	5/17/05	1430	27.72		5.3	25.0	68	4.1
MW-68	5/18/05	1400	26.46		6.2	25.4	112	3.9
MW-69	5/18/05	1415	26.85		5.7	27.1	85	2.4
MW-70	5/18/05	1430	27.30		5.9	26.4	69	3.5
DW-9	5/17/05	1445	28.78		6.6	22.2	68	5.0

Measured from top of riser unless otherwise noted.
Collected depth to water/product measurements prior to initiating well development activities.

UTILITY FORMAT AND POTENTIAL RECEPTOR FORMAT

Receptor Analysis

Describe all potential receptors and preferential pathways within a 1000-foot radius of the site

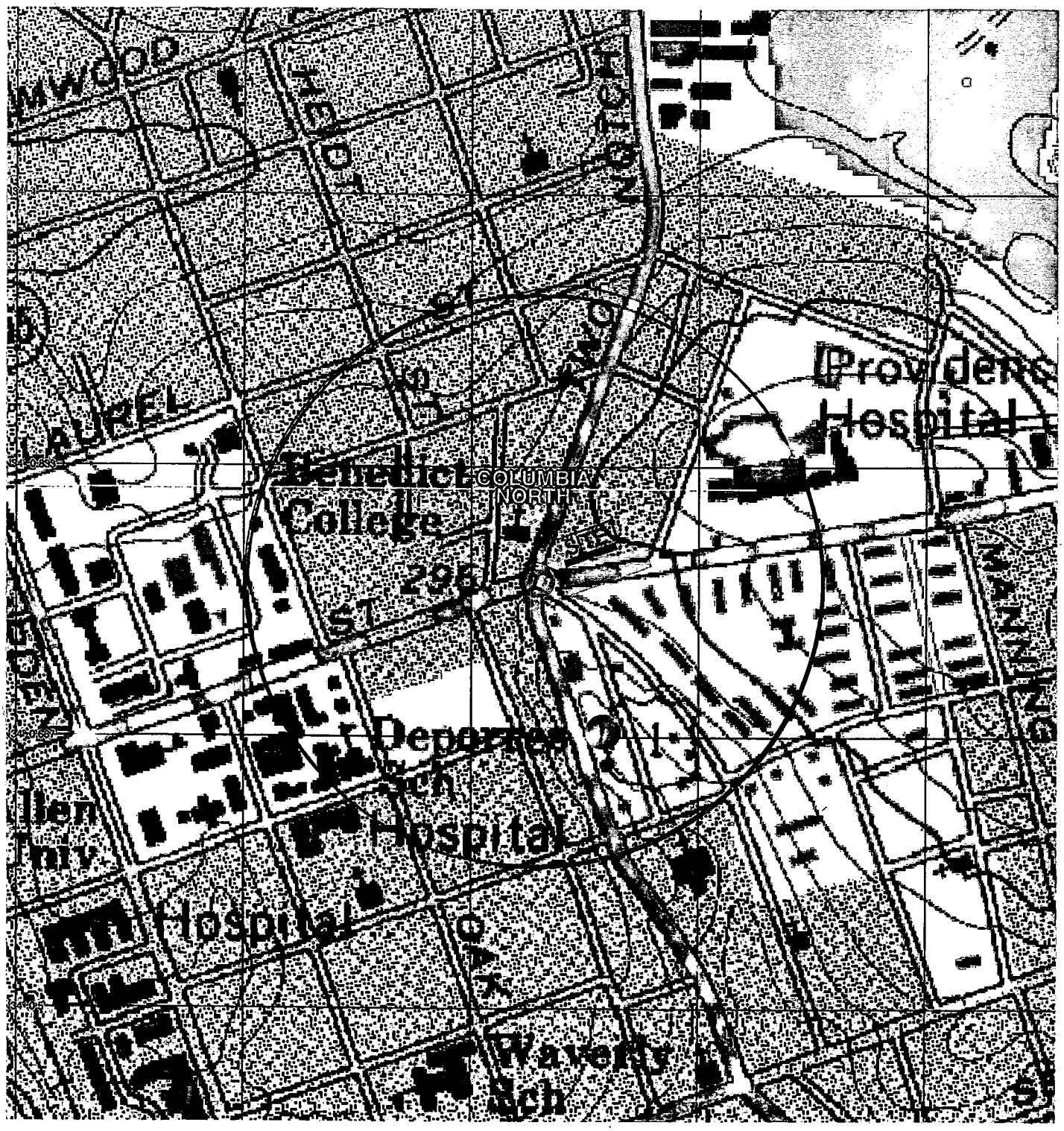
Description of Receptor	Distance/Direction from Site
1) unnamed creek/ditch	600 Feet South

Utilities Survey

List the utilities on site, and adjacent to the site within a 250-foot radius, that could serve as exposure points or as preferential pathways

Utility	On-site or Distance/Direction from site	Depth to Utility
2.) Water	Water lines are located along the south side of Taylor Street/Forest Drive and on the east side of Heidt Street, Millwood Drive, and Oak Street in the easement.	2-3 Feet
2.) Fiber optic/ Telephone	The fiber optic/telephone is located on the south side of Taylor Street/Forest Drive, on the west side of Millwood Drive and Two Notch Road, and on the east side of Oak Street in the easement.	2-3 Feet
2.) Storm Sewer	Storm sewer lines run on the south side of Taylor Street/Forest Drive and across the Food Lion parking lot to the west side of Heidt Street, Ontario Street, and Oak Street in the easement.	3-5 Feet
2.) Sanitary Sewer	Sanitary sewer lines run through the center of Taylor Street/Forest Drive and through the center of Two Notch Road/Millwood Drive.	3-5 Feet
2.) Gas	Gas lines run on the north side of Taylor Street/Forest Drive, on the east side of Heidt Street and Oak Street, on the west side of Millwood Drive, on the east side of Two Notch Road and Waverly Street in the easement.	2-3 Feet

Example format taken from DHEC 3542(07/1999)

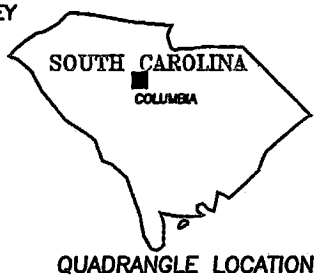


REFERENCE: COLUMBIA NORTH, SOUTH CAROLINA QUADRANGLE MAP, 7.5 MINUTE SERIES, U.S. GEOLOGIC SURVEY

SCALE 1" : 6,400"

0 500 1,000

SCALE IN FEET



QUADRANGLE LOCATION

DRAWN: C.M.E.	DATE: 05/23/05
PROJECT: HANDY PANTRY #65, UST#07584	
PROJECT: CLOUDS CHEVRON UST# 07777	
PROJECT No.: C-04-12-008, 04-12-009	
LOCATION: COLUMBIA, SOUTH CAROLINA	

FIGURE 3
SITE WITH POTENTIAL RECEPTORS AND TOPOGRAPHIC MAP

CONSULTECH ENVIRONMENTAL, INC.

Environmental Consulting and Engineering

© 1998

Delivering innovative solutions to today's environmental concerns

DHEC
PROMOTE PROTECT PROSPER

Summary of Slug Test
Division of Underground Storage Tank Management

Site Data

UST Permit #: 07584 + 07777 County: RICHLAND

Facility Name: _____

Slug Data

See Appendix 4 Table _____ Figure _____ for a list of all data measurements. [water level logs, etc. (complete as appropriate)].

Water Level Recovery Data was measured by _____ [Hermit Data Logger, Manually with Water Level Indicator, etc. (list method)].

Complete the following table for each well tested.

COMPLETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Slug Test Conducted in Well(s) Number	MW-12	MW-42	DW-6	DW-7
Initial Rise/Drawdown in Well (feet)	10.55	5.71	18.02	22.93
Radius of Well Casing (feet)	0.083	0.083	0.083	0.083
Effective Radius of Well (feet)	0.3	0.3	0.3	0.3
Static Saturated Aquifer Thickness (feet)	19.75	7.47	23.62	30.29
Length of Well Screen (feet)	20	15	5	5
Static Height of Water Column in Well (ft)	5.25	27.53	46.38	24.71

Calculations

See Appendix 4 Table _____ Figure _____ for calculations (complete as appropriate).

The method for aquifer calculations was BOUWER + RICE (i.e. Bouwer-Rice, Cooper, etc.).

Calculated values by well were as follows:

Slug Test Conducted in Well(s) Number	MW-12	MW-42	DW-6	DW-7
Hydraulic Conductivity FT/DAY	0.00431	0.0161	0.0000306	0.00258

Thickness of the aquifer used to calculate hydraulic conductivity was (13.61 SHALLOW) (26.96 DEEP) AVG feet.

The aquifer is _____ confined _____ semi-confined V water table (check as appropriate).

The estimated seepage velocity is 0.0004 FT/DAY SHALLOW OR 0.145 FT/YR / 0.00009 FT/DAY DEEP OR 0.0135 FT/YR AVG feet per year based on a hydraulic conductivity of 0.0102 FT/DAY SHALLOW 0.0013 FT/DAY DEEP, a hydraulic gradient of 0.007 FT/FT SHALLOW 0.0037 FT/FT DEEP, and a porosity of 18% 13% SHALLOW DEEP percent for CLAYEY SAND SANDY CLAY soil (list type i.e., silty sand, clay, etc).

SEE REPORT FOR INDIVIDUAL SEEPAGE VELOCITIES

Slug Test Analysis

Site Name:	Clouds Chevron
Location:	Columbia, SC
Test Date:	4/21/05
Client:	SCDHEC
Project Number:	C-04-12-009

Well Label:	DW-7
Aquifer Thickness:	30.29 feet
Screen Length:	5. feet
Casing Radius:	6.917e-003 feet
Effective Radius:	2.5e-002 feet
Static Water Level:	24.71 feet
Water Table to Screen Bottom:	30.29 feet
Anisotropy Ratio:	1.
Time Adjustment:	0. Seconds

Test starts with trial 0
There are 27 time and drawdown measurements
Maximum head is 22.93 feet
Minimum head is 0. feet

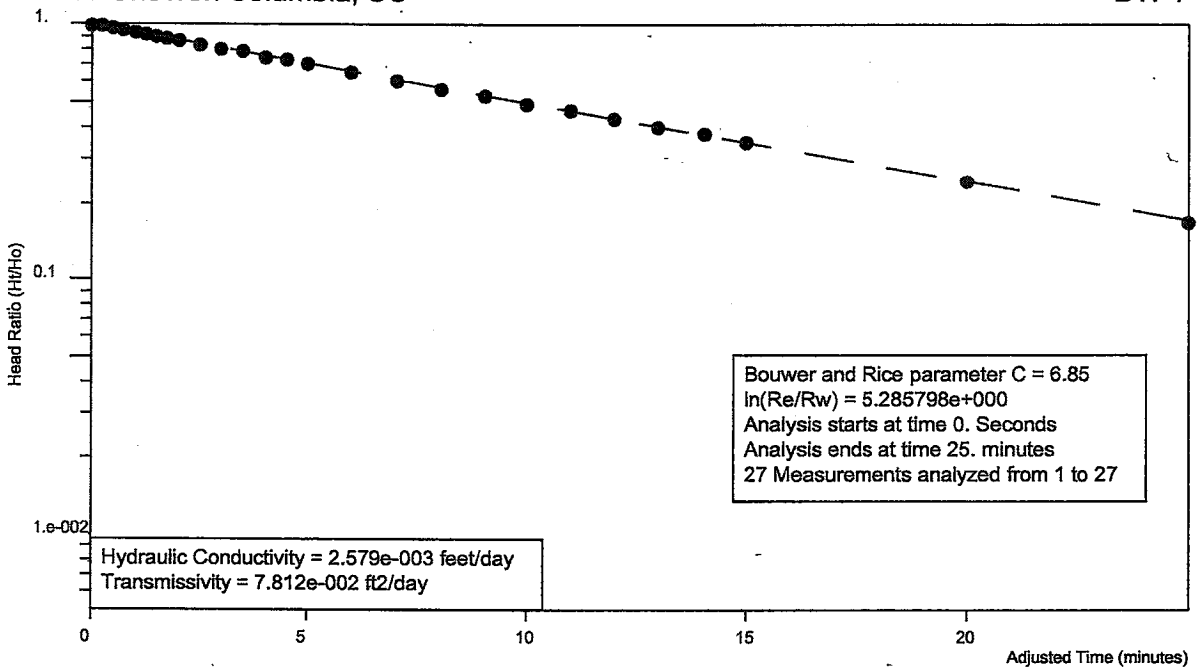
Trial	Time (minutes)	Adjusted Time (minutes)	Drawdown (feet)	Head (feet)	Head Ratio
1	0.	0.	47.64	22.93	1.
2	0.25	0.25	47.32	22.61	0.986
3	0.5	0.5	46.96	22.25	0.9703
4	0.75	0.75	46.65	21.94	0.9568
5	1.	1.	46.31	21.6	0.942
6	1.25	1.25	45.87	21.16	0.9228
7	1.5	1.5	45.44	20.73	0.9041
8	1.75	1.75	45.13	20.42	0.8905
9	2.	2.	44.74	20.03	0.8735
10	2.5	2.5	44.03	19.32	0.8426
11	3.	3.	43.27	18.56	0.8094
12	3.5	3.5	42.7	17.99	0.7846
13	4.	4.	41.89	17.18	0.7492
14	4.5	4.5	41.41	16.7	0.7283
15	5.	5.	40.82	16.11	0.7026
16	6.	6.	39.72	15.01	0.6546
17	7.	7.	38.64	13.93	0.6075
18	8.	8.	37.61	12.9	0.5626
19	9.	9.	36.85	12.14	0.5294
20	10.	10.	36.07	11.36	0.4954
21	11.	11.	35.3	10.59	0.4618
22	12.	12.	34.6	9.89	0.4313
23	13.	13.	33.9	9.19	0.4008
24	14.	14.	33.3	8.59	0.3746
25	15.	15.	32.71	8.	0.3489
26	20.	20.	30.36	5.65	0.2464
27	25.	25.	28.57	3.86	0.1683

Slug Test Analysis 4/21/05

Clouds Chevron Columbia, SC

Bouwer and Rice Graph

DW-7



Project Number: C-04-12-009 for SCDHEC

Analysis by Starpoint Software

Ho is 22.93 feet at 0. Seconds

Bouwer and Rice Automatic Parameter Estimation

Slug Test Analysis

Site Name:	Clouds Chevron
Location:	Columbia, SC
Test Date:	4/21/05
Client:	SCDHEC
Project Number:	C-04-12-009

Well Label:	DW-7
Aquifer Thickness:	30.29 feet
Screen Length:	5. feet
Casing Radius:	6.917e-003 feet
Effective Radius:	2.5e-002 feet
Bouwer and Rice Parameter C	6.85
Radius of Influence of Test	4.938 feet

Trial	Adjusted Time (minutes)	Head (feet)	Head Ratio	Hyd. Con. (feet/day)	Flow to Well (Gallons/Day)
1	0.	22.93	1.	–	
2	0.25	22.61	0.986	2.047e-003	2.058
3	0.5	22.25	0.9703	2.192e-003	2.169
4	0.75	21.94	0.9568	2.143e-003	2.09
5	1.	21.6	0.942	2.176e-003	2.09
6	1.25	21.16	0.9228	2.34e-003	2.202
7	1.5	20.73	0.9041	2.449e-003	2.257
8	1.75	20.42	0.8905	2.412e-003	2.19
9	2.	20.03	0.8735	2.462e-003	2.192
10	2.5	19.32	0.8426	2.495e-003	2.143
11	3.	18.56	0.8094	2.566e-003	2.118
12	3.5	17.99	0.7846	2.524e-003	2.019
13	4.	17.18	0.7492	2.628e-003	2.007
14	4.5	16.7	0.7283	2.565e-003	1.905
15	5.	16.11	0.7026	2.571e-003	1.841
16	6.	15.01	0.6546	2.572e-003	1.716
17	7.	13.93	0.6075	2.593e-003	1.606
18	8.	12.9	0.5626	2.618e-003	1.502
19	9.	12.14	0.5294	2.573e-003	1.389
20	10.	11.36	0.4954	2.558e-003	1.292
21	11.	10.59	0.4618	2.557e-003	1.204
22	12.	9.89	0.4313	2.552e-003	1.122
23	13.	9.19	0.4008	2.561e-003	1.046
24	14.	8.59	0.3746	2.554e-003	0.9753
25	15.	8.	0.3489	2.556e-003	0.9092
26	20.	5.65	0.2464	2.55e-003	0.6407
27	25.	3.86	0.1683	2.595e-003	0.4454

Arithmetic Means:

Hydraulic Conductivity	2.477e-003 feet/day
Transmissivity	7.504e-002 ft2/day

Geometric Means:

Hydraulic Conductivity	2.472e-003 feet/day
Transmissivity	7.487e-002 ft2/day

Sensitivity Analysis:

Hydraulic Conductivity	2.562e-003 feet/day

Transmissivity	7.759e-002 ft2/day

PUMP TEST FIELD DATA REPORT

PROJECT NO.: C-009		PUMP GPM:	
DATE: 4/21/05		PUMPING WELL Y N	#
TEST PERFORMED BY: RR		OBSERVATION WELL (Y) N	# DW-7

TIME (MIN)	WATER LEVEL (FEET)
0	47.14
0.25	47.32
0.50	46.96
0.75	46.65
1.00	46.31
1.25	45.87
1.50	45.44
1.75	45.13
2.00	44.74
2.50	44.03
3.00	43.27
3.50	42.70
4.00	41.89
4.50	41.41
5.00	40.82
6.00	39.72
7.00	38.64
8.00	37.61
9.00	36.85
10.00	36.07
11.00	35.30
12.00	34.60
13.00	33.90
14.00	33.230
15.00	32.71
20.00	30.36
25.00	28.57
30.00	
35.00	
40.00	
45.00	
50.00	
55.00	
60.00	
75.00	
90.00	
105.00	
120.00	
150.00	
180.00	
210.00	
240.00	
270.00	
300.00	
330.00	
360.00	
390.00	
420.00	
450.00	
480.00	
510.00	
540.00	
570.00	
600.00	
630.00	
660.00	
690.00	
720.00	
750.00	
780.00	
840.00	
900.00	
960.00	
1020.00	
1080.00	
1140.00	
1200.00	
1260.00	
1320.00	
1380.00	
1440.00	

NOTES:

80% 29.91

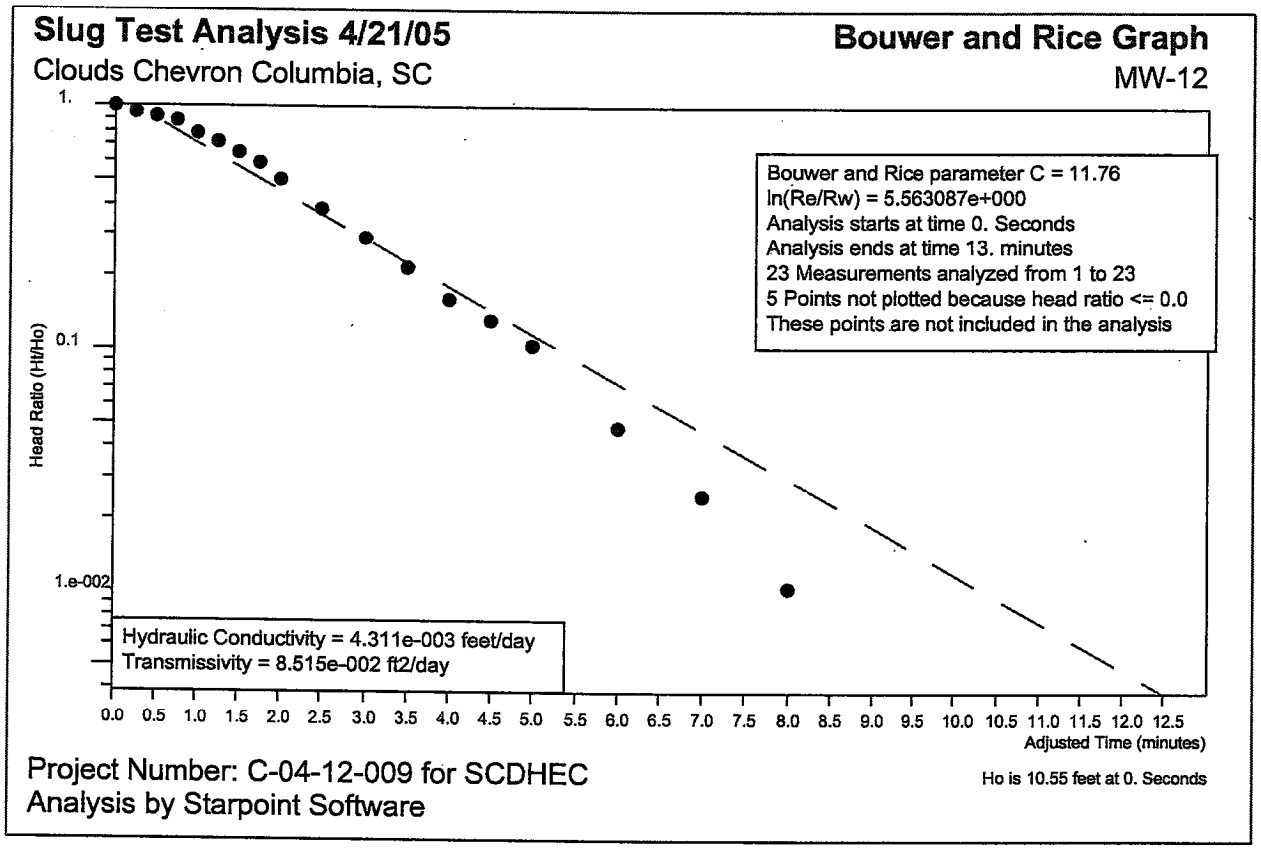
Slug Test Analysis

Site Name:	Clouds Chevron
Location:	Columbia, SC
Test Date:	4/21/05
Client:	SCDHEC
Project Number:	C-04-12-009

Well Label:	MW-12
Aquifer Thickness:	19.75 feet
Screen Length:	20. feet
Casing Radius:	6.917e-003 feet
Effective Radius:	2.5e-002 feet
Static Water Level:	5.25 feet
Water Table to Screen Bottom:	19.75 feet
Anisotropy Ratio:	1.
Time Adjustment:	0. Seconds

Test starts with trial 0
There are 23 time and drawdown measurements
Maximum head is 10.55 feet
Minimum head is -5.25 feet

Trial	Time (minutes)	Adjusted Time (minutes)	Drawdown (feet)	Head (feet)	Head Ratio
1	0.	0.	15.8	10.55	1.
2	0.25	0.25	15.21	9.96	0.9441
3	0.5	0.5	14.83	9.58	0.9081
4	0.75	0.75	14.45	9.2	0.872
5	1.	1.	13.4	8.15	0.7725
6	1.25	1.25	12.85	7.6	0.7204
7	1.5	1.5	12.11	6.86	0.6502
8	1.75	1.75	11.44	6.19	0.5867
9	2.	2.	10.59	5.34	0.5062
10	2.5	2.5	9.24	3.99	0.3782
11	3.	3.	8.28	3.03	0.2872
12	3.5	3.5	7.56	2.31	0.219
13	4.	4.	6.97	1.72	0.163
14	4.5	4.5	6.66	1.41	0.1336
15	5.	5.	6.36	1.11	0.1052
16	6.	6.	5.76	0.51	4.834e-002
17	7.	7.	5.51	0.26	2.464e-002
18	8.	8.	5.36	0.11	1.043e-002
19	9.	9.	5.29	4.e-002	3.791e-003
20	10.	10.	5.24	-1.e-002	-9.479e-004
21	11.	11.	5.19	-6.e-002	-5.687e-003
22	12.	12.	5.17	-8.e-002	-7.583e-003
23	13.	13.	0.	-5.25	-0.4976


Slug Test Analysis 4/21/05
Clouds Chevron Columbia, SC
Bouwer and Rice Graph
MW-12
Bouwer and Rice parameter C = 11.76
ln(Re/Rw) = 5.563087e+000
Analysis starts at time 0. Seconds
Analysis ends at time 13. minutes
23 Measurements analyzed from 1 to 23
5 Points not plotted because head ratio <= 0.0
These points are not included in the analysis
Head Ratio (Ht/Ho)
1.
0.1
1.e-002
Hydraulic Conductivity = 4.311e-003 feet/day
Transmissivity = 8.515e-002 ft2/day
0.0 0.5 1.0 1.5 2.0 2.5 3.0 3.5 4.0 4.5 5.0 5.5 6.0 6.5 7.0 7.5 8.0 8.5 9.0 9.5 10.0 10.5 11.0 11.5 12.0 12.5
Adjusted Time (minutes)
Project Number: C-04-12-009 for SCDHEC
Analysis by Starpoint Software
Ho is 10.55 feet at 0. Seconds

Bouwer and Rice Automatic Parameter Estimation

Slug Test Analysis

Site Name:	Clouds Chevron
Location:	Columbia, SC
Test Date:	4/21/05
Client:	SCDHEC
Project Number:	C-04-12-009

Well Label:	MW-12
Aquifer Thickness:	19.75 feet
Screen Length:	20. feet
Casing Radius:	6.917e-003 feet
Effective Radius:	2.5e-002 feet
Bouwer and Rice Parameter C	11.76
Radius of Influence of Test	6.516 feet

Trial	Adjusted Time (minutes)	Head (feet)	Head Ratio	Hyd. Con. (feet/day)	Flow to Well (Gallons/Day)
1	0.	10.55	1.	–	
2	0.25	9.96	0.9441	2.233e-003	3.759
3	0.5	9.58	0.9081	1.872e-003	3.03
4	0.75	9.2	0.872	1.771e-003	2.754
5	1.	8.15	0.7725	2.504e-003	3.449
6	1.25	7.6	0.7204	2.546e-003	3.269
7	1.5	6.86	0.6502	2.784e-003	3.227
8	1.75	6.19	0.5867	2.956e-003	3.092
9	2.	5.34	0.5062	3.303e-003	2.981
10	2.5	3.99	0.3782	3.774e-003	2.544
11	3.	3.03	0.2872	4.035e-003	2.066
12	3.5	2.31	0.219	4.21e-003	1.643
13	4.	1.72	0.163	4.4e-003	1.279
14	4.5	1.41	0.1336	4.339e-003	1.034
15	5.	1.11	0.1052	4.369e-003	0.8196
16	6.	0.51	4.834e-002	4.899e-003	0.4222
17	7.	0.26	2.464e-002	5.133e-003	0.2255
18	8.	0.11	1.043e-002	5.534e-003	0.1029
19	9.	4.e-002	3.791e-003	6.01e-003	4.062e-002
20	10.	-1.e-002	-9.479e-004	–	
21	11.	-6.e-002	-5.687e-003	–	
22	12.	-8.e-002	-7.583e-003	–	
23	13.	-5.25	-0.4976	–	

Arithmetic Means:

Hydraulic Conductivity	3.704e-003 feet/day
Transmissivity	7.315e-002 ft2/day

Geometric Means:

Hydraulic Conductivity	3.485e-003 feet/day
Transmissivity	6.882e-002 ft2/day

Sensitivity Analysis:

Hydraulic Conductivity	3.619e-003 feet/day
Transmissivity	7.147e-002 ft2/day

PUMP TEST FIELD DATA REPORT

PROJECT NO.: C-009		PUMP GPM:	
DATE: 4/21/05		PUMPING WELL Y N	#
TEST PERFORMED BY: RR		OBSERVATION WELL (Y) N	# MW-12

TIME (MIN)	WATER LEVEL (FEET)
0	15.80
0.25	15.21
0.50	14.83
0.75	14.45
1.00	13.40
1.25	12.85
1.50	12.11
1.75	11.44
2.00	10.59
2.50	9.27
3.00	8.26
3.50	7.56
4.00	6.97
4.50	6.66
5.00	6.36
6.00	5.76
7.00	5.51
8.00	5.36
9.00	5.29
10.00	5.24
11.00	5.19
12.00	5.17
13.00	5.16
14.00	
15.00	
20.00	
25.00	
30.00	
35.00	
40.00	
45.00	
50.00	
55.00	
60.00	
75.00	
90.00	
105.00	
120.00	
150.00	
180.00	
210.00	
240.00	
270.00	
300.00	
330.00	
360.00	
390.00	
420.00	
450.00	
480.00	
510.00	
540.00	
570.00	
600.00	
630.00	
660.00	
690.00	
720.00	
750.00	
780.00	
840.00	
900.00	
960.00	
1020.00	
1080.00	
1140.00	
1200.00	
1260.00	
1320.00	
1380.00	
1440.00	

NOTES:

Slug Test Analysis

Site Name:	Handy Pantry #65
Location:	Columbia, SC
Test Date:	4/20/05
Client:	SCDHEC
Project Number:	C-04-12-008

Well Label:	MW-42
Aquifer Thickness:	7.47 feet
Screen Length:	15. feet
Casing Radius:	6.917e-003 feet
Effective Radius:	2.5e-002 feet
Static Water Level:	27.53 feet
Water Table to Screen Bottom:	7.47 feet
Anisotropy Ratio:	1.
Time Adjustment:	0. Seconds

Test starts with trial 0
There are 25 time and drawdown measurements
Maximum head is 5.71 feet
Minimum head is -0.19 feet

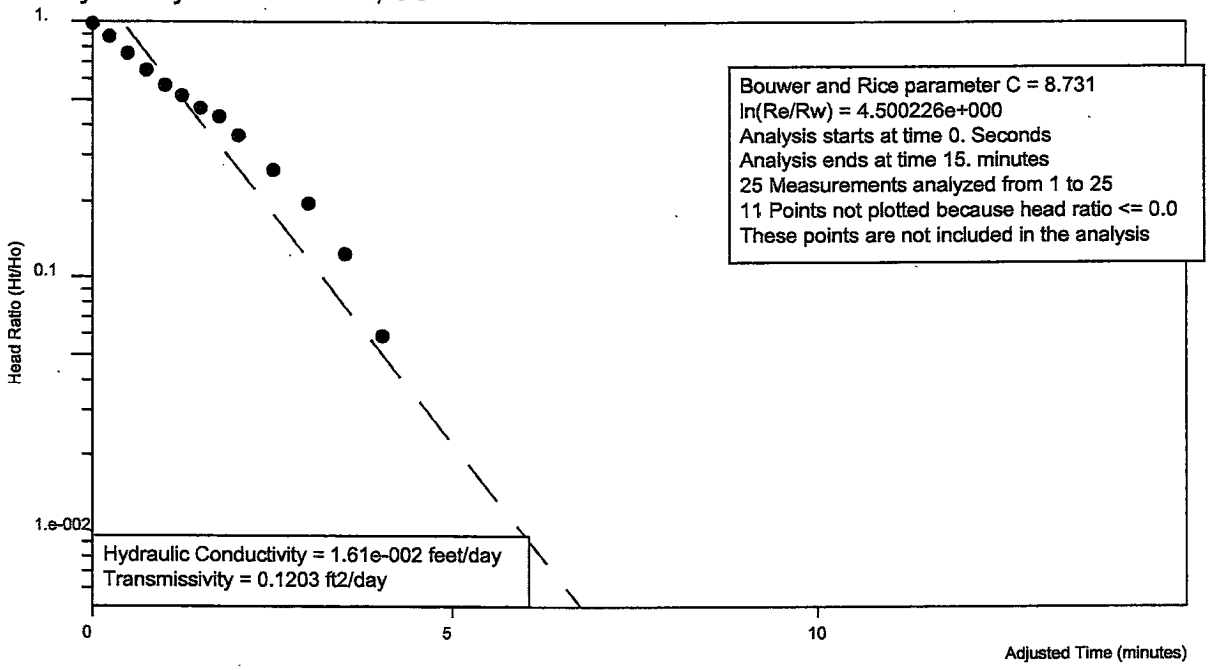
Trial	Time (minutes)	Adjusted Time (minutes)	Drawdown (feet)	Head (feet)	Head Ratio
1	0.	0.	33.24	5.71	1.
2	0.25	0.25	32.54	5.01	0.8774
3	0.5	0.5	31.89	4.36	0.7636
4	0.75	0.75	31.29	3.76	0.6585
5	1.	1.	30.79	3.26	0.5709
6	1.25	1.25	30.49	2.96	0.5184
7	1.5	1.5	30.19	2.66	0.4658
8	1.75	1.75	29.98	2.45	0.4291
9	2.	2.	29.61	2.08	0.3643
10	2.5	2.5	29.04	1.51	0.2644
11	3.	3.	28.64	1.11	0.1944
12	3.5	3.5	28.24	0.71	0.1243
13	4.	4.	27.87	0.34	5.954e-002
14	4.5	4.5	27.58	5.e-002	8.757e-003
15	5.	5.	27.41	-0.12	-2.102e-002
16	6.	6.	27.36	-0.17	-2.977e-002
17	7.	7.	27.34	-0.19	-3.327e-002
18	8.	8.	27.34	-0.19	-3.327e-002
19	9.	9.	27.34	-0.19	-3.327e-002
20	10.	10.	27.34	-0.19	-3.327e-002
21	11.	11.	27.34	-0.19	-3.327e-002
22	12.	12.	27.34	-0.19	-3.327e-002
23	13.	13.	27.34	-0.19	-3.327e-002
24	14.	14.	27.34	-0.19	-3.327e-002
25	15.	15.	27.34	-0.19	-3.327e-002

Slug Test Analysis 4/20/05

Handy Pantry #65 Columbia, SC

Bouwer and Rice Graph

MW-42



Project Number: C-04-12-008 for SCDHEC

Analysis by Starpoint Software

Ho is 5.71 feet at 0. Seconds

Bouwer and Rice Automatic Parameter Estimation

Slug Test Analysis

Site Name:	Handy Pantry #65
Location:	Columbia, SC
Test Date:	4/20/05
Client:	SCDHEC
Project Number:	C-04-12-008

Well Label:	MW-42
Aquifer Thickness:	7.47 feet
Screen Length:	15. feet
Casing Radius:	6.917e-003 feet
Effective Radius:	2.5e-002 feet
Bouwer and Rice Parameter C	8.731
Radius of Influence of Test	2.251 feet

Trial	Adjusted Time (minutes)	Head (feet)	Head Ratio	Hyd. Con. (feet/day)	Flow to Well (Gallons/Day)
1	0.	5.71	1.	--	
2	0.25	5.01	0.8774	1.086e-002	8.52
3	0.5	4.36	0.7636	1.12e-002	7.647
4	0.75	3.76	0.6585	1.156e-002	6.809
5	1.	3.26	0.5709	1.163e-002	5.94
6	1.25	2.96	0.5184	1.091e-002	5.058
7	1.5	2.66	0.4658	1.057e-002	4.404
8	1.75	2.45	0.4291	1.003e-002	3.851
9	2.	2.08	0.3643	1.048e-002	3.414
10	2.5	1.51	0.2644	1.104e-002	2.612
11	3.	1.11	0.1944	1.133e-002	1.97
12	3.5	0.71	0.1243	1.236e-002	1.375
13	4.	0.34	5.954e-002	1.463e-002	0.7795
14	4.5	5.e-002	8.757e-003	2.185e-002	0.1711
15	5.	-0.12	-2.102e-002	--	
16	6.	-0.17	-2.977e-002	--	
17	7.	-0.19	-3.327e-002	--	
18	8.	-0.19	-3.327e-002	--	
19	9.	-0.19	-3.327e-002	--	
20	10.	-0.19	-3.327e-002	--	
21	11.	-0.19	-3.327e-002	--	
22	12.	-0.19	-3.327e-002	--	
23	13.	-0.19	-3.327e-002	--	
24	14.	-0.19	-3.327e-002	--	
25	15.	-0.19	-3.327e-002	--	

Arithmetic Means:

Hydraulic Conductivity	1.219e-002 feet/day
Transmissivity	9.104e-002 ft2/day

Geometric Means:

Hydraulic Conductivity	1.192e-002 feet/day
Transmissivity	8.903e-002 ft2/day

Sensitivity Analysis:

Hydraulic Conductivity	1.159e-002 feet/day
Transmissivity	8.655e-002 ft2/day

PUMP TEST FIELD DATA REPORT

PROJECT NO.: C-009	PUMP GPM:	
DATE: 4/20/05	PUMPING WELL Y N	#
TEST PERFORMED BY: RR/DM	OBSERVATION WELL (Y) N	# MW-42

TIME (MIN)	WATER LEVEL (FEET)
0	~~33.74~~ 33.74
0.25	32.54
0.50	31.89
0.75	31.29
1.00	30.79
1.25	30.49
1.50	30.19
1.75	29.98
2.00	29.61
2.50	~~29.30~~ 29.04
3.00	28.64
3.50	28.24
4.00	27.87
4.50	27.58
5.00	27.41
6.00	27.36
7.00	27.34
8.00	27.34
9.00	27.34
10.00	27.34
11.00	27.34
12.00	27.34
13.00	27.34
14.00	27.34
15.00	27.34
20.00	
25.00	
30.00	
35.00	
40.00	
45.00	
50.00	
55.00	
60.00	
75.00	
90.00	
105.00	
120.00	
150.00	
180.00	
210.00	
240.00	
270.00	
300.00	
330.00	
360.00	
390.00	
420.00	
450.00	
480.00	
510.00	
540.00	
570.00	
600.00	
630.00	
660.00	
690.00	
720.00	
750.00	
780.00	
840.00	
900.00	
960.00	
1020.00	
1080.00	
1140.00	
1200.00	
1260.00	
1320.00	
1380.00	
1440.00	

NOTES:

Slug Test Analysis

Site Name:	Handy Pantry #65
Location:	Columbia, SC
Test Date:	4/20/05
Client:	SCDHEC
Project Number:	C-04-12-008

Well Label:	DW-6
Aquifer Thickness:	23.62 feet
Screen Length:	5. feet
Casing Radius:	6.917e-003 feet
Effective Radius:	2.5e-002 feet
Static Water Level:	46.38 feet
Water Table to Screen Bottom:	23.62 feet
Anisotropy Ratio:	1.
Time Adjustment:	0. Seconds

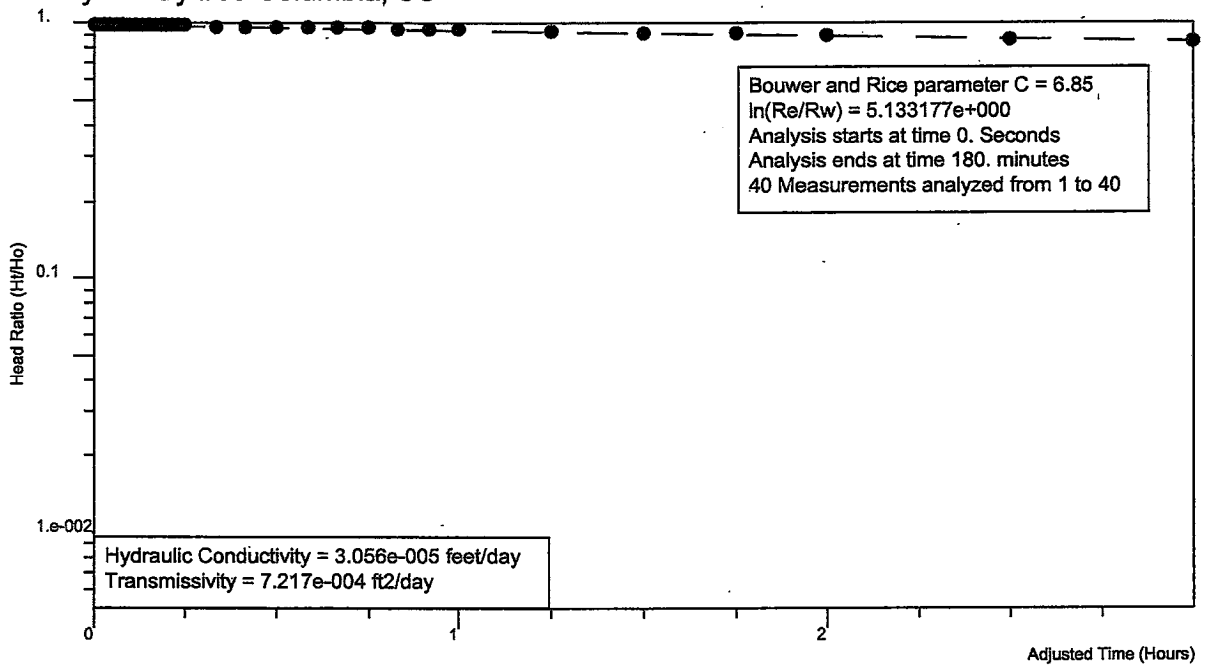
Test starts with trial 0
There are 40 time and drawdown measurements
Maximum head is 18.02 feet
Minimum head is 0. feet

Trial	Time (minutes)	Adjusted Time (minutes)	Drawdown (feet)	Head (feet)	Head Ratio
1	0.	0.	64.4	18.02	1.
2	0.25	0.25	64.35	17.97	0.9972
3	0.5	0.5	64.33	17.95	0.9961
4	0.75	0.75	64.32	17.94	0.9956
5	1.	1.	64.32	17.94	0.9956
6	1.25	1.25	64.31	17.93	0.995
7	1.5	1.5	64.3	17.92	0.9945
8	1.75	1.75	64.3	17.92	0.9945
9	2.	2.	64.29	17.91	0.9939
10	2.5	2.5	64.28	17.9	0.9933
11	3.	3.	64.27	17.89	0.9928
12	3.5	3.5	64.26	17.88	0.9922
13	4.	4.	64.26	17.88	0.9922
14	4.5	4.5	64.25	17.87	0.9917
15	5.	5.	64.25	17.87	0.9917
16	6.	6.	64.23	17.85	0.9906
17	7.	7.	64.21	17.83	0.9895
18	8.	8.	64.21	17.83	0.9895
19	9.	9.	64.19	17.81	0.9883
20	10.	10.	64.18	17.8	0.9878
21	11.	11.	64.17	17.79	0.9872
22	12.	12.	64.17	17.79	0.9872
23	13.	13.	64.16	17.78	0.9867
24	14.	14.	64.15	17.77	0.9861
25	15.	15.	64.14	17.76	0.9856
26	20.	20.	64.06	17.68	0.9811
27	25.	25.	63.99	17.61	0.9772
28	30.	30.	63.92	17.54	0.9734
29	35.	35.	63.85	17.47	0.9695
30	40.	40.	63.79	17.41	0.9661
31	45.	45.	63.74	17.36	0.9634
32	50.	50.	63.69	17.31	0.9606
33	55.	55.	63.62	17.24	0.9567
34	60.	60.	63.55	17.17	0.9528

35	75.	75.	63.31	16.93	0.9395
36	90.	90.	63.07	16.69	0.9262
37	105.	105.	62.83	16.45	0.9129
38	120.	120.	62.59	16.21	0.8996
39	150.	150.	62.11	15.73	0.8729
40	180.	180.	61.63	15.25	0.8463

Slug Test Analysis 4/20/05 **Bouwer and Rice Graph**

Handy Pantry #65 Columbia, SC DW-6



Project Number: C-04-12-008 for SCDHEC

Analysis by Starpoint Software

Ho is 18.02 feet at 0. Seconds

Bouwer and Rice Automatic Parameter Estimation

Slug Test Analysis

Site Name:	Handy Pantry #65
Location:	Columbia, SC
Test Date:	4/20/05
Client:	SCDHEC
Project Number:	C-04-12-008

Well Label:	DW-6
Aquifer Thickness:	23.62 feet
Screen Length:	5. feet
Casing Radius:	6.917e-003 feet
Effective Radius:	2.5e-002 feet
Bouwer and Rice Parameter C	6.85
Radius of Influence of Test	4.239 feet

Trial	Adjusted Time (minutes)	Head (feet)	Head Ratio	Hyd. Con. (feet/day)	Flow to Well (Gallons/Day)
1	0.	18.02	1.	–	
2	0.25	17.97	0.9972	3.93e-004	0.3233
3	0.5	17.95	0.9961	2.753e-004	0.2262
4	0.75	17.94	0.9956	2.098e-004	0.1723
5	1.	17.94	0.9956	1.573e-004	0.1292
6	1.25	17.93	0.995	1.416e-004	0.1163
7	1.5	17.92	0.9945	1.312e-004	0.1076
8	1.75	17.92	0.9945	1.124e-004	9.225e-002
9	2.	17.91	0.9939	1.083e-004	8.877e-002
10	2.5	17.9	0.9933	9.451e-005	7.745e-002
11	3.	17.89	0.9928	8.535e-005	6.99e-002
12	3.5	17.88	0.9922	7.88e-005	6.451e-002
13	4.	17.88	0.9922	6.895e-005	5.644e-002
14	4.5	17.87	0.9917	6.569e-005	5.374e-002
15	5.	17.87	0.9917	5.912e-005	4.837e-002
16	6.	17.85	0.9906	5.587e-005	4.565e-002
17	7.	17.83	0.9895	5.355e-005	4.371e-002
18	8.	17.83	0.9895	4.685e-005	3.825e-002
19	9.	17.81	0.9883	4.606e-005	3.755e-002
20	10.	17.8	0.9878	4.344e-005	3.54e-002
21	11.	17.79	0.9872	4.13e-005	3.363e-002
22	12.	17.79	0.9872	3.785e-005	3.083e-002
23	13.	17.78	0.9867	3.647e-005	2.969e-002
24	14.	17.77	0.9861	3.529e-005	2.871e-002
25	15.	17.76	0.9856	3.426e-005	2.786e-002
26	20.	17.68	0.9811	3.368e-005	2.726e-002
27	25.	17.61	0.9772	3.256e-005	2.625e-002
28	30.	17.54	0.9734	3.182e-005	2.556e-002
29	35.	17.47	0.9695	3.132e-005	2.505e-002
30	40.	17.41	0.9661	3.044e-005	2.427e-002
31	45.	17.36	0.9634	2.932e-005	2.33e-002
32	50.	17.31	0.9606	2.843e-005	2.253e-002
33	55.	17.24	0.9567	2.845e-005	2.246e-002
34	60.	17.17	0.9528	2.848e-005	2.239e-002
35	75.	16.93	0.9395	2.942e-005	2.28e-002
36	90.	16.69	0.9262	3.013e-005	2.302e-002
37	105.	16.45	0.9129	3.07e-005	2.312e-002
38	120.	16.21	0.8996	3.119e-005	2.315e-002

39	150.	15.73	0.8729	3.204e-005	2.307e-002
40	180.	15.25	0.8463	3.279e-005	2.289e-002

Arithmetic Means:

Hydraulic Conductivity	7.367e-005 feet/day
Transmissivity	1.74e-003 ft2/day

Geometric Means:

Hydraulic Conductivity	5.452e-005 feet/day
Transmissivity	1.288e-003 ft2/day

Sensitivity Analysis:

Hydraulic Conductivity	3.143e-005 feet/day
Transmissivity	7.423e-004 ft2/day

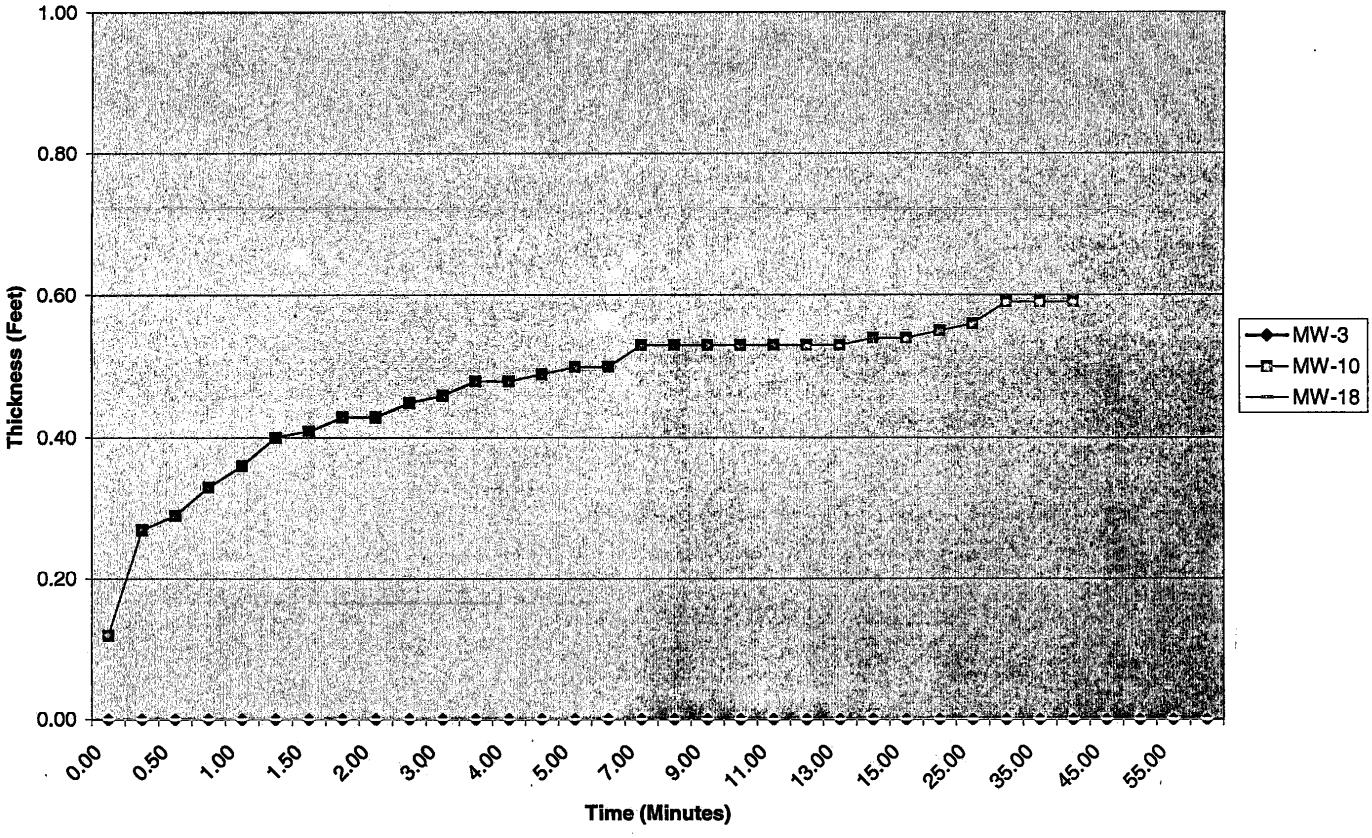
PUMP TEST FIELD DATA REPORT

PROJECT NO. C-009	PUMP GPM:	
DATE: 4/20/05	PUMPING WELL Y N	#
TEST PERFORMED BY: RR	OBSERVATION WELL (Y) N	~~#~~ DW-6

TIME (MIN)	WATER LEVEL (FEET)
0	64.40
0.25	64.35
0.50	64.33
0.75	64.32
1.00	64.32
1.25	64.31
1.50	64.30
1.75	64.30
2.00	64.29
2.50	64.28
3.00	64.27
3.50	64.26
4.00	64.26
4.50	64.25
5.00	64.25
6.00	64.23
7.00	64.21
8.00	64.21
9.00	64.19
10.00	64.18
11.00	64.17
12.00	64.17
13.00	64.16
14.00	64.15
15.00	64.14
20.00	64.06
25.00	63.99
30.00	63.92
35.00	63.85
40.00	63.79
45.00	63.74
50.00	63.69
55.00	63.62
60.00	63.55
75.00	63.31
90.00	63.07
105.00	62.83
120.00	62.59
150.00	62.11
180.00	61.63
210.00	
240.00	
270.00	
300.00	
330.00	
360.00	
390.00	
420.00	
450.00	
480.00	
510.00	
540.00	
570.00	
600.00	
630.00	
660.00	
690.00	
720.00	
750.00	
780.00	
840.00	
900.00	
960.00	
1020.00	
1080.00	
1140.00	
1200.00	
1260.00	
1320.00	
1380.00	
1440.00	

NOTES:

Product Recovery Test C-04-12-009



Product Recovery Test MW-3

Time	Water level	Product Level	Product Thickness
0.00	25.50	0.00	25.50
0.25	25.38	0.00	25.38
0.50	25.29	0.00	25.29
0.75	25.21	0.00	25.21
1.00	25.10	0.00	25.10
1.25	25.02	0.00	25.02
1.50	24.94	0.00	24.94
1.75	24.85	0.00	24.85
2.00	24.78	0.00	24.78
2.50	24.66	0.00	24.66
3.00	24.54	0.00	24.54
3.50	24.42	0.00	24.42
4.00	24.31	0.00	24.31
4.50	24.23	0.00	24.23
5.00	24.15	0.00	24.15
6.00	24.00	0.00	24.00
7.00	23.89	0.00	23.89
8.00	23.83	0.00	23.83
9.00	23.77	0.00	23.77
10.00	23.71	0.00	23.71
11.00	23.67	0.00	23.67
12.00	23.62	0.00	23.62
13.00	23.58	0.00	23.58
14.00	23.54	0.00	23.54
15.00	23.52	0.00	23.52
20.00	23.46	0.00	23.46
25.00	23.44	0.00	23.44
30.00	23.42	0.00	23.42
35.00	23.41	0.00	23.41
40.00	23.41	0.00	23.41
45.00	23.40	0.00	23.40
50.00	23.40	0.00	23.40
55.00	23.40	0.00	23.40
60.00	23.40	0.00	23.40

Product Recovery Test MW-10

Time	Water level	Product Level	Product Thickness
0.00	18.03	17.91	0.12
0.25	18.13	17.86	0.27
0.50	18.15	17.86	0.29
0.75	18.18	17.85	0.33
1.00	18.20	17.84	0.36
1.25	18.23	17.83	0.40
1.50	18.24	17.83	0.41
1.75	18.26	17.83	0.43
2.00	18.26	17.83	0.43
2.50	18.27	17.82	0.45
3.00	18.29	17.83	0.46
3.50	18.30	17.82	0.48
4.00	18.30	17.82	0.48
4.50	18.31	17.82	0.49
5.00	18.32	17.82	0.50
6.00	18.32	17.82	0.50
7.00	18.34	17.81	0.53
8.00	18.34	17.81	0.53
9.00	18.34	17.81	0.53
10.00	18.34	17.81	0.53
11.00	18.34	17.81	0.53
12.00	18.34	17.81	0.53
13.00	18.34	17.81	0.53
14.00	18.35	17.81	0.54
15.00	18.35	17.81	0.54
20.00	18.35	17.80	0.55
25.00	18.35	17.79	0.56
30.00	18.37	17.78	0.59
35.00	18.37	17.78	0.59
40.00	18.38	17.79	0.59

Product Recovery Test MW-18

Time	Water level	Product Level	Product Thickness
0.00	26.36	0.00	26.36
0.25	26.36	0.00	26.36
0.50	26.36	0.00	26.36
0.75	26.35	0.00	26.35
1.00	26.35	0.00	26.35
1.25	26.35	0.00	26.35
1.50	26.35	0.00	26.35
1.75	26.35	0.00	26.35
2.00	26.35	0.00	26.35
2.50	26.34	0.00	26.34
3.00	26.34	0.00	26.34
3.50	26.34	0.00	26.34
4.00	26.34	0.00	26.34
4.50	26.34	0.00	26.34
5.00	26.34	0.00	26.34
6.00	26.34	0.00	26.34
7.00	26.34	0.00	26.34
8.00	26.34	0.00	26.34
9.00	26.34	0.00	26.34
10.00	26.34	0.00	26.34
11.00	26.34	0.00	26.34
12.00	26.34	0.00	26.34
13.00	26.34	0.00	26.34
14.00	26.34	0.00	26.34
15.00	26.33	0.00	26.33
20.00	26.33	0.00	26.33
25.00	26.33	0.00	26.33
30.00	26.32	0.00	26.32
35.00	26.32	0.00	26.32
40.00	26.32	0.00	26.32
45.00	26.31	0.00	26.31
50.00	26.31	0.00	26.31
55.00	26.31	0.00	26.31
60.00	26.30	0.00	26.30

PUMP TEST FIELD DATA REPORT

PROJECT NO.: C-009		PUMP GPM:	
DATE: 4/19/05		PUMPING WELL Y N	#
TEST PERFORMED BY: RR		OBSERVATION WELL (Y) N	# MW-3

TIME (MIN)	WATER LEVEL (FEET) Product	H_2O / Product
0	25.50	
0.25	25.38	
0.50	25.29	
0.75	25.21	
1.00	25.10	
1.25	25.02	
1.50	24.94	
1.75	24.85	
2.00	24.76	
2.50	24.66	
3.00	24.54	
3.50	24.42	
4.00	24.31	
4.50	24.23	
5.00	24.15	
6.00	24.06	
7.00	23.89	
8.00	23.93	
9.00	~~23.71~~ 23.77	
10.00	23.71	
11.00	23.67	
12.00	23.62	
13.00	23.58	
14.00	23.54	
15.00	23.52	
20.00	23.46	
25.00	23.44	
30.00	23.42	
35.00	23.41	
40.00	23.41	
45.00	23.40	
50.00	~~23.40~~ 23.40	
55.00	23.40	
60.00	23.40	
75.00		
90.00		
105.00		
120.00		
150.00		
180.00		
210.00		
240.00		
270.00		
300.00		
330.00		
360.00		
390.00		
420.00		
450.00		
480.00		
510.00		
540.00		
570.00		
600.00		
630.00		
660.00		
690.00		
720.00		
750.00		
780.00		
840.00		
900.00		
960.00		
1020.00		
1080.00		
1140.00		
1200.00		
1260.00		
1320.00		
1380.00		
1440.00		

NOTES:

LPH 23.70 WTR 24.13

PUMP TEST FIELD DATA REPORT

PROJECT NO.: C-009		PUMP GPM:	
DATE: 4/19/05		PUMPING WELL Y N	#
TEST PERFORMED BY: RR		OBSERVATION WELL Y N	#MW-10

TIME (MIN)	WATER LEVEL (FEET)
0	18.03/17.91
0.25	18.13/17.86
0.50	18.15/17.86
0.75	18.18/17.85
1.00	18.20/17.84
1.25	18.23/17.83
1.50	18.24/17.83
1.75	18.26/17.83
2.00	18.26/17.83
2.50	18.27/17.82
3.00	18.29/17.83
3.50	18.30/17.82
4.00	18.30/17.82
4.50	18.32/17.82
5.00	18.32/17.82
6.00	18.32/17.82
7.00	18.34/17.81
8.00	18.34/17.81
9.00	18.34/17.81
10.00	18.34/17.81
11.00	18.34/17.81
12.00	18.34/17.81
13.00	18.34/17.81
14.00	18.35/17.81
15.00	18.35/17.81
20.00	18.35/17.80
25.00	18.35/17.79
30.00	18.37/17.78
35.00	18.37/17.78
40.00	18.38/17.79
45.00	
50.00	
55.00	
60.00	
75.00	
90.00	
105.00	
120.00	
150.00	
180.00	
210.00	
240.00	
270.00	
300.00	
330.00	
360.00	
390.00	
420.00	
450.00	
480.00	
510.00	
540.00	
570.00	
600.00	
630.00	
660.00	
690.00	
720.00	
750.00	
780.00	
840.00	
900.00	
960.00	
1020.00	
1080.00	
1140.00	
1200.00	
1260.00	
1320.00	
1380.00	
1440.00	

NOTES:

LPH 17.73 IPO 18.52

PUMP TEST FIELD DATA REPORT

PROJECT NO.: C-008		PUMP GPM:	
DATE: 4/19/05		PUMPING WELL Y N	#
TEST PERFORMED BY: RR		OBSERVATION WELL Y N	#MW-18

TIME (MIN)	WATER LEVEL (FEET)
0	26.36
0.25	26.36
0.50	26.36
0.75	26.35
1.00	26.35
1.25	26.35
1.50	26.35
1.75	26.35
2.00	26.35
2.50	26.34
3.00	26.34
3.50	
4.00	
4.50	
5.00	
6.00	
7.00	

Product

8.00	26.34
9.00	
10.00	
11.00	
12.00	
13.00	
14.00	
15.00	26.33
20.00	26.33
25.00	26.33
30.00	26.32
35.00	26.32
40.00	26.32
45.00	26.31
50.00	26.31
55.00	26.31
60.00	26.30
75.00	

90.00	
105.00	
120.00	
150.00	
180.00	
210.00	
240.00	
270.00	
300.00	
330.00	
360.00	
390.00	
420.00	
450.00	
480.00	
510.00	
540.00	
570.00	

600.00	
630.00	
660.00	
690.00	
720.00	
750.00	
780.00	
840.00	
900.00	
960.00	
1020.00	
1080.00	
1140.00	
1200.00	
1260.00	
1320.00	
1380.00	
1440.00	

NOTES:

LPH 26.26 H_2O 26.28

Notes

APPENDIX 5
Laboratory Analytical Results

TestAmerica
ANALYTICAL TESTING CORPORATION

TESTAMERICA, INC.
ATLANTA SERVICE CENTER

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: ConsulTech Environmental Client #: 2628
Address: 1900 Macleod Dr. Suite F
City/State/Zip Code: Lawrenceville, GA 30043
Project Manager: Jim Wilson
Telephone Number: (678) 377-0400 Fax: (678) 377-0051
Sampler Name: (Print Name) Rob Robinson
Sampler Signature:

Project Name: Handy Pantry #66 Clouds Chevron
Project #: ~~E-07-#~~ 008 | 009
Site/Location ID: Columbia State: SC
Report To: Jim Wilson
Invoice To:
Quote #: PO#:

TAT
___ Standard
X Rush (surcharges may apply)
100% RUSH
Date Needed:
Fax Results: Y N

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other:

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: 3 BTEX, MTBE, NAPH 8260B									REMARKS
WS-1@ 31'	2/23/05	1415	G	No	GW		3						3							05A	26606	100% RUSH
WS-2@ 26'	2/24/05	820																			07	
WS-3@ 24'		900																			08	
WS-4@ 14'		930																			09	
WS-5@ 14'		1000																			10	
WS-6@ 24'		1115																			11	
WS-7@ 28'		1145																			12	
WS-8@ 28'		1210																			13	
WS-9@ 28'		1245																			14	
WS-10@ 16'	V	1330	V	V	V		V						V								26615	V

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

Relinquished By:	Date: 2/24/05	Time: 1700	Received By:	Date:	Time:	
Relinquished By:	Date:	Time:	Received By:	Date:	Time:	
Relinquished By:	Date:	Time:	Received By:	Date: 2-25-05	Time: 0755	

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

2/28/05

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: HANDY PANTRY #65 CLOUDS
Project Number: 008/009.
Laboratory Project Number: 407375.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Collection Date
WS-1 @ (31')	05-A26606	2/23/05
WS-2 @ (26')	05-A26607	2/24/05
WS-3 @ (24')	05-A26608	2/24/05
WS-4 @ (14')	05-A26609	2/24/05
WS-5 @ (14')	05-A26610	2/24/05
WS-6 @ (24')	05-A26611	2/24/05
WS-7 @ (28')	05-A26612	2/24/05
WS-8 @ (28')	05-A26613	2/24/05
WS-9 @ (28')	05-A26614	2/24/05
WS-10 @ (16')	05-A26615	2/24/05

A2LA certification number 0453.07 for analysis of wastewater and solid/hazardous waste.
NELAC/Florida certification number E87358 for analysis of environmental water, soil/hazardous waste, and drinking water effective 07/01/99-06/30/05.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 2/28/05

Johnny A. Mitchell, Laboratory Director
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Senior Project Manager
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Senior Project Manager
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Senior Project Manag

Laboratory Certification Number: 84009

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 008/009
Project Name: HANDY PANTRY #65 CLOUDS
Sampler: ROB ROBINSON

Lab Number: 05-A26606
Sample ID: WS-1 @ (31')
Sample Type: Ground water
Site ID:

Date Collected: 2/23/05
Time Collected: 16:45
Date Received: 2/25/05
Time Received: 7:55
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1	2/26/05	2:36	T McCollum	8260B	7018
Ethylbenzene	1.3	ug/l	1.0	1	2/26/05	2:36	T McCollum	8260B	7018
Naphthalene	ND	ug/l	5.00	1	2/26/05	2:36	T McCollum	8260B	7018
Toluene	1.4	ug/l	1.0	1	2/26/05	2:36	T McCollum	8260B	7018
Xylenes (Total)	6.7	ug/l	1.0	1	2/26/05	2:36	T McCollum	8260B	7018
Methyl-t-butyl ether	ND	ug/l	1.0	1	2/26/05	2:36	T McCollum	8260B	7018

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	122.	73. - 127.
VOA Surr Toluene-d8	102.	79. - 113.
VOA Surr, 4-BFB	108.	79. - 125.
VOA Surr, DBFM	112.	75. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 008/009
Project Name: HANDY PANTRY #65 CLOUDS
Sampler: ROB ROBINSON

Lab Number: 05-A26607
Sample ID: WS-2 @ (26')
Sample Type: Ground water
Site ID:

Date Collected: 2/24/05
Time Collected: 8:20
Date Received: 2/25/05
Time Received: 7:55
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1	2/26/05	3:05	T McCollum	8260B	7018
Ethylbenzene	ND	ug/l	1.0	1	2/26/05	3:05	T McCollum	8260B	7018
Naphthalene	ND	ug/l	5.00	1	2/26/05	3:05	T McCollum	8260B	7018
Toluene	ND	ug/l	1.0	1	2/26/05	3:05	T McCollum	8260B	7018
Xylenes (Total)	ND	ug/l	1.0	1	2/26/05	3:05	T McCollum	8260B	7018
Methyl-t-butyl ether	ND	ug/l	1.0	1	2/26/05	3:05	T McCollum	8260B	7018

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	125.	73. - 127.
VOA Surr Toluene-d8	100.	79. - 113.
VOA Surr, 4-BFB	112.	79. - 125.
VOA Surr, DBFM	116.	75. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 008/009
Project Name: HANDY PANTRY #65 CLOUDS
Sampler: ROB ROBINSON

Lab Number: 05-A26608
Sample ID: WS-3 @ (24')
Sample Type: Ground water
Site ID:

Date Collected: 2/24/05
Time Collected: 9:00
Date Received: 2/25/05
Time Received: 7:55
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1	2/26/05	3:34	T McCollum	8260B	
Ethylbenzene	ND	ug/l	1.0	1	2/26/05	3:34	T McCollum	8260B	7018
Naphthalene	ND	ug/l	5.00	1	2/26/05	3:34	T McCollum	8260B	7018
Toluene	ND	ug/l	1.0	1	2/26/05	3:34	T McCollum	8260B	7018
Xylenes (Total)	ND	ug/l	1.0	1	2/26/05	3:34	T McCollum	8260B	7018
Methyl-t-butyl ether	ND	ug/l	1.0	1	2/26/05	3:34	T McCollum	8260B	7018

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	123.	73. - 127.
VOA Surr Toluene-d8	102.	79. - 113.
VOA Surr, 4-BFB	109.	79. - 125.
VOA Surr, DBFM	116.	75. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 008/009
Project Name: HANDY PANTRY #65 CLOUDS
Sampler: ROB ROBINSON

Lab Number: 05-A26609
Sample ID: WS-4 @ (14')
Sample Type: Ground water
Site ID:

Date Collected: 2/24/05
Time Collected: 9:30
Date Received: 2/25/05
Time Received: 7:55
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1	2/26/05	4:04	T McCollum	8260B	7018
Ethylbenzene	ND	ug/l	1.0	1	2/26/05	4:04	T McCollum	8260B	7018
Naphthalene	ND	ug/l	5.00	1	2/26/05	4:04	T McCollum	8260B	7018
Toluene	ND	ug/l	1.0	1	2/26/05	4:04	T McCollum	8260B	7018
Xylenes (Total)	ND	ug/l	1.0	1	2/26/05	4:04	T McCollum	8260B	7018
Methyl-t-butyl ether	ND	ug/l	1.0	1	2/26/05	4:04	T McCollum	8260B	7018

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	116.	73. - 127.
VOA Surr Toluene-d8	106.	79. - 113.
VOA Surr, 4-BFB	111.	79. - 125.
VOA Surr, DBFM	107.	75. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 008/009
Project Name: HANDY PANTRY #65 CLOUDS
Sampler: ROB ROBINSON

Lab Number: 05-A26610
Sample ID: WS-5 @ (14')
Sample Type: Ground water
Site ID:

Date Collected: 2/24/05
Time Collected: 10:00
Date Received: 2/25/05
Time Received: 7:55
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	972.	ug/l	20.0	20	2/27/05	8:02	T McCollum	8260B	
Ethylbenzene	16.3	ug/l	1.0	1	2/26/05	4:33	T McCollum	8260B	7018
Naphthalene	39.2	ug/l	5.00	1	2/26/05	4:33	T McCollum	8260B	7018
Toluene	ND	ug/l	1.0	1	2/26/05	4:33	T McCollum	8260B	7018
Xylenes (Total)	ND	ug/l	1.0	1	2/26/05	4:33	T McCollum	8260B	7018
Methyl-t-butyl ether	516.	ug/l	20.0	20	2/27/05	8:02	T McCollum	8260B	7024

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	107.	73. - 127.
VOA Surr Toluene-d8	102.	79. - 113.
VOA Surr, 4-BFB	110.	79. - 125.
VOA Surr, DBFM	106.	75. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 008/009
Project Name: HANDY PANTRY #65 CLOUDS
Sampler: ROB ROBINSON

Lab Number: 05-A26611
Sample ID: WS-6 @ (24')
Sample Type: Ground water
Site ID:

Date Collected: 2/24/05
Time Collected: 11:15
Date Received: 2/25/05
Time Received: 7:55
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1	2/26/05	5:02	T McCollum	8260B	7018
Ethylbenzene	ND	ug/l	1.0	1	2/26/05	5:02	T McCollum	8260B	7018
Naphthalene	ND	ug/l	5.00	1	2/26/05	5:02	T McCollum	8260B	7018
Toluene	ND	ug/l	1.0	1	2/26/05	5:02	T McCollum	8260B	7018
Xylenes (Total)	ND	ug/l	1.0	1	2/26/05	5:02	T McCollum	8260B	7018
Methyl-t-butyl ether	ND	ug/l	1.0	1	2/26/05	5:02	T McCollum	8260B	7018

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	125.	73. - 127.
VOA Surr Toluene-d8	98.	79. - 113.
VOA Surr, 4-BFB	113.	79. - 125.
VOA Surr, DBFM	111.	75. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 008/009
Project Name: HANDY PANTRY #65 CLOUDS
Sampler: ROB ROBINSON

Lab Number: 05-A26612
Sample ID: WS-7 @ (28')
Sample Type: Ground water
Site ID:

Date Collected: 2/24/05
Time Collected: 11:45
Date Received: 2/25/05
Time Received: 7:55
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1	2/26/05	5:32	T McCollum	8260B	
Ethylbenzene	ND	ug/l	1.0	1	2/26/05	5:32	T McCollum	8260B	7018
Naphthalene	ND	ug/l	5.00	1	2/26/05	5:32	T McCollum	8260B	7018
Toluene	ND	ug/l	1.0	1	2/26/05	5:32	T McCollum	8260B	7018
Xylenes (Total)	ND	ug/l	1.0	1	2/26/05	5:32	T McCollum	8260B	7018
Methyl-t-butyl ether	ND	ug/l	1.0	1	2/26/05	5:32	T McCollum	8260B	7018

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	113.	73. - 127.
VOA Surr Toluene-d8	105.	79. - 113.
VOA Surr, 4-BFB	110.	79. - 125.
VOA Surr, DBFM	108.	75. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 008/009
Project Name: HANDY PANTRY #65 CLOUDS
Sampler: ROB ROBINSON

Lab Number: 05-A26613
Sample ID: WS-8 @ (28')
Sample Type: Ground water
Site ID:

Date Collected: 2/24/05
Time Collected: 12:10
Date Received: 2/25/05
Time Received: 7:55
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1	2/26/05	6:01	T McCollum	8260B	7018
Ethylbenzene	ND	ug/l	1.0	1	2/26/05	6:01	T McCollum	8260B	7018
Naphthalene	ND	ug/l	5.00	1	2/26/05	6:01	T McCollum	8260B	7018
Toluene	ND	ug/l	1.0	1	2/26/05	6:01	T McCollum	8260B	7018
Xylenes (Total)	ND	ug/l	1.0	1	2/26/05	6:01	T McCollum	8260B	7018
Methyl-t-butyl ether	ND	ug/l	1.0	1	2/26/05	6:01	T McCollum	8260B	7018

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	126.	73. - 127.
VOA Surr Toluene-d8	103.	79. - 113.
VOA Surr, 4-BFB	110.	79. - 125.
VOA Surr, DBFM	119.	75. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 008/009
Project Name: HANDY PANTRY #65 CLOUDS
Sampler: ROB ROBINSON

Lab Number: 05-A26614
Sample ID: WS-9 @ (28')
Sample Type: Ground water
Site ID:

Date Collected: 2/24/05
Time Collected: 12:45
Date Received: 2/25/05
Time Received: 7:55
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1	2/26/05	6:30	T McCollum	8260B	7018
Ethylbenzene	ND	ug/l	1.0	1	2/26/05	6:30	T McCollum	8260B	7018
Naphthalene	ND	ug/l	5.00	1	2/26/05	6:30	T McCollum	8260B	7018
Toluene	ND	ug/l	1.0	1	2/26/05	6:30	T McCollum	8260B	7018
Xylenes (Total)	ND	ug/l	1.0	1	2/26/05	6:30	T McCollum	8260B	7018
Methyl-t-butyl ether	ND	ug/l	1.0	1	2/26/05	6:30	T McCollum	8260B	7018

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	102.	73. - 127.
VOA Surr Toluene-d8	104.	79. - 113.
VOA Surr, 4-BFB	114.	79. - 125.
VOA Surr, DBFM	105.	75. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 008/009
Project Name: HANDY PANTRY #65 CLOUDS
Sampler: ROB ROBINSON

Lab Number: 05-A26615
Sample ID: WS-10 @ (16')
Sample Type: Ground water
Site ID:

Date Collected: 2/24/05
Time Collected: 13:30
Date Received: 2/25/05
Time Received: 7:55
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	4300	ug/l	100.	100	2/27/05	7:33	T McCollum	8260B	7029
Ethylbenzene	93.0	ug/l	1.0	1	2/26/05	6:59	T McCollum	8260B	7018
Naphthalene	142.	ug/l	5.00	1	2/26/05	6:59	T McCollum	8260B	7018
Toluene	113.	ug/l	1.0	1	2/26/05	6:59	T McCollum	8260B	7018
Xylenes (Total)	148.	ug/l	1.0	1	2/26/05	6:59	T McCollum	8260B	7018
Methyl-t-butyl ether	506.	ug/l	10.0	10	2/27/05	7:04	T McCollum	8260B	7024

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	106.	73. - 127.
VOA Surr Toluene-d8	102.	79. - 113.
VOA Surr, 4-BFB	109.	79. - 125.
VOA Surr, DBFM	107.	75. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 008/009
Project Name: HANDY PANTRY #65 CLOUDS
Page: 1
Laboratory Receipt Date: 2/25/05

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/l	0.0009	0.0450	0.0500	88	62 - 146	7018	26611
Benzene	mg/l	< 0.0003	0.0514	0.0500	103	62 - 146	7024	BLANK
Toluene	mg/l	< 0.0010	0.0480	0.0500	96	68 - 141	7018	26611
VOA Surr 1,2-DCA-d4	% Rec				99	73 - 127	7018	
VOA Surr 1,2-DCA-d4	% Rec				100	73 - 127	7024	
VOA Surr Toluene-d8	% Rec				103	79 - 113	7018	
VOA Surr Toluene-d8	% Rec				105	79 - 113	7024	
VOA Surr, 4-BFB	% Rec				98	79 - 125	7018	
VOA Surr, 4-BFB	% Rec				102	79 - 125	7024	
VOA Surr, DBFM	% Rec				98	75 - 134	7018	
VOA Surr, DBFM	% Rec				105	75 - 134	7024	

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0450	0.0504	11.32	25.	7018
Benzene	mg/l	0.0514	0.0524	1.93	25.	7024
Toluene	mg/l	0.0480	0.0490	2.06	29.	7018

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 008/009
Project Name: HANDY PANTRY #65 CLOUDS
Page: 2
Laboratory Receipt Date: 2/25/05

VOA Surr 1,2-DCA-d4	% Rec	113.	7018
VOA Surr 1,2-DCA-d4	% Rec	102.	7024
VOA Surr Toluene-d8	% Rec	105.	7018
VOA Surr Toluene-d8	% Rec	108.	7024
VOA Surr, 4-BFB	% Rec	104.	7018
VOA Surr, 4-BFB	% Rec	102.	7024
VOA Surr, DBFM	% Rec	112.	7018
VOA Surr, DBFM	% Rec	105.	7024

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0500	0.0491	98	76 - 127	7018
Benzene	mg/l	0.0500	0.0479	96	76 - 127	7024
Benzene	mg/l	0.0500	0.0479	96	76 - 127	7029
Ethylbenzene	mg/l	0.0500	0.0501	100	80 - 124	7018
Naphthalene	mg/l	0.0500	0.0508	102	61 - 143	7018
Toluene	mg/l	0.0500	0.0487	97	79 - 124	7018
Xylenes (Total)	mg/l	0.150	0.155	103	80 - 125	7018
Methyl-t-butyl ether	mg/l	0.0500	0.0512	102	66 - 136	7018
Methyl-t-butyl ether	mg/l	0.0500	0.0533	107	66 - 136	7024
VOA Surr 1,2-DCA-d4	% Rec			110	73 - 127	7018
VOA Surr 1,2-DCA-d4	% Rec			109	73 - 127	7024
VOA Surr 1,2-DCA-d4	% Rec			109	73 - 127	7029
VOA Surr Toluene-d8	% Rec			100	79 - 113	7018
VOA Surr Toluene-d8	% Rec			104	79 - 113	7024
VOA Surr Toluene-d8	% Rec			104	79 - 113	7029
VOA Surr, 4-BFB	% Rec			98	79 - 125	7018
VOA Surr, 4-BFB	% Rec			98	79 - 125	7024
VOA Surr, 4-BFB	% Rec			98	79 - 125	7029
VOA Surr, DBFM	% Rec			108	75 - 134	7018

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 008/009
Project Name: HANDY PANTRY #65 CLOUDS

Laboratory Receipt Date: 2/25/05

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA Surr, DBFM	% Rec			108	75 - 134	7024
VOA Surr, DBFM	% Rec			108	75 - 134	7029

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Benzene	< 0.0003	mg/l	7018	2/26/05	1:08
Benzene	< 0.0003	mg/l	7024	2/27/05	0:43
Benzene	< 0.0003	mg/l	7029	2/27/05	0:43
Ethylbenzene	< 0.0002	mg/l	7018	2/26/05	1:08
Naphthalene	< 0.00120	mg/l	7018	2/26/05	1:08
Toluene	< 0.0002	mg/l	7018	2/26/05	1:08
Xylenes (Total)	< 0.0006	mg/l	7018	2/26/05	1:08
Methyl-t-butyl ether	< 0.0002	mg/l	7018	2/26/05	1:08
Methyl-t-butyl ether	< 0.0002	mg/l	7024	2/27/05	0:43

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 008/009
Project Name: HANDY PANTRY #65 CLOUDS
Page: 4
Laboratory Receipt Date: 2/25/05

VOA Surr 1,2-DCA-d4	132.	% Rec	7018	2/26/05	1:08
VOA Surr 1,2-DCA-d4	117.	% Rec	7024	2/27/05	0:43
VOA Surr 1,2-DCA-d4	117.	% Rec	7029	2/27/05	0:43
VOA Surr Toluene-d8	98.	% Rec	7018	2/26/05	1:08
VOA Surr Toluene-d8	102.	% Rec	7024	2/27/05	0:43
VOA Surr Toluene-d8	102.	% Rec	7029	2/27/05	0:43
VOA Surr, 4-BFB	113.	% Rec	7018	2/26/05	1:08
VOA Surr, 4-BFB	117.	% Rec	7024	2/27/05	0:43
VOA Surr, 4-BFB	117.	% Rec	7029	2/27/05	0:43
VOA Surr, DBFM	126.	% Rec	7018	2/26/05	1:08
VOA Surr, DBFM	112.	% Rec	7024	2/27/05	0:43
VOA Surr, DBFM	112.	% Rec	7029	2/27/05	0:43

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 407375

24-MAR-05

Consultech Environmental, Inc.
1800 MacLeod Drive, Suite F
Lawrenceville, GA 30043-5736
Client Contact: Jim Wilson

Reference: Accura Analytical Laboratory, Inc. (AAL) Work Order No: 7868
Project Name :Clouds Chevron
Project Number: 04-12-009

Dear Jim Wilson :

We are reporting to you the results of the analyses performed on the samples received under the project name referenced above and identified with the Chain of Custody(s) Numbered 39084 . All results being reported under this Chain of Custody apply to the samples analyzed and properly identified with an AAL Sample ID number.

All the results for the quality control samples were reviewed. Also, all parameters for data reduction and validation were reviewed. In view of this, we are able to release the analytical data for this report within acceptance criteria for accuracy, precision, completeness or properly flagged.

The validity and integrity of this report will remain intact as long as it is accompanied by this letter and reproduced in full, unless written approval is granted by AAL. This report will be filed for at least 7 years in our archives after which time it will be destroyed without further notice, unless otherwise arranged with you. The samples received, and described as recorded in COC No. 39084 will be filed for 90 days, and after that time they will be properly disposed without further notice, unless otherwise arranged with you. We reserve the right to return to you any unused samples, extracts or solutions related to them if we consider so necessary (e.g., samples identified as hazardous waste, sample sizes exceeding analytical standard practices, controlled substances under regulated protocols, etc).

We thank you for selecting Accura Analytical Laboratory Inc. to serve your analytical needs. If you have any questions concerning this report, please feel free to contact me at any time.

Sincerely,

Brian Burns
Project Manager

6017 Financial Drive Norcross, GA 30071
Phone: 770-449-8800 Fax: 770-449-5477

ACCURA ANALYTICAL LABORATORY, INC. (AAL)

6017 Financial Drive, Norcross, GA 30071, Phone: (770) 449-8800
FL Certification #E87429 ▪ NC Certification #483
SC Certification #98015 ▪ Utah Certification #AALI1
USACE Approved ▪ Navy Certification Code NFESC 413

Case Narrative

AAL Work Order # 7868

Client Project: Clouds Chevron / 04-12-009

Accura Analytical Laboratory Inc. certifies that the results meet all requirements of the NELAC Standards.

The data package includes a 1 page case narrative, 1 Chain of Custody page, 2 analytical results pages, and 2 QC surrogate recovery pages.

The following items were noted concerning this work order:

BTEX, MTBE, Naph. by SW8260B Notations:

1. MW-57 required dilution due to high analyte concentration. As a result some other analytes are reported as "Below Reporting Limit" but at elevated detection limits.

Thomas A. Gatch
Thomas A. Gatch
VOC Analyst

March 24, 2005
Date

These Case Narrative Notations have been generated, reviewed, and edited by:

Brian Burns
Client Services

March 24, 2005
Date

This report may not be reproduced, except in full, without written approval from Accura Analytical Laboratory, Inc.

ACCURA ANALYTICAL LABORATORY, INC.

Environmental Analytical Services

3904

6017 Financial Drive, Norcross, GA 30071
Phone # (770) 449-8800 Fax # (770) 449-5477

CHAIN OF CUSTODY

Company Name: CONSULTECH ENVIRONMENTAL Billing address:

Address: 1800 MACLEOD RD. STE F, LAWRENCEVILLE, GA Client P.O. #

Report Sent to: (Client Contact): JIM WILSON

Contact Phone # 678 377-0400 Fax # 678 377-0051

Project Name: CLOUDS CAVERN

Project Number: 04-12-009

For Laboratory Use Only AAL LIMS SYS. ID: 9513

Custody Seal(s): ___ Y (N) TAPE Page 1 OF 1

QC Level: (1) 2 3 4 CLP Init/Temp: JOC 72

Sample Condition: Good AAL Work Order # 7868

Samplers: (signature) James R Wilson

Samplers: (printed) JAMES R. WILSON

Line No.	Sample ID #	Sample Date / Time	Comp	Grab	Matrix	Preserved	Sample Location:	No. of Containers	ANALYSIS: BTEX/MTBE by EPA 8260	Remarks	AAL SampleID: 7868
1	MW-56	3/22/05 8:00		✓	WATER	✓		3			001
2	MW-57	3/22/05 8:30		✓	WATER	✓		3			002
3	MW-59	3/22/05 9:30		✓	WATER	✓		3			003
4											
5											
6											
7											
8											
9											
10											

1) Relinquished By:	Date / Time	2) Received By:	Date / Time	Delivered by: (Circle One)
James R Wilson	3/24/05 6:25		3.22.05 1825	FedEX UPS (Hand) Other
3) Relinquished By:	Date / Time	4) Received By:	Date / Time	Turnaround Time Requested:
				24 HR

Matrix Guide: (W=Water) (DW = Drinking Water) (GW = Groundwater) (SW = Surface Water) (L = Liquid) (O = Oil) (S = Soil) (SD = Solid) (SL = Sludge) (A = Air Sample) (C = Cartridge)

COC-2002.xls, Revised 8/9/02

Certificate of Analytical Results 7868

Consultech Environmental, Inc., Lawrenceville, GA

Clouds Chevron

Sample Id: **MW-56** Matrix: **WATER** % Moisture:
Lab Sample Id: **7868-001** Date Collected: **Mar-22-05 08:00** Date Received: **Mar-22-05 18:24**
Sample Depth:

Analytical Method: BTEX, MTBE, Naph. by SW8260B Prep Method: SW5030B
Date Analyzed: Mar-23-05 14:04 Analyst: RPS01 Date Prep: Mar-23-05 11:25 Tech: TAG01
Seq Number: 25980

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.30	ug/L		1
Toluene	108-88-3	BRL	1.0	0.25	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.19	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	0.61	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.26	ug/L		1
Naphthalene	91-20-3	BRL	5.0	0.45	ug/L		1

Sample Id: **MW-57** Matrix: **WATER** % Moisture:
Lab Sample Id: **7868-002** Date Collected: **Mar-22-05 08:30** Date Received: **Mar-22-05 18:24**
Sample Depth:

Analytical Method: BTEX, MTBE, Naph. by SW8260B Prep Method: SW5030B
Date Analyzed: Mar-23-05 15:00 Analyst: RPS01 Date Prep: Mar-23-05 11:25 Tech: TAG01
Seq Number: 25980

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	2500	100	30	ug/L		100
Toluene	108-88-3	1900	10	2.5	ug/L		10
Ethylbenzene	100-41-4	360	10	1.9	ug/L		10
Xylenes, Total	1330-20-7	1400	10	6.1	ug/L		10
Methyl tert-butyl ether	1634-04-4	970	10	2.6	ug/L		10
Naphthalene	91-20-3	BRL	50	4.5	ug/L		10

Sample Id: **MW-59** Matrix: **WATER** % Moisture:
Lab Sample Id: **7868-003** Date Collected: **Mar-22-05 09:00** Date Received: **Mar-22-05 18:24**
Sample Depth:

Analytical Method: BTEX, MTBE, Naph. by SW8260B Prep Method: SW5030B
Date Analyzed: Mar-23-05 14:32 Analyst: RPS01 Date Prep: Mar-23-05 11:25 Tech: TAG01
Seq Number: 25980

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.30	ug/L		1
Toluene	108-88-3	BRL	1.0	0.25	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.19	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	0.61	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.26	ug/L		1
Naphthalene	91-20-3	BRL	5.0	0.45	ug/L		1

*

Version: 1.000

Certificate of Analytical Results 7868

Consultech Environmental, Inc., Lawrenceville, GA

Clouds Chevron

Sample Id: **25528 BLK**	Matrix: **WATER**	% Moisture:
Lab Sample Id: **25528 BLK**	Date Collected:	Date Received:
Sample Depth:		

Analytical Method: BTEX, MTBE, Naph. by SW8260B Prep Method: SW5030B

Date Analyzed: Mar-23-05 12:51 Analyst: RPS01 Date Prep: Mar-23-05 11:25 Tech: TAG01

Seq Number: 25980

Parameter	Cas Number	Result	Rep Limit	MDL	Units	Flag	Dil
Benzene	71-43-2	BRL	1.0	0.30	ug/L		1
Toluene	108-88-3	BRL	1.0	0.25	ug/L		1
Ethylbenzene	100-41-4	BRL	1.0	0.19	ug/L		1
Xylenes, Total	1330-20-7	BRL	1.0	0.61	ug/L		1
Methyl tert-butyl ether	1634-04-4	BRL	1.0	0.26	ug/L		1
Naphthalene	91-20-3	BRL	5.0	0.45	ug/L		1

*

Version: 1.000

Form 2 - Surrogate Recoveries

Project Name: Clouds Chevron

Report Date: 03/24/05 11:57

Work Order #: 7868

Project ID: 04-12-009

Lab Batch #: 25980 **Sample:** 25528 BLK / BLK **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	49.2	50.0	98	78-123	
Bromofluorobenzene	51.1	50.0	102	84-116	
Toluene-d8	51.2	50.0	102	89-118	

Lab Batch #: 25980 **Sample:** 7868-001 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	48.4	50.0	97	63-128	
Bromofluorobenzene	49.4	50.0	99	77-117	
Toluene-d8	48.2	50.0	96	84-115	

Lab Batch #: 25980 **Sample:** 7868-002 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	48.3	50.0	97	63-128	
Bromofluorobenzene	51.5	50.0	103	77-117	
Toluene-d8	52.1	50.0	104	84-115	

Lab Batch #: 25980 **Sample:** 7868-002 DL / DIL **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY				
	Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	41.7	50.0	83	63-128	
Bromofluorobenzene	49.8	50.0	100	77-117	
Toluene-d8	49.3	50.0	99	84-115	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

*** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Form 2 - Surrogate Recoveries

Project Name: Clouds Chevron

Report Date: 03/24/05 11:57

Work Order #: 7868

Project ID: 04-12-009

Lab Batch #: 25980 **Sample:** 7868-003 / SMP **Batch:** 1 **Matrix:** W

Units: ug/L

Select VOCs by SW8260B Analytes	SURROGATE RECOVERY STUDY Amount Found [A]	True Amount [B]	Recovery %R [D]	Control Limits %R	Flags
1,2-Dichloroethane-d4	51.6	50.0	103	63-128	
Bromofluorobenzene	53.0	50.0	106	77-117	
Toluene-d8	53.1	50.0	106	84-115	

* Surrogate outside of Laboratory QC limits

** Surrogates outside limits; data and surrogates confirmed by reanalysis

** Poor recoveries due to dilution

Surrogate Recovery [D] = 100 * A / B

All results are based on MDL and validated for QC purposes.

Z = Surrogate Recovery exceeded the Labortatory QC limits

Version: 1.000

TestAmerica
ANALYTICAL TESTING CORPORATION

TESTAMERICA, INC.
ATLANTA SERVICE CENTER

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: ConsulTech Environmental Client #: 2628
Address: 1800 MacLeod Dr. Suite F
City/State/Zip Code: Lawrenceville, GA 30043
Project Manager: Jim Wilson
Telephone Number: (678) 377-0406 Fax: (678) 377-0051
Sampler Name: (Print Name) Rob Robinson
Sampler Signature:

Project Name: Hardy Pantry #65
Project #: C-04-12-008
Site/Location ID: Columbia State: SC
Report To: Jim Wilson
Invoice To:
Quote #: PO#:

TAT
___ Standard
X Rush (surcharges may apply)
Date Needed: 100% RUSH
Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX, MTBE, NAP 8260B								QC Deliverables: None / Level 2 (Batch QC) / Level 3 / Level 4 / Other	REMARKS
MW-43	3/24/05	1300	G	N	GW		3						3						05A	42263		100% RUSH
MW-44	3/24/05	1332	↓	↓	↓		↓						↓							42264		100% RUSH

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

	Date:	Time:		Date:	Time:
Relinquished By:	3/24/05	1400	Received By:		
Relinquished By:			Received By:		
Relinquished By:			Received By:	3.25.05	0825

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

3/28/05

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: HANDY PANTRY #65
Project Number: C-04-12-008.
Laboratory Project Number: 410561.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Collection Date
MW-43	05-A42263	3/24/05
MW-44	05-A42264	3/24/05

A2LA certification number 0453.07 for analysis of wastewater and solid/hazardous waste.
NELAC/Florida certification number E87358 for analysis of environmental water, soil/hazardous waste, and drinking water effective 07/01/99-06/30/05.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 3/28/05

Johnny A. Mitchell, Laboratory Director
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Senior Project Manager
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Senior Project Manager
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Senior Project Manag

Laboratory Certification Number: 84009

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A42263
Sample ID: MW-43
Sample Type: Ground water
Site ID:

Date Collected: 3/24/05
Time Collected: 13:20
Date Received: 3/25/05
Time Received: 8:05
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1	3/26/05	10:13	B.Herford	8260B	2686
Ethylbenzene	ND	ug/l	1.0	1	3/26/05	10:13	B.Herford	8260B	2686
Naphthalene	ND	ug/l	5.00	1	3/26/05	10:13	B.Herford	8260B	2686
Toluene	ND	ug/l	1.0	1	3/26/05	10:13	B.Herford	8260B	2686
Xylenes (Total)	ND	ug/l	1.0	1	3/26/05	10:13	B.Herford	8260B	2686
Methyl-t-butyl ether	ND	ug/l	1.0	1	3/26/05	10:13	B.Herford	8260B	2686

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	94.	73. - 127.
VOA Surr Toluene-d8	101.	79. - 113.
VOA Surr, 4-BFB	117.	79. - 125.
VOA Surr, DBFM	97.	75. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A42264
Sample ID: MW-44
Sample Type: Ground water
Site ID:

Date Collected: 3/24/05
Time Collected: 13:30
Date Received: 3/25/05
Time Received: 8:05
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1	3/26/05	10:45	B.Herford	8260B	2686
Ethylbenzene	ND	ug/l	1.0	1	3/26/05	10:45	B.Herford	8260B	2686
Naphthalene	ND	ug/l	5.00	1	3/26/05	10:45	B.Herford	8260B	2686
Toluene	ND	ug/l	1.0	1	3/26/05	10:45	B.Herford	8260B	2686
Xylenes (Total)	ND	ug/l	1.0	1	3/26/05	10:45	B.Herford	8260B	2686
Methyl-t-butyl ether	ND	ug/l	1.0	1	3/26/05	10:45	B.Herford	8260B	2686

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	93.	73. - 127.
VOA Surr Toluene-d8	99.	79. - 113.
VOA Surr, 4-BFB	111.	79. - 125.
VOA Surr, DBFM	97.	75. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 1
Laboratory Receipt Date: 3/25/05

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/l	< 0.0010	0.0555	0.0500	111	62 - 146	2686	42264
Toluene	mg/l	< 0.0010	0.0708	0.0500	142#	68 - 141	2686	42264
VOA Surr 1,2-DCA-d4	% Rec				91	73 - 127	2686	
VOA Surr Toluene-d8	% Rec				98	79 - 113	2686	
VOA Surr, 4-BFB	% Rec				100	79 - 125	2686	
VOA Surr, DBFM	% Rec				99	75 - 134	2686	

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0555	0.0532	4.23	25.	2686
Toluene	mg/l	0.0708	0.0576	20.56	29.	2686
VOA Surr 1,2-DCA-d4	% Rec		91.			2686
VOA Surr Toluene-d8	% Rec		98.			2686
VOA Surr, 4-BFB	% Rec		101.			2686
VOA Surr, DBFM	% Rec		99.			2686

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 2
Laboratory Receipt Date: 3/25/05

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0500	0.0498	100	76 - 127	2686
Ethylbenzene	mg/l	0.0500	0.0523	105	80 - 124	2686
Naphthalene	mg/l	0.0500	0.0613	123	61 - 143	2686
Toluene	mg/l	0.0500	0.0506	101	79 - 124	2686
Xylenes (Total)	mg/l	0.150	0.157	105	80 - 125	2686
Methyl-t-butyl ether	mg/l	0.0500	0.0494	99	66 - 136	2686
VOA Surr 1,2-DCA-d4	% Rec			92	73 - 127	2686
VOA Surr Toluene-d8	% Rec			100	79 - 113	2686
VOA Surr, 4-BFB	% Rec			101	79 - 125	2686
VOA Surr, DBFM	% Rec			99	75 - 134	2686

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 3
Laboratory Receipt Date: 3/25/05

VOA PARAMETERS					
Benzene	< 0.0003	mg/l	2686	3/26/05	4:53
Ethylbenzene	< 0.0002	mg/l	2686	3/26/05	4:53
Naphthalene	< 0.00120	mg/l	2686	3/26/05	4:53
Toluene	< 0.0002	mg/l	2686	3/26/05	4:53
Xylenes (Total)	< 0.0006	mg/l	2686	3/26/05	4:53
Methyl-t-butyl ether	< 0.0002	mg/l	2686	3/26/05	4:53
VOA Surr 1,2-DCA-d4	92.	% Rec	2686	3/26/05	4:53
VOA Surr Toluene-d8	100.	% Rec	2686	3/26/05	4:53
VOA Surr, 4-BFB	107.	% Rec	2686	3/26/05	4:53
VOA Surr, DBFM	97.	% Rec	2686	3/26/05	4:53

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 410561

TestAmerica
CAL TESTING CORPORATION

TESTAMERICA, INC.
ATLANTA SERVICE CENTER

411043

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: CONSULTECH ENVIRONMENTAL Client #: 2628
Address: 1800 MACLEOD DR. SUITE F
City/State/Zip Code: LAWRENCEVILLE, GA 30043
Project Manager: JIM WILSON
Telephone Number: (678) 377-0400 Fax: (678) 377-0051
Sampler Name: (Print Name) JOSH ICKES
Sampler Signature:

Project Name: CLOUDS CHEVRON
Project #: 04-12-009
Site/Location ID: COLUMBIA State: SC
Report To: JIM WILSON
Invoice To:
Quote #: PO#:

TAT
___ Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX/MPA 8260	REMARKS
MW-57	3/21/05	17:50	C		S				2	1			X	44568
MW-58	3/22/05	10:30	C		S				2	1			X	69
MW-56	3/21/05	17:00	C		S				2	1			X	70
MW-54	3/22/05	11:30	C		S				2	1			X	71
MW-53	3/22/05	13:30	C		S				2	1			X	72
MW-52	3/23/05	9:00	C		S				2	1			X	73
MW-45	3/24/05	8:00	C		S				2	1			X	74
MW-43	3/24/05	10:00	C		S				2	1			X	75

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

Special Instructions:

Relinquished By:	Date: 3/29/05	Time: 13:00	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 3/30/05	Time: 9:50

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

4/ 4/05

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: CLOUDS CHEVRON
Project Number: 04-12-009.
Laboratory Project Number: 411043.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Collection Date
MW-57	05-A44568	3/21/05
MW-58	05-A44569	3/22/05
MW-56	05-A44570	3/21/05
MW-54	05-A44571	3/22/05
MW-53	05-A44572	3/22/05
MW-52	05-A44573	3/23/05
MW-45	05-A44574	3/24/05
MW-43	05-A44575	3/24/05

A2LA certification number 0453.07 for analysis of wastewater and solid/hazardous waste.
NELAC/Florida certification number E87358 for analysis of environmental water, soil/hazardous waste, and drinking water effective 07/01/99-06/30/05.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 4/ 4/05

Johnny A. Mitchell, Laboratory Director
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Senior Project Manager
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Senior Project Manager
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Senior Project Manag

Laboratory Certification Number: 84009

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-009
Project Name: CLOUDS CHEVRON
Sampler: JOSH K.

Lab Number: 05-A44568
Sample ID: MW-57
Sample Type: Soil
Site ID:

Date Collected: 3/21/05
Time Collected: 17:50
Date Received: 3/30/05
Time Received: 7:50
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	0.120	mg/kg	0.0017	1.0	4/ 1/05	23:29	J. Bundy	8260B	93
Ethylbenzene	0.0110	mg/kg	0.0017	1.0	4/ 1/05	23:29	J. Bundy	8260B	9390
Naphthalene	ND	mg/kg	0.00422	1.0	4/ 1/05	23:29	J. Bundy	8260B	9390
Toluene	0.0642	mg/kg	0.0017	1.0	4/ 1/05	23:29	J. Bundy	8260B	9390
Xylenes (Total)	0.0375	mg/kg	0.0017	1.0	4/ 1/05	23:29	J. Bundy	8260B	9390

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	5.92 g	5.0 ml	3/21/05	17:50	J. Bundy	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	86.	72. - 134.
VOA Surr Toluene-d8	97.	76. - 122.
VOA Surr, 4-BFB	90.	60. - 138.
VOA Surr, DBFM	90.	75. - 137.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A44568
Sample ID: MW-57
Project: 04-12-009

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-009
Project Name: CLOUDS CHEVRON
Sampler: JOSH K.

Lab Number: 05-A44569
Sample ID: MW-58
Sample Type: Soil
Site ID:

Date Collected: 3/22/05
Time Collected: 10:30
Date Received: 3/30/05
Time Received: 7:50
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	0.481	mg/kg	0.0926	50.0	4/ 2/05	0:29	J. Bundy	8260B	9392
Ethylbenzene	0.0539	mg/kg	0.0019	1.0	4/ 1/05	23:59	J. Bundy	8260B	9390
Naphthalene	0.0321	mg/kg	0.00463	1.0	4/ 1/05	23:59	J. Bundy	8260B	9390
Toluene	0.0081	mg/kg	0.0019	1.0	4/ 1/05	23:59	J. Bundy	8260B	9390
Xylenes (Total)	0.0231	mg/kg	0.0019	1.0	4/ 1/05	23:59	J. Bundy	8260B	9390

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	5.40 g	5.0 ml	3/21/05	10:30	J. Bundy	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	73.	72. - 134.
VOA Surr Toluene-d8	101.	76. - 122.
VOA Surr, 4-BFB	89.	60. - 138.
VOA Surr, DBFM	85.	75. - 137.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A44569
Sample ID: MW-58
Project: 04-12-009

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-009
Project Name: CLOUDS CHEVRON
Sampler: JOSH K.

Lab Number: 05-A44570
Sample ID: MW-56
Sample Type: Soil
Site ID:

Date Collected: 3/21/05
Time Collected: 17:00
Date Received: 3/30/05
Time Received: 7:50
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	mg/kg	0.0014	1.0	4/ 1/05	20:43	J. Bundy	8260B	9390
Ethylbenzene	ND	mg/kg	0.0014	1.0	4/ 1/05	20:43	J. Bundy	8260B	9390
Naphthalene	ND	mg/kg	0.00362	1.0	4/ 1/05	20:43	J. Bundy	8260B	9390
Toluene	ND	mg/kg	0.0014	1.0	4/ 1/05	20:43	J. Bundy	8260B	9390
Xylenes (Total)	ND	mg/kg	0.0014	1.0	4/ 1/05	20:43	J. Bundy	8260B	9390

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	6.91 g	5.0 ml	3/21/05	17:00	J. Bundy	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	82.	72. - 134.
VOA Surr Toluene-d8	95.	76. - 122.
VOA Surr, 4-BFB	84.	60. - 138.
VOA Surr, DBFM	86.	75. - 137.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A44570
Sample ID: MW-56
Project: 04-12-009

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-009
Project Name: CLOUDS CHEVRON
Sampler: JOSH K.

Lab Number: 05-A44571
Sample ID: MW-54
Sample Type: Soil
Site ID:

Date Collected: 3/22/05
Time Collected: 11:30
Date Received: 3/30/05
Time Received: 7:50
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	0.0145	mg/kg	0.0022	1.0	4/ 1/05	21:09	J. Bundy	8260B	93[illegible]
Ethylbenzene	ND	mg/kg	0.0022	1.0	4/ 1/05	21:09	J. Bundy	8260B	9390
Naphthalene	ND	mg/kg	0.00551	1.0	4/ 1/05	21:09	J. Bundy	8260B	9390
Toluene	ND	mg/kg	0.0022	1.0	4/ 1/05	21:09	J. Bundy	8260B	9390
Xylenes (Total)	ND	mg/kg	0.0022	1.0	4/ 1/05	21:09	J. Bundy	8260B	9390

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	4.54 g	5.0 ml	3/22/05	11:30	J. Bundy	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	84.	72. - 134.
VOA Surr Toluene-d8	93.	76. - 122.
VOA Surr, 4-BFB	96.	60. - 138.
VOA Surr, DBFM	89.	75. - 137.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A44571
Sample ID: MW-54
Project: 04-12-009

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-009
Project Name: CLOUDS CHEVRON
Sampler: JOSH K.

Lab Number: 05-A44572
Sample ID: MW-53
Sample Type: Soil
Site ID:

Date Collected: 3/22/05
Time Collected: 13:30
Date Received: 3/30/05
Time Received: 7:50
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	0.0171	mg/kg	0.0020	1.0	4/ 1/05	21:35	J. Bundy	8260B	9390
Ethylbenzene	ND	mg/kg	0.0020	1.0	4/ 1/05	21:35	J. Bundy	8260B	9390
Naphthalene	ND	mg/kg	0.00501	1.0	4/ 1/05	21:35	J. Bundy	8260B	9390
Toluene	ND	mg/kg	0.0020	1.0	4/ 1/05	21:35	J. Bundy	8260B	9390
Xylenes (Total)	ND	mg/kg	0.0020	1.0	4/ 1/05	21:35	J. Bundy	8260B	9390

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	4.99 g	5.0 ml	3/22/05	13:30	J. Bundy	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	82.	72. - 134.
VOA Surr Toluene-d8	95.	76. - 122.
VOA Surr, 4-BFB	91.	60. - 138.
VOA Surr, DBFM	90.	75. - 137.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A44572
Sample ID: MW-53
Project: 04-12-009

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-009
Project Name: CLOUDS CHEVRON
Sampler: JOSH K.

Lab Number: 05-A44573
Sample ID: MW-52
Sample Type: Soil
Site ID:

Date Collected: 3/23/05
Time Collected: 9:00
Date Received: 3/30/05
Time Received: 7:50
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	mg/kg	0.0015	1.0	4/ 1/05	22:01	J. Bundy	8260B	9390
Ethylbenzene	ND	mg/kg	0.0015	1.0	4/ 1/05	22:01	J. Bundy	8260B	9390
Naphthalene	ND	mg/kg	0.00377	1.0	4/ 1/05	22:01	J. Bundy	8260B	9390
Toluene	ND	mg/kg	0.0015	1.0	4/ 1/05	22:01	J. Bundy	8260B	9390
Xylenes (Total)	ND	mg/kg	0.0015	1.0	4/ 1/05	22:01	J. Bundy	8260B	9390

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	6.64 g	5.0 ml	3/23/05	9:00	J. Bundy	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	83.	72. - 134.
VOA Surr Toluene-d8	93.	76. - 122.
VOA Surr, 4-BFB	87.	60. - 138.
VOA Surr, DBFM	91.	75. - 137.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A44573
Sample ID: MW-52
Project: 04-12-009

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-009
Project Name: CLOUDS CHEVRON
Sampler: JOSH K.

Lab Number: 05-A44574
Sample ID: MW-45
Sample Type: Soil
Site ID:

Date Collected: 3/24/05
Time Collected: 8:00
Date Received: 3/30/05
Time Received: 7:50
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	mg/kg	0.0018	1.0	4/ 1/05	22:29	J. Bundy	8260B	9390
Ethylbenzene	ND	mg/kg	0.0018	1.0	4/ 1/05	22:29	J. Bundy	8260B	9390
Naphthalene	ND	mg/kg	0.00444	1.0	4/ 1/05	22:29	J. Bundy	8260B	9390
Toluene	ND	mg/kg	0.0018	1.0	4/ 1/05	22:29	J. Bundy	8260B	9390
Xylenes (Total)	ND	mg/kg	0.0018	1.0	4/ 1/05	22:29	J. Bundy	8260B	9390

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	5.63 g	5.0 ml	3/24/05	8:00	J. Bundy	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	88.	72. - 134.
VOA Surr Toluene-d8	94.	76. - 122.
VOA Surr, 4-BFB	81.	60. - 138.
VOA Surr, DBFM	94.	75. - 137.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A44574
Sample ID: MW-45
Project: 04-12-009

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-009
Project Name: CLOUDS CHEVRON
Sampler: JOSH K.

Lab Number: 05-A44575
Sample ID: MW-43
Sample Type: Soil
Site ID:

Date Collected: 3/24/05
Time Collected: 10:00
Date Received: 3/30/05
Time Received: 7:50
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	mg/kg	0.0017	1.0	4/ 1/05	22:59	J. Bundy	8260B	9390
Ethylbenzene	ND	mg/kg	0.0017	1.0	4/ 1/05	22:59	J. Bundy	8260B	9390
Naphthalene	ND	mg/kg	0.00415	1.0	4/ 1/05	22:59	J. Bundy	8260B	9390
Toluene	ND	mg/kg	0.0017	1.0	4/ 1/05	22:59	J. Bundy	8260B	9390
Xylenes (Total)	ND	mg/kg	0.0017	1.0	4/ 1/05	22:59	J. Bundy	8260B	9390

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	6.02 g	5.0 ml	3/24/05	10:00	J. Bundy	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	85.	72. - 134.
VOA Surr Toluene-d8	90.	76. - 122.
VOA Surr, 4-BFB	82.	60. - 138.
VOA Surr, DBFM	90.	75. - 137.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A44575
Sample ID: MW-43
Project: 04-12-009

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 04-12-009
Project Name: CLOUDS CHEVRON
Page: 1
Laboratory Receipt Date: 3/30/05

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/kg	< 0.0008	0.0536	0.0500	107	53 - 136	9390	blank
Toluene	mg/kg	< 0.0005	0.0502	0.0500	100	43 - 139	9390	blank
VOA Surr, 1,2-DCAd4	% Rec				83	72 - 134	9390	
VOA Surr Toluene-d8	% Rec				100	76 - 122	9390	
VOA Surr, 4-BFB	% Rec				94	60 - 138	9390	
VOA Surr, DBFM	% Rec				97	75 - 137	9390	

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/kg	0.0536	0.0440	19.67	34.	9390
Toluene	mg/kg	0.0502	0.0434	14.53	39.	9390
VOA Surr, 1,2-DCAd4	% Rec		85.			9390
VOA Surr Toluene-d8	% Rec		97.			9390
VOA Surr, 4-BFB	% Rec		92.			9390
VOA Surr, DBFM	% Rec		96.			9390

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 04-12-009
Project Name: CLOUDS CHEVRON
Page: 2
Laboratory Receipt Date: 3/30/05

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/kg	0.0500	0.0488	98	76 - 124	9390
Benzene	mg/kg	0.0500	0.0488	98	76 - 124	9392
Ethylbenzene	mg/kg	0.0500	0.0515	103	70 - 128	9390
Naphthalene	mg/kg	0.0500	0.0489	98	59 - 152	9390
Toluene	mg/kg	0.0500	0.0472	94	72 - 125	9390
Xylenes (Total)	mg/kg	0.150	0.148	99	71 - 129	9390
VOA Surr, 1,2-DCAd4	% Rec			81	72 - 134	9390
VOA Surr, 1,2-DCAd4	% Rec			81	72 - 134	9392
VOA Surr Toluene-d8	% Rec			98	76 - 122	9390
VOA Surr Toluene-d8	% Rec			98	76 - 122	9392
VOA Surr, 4-BFB	% Rec			85	60 - 138	9390
VOA Surr, 4-BFB	% Rec			85	60 - 138	9392
VOA Surr, DBFM	% Rec			94	75 - 137	9390
VOA Surr, DBFM	% Rec			94	75 - 137	9392

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 04-12-009
Project Name: CLOUDS CHEVRON
Page: 3
Laboratory Receipt Date: 3/30/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Benzene	< 0.0008	mg/kg	9390	4/ 1/05	20:17
Benzene	< 0.0008	mg/kg	9392	4/ 1/05	20:17
Ethylbenzene	< 0.0005	mg/kg	9390	4/ 1/05	20:17
Naphthalene	< 0.00130	mg/kg	9390	4/ 1/05	20:17
Toluene	< 0.0005	mg/kg	9390	4/ 1/05	20:17
Xylenes (Total)	< 0.0013	mg/kg	9390	4/ 1/05	20:17
VOA Surr, 1,2-DCAd4	84.	% Rec	9390	4/ 1/05	20:17
VOA Surr, 1,2-DCAd4	84.	% Rec	9392	4/ 1/05	20:17
VOA Surr Toluene-d8	98.	% Rec	9390	4/ 1/05	20:17
VOA Surr Toluene-d8	98.	% Rec	9392	4/ 1/05	20:17
VOA Surr, 4-BFB	85.	% Rec	9390	4/ 1/05	20:17
VOA Surr, 4-BFB	85.	% Rec	9392	4/ 1/05	20:17
VOA Surr, DBFM	83.	% Rec	9390	4/ 1/05	20:17
VOA Surr, DBFM	83.	% Rec	9392	4/ 1/05	20:17

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 411043

TestAmerica INCORPORATED

TESTAMERICA, INC.
ATLANTA SERVICE CENTER

412413

sist us in using the proper analytical methods, work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: CONSULTECH ENV Client #: 2628
Address: 1800 MACLEOD DRIVE, SUITE F
City/State/Zip Code: LAWRENCEVILLE, GA 30043
Project Manager: JIM WILSON
Telephone Number: (678) 377-0400 Fax: (678) 377-0851
Sampler Name: (Print Name) JOSH KEITHLEY
Sampler Signature: Josh Keithley

Project Name: CLOUDS CATHARSIN
Project #: 04-12-009
Site/Location ID: COLUMBIA State: SC
Report To: JIM WILSON
Invoice To:
Quote #: PO#:

TAT
__/__ Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N

Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other
Preservation & # of Containers: HNO_3, HCl, NaOH, H_2SO_4, Methanol, None, Other (Specify)
Analyze For: BTEX/MTBE 8260B

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	BTEX/MTBE 8260B	REMARKS
MW-47	3/31/05	9:00	C		S				2	1			X	5191
MW-49	3/31/05	12:00	C		S				2	1			X	5192

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

	Date:	Time:		Date:	Time:
Relinquished By:	4/11/05	15:00	Received By:		
Relinquished By:			Received By:		
Relinquished By:			Received By:	4/12/05	8:30

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

4/14/05

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: CLOUDS CHEVRON
Project Number: 04-12-009.
Laboratory Project Number: 412413.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Collection Date
MW-47	05-A51191	3/31/05
MW-49	05-A51192	3/31/05

A2LA certification number 0453.07 for analysis of wastewater and solid/hazardous waste.
NELAC/Florida certification number E87358 for analysis of environmental water, soil/hazardous waste, and drinking water effective 07/01/99-06/30/05.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: Roxanne Connor Report Date: 4/14/05

Johnny A. Mitchell, Laboratory Director
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Senior Project Manager
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Senior Project Manager
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Senior Project Manag

Laboratory Certification Number: 84009

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-009
Project Name: CLOUDS CHEVRON
Sampler: JOSH KETCHUM

Lab Number: 05-A51191
Sample ID: MW-47
Sample Type: Soil
Site ID:

Date Collected: 3/31/05
Time Collected: 9:00
Date Received: 4/12/05
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	mg/kg	0.0018	1.0	4/13/05	16:07	J. Adams	8260B	8867
Ethylbenzene	ND	mg/kg	0.0018	1.0	4/13/05	16:07	J. Adams	8260B	8867
Naphthalene	ND	mg/kg	0.00443	1.0	4/13/05	16:07	J. Adams	8260B	8867
Toluene	ND	mg/kg	0.0018	1.0	4/13/05	16:07	J. Adams	8260B	8867
Xylenes (Total)	ND	mg/kg	0.0018	1.0	4/13/05	16:07	J. Adams	8260B	8867

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	5.64 g	5.0 ml	3/31/05	9:00	N. Noman	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	82.	72. - 125.
VOA Surr Toluene-d8	91.	80. - 124.
VOA Surr, 4-BFB	87.	25. - 185.
VOA Surr, DBFM	91.	73. - 124.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A51191
Sample ID: MW-47
Project: 04-12-009

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-009
Project Name: CLOUDS CHEVRON
Sampler: JOSH KETCHUM

Lab Number: 05-A51192
Sample ID: MW-49
Sample Type: Soil
Site ID:

Date Collected: 3/31/05
Time Collected: 12:00
Date Received: 4/12/05
Time Received: 8:30

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	mg/kg	0.0017	1.0	4/13/05	20:38	J. Yun	8260B	8725
Ethylbenzene	ND	mg/kg	0.0017	1.0	4/13/05	20:38	J. Yun	8260B	8725
Naphthalene	ND	mg/kg	0.00435	1.0	4/13/05	20:38	J. Yun	8260B	8725
Toluene	ND	mg/kg	0.0017	1.0	4/13/05	20:38	J. Yun	8260B	8725
Xylenes (Total)	ND	mg/kg	0.0017	1.0	4/13/05	20:38	J. Yun	8260B	8725

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	5.75 g	5.0 ml	3/31/05	12:00	N. Noman	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	95.	72. - 125.
VOA Surr Toluene-d8	95.	80. - 124.
VOA Surr, 4-BFB	97.	25. - 185.
VOA Surr, DBFM	110.	73. - 124.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A51192
Sample ID: MW-49
Project: 04-12-009

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 04-12-009
Project Name: CLOUDS CHEVRON
Page: 1
Laboratory Receipt Date: 4/12/05

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/kg	0.0027	0.0358	0.0500	66	53 - 136	8725	47967
Benzene	mg/kg	< 0.0008	0.0508	0.0500	102	53 - 136	8867	blank
Toluene	mg/kg	0.0054	0.0284	0.0500	46	43 - 139	8725	47967
Toluene	mg/kg	< 0.0005	0.0448	0.0500	90	43 - 139	8867	blank
VOA Surr, 1,2-DCAd4	% Rec				97	72 - 125	8725	
VOA Surr, 1,2-DCAd4	% Rec				81	72 - 125	8867	
VOA Surr Toluene-d8	% Rec				96	80 - 124	8725	
VOA Surr Toluene-d8	% Rec				82	80 - 124	8867	
VOA Surr, 4-BFB	% Rec				100	25 - 185	8725	
VOA Surr, 4-BFB	% Rec				86	25 - 185	8867	
VOA Surr, DBFM	% Rec				106	73 - 124	8725	
VOA Surr, DBFM	% Rec				92	73 - 124	8867	

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/kg	0.0358	0.0294	19.63	34.	8725
Benzene	mg/kg	0.0508	0.0514	1.17	34.	8867
Toluene	mg/kg	0.0284	0.0242	15.97	39.	8725
Toluene	mg/kg	0.0448	0.0431	3.87	39.	8867

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 04-12-009
Project Name: CLOUDS CHEVRON
Page: 2
Laboratory Receipt Date: 4/12/05

VOA Surr, 1,2-DCAd4	% Rec	101.	8725
VOA Surr, 1,2-DCAd4	% Rec	79.	8867
VOA Surr Toluene-d8	% Rec	96.	8725
VOA Surr Toluene-d8	% Rec	81.	8867
VOA Surr, 4-BFB	% Rec	120.	8725
VOA Surr, 4-BFB	% Rec	85.	8867
VOA Surr, DBFM	% Rec	113.	8725
VOA Surr, DBFM	% Rec	94.	8867

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/kg	0.0500	0.0460	92	76 - 124	8725
Benzene	mg/kg	0.0500	0.0544	109	76 - 124	8867
Ethylbenzene	mg/kg	0.0500	0.0442	88	70 - 128	8725
Ethylbenzene	mg/kg	0.0500	0.0529	106	70 - 128	8867
Naphthalene	mg/kg	0.0500	0.0477	95	59 - 152	8725
Naphthalene	mg/kg	0.0500	0.0530	106	59 - 152	8867
Toluene	mg/kg	0.0500	0.0411	82	72 - 125	8725
Toluene	mg/kg	0.0500	0.0511	102	72 - 125	8867
Xylenes (Total)	mg/kg	0.150	0.126	84	71 - 129	8725
Xylenes (Total)	mg/kg	0.150	0.159	106	71 - 129	8867
VOA Surr, 1,2-DCAd4	% Rec			96	72 - 125	8725
VOA Surr, 1,2-DCAd4	% Rec			81	72 - 125	8867
VOA Surr Toluene-d8	% Rec			95	80 - 124	8725
VOA Surr Toluene-d8	% Rec			94	80 - 124	8867
VOA Surr, 4-BFB	% Rec			99	25 - 185	8725
VOA Surr, 4-BFB	% Rec			86	25 - 185	8867
VOA Surr, DBFM	% Rec			109	73 - 124	8725
VOA Surr, DBFM	% Rec			89	73 - 124	8867

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 04-12-009
Project Name: CLOUDS CHEVRON

Laboratory Receipt Date: 4/12/05

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Benzene	< 0.0008	mg/kg	8725	4/13/05	13:04
Benzene	< 0.0008	mg/kg	8867	4/13/05	13:51
Ethylbenzene	< 0.0005	mg/kg	8725	4/13/05	13:04
Ethylbenzene	< 0.0005	mg/kg	8867	4/13/05	13:51
Naphthalene	< 0.00130	mg/kg	8725	4/13/05	13:04
Naphthalene	< 0.00130	mg/kg	8867	4/13/05	13:51
Toluene	< 0.0005	mg/kg	8725	4/13/05	13:04
Toluene	< 0.0005	mg/kg	8867	4/13/05	13:51
Xylenes (Total)	< 0.0013	mg/kg	8725	4/13/05	13:04
Xylenes (Total)	< 0.0013	mg/kg	8867	4/13/05	13:51
VOA Surr, 1,2-DCAd4	94.	% Rec	8725	4/13/05	13:04
VOA Surr, 1,2-DCAd4	76.	% Rec	8867	4/13/05	13:51
VOA Surr Toluene-d8	97.	% Rec	8725	4/13/05	13:04
VOA Surr Toluene-d8	89.	% Rec	8867	4/13/05	13:51
VOA Surr, 4-BFB	98.	% Rec	8725	4/13/05	13:04
VOA Surr, 4-BFB	85.	% Rec	8867	4/13/05	13:51
VOA Surr, DBFM	106.	% Rec	8725	4/13/05	13:04
VOA Surr, DBFM	82.	% Rec	8867	4/13/05	13:51

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 04-12-009
Project Name: CLOUDS CHEVRON
Page: 4
Laboratory Receipt Date: 4/12/05

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 412413

TestAmerica INCORPORATED

TESTAMERICA, INC.
ATLANTA SERVICE CENTER

412408

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: CONSULTECH ENV Client #: 2628
Address: 1800 MACLEOD DR SUITE F
City/State/Zip Code: LAWRENCEVILLE, GA 30043
Project Manager: JIM WILSON
Telephone Number: (678) 377-0400 Fax: (678) 377-0057
Sampler Name: (Print Name) JOSH KETCHUM
Sampler Signature: Josh Ketchum

Project Name: HARDY PLANT #65
Project #: 04-12-008
Site/Location ID: COLUMBIA State: SC
Report To: JIM WILSON
Invoice To: _____
Quote #: _____ PO#: _____

TAT
___ Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX/MAPH 8260B	QC Deliverables: None / Level 2 (Batch QC) / Level 3 / Level 4 / Other	REMARKS
MW-28	3/31/05	14:00	C		S				2	1			X		5118
MW-33	3/30/05	11:00	C		S										82
MW-32	3/30/05	13:00	C		S										83
MW-35	3/30/05	15:00	C		S										84
MW-36	3/30/05	17:00	C		S										85
MW-34	4/1/05	13:00	C		S										86
MW-37	4/1/05	15:00	C		S										87
MW-38	4/4/05	9:00	C		S										88
MW-39	4/4/05	13:00	C		S										89
MW-41	4/4/05	11:00	C		S				✓	✓			✓		90

Special Instructions:

Relinquished By:	Date: 4/11/05	Time: 15:00	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 4/12/05	Time: 8:30

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

4/14/05

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: HANDY PANTRY#65
Project Number: 04-12-008.
Laboratory Project Number: 412408.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Collection Date
MW-28	05-A51181	3/31/05
MW-33	05-A51182	3/30/05
MW-32	05-A51183	3/30/05
MW-35	05-A51184	3/30/05
MW-36	05-A51185	3/30/05
MW-34	05-A51186	4/ 1/05
MW-37	05-A51187	4/ 1/05
MW-38	05-A51188	4/ 4/05
MW-39	05-A51189	4/ 4/05
MW-41	05-A51190	4/ 4/05

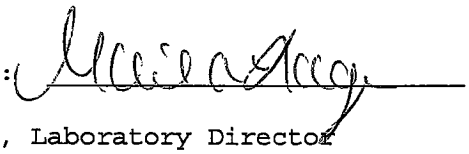
A2LA certification number 0453.07 for analysis of wastewater and solid/hazardous waste.
NELAC/Florida certification number E87358 for analysis of environmental water, soil/hazardous waste, and drinking water effective 07/01/99-06/30/05.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By:  Report Date: 4/14/05

Johnny A. Mitchell, Laboratory Director
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Senior Project Manager
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Senior Project Manager
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Senior Project Manag

Laboratory Certification Number: 84009

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-008
Project Name: HANDY PANTRY#65
Sampler: JOSH KETCHUM

Lab Number: 05-A51181
Sample ID: MW-28
Sample Type: Soil
Site ID:

Date Collected: 3/31/05
Time Collected: 14:00
Date Received: 4/12/05
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	mg/kg	0.0015	1.0	4/13/05	14:10	J. Adams	8260B	8867
Ethylbenzene	ND	mg/kg	0.0015	1.0	4/13/05	14:10	J. Adams	8260B	8867
Naphthalene	ND	mg/kg	0.00377	1.0	4/13/05	14:10	J. Adams	8260B	8867
Toluene	ND	mg/kg	0.0015	1.0	4/13/05	14:10	J. Adams	8260B	8867
Xylenes (Total)	ND	mg/kg	0.0015	1.0	4/13/05	14:10	J. Adams	8260B	8867

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	6.64 g	5.0 ml	3/31/05	14:00	N. Noman	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	76.	72. - 125.
VOA Surr Toluene-d8	85.	80. - 124.
VOA Surr, 4-BFB	87.	25. - 185.
VOA Surr, DBFM	86.	73. - 124.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A51181
Sample ID: MW-28
Project: 04-12-008

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-008
Project Name: HANDY PANTRY#65
Sampler: JOSH KETCHUM

Lab Number: 05-A51182
Sample ID: MW-33
Sample Type: Soil
Site ID:

Date Collected: 3/30/05
Time Collected: 11:00
Date Received: 4/12/05
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	0.818	mg/kg	0.0768	50.0	4/13/05	2:01	J. Adams	8260B	8086
Ethylbenzene	0.292	mg/kg	0.0768	50.0	4/13/05	2:01	J. Adams	8260B	8086
Naphthalene	ND	mg/kg	0.192	50.0	4/13/05	2:01	J. Adams	8260B	8086
Toluene	2.40	mg/kg	0.0768	50.0	4/13/05	2:01	J. Adams	8260B	8086
Xylenes (Total)	1.45	mg/kg	0.0768	50.0	4/13/05	2:01	J. Adams	8260B	8086

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	6.51 g	5.0 ml	3/30/05	11:00	N. Noman	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	73.	72. - 125.
VOA Surr Toluene-d8	92.	80. - 124.
VOA Surr, 4-BFB	92.	25. - 185.
VOA Surr, DBFM	87.	73. - 124.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A51182
Sample ID: MW-33
Project: 04-12-008

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.
8260 PQL's elevated due to sample matrix.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-008
Project Name: HANDY PANTRY#65
Sampler: JOSH KETCHUM

Lab Number: 05-A51183
Sample ID: MW-32
Sample Type: Soil
Site ID:

Date Collected: 3/30/05
Time Collected: 13:00
Date Received: 4/12/05
Time Received: 8:30
Page: 1

Analyte	Result		Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS										
Benzene	0.0169		mg/kg	0.0018	1.0	4/13/05	14:30	J. Adams	8260B	8867
Ethylbenzene	0.553	E	mg/kg	0.0018	1.0	4/13/05	14:30	J. Adams	8260B	8867
Naphthalene	0.876	E	mg/kg	0.00440	1.0	4/13/05	14:30	J. Adams	8260B	8867
Toluene	0.331	E	mg/kg	0.0018	1.0	4/13/05	14:30	J. Adams	8260B	8867
Xylenes (Total)	1.92	E	mg/kg	0.0018	1.0	4/13/05	14:30	J. Adams	8260B	8867

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	5.68 g	5.0 ml	3/30/05	13:00	N. Noman	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	70. #	72. - 125.
VOA Surr Toluene-d8	176. #	80. - 124.
VOA Surr, 4-BFB	140.	25. - 185.
VOA Surr, DBFM	81.	73. - 124.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A51183
Sample ID: MW-32
Project: 04-12-008

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.
8260 surrogates outside QC range due to sample matrix.
Toluene, Ethylbenene, Xylenes, and Naphthalene by 8260 should be considered estimated values above calibration range. Dilutions did not agree with original analysis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-008
Project Name: HANDY PANTRY#65
Sampler: JOSH KETCHUM

Lab Number: 05-A51184
Sample ID: MW-35
Sample Type: Soil
Site ID:

Date Collected: 3/30/05
Time Collected: 15:00
Date Received: 4/12/05
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	0.0315	mg/kg	0.0016	1.0	4/13/05	16:46	J. Adams	8260B	8867
Ethylbenzene	0.0575	mg/kg	0.0016	1.0	4/13/05	16:46	J. Adams	8260B	8867
Naphthalene	0.0152	mg/kg	0.00401	1.0	4/13/05	16:46	J. Adams	8260B	8867
Toluene	0.0811	mg/kg	0.0016	1.0	4/13/05	16:46	J. Adams	8260B	8867
Xylenes (Total)	0.144	mg/kg	0.0016	1.0	4/13/05	16:46	J. Adams	8260B	8867

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	6.23 g	5.0 ml	3/30/05	15:00	N. Noman	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	78.	72. - 125.
VOA Surr Toluene-d8	90.	80. - 124.
VOA Surr, 4-BFB	84.	25. - 185.
VOA Surr, DBFM	91.	73. - 124.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A51184
Sample ID: MW-35
Project: 04-12-008

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-008
Project Name: HANDY PANTRY#65
Sampler: JOSH KETCHUM

Lab Number: 05-A51185
Sample ID: MW-36
Sample Type: Soil
Site ID:

Date Collected: 3/30/05
Time Collected: 17:00
Date Received: 4/12/05
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	0.0198	mg/kg	0.0019	1.0	4/13/05	18:32	J. Yun	8260B	8725
Ethylbenzene	0.0245	mg/kg	0.0019	1.0	4/13/05	18:32	J. Yun	8260B	8725
Naphthalene	0.0117	mg/kg	0.00465	1.0	4/13/05	18:32	J. Yun	8260B	8725
Toluene	0.0527	mg/kg	0.0019	1.0	4/13/05	18:32	J. Yun	8260B	8725
Xylenes (Total)	0.0998	mg/kg	0.0019	1.0	4/13/05	18:32	J. Yun	8260B	8725

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	5.38 g	5.0 ml	3/30/05	17:00	N. Noman	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	99.	72. - 125.
VOA Surr Toluene-d8	95.	80. - 124.
VOA Surr, 4-BFB	100.	25. - 185.
VOA Surr, DBFM	107.	73. - 124.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A51185
Sample ID: MW-36
Project: 04-12-008

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-008
Project Name: HANDY PANTRY#65
Sampler: JOSH KETCHUM

Lab Number: 05-A51186
Sample ID: MW-34
Sample Type: Soil
Site ID:

Date Collected: 4/ 1/05
Time Collected: 13:00
Date Received: 4/12/05
Time Received: 8:30

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	mg/kg	0.0740	50.0	4/13/05	21:38	J. Adams	8260B	8870
Ethylbenzene	0.174	mg/kg	0.0740	50.0	4/13/05	21:38	J. Adams	8260B	8870
Naphthalene	ND	mg/kg	0.185	50.0	4/13/05	21:38	J. Adams	8260B	8870
Toluene	0.466	mg/kg	0.0740	50.0	4/13/05	21:38	J. Adams	8260B	8870
Xylenes (Total)	0.954	mg/kg	0.0740	50.0	4/13/05	21:38	J. Adams	8260B	8870

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	6.76 g	5.0 ml	4/ 1/05	13:00	N. Noman	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	75.	72. - 125.
VOA Surr Toluene-d8	92.	80. - 124.
VOA Surr, 4-BFB	85.	25. - 185.
VOA Surr, DBFM	87.	73. - 124.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A51186
Sample ID: MW-34
Project: 04-12-008

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-008
Project Name: HANDY PANTRY#65
Sampler: JOSH KETCHUM

Lab Number: 05-A51187
Sample ID: MW-37
Sample Type: Soil
Site ID:

Date Collected: 4/ 1/05
Time Collected: 15:00
Date Received: 4/12/05
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	0.100	mg/kg	0.0023	1.0	4/13/05	21:08	J. Yun	8260B	8725
Ethylbenzene	0.0722	mg/kg	0.0023	1.0	4/13/05	21:08	J. Yun	8260B	8725
Naphthalene	0.0347	mg/kg	0.00566	1.0	4/13/05	21:08	J. Yun	8260B	8725
Toluene	0.0661	mg/kg	0.0023	1.0	4/13/05	21:08	J. Yun	8260B	8725
Xylenes (Total)	0.111	mg/kg	0.0023	1.0	4/13/05	21:08	J. Yun	8260B	8725

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	4.42 g	5.0 ml	4/ 1/05	15:00	N. Noman	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	106.	72. - 125.
VOA Surr Toluene-d8	93.	80. - 124.
VOA Surr, 4-BFB	97.	25. - 185.
VOA Surr, DBFM	102.	73. - 124.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A51187
Sample ID: MW-37
Project: 04-12-008

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-008
Project Name: HANDY PANTRY#65
Sampler: JOSH KETCHUM

Lab Number: 05-A51188
Sample ID: MW-38
Sample Type: Soil
Site ID:

Date Collected: 4/ 4/05
Time Collected: 9:00
Date Received: 4/12/05
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	mg/kg	0.0019	1.0	4/13/05	19:00	J. Yun	8260B	8725
Ethylbenzene	ND	mg/kg	0.0019	1.0	4/13/05	19:00	J. Yun	8260B	8725
Naphthalene	ND	mg/kg	0.00471	1.0	4/13/05	19:00	J. Yun	8260B	8725
Toluene	ND	mg/kg	0.0019	1.0	4/13/05	19:00	J. Yun	8260B	8725
Xylenes (Total)	ND	mg/kg	0.0019	1.0	4/13/05	19:00	J. Yun	8260B	8725

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	5.31 g	5.0 ml	4/ 4/05	9:00	N. Noman	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	103.	72. - 125.
VOA Surr Toluene-d8	93.	80. - 124.
VOA Surr, 4-BFB	92.	25. - 185.
VOA Surr, DBFM	101.	73. - 124.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A51188
Sample ID: MW-38
Project: 04-12-008

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-008
Project Name: HANDY PANTRY#65
Sampler: JOSH KETCHUM

Lab Number: 05-A51189
Sample ID: MW-39
Sample Type: Soil
Site ID:

Date Collected: 4/ 4/05
Time Collected: 13:00
Date Received: 4/12/05
Time Received: 8:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	mg/kg	0.0021	1.0	4/13/05	20:12	J. Yun	8260B	8725
Ethylbenzene	ND	mg/kg	0.0021	1.0	4/13/05	20:12	J. Yun	8260B	8725
Naphthalene	0.0103	mg/kg	0.00523	1.0	4/13/05	20:12	J. Yun	8260B	8725
Toluene	0.0055	mg/kg	0.0021	1.0	4/13/05	20:12	J. Yun	8260B	8725
Xylenes (Total)	0.0050	mg/kg	0.0021	1.0	4/13/05	20:12	J. Yun	8260B	8725

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	4.78 g	5.0 ml	4/ 4/05	13:00	N. Noman	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	96.	72. - 125.
VOA Surr Toluene-d8	93.	80. - 124.
VOA Surr, 4-BFB	93.	25. - 185.
VOA Surr, DBFM	103.	73. - 124.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A51189
Sample ID: MW-39
Project: 04-12-008

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: 04-12-008
Project Name: HANDY PANTRY#65
Sampler: JOSH KETCHUM

Lab Number: 05-A51190
Sample ID: MW-41
Sample Type: Soil
Site ID:

Date Collected: 4/ 4/05
Time Collected: 11:00
Date Received: 4/12/05
Time Received: 8:30

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	0.121	mg/kg	0.0015	1.0	4/13/05	17:25	J. Adams	8260B	8867
Ethylbenzene	0.172	mg/kg	0.0733	50.0	4/13/05	21:57	J. Adams	8260B	8870
Naphthalene	0.0728	mg/kg	0.00367	1.0	4/13/05	17:25	J. Adams	8260B	8867
Toluene	0.660	mg/kg	0.0733	50.0	4/13/05	21:57	J. Adams	8260B	8870
Xylenes (Total)	0.693	mg/kg	0.0733	50.0	4/13/05	21:57	J. Adams	8260B	8870

Sample Extraction Data

Parameter	Wt/Vol Extracted	Extract Vol	Date	Time	Analyst	Method
Volatile Organics	6.82 g	5.0 ml	4/ 4/05	11:00	N. Noman	5035

Surrogate	% Recovery	Target Range
VOA Surr, 1,2-DCAd4	76.	72. - 125.
VOA Surr Toluene-d8	87.	80. - 124.
VOA Surr, 4-BFB	86.	25. - 185.
VOA Surr, DBFM	89.	73. - 124.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A51190
Sample ID: MW-41
Project: 04-12-008

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
All results reported on a wet weight basis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 04-12-008
Project Name: HANDY PANTRY#65
Page: 1
Laboratory Receipt Date: 4/12/05

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/kg	< 0.0008	0.0482	0.0500	96	53 - 136	8086	blank
Benzene	mg/kg	0.0027	0.0358	0.0500	66	53 - 136	8725	47967
Benzene	mg/kg	< 0.0008	0.0508	0.0500	102	53 - 136	8867	blank
Toluene	mg/kg	< 0.0005	0.0356	0.0500	71	43 - 139	8086	blank
Toluene	mg/kg	0.0054	0.0284	0.0500	46	43 - 139	8725	47967
Toluene	mg/kg	< 0.0005	0.0448	0.0500	90	43 - 139	8867	blank
VOA Surr, 1,2-DCAd4	% Rec				79	72 - 125	8086	
VOA Surr, 1,2-DCAd4	% Rec				97	72 - 125	8725	
VOA Surr, 1,2-DCAd4	% Rec				81	72 - 125	8867	
VOA Surr Toluene-d8	% Rec				82	80 - 124	8086	
VOA Surr Toluene-d8	% Rec				96	80 - 124	8725	
VOA Surr Toluene-d8	% Rec				82	80 - 124	8867	
VOA Surr, 4-BFB	% Rec				89	25 - 185	8086	
VOA Surr, 4-BFB	% Rec				100	25 - 185	8725	
VOA Surr, 4-BFB	% Rec				86	25 - 185	8867	
VOA Surr, DBFM	% Rec				89	73 - 124	8086	
VOA Surr, DBFM	% Rec				106	73 - 124	8725	
VOA Surr, DBFM	% Rec				92	73 - 124	8867	

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 04-12-008
Project Name: HANDY PANTRY#65

Laboratory Receipt Date: 4/12/05

VOA PARAMETERS						
Benzene	mg/kg	0.0482	0.0505	4.66	34.	8086
Benzene	mg/kg	0.0358	0.0294	19.63	34.	8725
Benzene	mg/kg	0.0508	0.0514	1.17	34.	8867
Toluene	mg/kg	0.0356	0.0455	24.41	39.	8086
Toluene	mg/kg	0.0284	0.0242	15.97	39.	8725
Toluene	mg/kg	0.0448	0.0431	3.87	39.	8867
VOA Surr, 1,2-DCAd4	% Rec		83.			8086
VOA Surr, 1,2-DCAd4	% Rec		101.			8725
VOA Surr, 1,2-DCAd4	% Rec		79.			8867
VOA Surr Toluene-d8	% Rec		90.			8086
VOA Surr Toluene-d8	% Rec		96.			8725
VOA Surr Toluene-d8	% Rec		81.			8867
VOA Surr, 4-BFB	% Rec		84.			8086
VOA Surr, 4-BFB	% Rec		120.			8725
VOA Surr, 4-BFB	% Rec		85.			8867
VOA Surr, DBFM	% Rec		93.			8086
VOA Surr, DBFM	% Rec		113.			8725
VOA Surr, DBFM	% Rec		94.			8867

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/kg	0.0500	0.0470	94	76 - 124	8086
Benzene	mg/kg	0.0500	0.0460	92	76 - 124	8725
Benzene	mg/kg	0.0500	0.0544	109	76 - 124	8867
Ethylbenzene	mg/kg	0.0500	0.0504	101	70 - 128	8086
Ethylbenzene	mg/kg	0.0500	0.0442	88	70 - 128	8725
Ethylbenzene	mg/kg	0.0500	0.0529	106	70 - 128	8867
Naphthalene	mg/kg	0.0500	0.0580	116	59 - 152	8086
Naphthalene	mg/kg	0.0500	0.0477	95	59 - 152	8725

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 04-12-008
Project Name: HANDY PANTRY#65

Laboratory Receipt Date: 4/12/05

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Naphthalene	mg/kg	0.0500	0.0530	106	59 - 152	8867
Toluene	mg/kg	0.0500	0.0484	97	72 - 125	8086
Toluene	mg/kg	0.0500	0.0411	82	72 - 125	8725
Toluene	mg/kg	0.0500	0.0511	102	72 - 125	8867
Xylenes (Total)	mg/kg	0.150	0.152	101	71 - 129	8086
Xylenes (Total)	mg/kg	0.150	0.126	84	71 - 129	8725
Xylenes (Total)	mg/kg	0.150	0.159	106	71 - 129	8867
VOA Surr, 1,2-DCAd4	% Rec			75	72 - 125	8086
VOA Surr, 1,2-DCAd4	% Rec			96	72 - 125	8725
VOA Surr, 1,2-DCAd4	% Rec			81	72 - 125	8867
VOA Surr Toluene-d8	% Rec			91	80 - 124	8086
VOA Surr Toluene-d8	% Rec			95	80 - 124	8725
VOA Surr Toluene-d8	% Rec			94	80 - 124	8867
VOA Surr, 4-BFB	% Rec			84	25 - 185	8086
VOA Surr, 4-BFB	% Rec			99	25 - 185	8725
VOA Surr, 4-BFB	% Rec			86	25 - 185	8867
VOA Surr, DBFM	% Rec			85	73 - 124	8086
VOA Surr, DBFM	% Rec			109	73 - 124	8725
VOA Surr, DBFM	% Rec			89	73 - 124	8867

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 04-12-008
Project Name: HANDY PANTRY#65

Laboratory Receipt Date: 4/12/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Benzene	< 0.0008	mg/kg	8086	4/12/05	19:09
Benzene	< 0.0008	mg/kg	8725	4/13/05	13:04
Benzene	< 0.0008	mg/kg	8867	4/13/05	13:51
Ethylbenzene	< 0.0005	mg/kg	8086	4/12/05	19:09
Ethylbenzene	< 0.0005	mg/kg	8725	4/13/05	13:04
Ethylbenzene	< 0.0005	mg/kg	8867	4/13/05	13:51
Naphthalene	< 0.00130	mg/kg	8086	4/12/05	19:09
Naphthalene	< 0.00130	mg/kg	8725	4/13/05	13:04
Naphthalene	< 0.00130	mg/kg	8867	4/13/05	13:51
Toluene	< 0.0005	mg/kg	8086	4/12/05	19:09
Toluene	< 0.0005	mg/kg	8725	4/13/05	13:04
Toluene	< 0.0005	mg/kg	8867	4/13/05	13:51
Xylenes (Total)	< 0.0013	mg/kg	8086	4/12/05	19:09
Xylenes (Total)	< 0.0013	mg/kg	8725	4/13/05	13:04
Xylenes (Total)	< 0.0013	mg/kg	8867	4/13/05	13:51
VOA Surr, 1,2-DCAd4	88.	% Rec	8086	4/12/05	19:09
VOA Surr, 1,2-DCAd4	94.	% Rec	8725	4/13/05	13:04
VOA Surr, 1,2-DCAd4	76.	% Rec	8867	4/13/05	13:51
VOA Surr Toluene-d8	94.	% Rec	8086	4/12/05	19:09
VOA Surr Toluene-d8	97.	% Rec	8725	4/13/05	13:04
VOA Surr Toluene-d8	89.	% Rec	8867	4/13/05	13:51
VOA Surr, 4-BFB	87.	% Rec	8086	4/12/05	19:09
VOA Surr, 4-BFB	98.	% Rec	8725	4/13/05	13:04
VOA Surr, 4-BFB	85.	% Rec	8867	4/13/05	13:51
VOA Surr, DBFM	92.	% Rec	8086	4/12/05	19:09
VOA Surr, DBFM	106.	% Rec	8725	4/13/05	13:04
VOA Surr, DBFM	82.	% Rec	8867	4/13/05	13:51

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 04-12-008
Project Name: HANDY PANTRY#65
Page: 5
Laboratory Receipt Date: 4/12/05

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 412408

41[redacted]519

Testamerica
ANALYTICAL TESTING CORPORATION

TESTAMERICA, INC.
ATLANTA SERVICE CENTER

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: ConsulTech Environmental Client #: 2628
Address: 1800 MacLeod Dr Suite F
City/State/Zip Code: Lawrenceville, GA 30043
Project Manager: Jim Wilson
Telephone Number: 678 377 0402 Fax: 678 377 0051
Sampler Name: (Print Name) Bob Robinson
Sampler Signature:

Project Name: ~~Honky Pooky #65~~, Former Clouds Chevron
Project #: C-04-12-009
Site/Location ID: Columbia State: SC
Report To: Jim Wilson
Invoice To:
Quote #: _____ PO#: _____

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX, MTBE, VOA 1,2 DCA 8260B	EDB 8011	8260B Oxygenates	Total Lead	REMARKS
MW-1	4/19/05	1515	G	N	GW	1	4						3	2	2	1	05A 56063
MW-2		1600															64
MW-3		1615															65
MW-4		1630															66
MW-5		1645															67
MW-6		1700															68
MW-7		1715															69
MW-8		1730															70
MW-9		1745															71
MW-10		1800															56072

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

	Date:	Time:		Date:	Time:
Relinquished By:	4/20/05	1730	Received By:		
Relinquished By:			Received By:		
Relinquished By:			Received By:	4/21/05	07:45

413519

TestAmerica
ANALYTICAL TESTING CORPORATION

TESTAMERICA, INC.
ATLANTA SERVICE CENTER

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Consultech Environmental Client #: 2628
Address: 1800 Macleod Dr. Suite F
City/State/Zip Code: Lawrenceville, GA 30043
Project Manager: Jim Wilson
Telephone Number: 678 377-0400 Fax: 678 377-0051
Sampler Name: (Print Name) Rob Robinson
Sampler Signature:

Project Name: Former Clouds Chevron
Project #: C-04-12-009
Site/Location ID: Columbia State: SC
Report To: Jim Wilson
Invoice To:
Quote #: PO#:

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, WW - Wastewater, S - Soil/Solid, Specify Other	Preservation & # of Containers: HNO3	HCl	NaOH	H2SO4	Methanol	None	Other (Specify)	Analyze For: BTEX, MTBE, 1,2 DCA 8260B	EDB 8011	8260 Oxygenates	Total Lead	QC Deliverables	REMARKS
MW-15	4/20/05	830	G	No	GW	1	1						3	2	2	1		560073
DW1	↓	1400	↓	↓	↓	1	1						3	2	2	1		74
DW2	↓	1415	↓	↓	↓	1	1						3	2	2	1		560075

QC Deliverables: ___ None; ___ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: _____

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

	Date:	Time:		Date:	Time:
Relinquished By:	4/20/05	1730	Received By:		
Relinquished By:			Received By:		
Relinquished By:			Received By:	4-21-05	07:45

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

4/28/05

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: FORMER CLOUDS CHEVRON
Project Number: C-04-12-009.
Laboratory Project Number: 413519.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Collection Date
MW-1	05-A56063	4/19/05
MW-2	05-A56064	4/19/05
MW-3	05-A56065	4/19/05
MW-4	05-A56066	4/19/05
MW-5	05-A56067	4/19/05
MW-6	05-A56068	4/19/05
MW-7	05-A56069	4/19/05
MW-8	05-A56070	4/19/05
MW-9	05-A56071	4/19/05
MW-10	05-A56072	4/19/05
MW-15	05-A56073	4/20/05
DW-1	05-A56074	4/20/05
DW-2	05-A56075	4/20/05

A2LA certification number 0453.07 for analysis of wastewater and solid/hazardous waste.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

NELAC/Florida certification number E87358 for analysis of environmental water, soil/hazardous waste, and drinking water effective 07/01/99-06/30/05.

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: Roxanne L Connor Report Date: 4/28/05

Johnny A. Mitchell, Laboratory Director
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Senior Project Manager
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Senior Project Manager
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Senior Project Manag

Laboratory Certification Number: 84009

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: BOB ROBINSON

Lab Number: 05-A56063
Sample ID: MW-1
Sample Type: Ground water
Site ID:

Date Collected: 4/19/05
Time Collected: 15:45
Date Received: 4/21/05
Time Received: 7:45

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/l	1.0	1	4/22/05	14:57	S. Udeze	8260B	8935
tert-amyl methyl ether	ND	ug/L	1.0	1	4/22/05	14:57	S. Udeze	8260B	8935
Tertiary butyl alcohol	45.4	ug/l	10.0	1	4/22/05	14:57	S. Udeze	8260B	8935
Benzene	ND	ug/l	1.0	1	4/22/05	14:57	S. Udeze	8260B	8935
1,2-Dichloroethane	ND	ug/l	1.00	1	4/22/05	14:57	S. Udeze	8260B	8935
Ethylbenzene	ND	ug/l	1.0	1	4/22/05	14:57	S. Udeze	8260B	8935
Naphthalene	ND	ug/l	5.00	1	4/22/05	14:57	S. Udeze	8260B	8935
Toluene	ND	ug/l	1.0	1	4/22/05	14:57	S. Udeze	8260B	8935
Xylenes (Total)	ND	ug/l	1.0	1	4/22/05	14:57	S. Udeze	8260B	8935
Ethanol	ND	ug/L	100.	1	4/22/05	14:57	S. Udeze	8260B	8935
Methyl-t-butyl ether	ND	ug/l	1.0	1	4/22/05	14:57	S. Udeze	8260B	8935
t-Amyl Alcohol	56.4	ug/L	10.0	1	4/22/05	14:57	S. Udeze	8260B	8935
t-Butyl Formate	ND	ug/L	10.0	1	4/22/05	14:57	S. Udeze	8260B	8935
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1	4/22/05	14:57	S. Udeze	8260B	8935
Diisopropyl ether	ND	ug/l	5.00	1	4/22/05	14:57	S. Udeze	8260/SA05-77	8935
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1	4/28/05	9:42	M. Ricke	8011	5583
METALS									
Lead	ND	ug/l	5.0	1	4/22/05	16:50	K. Ahmed	6010B	5983

Surrogate	% Recovery	Target Range

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56063
Sample ID: MW-1
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	108.	70. - 130.
VOA Surr Toluene-d8	105.	78. - 121.
VOA Surr, 4-BFB	103.	78. - 126.
VOA Surr, DBFM	104.	79. - 122.
Surr., 1,3-DCB	110.	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: BOB ROBINSON

Lab Number: 05-A56064
Sample ID: MW-2
Sample Type: Ground water
Site ID:

Date Collected: 4/19/05
Time Collected: 16:00
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/l	1.0	1	4/22/05	15:50	S. Udeze	8260B	8935
tert-amyl methyl ether	114.	ug/L	1.0	1	4/22/05	15:50	S. Udeze	8260B	8935
Tertiary butyl alcohol	1380	ug/l	10.0	1	4/22/05	15:50	S. Udeze	8260B	8935
Benzene	4230	ug/l	100.	100	4/23/05	14:46	S. Udeze	8260B	8966
1,2-Dichloroethane	ND	ug/l	1.00	1	4/22/05	15:50	S. Udeze	8260B	8935
Ethylbenzene	1250	ug/l	100.	100	4/23/05	14:46	S. Udeze	8260B	8966
Naphthalene	1410	ug/l	50.0	10	4/22/05	16:16	S. Udeze	8260B	8954
Toluene	9910	ug/l	100.	100	4/23/05	14:46	S. Udeze	8260B	8966
Xylenes (Total)	8540	ug/l	100.	100	4/23/05	14:46	S. Udeze	8260B	8966
Ethanol	ND	ug/L	100.	1	4/22/05	15:50	S. Udeze	8260B	8935
Methyl-t-butyl ether	4910	ug/l	100.	100	4/23/05	14:46	S. Udeze	8260B	8966
t-Amyl Alcohol	11000	ug/L	100.	10	4/22/05	16:16	S. Udeze	8260B	8954
t-Butyl Formate	ND	ug/L	10.0	1	4/22/05	15:50	S. Udeze	8260B	8935
Ethyl-t-butyl alcohol	1650	ug/L	100.	10	4/22/05	16:16	S. Udeze	8260B	8954
Diisopropyl ether	319.	ug/l	50.0	10	4/22/05	16:16	S. Udeze	8260/SA05-77	8954
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1	4/28/05	10:02	M. Ricke	8011	5583
METALS									
Lead	211.	ug/l	5.0	1	4/22/05	16:50	K. Ahmed	6010B	5983

Surrogate	% Recovery	Target Range

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56064
Sample ID: MW-2
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	108.	70. - 130.
VOA Surr Toluene-d8	105.	78. - 121.
VOA Surr, 4-BFB	107.	78. - 126.
VOA Surr, DBFM	103.	79. - 122.
Surr., 1,3-DCB	86.0	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: BOB ROBINSON

Lab Number: 05-A56065
Sample ID: MW-3
Sample Type: Ground water
Site ID:

Date Collected: 4/19/05
Time Collected: 16:15
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/l	5.0	5	4/22/05	17:34	S. Udeze	8260B	8935
tert-amyl methyl ether	120.	ug/L	5.0	5	4/22/05	17:34	S. Udeze	8260B	8935
Tertiary butyl alcohol	1200	ug/l	50.0	5	4/22/05	17:34	S. Udeze	8260B	8935
Benzene	5620	ug/l	100.	100	4/23/05	15:14	S. Udeze	8260B	8966
1,2-Dichloroethane	ND	ug/l	5.00	5	4/22/05	17:34	S. Udeze	8260B	8935
Ethylbenzene	2940	ug/l	20.0	20	4/22/05	18:00	S. Udeze	8260B	8954
Naphthalene	910.	ug/l	25.0	5	4/22/05	17:34	S. Udeze	8260B	8935
Toluene	14200	ug/l	100.	100	4/23/05	15:14	S. Udeze	8260B	8966
Xylenes (Total)	7530	ug/l	100.	100	4/23/05	15:14	S. Udeze	8260B	8966
Ethanol	ND	ug/L	500.	5	4/22/05	17:34	S. Udeze	8260B	8935
Methyl-t-butyl ether	10900	ug/l	100.	100	4/23/05	15:14	S. Udeze	8260B	8966
t-Amyl Alcohol	15200	ug/L	200.	20	4/22/05	18:00	S. Udeze	8260B	8954
t-Butyl Formate	ND	ug/L	50.0	5	4/22/05	17:34	S. Udeze	8260B	8935
Ethyl-t-butyl alcohol	2490	ug/L	50.0	5	4/22/05	17:34	S. Udeze	8260B	8935
Diisopropyl ether	810.	ug/l	25.0	5	4/22/05	17:34	S. Udeze	8260/SA05-77	8935
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1	4/28/05	10:21	M. Ricke	8011	5583
METALS									
Lead	1050	ug/l	5.0	1	4/22/05	16:50	K. Ahmed	6010B	5983

Surrogate	% Recovery	Target Range

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56065
Sample ID: MW-3
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	108.	70. - 130.
VOA Surr Toluene-d8	106.	78. - 121.
VOA Surr, 4-BFB	108.	78. - 126.
VOA Surr, DBFM	101.	79. - 122.
Surr., 1,3-DCB	110.	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
8260 PQL's elevated due to sample matrix.
Analysis at a lower dilution did not meet method QC requirements.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: BOB ROBINSON

Lab Number: 05-A56066
Sample ID: MW-4
Sample Type: Ground water
Site ID:

Date Collected: 4/19/05
Time Collected: 16:30
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/l	1.0	1	4/22/05	12:46	S. Udeze	8260B	8935
tert-amyl methyl ether	ND	ug/L	1.0	1	4/22/05	12:46	S. Udeze	8260B	8935
Tertiary butyl alcohol	ND	ug/l	10.0	1	4/22/05	12:46	S. Udeze	8260B	8935
Benzene	ND	ug/l	1.0	1	4/22/05	12:46	S. Udeze	8260B	8935
1,2-Dichloroethane	ND	ug/l	1.00	1	4/22/05	12:46	S. Udeze	8260B	8935
Ethylbenzene	ND	ug/l	1.0	1	4/22/05	12:46	S. Udeze	8260B	8935
Naphthalene	ND	ug/l	5.00	1	4/22/05	12:46	S. Udeze	8260B	8935
Toluene	ND	ug/l	1.0	1	4/22/05	12:46	S. Udeze	8260B	8935
Xylenes (Total)	ND	ug/l	1.0	1	4/22/05	12:46	S. Udeze	8260B	8935
Ethanol	ND	ug/L	100.	1	4/22/05	12:46	S. Udeze	8260B	8935
Methyl-t-butyl ether	2.6	ug/l	1.0	1	4/22/05	12:46	S. Udeze	8260B	8935
t-Amyl Alcohol	ND	ug/L	10.0	1	4/22/05	12:46	S. Udeze	8260B	8935
t-Butyl Formate	ND	ug/L	10.0	1	4/22/05	12:46	S. Udeze	8260B	8935
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1	4/22/05	12:46	S. Udeze	8260B	8935
Diisopropyl ether	ND	ug/l	5.00	1	4/22/05	12:46	S. Udeze	8260/SA05-77	8935
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1	4/26/05	18:36	M. Ricke	8011	6586
METALS									
Lead	ND	ug/l	5.0	1	4/22/05	16:50	K. Ahmed	6010B	5983

Surrogate	% Recovery	Target Range

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56066
Sample ID: MW-4
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	104.	70. - 130.
VOA Surr Toluene-d8	102.	78. - 121.
VOA Surr, 4-BFB	104.	78. - 126.
VOA Surr, DBFM	101.	79. - 122.
Surr., 1,3-DCB	109.	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: BOB ROBINSON

Lab Number: 05-A56067
Sample ID: MW-5
Sample Type: Ground water
Site ID:

Date Collected: 4/19/05
Time Collected: 16:45
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/l	1.0	1	4/22/05	18:27	S. Udeze	8260B	8935
tert-amyl methyl ether	ND	ug/L	1.0	1	4/22/05	18:27	S. Udeze	8260B	8935
Tertiary butyl alcohol	ND	ug/l	10.0	1	4/22/05	18:27	S. Udeze	8260B	8935
Benzene	1140	ug/l	10.0	10	4/22/05	18:53	S. Udeze	8260B	8954
1,2-Dichloroethane	ND	ug/l	1.00	1	4/22/05	18:27	S. Udeze	8260B	8935
Ethylbenzene	1940	ug/l	50.0	50	4/23/05	15:40	S. Udeze	8260B	8966
Naphthalene	570.	ug/l	250.	50	4/23/05	15:40	S. Udeze	8260B	8966
Toluene	4790	ug/l	50.0	50	4/23/05	15:40	S. Udeze	8260B	8966
Xylenes (Total)	10400	ug/l	50.0	50	4/23/05	15:40	S. Udeze	8260B	8966
Ethanol	ND	ug/L	100.	1	4/22/05	18:27	S. Udeze	8260B	8935
Methyl-t-butyl ether	13.0	ug/l	1.0	1	4/22/05	18:27	S. Udeze	8260B	8935
t-Amyl Alcohol	920.	ug/L	10.0	1	4/22/05	18:27	S. Udeze	8260B	8935
t-Butyl Formate	ND	ug/L	10.0	1	4/22/05	18:27	S. Udeze	8260B	8935
Ethyl-t-butyl alcohol	558.	ug/L	10.0	1	4/22/05	18:27	S. Udeze	8260B	8935
Diisopropyl ether	ND	ug/l	5.00	1	4/22/05	18:27	S. Udeze	8260/SA05-77	8935
VOLATILE ORGANICS by GC									
Ethylene Dibromide	2.81	ug/l	0.39	20	4/26/05	18:55	M. Ricke	8011	6586
METALS									
Lead	289.	ug/l	5.0	1	4/22/05	16:50	K. Ahmed	6010B	5983

Surrogate	% Recovery	Target Range

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56067
Sample ID: MW-5
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	108.	70. - 130.
VOA Surr Toluene-d8	107.	78. - 121.
VOA Surr, 4-BFB	107.	78. - 126.
VOA Surr, DBFM	102.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
EDB 8011 surrogate diluted out due to sample matrix.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: BOB ROBINSON

Lab Number: 05-A56068
Sample ID: MW-6
Sample Type: Ground water
Site ID:

Date Collected: 4/19/05
Time Collected: 17:00
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/l	1.0	1	4/22/05	15:23	S. Udeze	8260B	8935
tert-amyl methyl ether	ND	ug/L	1.0	1	4/22/05	15:23	S. Udeze	8260B	8935
Tertiary butyl alcohol	38.5	ug/l	10.0	1	4/22/05	15:23	S. Udeze	8260B	8935
Benzene	16.1	ug/l	1.0	1	4/22/05	15:23	S. Udeze	8260B	8935
1,2-Dichloroethane	ND	ug/l	1.00	1	4/22/05	15:23	S. Udeze	8260B	8935
Ethylbenzene	ND	ug/l	1.0	1	4/22/05	15:23	S. Udeze	8260B	8935
Naphthalene	7.10	ug/l	5.00	1	4/22/05	15:23	S. Udeze	8260B	8935
Toluene	1.5	ug/l	1.0	1	4/22/05	15:23	S. Udeze	8260B	8935
Xylenes (Total)	119.	ug/l	1.0	1	4/22/05	15:23	S. Udeze	8260B	8935
Ethanol	ND	ug/L	100.	1	4/22/05	15:23	S. Udeze	8260B	8935
Methyl-t-butyl ether	ND	ug/l	1.0	1	4/22/05	15:23	S. Udeze	8260B	8935
t-Amyl Alcohol	391.	ug/L	10.0	1	4/22/05	15:23	S. Udeze	8260B	8935
t-Butyl Formate	ND	ug/L	10.0	1	4/22/05	15:23	S. Udeze	8260B	8935
Ethyl-t-butyl alcohol	104.	ug/L	10.0	1	4/22/05	15:23	S. Udeze	8260B	8935
Diisopropyl ether	ND	ug/l	5.00	1	4/22/05	15:23	S. Udeze	8260/SA05-77	8935
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1	4/26/05	21:51	M. Ricke	8011	6586
METALS									
Lead	5.6	ug/l	5.0	1	4/22/05	16:50	K. Ahmed	6010B	5983

Surrogate	% Recovery	Target Range

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56068
Sample ID: MW-6
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	107.	70. - 130.
VOA Surr Toluene-d8	105.	78. - 121.
VOA Surr, 4-BFB	104.	78. - 126.
VOA Surr, DBFM	102.	79. - 122.
Surr., 1,3-DCB	106.	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: BOB ROBINSON

Lab Number: 05-A56069
Sample ID: MW-7
Sample Type: Ground water
Site ID:

Date Collected: 4/19/05
Time Collected: 17:15
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/l	1.0	1	4/22/05	13:12	S. Udeze	8260B	8935
tert-amyl methyl ether	ND	ug/L	1.0	1	4/22/05	13:12	S. Udeze	8260B	8935
Tertiary butyl alcohol	ND	ug/l	10.0	1	4/22/05	13:12	S. Udeze	8260B	8935
Benzene	ND	ug/l	1.0	1	4/22/05	13:12	S. Udeze	8260B	8935
1,2-Dichloroethane	ND	ug/l	1.00	1	4/22/05	13:12	S. Udeze	8260B	8935
Ethylbenzene	ND	ug/l	1.0	1	4/22/05	13:12	S. Udeze	8260B	8935
Naphthalene	ND	ug/l	5.00	1	4/22/05	13:12	S. Udeze	8260B	8935
Toluene	ND	ug/l	1.0	1	4/22/05	13:12	S. Udeze	8260B	8935
Xylenes (Total)	ND	ug/l	1.0	1	4/22/05	13:12	S. Udeze	8260B	8935
Ethanol	ND	ug/L	100.	1	4/22/05	13:12	S. Udeze	8260B	8935
Methyl-t-butyl ether	ND	ug/l	1.0	1	4/22/05	13:12	S. Udeze	8260B	8935
t-Amyl Alcohol	ND	ug/L	10.0	1	4/22/05	13:12	S. Udeze	8260B	8935
t-Butyl Formate	ND	ug/L	10.0	1	4/22/05	13:12	S. Udeze	8260B	8935
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1	4/22/05	13:12	S. Udeze	8260B	8935
Diisopropyl ether	ND	ug/l	5.00	1	4/22/05	13:12	S. Udeze	8260/SA05-77	8935
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1	4/26/05	19:34	M. Ricke	8011	6586
METALS									
Lead	8.6	ug/l	5.0	1	4/22/05	16:50	K. Ahmed	6010B	5983

Surrogate	% Recovery	Target Range

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56069
Sample ID: MW-7
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	107.	70. - 130.
VOA Surr Toluene-d8	104.	78. - 121.
VOA Surr, 4-BFB	107.	78. - 126.
VOA Surr, DBFM	102.	79. - 122.
Surr., 1,3-DCB	89.0	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: BOB ROBINSON

Lab Number: 05-A56070
Sample ID: MW-8
Sample Type: Ground water
Site ID:

Date Collected: 4/19/05
Time Collected: 17:30
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/l	1.0	1	4/22/05	13:39	S. Udeze	8260B	8935
tert-amyl methyl ether	ND	ug/L	1.0	1	4/22/05	13:39	S. Udeze	8260B	8935
Tertiary butyl alcohol	ND	ug/l	10.0	1	4/22/05	13:39	S. Udeze	8260B	8935
Benzene	ND	ug/l	1.0	1	4/22/05	13:39	S. Udeze	8260B	8935
1,2-Dichloroethane	ND	ug/l	1.00	1	4/22/05	13:39	S. Udeze	8260B	8935
Ethylbenzene	ND	ug/l	1.0	1	4/22/05	13:39	S. Udeze	8260B	8935
Naphthalene	ND	ug/l	5.00	1	4/22/05	13:39	S. Udeze	8260B	8935
Toluene	ND	ug/l	1.0	1	4/22/05	13:39	S. Udeze	8260B	8935
Xylenes (Total)	ND	ug/l	1.0	1	4/22/05	13:39	S. Udeze	8260B	8935
Ethanol	ND	ug/L	100.	1	4/22/05	13:39	S. Udeze	8260B	8935
Methyl-t-butyl ether	ND	ug/l	1.0	1	4/22/05	13:39	S. Udeze	8260B	8935
t-Amyl Alcohol	ND	ug/L	10.0	1	4/22/05	13:39	S. Udeze	8260B	8935
t-Butyl Formate	ND	ug/L	10.0	1	4/22/05	13:39	S. Udeze	8260B	8935
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1	4/22/05	13:39	S. Udeze	8260B	8935
Diisopropyl ether	ND	ug/l	5.00	1	4/22/05	13:39	S. Udeze	8260/SA05-77	8935
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1	4/26/05	19:54	M. Ricke	8011	6586
METALS									
Lead	ND	ug/l	5.0	1	4/22/05	16:50	K. Ahmed	6010B	5983

Surrogate	% Recovery	Target Range

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56070
Sample ID: MW-8
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	105.	70. - 130.
VOA Surr Toluene-d8	101.	78. - 121.
VOA Surr, 4-BFB	108.	78. - 126.
VOA Surr, DBFM	102.	79. - 122.
Surr., 1,3-DCB	111.	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: BOB ROBINSON

Lab Number: 05-A56071
Sample ID: MW-9
Sample Type: Ground water
Site ID:

Date Collected: 4/19/05
Time Collected: 17:45
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/l	1.0	1	4/22/05	19:19	S. Udeze	8260B	8935
tert-amyl methyl ether	17.3	ug/L	1.0	1	4/22/05	19:19	S. Udeze	8260B	8935
Tertiary butyl alcohol	130.	ug/l	10.0	1	4/22/05	19:19	S. Udeze	8260B	8935
Benzene	2280	ug/l	100.	100	4/23/05	16:10	S. Udeze	8260B	8966
1,2-Dichloroethane	ND	ug/l	1.00	1	4/22/05	19:19	S. Udeze	8260B	8935
Ethylbenzene	773.	ug/l	10.0	10	4/22/05	19:45	S. Udeze	8260B	8954
Naphthalene	900.	ug/l	500.	100	4/23/05	16:10	S. Udeze	8260B	8966
Toluene	9010	ug/l	100.	100	4/23/05	16:10	S. Udeze	8260B	8966
Xylenes (Total)	5230	ug/l	100.	100	4/23/05	16:10	S. Udeze	8260B	8966
Ethanol	ND	ug/L	100.	1	4/22/05	19:19	S. Udeze	8260B	8935
Methyl-t-butyl ether	34.3	ug/l	1.0	1	4/22/05	19:19	S. Udeze	8260B	8935
t-Amyl Alcohol	3950	ug/L	100.	10	4/22/05	19:45	S. Udeze	8260B	8954
t-Butyl Formate	ND	ug/L	10.0	1	4/22/05	19:19	S. Udeze	8260B	8935
Ethyl-t-butyl alcohol	463.	ug/L	10.0	1	4/22/05	19:19	S. Udeze	8260B	8935
Diisopropyl ether	120.	ug/l	5.00	1	4/22/05	19:19	S. Udeze	8260/SA05-77	8935
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1	4/26/05	20:33	M. Ricke	8011	6586
METALS									
Lead	29.0	ug/l	5.0	1	4/22/05	16:50	K. Ahmed	6010B	5983

Surrogate	% Recovery	Target Range

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56071
Sample ID: MW-9
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	108.	70. - 130.
VOA Surr Toluene-d8	106.	78. - 121.
VOA Surr, 4-BFB	110.	78. - 126.
VOA Surr, DBFM	100.	79. - 122.
Surr., 1,3-DCB	100.	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: BOB ROBINSON

Lab Number: 05-A56072
Sample ID: MW-10
Sample Type: Ground water
Site ID:

Date Collected: 4/19/05
Time Collected: 18:00
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/l	20.0	20	4/27/05	6:32	S. Udeze	8260B	8972
tert-amyl methyl ether	300.	ug/L	20.0	20	4/27/05	6:32	S. Udeze	8260B	8972
Tertiary butyl alcohol	834.	ug/l	200.	20	4/27/05	6:32	S. Udeze	8260B	8972
Benzene	6200	ug/l	500.	500	4/27/05	6:58	S. Udeze	8260B	680
1,2-Dichloroethane	422.	ug/l	20.0	20	4/27/05	6:32	S. Udeze	8260B	8972
Ethylbenzene	3320	ug/l	20.0	20	4/27/05	6:32	S. Udeze	8260B	8972
Naphthalene	1440	ug/l	100.	20	4/27/05	6:32	S. Udeze	8260B	8972
Toluene	23800	ug/l	500.	500	4/27/05	6:58	S. Udeze	8260B	680
Xylenes (Total)	33200	ug/l	500.	500	4/27/05	6:58	S. Udeze	8260B	680
Ethanol	ND	ug/L	2000	20	4/27/05	6:32	S. Udeze	8260B	8972
Methyl-t-butyl ether	890.	ug/l	20.0	20	4/27/05	6:32	S. Udeze	8260B	8972
t-Amyl Alcohol	22400	ug/L	200.	20	4/27/05	6:32	S. Udeze	8260B	8972
t-Butyl Formate	ND	ug/L	200.	20	4/27/05	6:32	S. Udeze	8260B	8972
Ethyl-t-butyl alcohol	4180	ug/L	200.	20	4/27/05	6:32	S. Udeze	8260B	8972
Diisopropyl ether	2280	ug/l	100.	20	4/27/05	6:32	S. Udeze	8260/SA05-77	8972
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1	4/26/05	20:52	M. Ricke	8011	6586
METALS									
Lead	ND	ug/l	5.0	1	4/22/05	16:50	K. Ahmed	6010B	5983

Surrogate	% Recovery	Target Range

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56072
Sample ID: MW-10
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	114.	70. - 130.
VOA Surr Toluene-d8	106.	78. - 121.
VOA Surr, 4-BFB	112.	78. - 126.
VOA Surr, DBFM	108.	79. - 122.
Surr., 1,3-DCB	97.0	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
8260 PQL's elevated due to sample matrix.
Analysis at a lower dilution did not meet method QC requirements.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: BOB ROBINSON

Lab Number: 05-A56073
Sample ID: MW-15
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 8:30
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/l	1.0	1	4/22/05	16:42	S. Udeze	8260B	8935
tert-amyl methyl ether	ND	ug/L	1.0	1	4/22/05	16:42	S. Udeze	8260B	8935
Tertiary butyl alcohol	36.3	ug/l	10.0	1	4/22/05	16:42	S. Udeze	8260B	8935
Benzene	565.	ug/l	10.0	10	4/22/05	17:08	S. Udeze	8260B	8954
1,2-Dichloroethane	ND	ug/l	1.00	1	4/22/05	16:42	S. Udeze	8260B	8935
Ethylbenzene	617.	ug/l	10.0	10	4/22/05	17:08	S. Udeze	8260B	8954
Naphthalene	859.	ug/l	50.0	10	4/22/05	17:08	S. Udeze	8260B	8954
Toluene	1950	ug/l	100.	100	4/23/05	16:37	S. Udeze	8260B	8966
Xylenes (Total)	3760	ug/l	10.0	10	4/22/05	17:08	S. Udeze	8260B	8954
Ethanol	ND	ug/L	100.	1	4/22/05	16:42	S. Udeze	8260B	8935
Methyl-t-butyl ether	5.6	ug/l	1.0	1	4/22/05	16:42	S. Udeze	8260B	8935
t-Amyl Alcohol	957.	ug/L	10.0	1	4/22/05	16:42	S. Udeze	8260B	8935
t-Butyl Formate	ND	ug/L	10.0	1	4/22/05	16:42	S. Udeze	8260B	8935
Ethyl-t-butyl alcohol	192.	ug/L	10.0	1	4/22/05	16:42	S. Udeze	8260B	8935
Diisopropyl ether	ND	ug/l	5.00	1	4/22/05	16:42	S. Udeze	8260/SA05-77	8935
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1	4/26/05	21:12	M. Ricke	8011	6586
METALS									
Lead	ND	ug/l	5.0	1	4/22/05	16:50	K. Ahmed	6010B	5983

Surrogate	% Recovery	Target Range

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56073
Sample ID: MW-15
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	107.	70. - 130.
VOA Surr Toluene-d8	105.	78. - 121.
VOA Surr, 4-BFB	107.	78. - 126.
VOA Surr, DBFM	103.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
EDB 8011 surrogate not reported due to sample matrix interference.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: BOB ROBINSON

Lab Number: 05-A56074
Sample ID: DW-1
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 14:00
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/l	1.0	1	4/22/05	14:05	S. Udeze	8260B	8935
tert-amyl methyl ether	ND	ug/L	1.0	1	4/22/05	14:05	S. Udeze	8260B	8935
Tertiary butyl alcohol	ND	ug/l	10.0	1	4/22/05	14:05	S. Udeze	8260B	8935
Benzene	ND	ug/l	1.0	1	4/22/05	14:05	S. Udeze	8260B	8935
1,2-Dichloroethane	ND	ug/l	1.00	1	4/22/05	14:05	S. Udeze	8260B	8935
Ethylbenzene	ND	ug/l	1.0	1	4/22/05	14:05	S. Udeze	8260B	8935
Naphthalene	ND	ug/l	5.00	1	4/22/05	14:05	S. Udeze	8260B	8935
Toluene	ND	ug/l	1.0	1	4/22/05	14:05	S. Udeze	8260B	8935
Xylenes (Total)	ND	ug/l	1.0	1	4/22/05	14:05	S. Udeze	8260B	8935
Ethanol	ND	ug/L	100.	1	4/22/05	14:05	S. Udeze	8260B	8935
Methyl-t-butyl ether	ND	ug/l	1.0	1	4/22/05	14:05	S. Udeze	8260B	8935
t-Amyl Alcohol	ND	ug/L	10.0	1	4/22/05	14:05	S. Udeze	8260B	8935
t-Butyl Formate	ND	ug/L	10.0	1	4/22/05	14:05	S. Udeze	8260B	8935
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1	4/22/05	14:05	S. Udeze	8260B	8935
Diisopropyl ether	17.4	ug/l	5.00	1	4/22/05	14:05	S. Udeze	8260/SA05-77	8935
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1	4/26/05	21:31	M. Ricke	8011	6586
METALS									
Lead	ND	ug/l	5.0	1	4/22/05	16:50	K. Ahmed	6010B	5983

Surrogate	% Recovery	Target Range

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56074
Sample ID: DW-1
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	105.	70. - 130.
VOA Surr Toluene-d8	101.	78. - 121.
VOA Surr, 4-BFB	107.	78. - 126.
VOA Surr, DBFM	106.	79. - 122.
Surr., 1,3-DCB	101.	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: BOB ROBINSON

Lab Number: 05-A56075
Sample ID: DW-2
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 14:15
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Ethyl-t-butylether	ND	ug/l	1.0	1	4/22/05	14:31	S. Udeze	8260B	8935
tert-amyl methyl ether	ND	ug/L	1.0	1	4/22/05	14:31	S. Udeze	8260B	8935
Tertiary butyl alcohol	ND	ug/l	10.0	1	4/22/05	14:31	S. Udeze	8260B	8935
Benzene	3.1	ug/l	1.0	1	4/22/05	14:31	S. Udeze	8260B	8935
1,2-Dichloroethane	ND	ug/l	1.00	1	4/22/05	14:31	S. Udeze	8260B	8935
Ethylbenzene	1.1	ug/l	1.0	1	4/22/05	14:31	S. Udeze	8260B	8935
Naphthalene	ND	ug/l	5.00	1	4/22/05	14:31	S. Udeze	8260B	8935
Toluene	6.7	ug/l	1.0	1	4/22/05	14:31	S. Udeze	8260B	8935
Xylenes (Total)	5.8	ug/l	1.0	1	4/22/05	14:31	S. Udeze	8260B	8935
Ethanol	ND	ug/L	100.	1	4/22/05	14:31	S. Udeze	8260B	8935
Methyl-t-butyl ether	4.8	ug/l	1.0	1	4/22/05	14:31	S. Udeze	8260B	8935
t-Amyl Alcohol	ND	ug/L	10.0	1	4/22/05	14:31	S. Udeze	8260B	8935
t-Butyl Formate	ND	ug/L	10.0	1	4/22/05	14:31	S. Udeze	8260B	8935
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1	4/22/05	14:31	S. Udeze	8260B	8935
Diisopropyl ether	ND	ug/l	5.00	1	4/22/05	14:31	S. Udeze	8260/SA05-77	8935
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1	4/26/05	21:51	M. Ricke	8011	6586
METALS									
Lead	ND	ug/l	5.0	1	4/22/05	16:50	K. Ahmed	6010B	5983

Surrogate	% Recovery	Target Range

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56075
Sample ID: DW-2
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	106.	70. - 130.
VOA Surr Toluene-d8	105.	78. - 121.
VOA Surr, 4-BFB	104.	78. - 126.
VOA Surr, DBFM	103.	79. - 122.
Surr., 1,3-DCB	106.	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Page: 1
Laboratory Receipt Date: 4/21/05

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/l	< 0.0003	0.0502	0.0500	100	62 - 146	8935	blank
Toluene	mg/l	< 0.0002	0.0546	0.0500	109	68 - 141	8935	blank
VOA Surr 1,2-DCA-d4	% Rec				103	70 - 130	8935	
VOA Surr Toluene-d8	% Rec				102	78 - 121	8935	
VOA Surr, 4-BFB	% Rec				107	78 - 126	8935	
VOA Surr, DBFM	% Rec				104	79 - 122	8935	
METALS								
Lead	mg/l	< 0.0050	0.0480	0.0500	96	75. - 125.	5983	05-A55763
Ethylene Dibromide	mg/l	< 0.00002	0.00021	0.00029	72	61. - 134.	6586	'56066
Ethylene Dibromide	mg/l	0.00432	0.0181	0.00029	4750#	61. - 134.	5583	05-A55962

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0502	0.0514	2.36	25.	8935
Toluene	mg/l	0.0546	0.0526	3.73	29.	8935

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Page: 2
Laboratory Receipt Date: 4/21/05

VOA Surr 1,2-DCA-d4	% Rec		102.			8935
VOA Surr Toluene-d8	% Rec		105.			8935
VOA Surr, 4-BFB	% Rec		107.			8935
VOA Surr, DBFM	% Rec		102.			8935
METALS						
Lead	mg/l	0.0480	0.0470	2.11	20	5983
MISC PARAMETERS						
Ethylene Dibromide	mg/l	0.00021	0.00014	40.00	50	6586
Ethylene Dibromide	mg/l	0.0181	0.0547	100.55#	50	5583

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Ethyl-t-butylether	mg/l	0.0500	0.0514	103	63 - 141	8935
Ethyl-t-butylether	mg/l	0.0500	0.0543	109	63 - 141	8972
tert-amyl methyl ether	mg/L	0.0500	0.0508	102	63 - 133	8935
tert-amyl methyl ether	mg/L	0.0500	0.0511	102	63 - 133	8972
Tertiary butyl alcohol	mg/l	0.500	0.451	90	41 - 160	8935
Tertiary butyl alcohol	mg/l	0.500	0.485	97	41 - 160	8972
Benzene	mg/l	0.0500	0.0453	91	76 - 127	8935
Benzene	mg/l	0.0500	0.0453	91	76 - 127	8954
Benzene	mg/l	0.0500	0.0492	98	76 - 127	8966
Benzene	mg/l	0.0500	0.0512	102	76 - 127	680
1,2-Dichloroethane	mg/l	0.0500	0.0505	101	72 - 129	8935
1,2-Dichloroethane	mg/l	0.0500	0.0550	110	72 - 129	8972
Ethylbenzene	mg/l	0.0500	0.0462	92	80 - 124	8935
Ethylbenzene	mg/l	0.0500	0.0462	92	80 - 124	8954
Ethylbenzene	mg/l	0.0500	0.0508	102	80 - 124	8966
Ethylbenzene	mg/l	0.0500	0.0504	101	80 - 124	8972
Naphthalene	mg/l	0.0500	0.0580	116	61 - 143	8935
Naphthalene	mg/l	0.0500	0.0580	116	61 - 143	8954

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON

Laboratory Receipt Date: 4/21/05

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Naphthalene	mg/l	0.0500	0.0496	99	61 - 143	8966
Naphthalene	mg/l	0.0500	0.0578	116	61 - 143	8972
Toluene	mg/l	0.0500	0.0446	89	79 - 124	8935
Toluene	mg/l	0.0500	0.0493	99	79 - 124	8966
Toluene	mg/l	0.0500	0.0492	98	79 - 124	680
Xylenes (Total)	mg/l	0.150	0.140	93	80 - 125	8935
Xylenes (Total)	mg/l	0.150	0.140	93	80 - 125	8954
Xylenes (Total)	mg/l	0.150	0.153	102	80 - 125	8966
Xylenes (Total)	mg/l	0.150	0.156	104	80 - 125	680
Ethanol	mg/L	5.00	4.67	93	40 - 163	8935
Ethanol	mg/L	5.00	4.98	100	40 - 163	8972
Methyl-t-butyl ether	mg/l	0.0500	0.0520	104	66 - 136	8935
Methyl-t-butyl ether	mg/l	0.0500	0.0411	82	66 - 136	8966
Methyl-t-butyl ether	mg/l	0.0500	0.0531	106	66 - 136	8972
t-Amyl Alcohol	mg/L	0.500	0.538	108	37 - 150	8935
t-Amyl Alcohol	mg/L	0.500	0.538	108	37 - 150	8954
t-Amyl Alcohol	mg/L	0.500	0.502	100	37 - 150	8972
t-Butyl Formate	mg/L	0.500	0.609	122	29 - 143	8935
t-Butyl Formate	mg/L	0.500	0.434	87	29 - 143	8972
Ethyl-t-butyl alcohol	mg/L	0.500	0.540	108	34 - 154	8935
Ethyl-t-butyl alcohol	mg/L	0.500	0.540	108	34 - 154	8954
Ethyl-t-butyl alcohol	mg/L	0.500	0.519	104	34 - 154	8972
Diisopropyl ether	mg/l	0.0500	0.0498	100	79 - 130	8935
Diisopropyl ether	mg/l	0.0500	0.0498	100	79 - 130	8954
Diisopropyl ether	mg/l	0.0500	0.0543	109	79 - 130	8972
Ethylene Dibromide	mg/l	0.00029	0.00029	100	70 - 133	6586
Ethylene Dibromide	mg/l	0.00029	0.00031	107	70 - 133	5583

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Page: 4
Laboratory Receipt Date: 4/21/05

VOA Surr 1,2-DCA-d4	% Rec			106	70 - 130	8935
VOA Surr 1,2-DCA-d4	% Rec			105	70 - 130	8966
VOA Surr 1,2-DCA-d4	% Rec			108	70 - 130	680
VOA Surr Toluene-d8	% Rec			104	78 - 121	8935
VOA Surr Toluene-d8	% Rec			105	78 - 121	8966
VOA Surr Toluene-d8	% Rec			103	78 - 121	680
VOA Surr, 4-BFB	% Rec			105	78 - 126	8935
VOA Surr, 4-BFB	% Rec			108	78 - 126	8966
VOA Surr, 4-BFB	% Rec			107	78 - 126	680
VOA Surr, DBFM	% Rec			107	79 - 122	8935
VOA Surr, DBFM	% Rec			105	79 - 122	8966
VOA Surr, DBFM	% Rec			108	79 - 122	680
METALS						
Lead	mg/l	0.0500	0.0470	94	80 - 120	5983

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Ethyl-t-butylether	< 0.0005	mg/l	8935	4/22/05	12:20
Ethyl-t-butylether	< 0.0005	mg/l	8972	4/27/05	0:27
tert-amyl methyl ether	< 0.0005	mg/L	8935	4/22/05	12:20
tert-amyl methyl ether	< 0.0005	mg/L	8972	4/27/05	0:27
Tertiary butyl alcohol	< 0.0063	mg/l	8935	4/22/05	12:20

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON

Laboratory Receipt Date: 4/21/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Tertiary butyl alcohol	< 0.0063	mg/l	8972	4/27/05	0:27
Benzene	< 0.0003	mg/l	8935	4/22/05	12:20
Benzene	< 0.0003	mg/l	8954	4/22/05	12:20
Benzene	< 0.0003	mg/l	8966	4/23/05	13:27
Benzene	< 0.0003	mg/l	680	4/27/05	0:27
1,2-Dichloroethane	< 0.00040	mg/l	8935	4/22/05	12:20
1,2-Dichloroethane	< 0.00040	mg/l	8972	4/27/05	0:27
Ethylbenzene	< 0.0002	mg/l	8935	4/22/05	12:20
Ethylbenzene	< 0.0002	mg/l	8954	4/22/05	12:20
Ethylbenzene	< 0.0002	mg/l	8966	4/23/05	13:27
Ethylbenzene	< 0.0002	mg/l	8972	4/27/05	0:27
Naphthalene	< 0.00120	mg/l	8935	4/22/05	12:20
Naphthalene	< 0.00120	mg/l	8954	4/22/05	12:20
Naphthalene	< 0.00120	mg/l	8966	4/23/05	13:27
Naphthalene	< 0.00120	mg/l	8972	4/27/05	0:27
Toluene	< 0.0002	mg/l	8935	4/22/05	12:20
Toluene	< 0.0002	mg/l	8966	4/23/05	13:27
Toluene	< 0.0002	mg/l	680	4/27/05	0:27
Xylenes (Total)	< 0.0006	mg/l	8935	4/22/05	12:20
Xylenes (Total)	< 0.0006	mg/l	8954	4/22/05	12:20
Xylenes (Total)	< 0.0006	mg/l	8966	4/23/05	13:27
Xylenes (Total)	< 0.0006	mg/l	680	4/27/05	0:27
Ethanol	< 0.0503	mg/L	8935	4/22/05	12:20
Ethanol	< 0.0503	mg/L	8972	4/27/05	0:27
Methyl-t-butyl ether	< 0.0002	mg/l	8935	4/22/05	12:20
Methyl-t-butyl ether	< 0.0002	mg/l	8966	4/23/05	13:27
Methyl-t-butyl ether	< 0.0002	mg/l	8972	4/27/05	0:27
t-Amyl Alcohol	< 0.0050	mg/L	8935	4/22/05	12:20
t-Amyl Alcohol	< 0.0050	mg/L	8954	4/22/05	12:20
t-Amyl Alcohol	< 0.0050	mg/L	8972	4/27/05	0:27
t-Butyl Formate	< 0.0050	mg/L	8935	4/22/05	12:20

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON

Laboratory Receipt Date: 4/21/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
t-Butyl Formate	< 0.0050	mg/L	8972	4/27/05	0:27
Ethyl-t-butyl alcohol	< 0.0050	mg/L	8935	4/22/05	12:20
Ethyl-t-butyl alcohol	< 0.0050	mg/L	8954	4/22/05	12:20
Ethyl-t-butyl alcohol	< 0.0050	mg/L	8972	4/27/05	0:27
Diisopropyl ether	< 0.00030	mg/l	8935	4/22/05	12:20
Diisopropyl ether	< 0.00030	mg/l	8954	4/22/05	12:20
Diisopropyl ether	< 0.00030	mg/l	8972	4/27/05	0:27
VOA Surr 1,2-DCA-d4	107.	% Rec	8935	4/22/05	12:20
VOA Surr 1,2-DCA-d4	109.	% Rec	8966	4/23/05	13:27
VOA Surr 1,2-DCA-d4	109.	% Rec	680	4/27/05	0:27
VOA Surr Toluene-d8	107.	% Rec	8935	4/22/05	12:20
VOA Surr Toluene-d8	104.	% Rec	8966	4/23/05	13:27
VOA Surr Toluene-d8	105.	% Rec	680	4/27/05	0:27
VOA Surr, 4-BFB	106.	% Rec	8935	4/22/05	12:20
VOA Surr, 4-BFB	111.	% Rec	8966	4/23/05	13:27
VOA Surr, 4-BFB	108.	% Rec	680	4/27/05	0:27
VOA Surr, DBFM	100.	% Rec	8935	4/22/05	12:20
VOA Surr, DBFM	102.	% Rec	8966	4/23/05	13:27
VOA Surr, DBFM	104.	% Rec	680	4/27/05	0:27
METALS					
Lead	< 0.0024	mg/l	5983	4/22/05	16:50
Ethylene Dibromide	< 0.00002	mg/l	6586	4/26/05	17:03
Ethylene Dibromide	< 0.00002	mg/l	5583	4/28/05	22:10

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 413519

413493

testAmerica
ANALYTICAL TESTING CORPORATION

TESTAMERICA, INC.
ATLANTA SERVICE CENTER

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Consultech Environmental Client #: 2628
Address: 1800 MacLeod Dr. Suite F
City/State/Zip Code: Lawrenceville, GA 30043
Project Manager: Jim Wilson
Telephone Number: 678 377-0400 Fax: 678 377 0051
Sampler Name: (Print Name) Rob Robinson
Sampler Signature:

Project Name: ~~CCH~~ Handy Pantry #165
Project #: C-04-12-008
Site/Location ID: Columbia State: SC
Report To: Jim Wilson
Invoice To:
Quote #: PO#:

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX, MBE, NAP, 1,2 DCA 8260B	EDB 8011	8260 Oxygenates	Total Lead	Dissolved Iron	Nitrates	Sulfates	Methane	QC Deliverables	REMARKS
MW-18	4/20/05	915	G	N	GW	1	7						3	2	2	1						05A 55954
MW-19		930																				53
MW-20		945																				56
MW-22		1000																				57
MW-23		1015																				58
MW-24		1030																				55959
MW-27		~~1115~~ 1105				1	9				3						1	1	2			55964
MW-28		1130																				65
MW-29		1145																				66
MW-30		1200																				55967

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: see cooler receipt
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

	Date:	Time:		Date:	Time:
Relinquished By:	4/20/05	1730	Received By:		
Relinquished By:			Received By:		
Relinquished By:			Received By:	4.21.05	07:45

413493

TestAmerica
ANALYTICAL TESTING CORPORATION

TESTAMERICA, INC.
ATLANTA SERVICE CENTER

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring: _____

Client Name: Consultech Environmental | Client #: 2628
Address: 1800 Macleod Dr Suite F
City/State/Zip Code: Lawrenceville, GA 30043
Project Manager: Jim Wilson
Telephone Number: 678 377-0400 | Fax: 678 377-0051
Sampler Name: (Print Name) Rob Robinson
Sampler Signature:

Project Name: Handy Pantry #65
Project #: C-04-12-008
Site/Location ID: Columbia | State: SC
Report To: Jim Wilson
Invoice To:
Quote #: _____ | PO#: _____

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX, MTBE, MNP	1,2 DCA 8260B	EDB 8011	8 Oxygenates 8260B	Total Lead	Dissolved Iron	Nitrates	Sulfates	Methane			QC Deliverables: ___ None, ___ Level 2 (Batch QC), ___ Level 3, ___ Level 4, Other: _____ REMARKS
MW-31	4/20/05	1215	G	No	GW	1	9				3		3	2	2	1	1	1	1	2			55968
MW-33		1245																					69
MW-34		1300																					70
MW-35		1315																					71
MW-36		1330																					72
MW-37		1345																					73
MW-38		1400																					74
MW-39		1415																					75
MW-40		1430																					76
MW-41		1445																					55977

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: See Cooler Receipt
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

	Date:	Time:		Date:	Time:
Relinquished By:	4/20/05	1730	Received By:		
Relinquished By:			Received By:		
Relinquished By:			Received By:	4/21/05	0745

413493

TestAmerica
ANALYTICAL TESTING CORPORATION

TESTAMERICA, INC.
ATLANTA SERVICE CENTER

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Consultech Env. Client #: 2628
Address: 1800 Mackod Dr. Suite F
City/State/Zip Code: Lawrenceville, Ga., 30043
Project Manager: Jim Wilson
Telephone Number: 678 377-0400 Fax: 678 377 0051
Sampler Name: (Print Name) Drew Miller
Sampler Signature: Drew Miller

Project Name: Handy Pantry #65 ~~Former Chevron~~
Project #: C-04-12-008
Site/Location ID: Columbia State: Ga.
Report To: Jim Wilson
Invoice To: _____
Quote #: _____ PO#: _____

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, WW - Wastewater, S - Soil/Solid, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX MTBE, NAP 1,2 DCA 8260B	EDB 8011	8 Oxygenates 8260B	Total Lead	Dissolved Iron	Nitrates	Sulfates	Methane			QC Deliverables: ___ None, ___ Level 2 (Batch QC), ___ Level 3, ___ Level 4, Other: _____ REMARKS
MW-4Z	4/20	1500	G	No	GW	1	9				3		3	2	2	1	1	1	1	2			55978
DW-6	↓	1515	↓	↓	↓	↓	↓				↓		↓	↓	↓	↓	↓	↓	↓	↓			55979
MW-5aR		1600																					55960
DW-1R		1615																					161
RW-1R	↓	1630	↓	↓	↓	↓	↓				↓		↓	↓	↓	↓	↓	↓	↓	↓			55962
DMW-3	↓	1430	↓	↓	↓	1	7						X	X	X	X							55963

Special Instructions: DMW-3 - 55963

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: See cooler receipt
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

	Date:	Time:		Date:	Time:
Relinquished By: Drew Miller	Date: 4/20	Time: 1730	Received By:		
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By: (11)	Date: 4-21-05	Time: 0745

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

4/29/05

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: HANDY PANTRY #65
Project Number: C-04-12-008.
Laboratory Project Number: 413493.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Collection Date
MW-18	05-A55954	4/20/05
MW-19	05-A55955	4/20/05
MW-20	05-A55956	4/20/05
MW-22	05-A55957	4/20/05
MW-23	05-A55958	4/20/05
MW-24	05-A55959	4/20/05
MW-5AR	05-A55960	4/20/05
PW-1R	05-A55961	4/20/05
RW-1R	05-A55962	4/20/05
DMW-3	05-A55963	4/20/05
MW-27	05-A55964	4/20/05
MW-28	05-A55965	4/20/05
MW-29	05-A55966	4/20/05
MW-30	05-A55967	4/20/05
MW-31	05-A55968	4/20/05
MW-33	05-A55969	4/20/05

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date
MW-34	05-A55970	4/20/05
MW-35	05-A55971	4/20/05
MW-36	05-A55972	4/20/05
MW-37	05-A55973	4/20/05
MW-38	05-A55974	4/20/05
MW-39	05-A55975	4/20/05
MW-40	05-A55976	4/20/05
MW-41	05-A55977	4/20/05
MW-42	05-A55978	4/20/05
DW-6	05-A55979	4/20/05

A2LA certification number 0453.07 for analysis of wastewater and solid/hazardous waste.
NELAC/Florida certification number E87358 for analysis of environmental water, soil/hazardous waste, and drinking water effective 07/01/99-06/30/05.

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: Roxanne L Connor Report Date: 4/28/05

Johnny A. Mitchell, Laboratory Director
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Senior Project Manager
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Senior Project Manager
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Senior Project Manag

Laboratory Certification Number: 84009

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55954
Sample ID: MW-18
Sample Type: Water
Site ID:

Date Collected: 4/20/05
Time Collected: 9:15
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	6910	ug/l	100.	100.	4/27/05	1:44	S. Udeze	8260B	[illegible]
Toluene	17400	ug/l	100.	100.	4/27/05	1:44	S. Udeze	8260B	[illegible]
Ethylbenzene	2530	ug/l	100.	100.	4/27/05	1:44	S. Udeze	8260B	484
Xylenes (Total)	13800	ug/l	100.	100.	4/27/05	1:44	S. Udeze	8260B	484
Methyl-t-butyl ether	8920	ug/l	100.	100.	4/27/05	1:44	S. Udeze	8260B	484
Naphthalene	1580	ug/l	50.0	10.0	4/27/05	1:15	S. Udeze	8260B	468
Ethyl-t-butylether	ND	ug/l	10.0	10.0	4/27/05	1:15	S. Udeze	8260B	468
tert-amyl methyl ether	759.	ug/L	10.0	10.0	4/27/05	1:15	S. Udeze	8260B	468
Tertiary butyl alcohol	1170	ug/l	100.	10.0	4/27/05	13:46	S. Udeze	8260B	579
1,2-Dichloroethane	ND	ug/l	10.0	10.0	4/27/05	1:15	S. Udeze	8260B	468
Ethanol	ND	ug/L	1000	10.0	4/27/05	1:15	S. Udeze	8260B	468
t-Amyl Alcohol	28800	ug/L	10000	100.	4/27/05	1:44	S. Udeze	8260B	484
t-Butyl Formate	ND	ug/L	100.	10.0	4/27/05	13:46	S. Udeze	8260B	579
Ethyl-t-butyl alcohol	4900	ug/L	100.	10.0	4/27/05	1:15	S. Udeze	8260B	468
Diisopropyl ether	2040	ug/l	500.	100.	4/27/05	1:44	S. Udeze	8260/SA05-77	484
VOLATILE ORGANICS by GC									
Ethylene Dibromide	11.2	ug/l	0.98	50.0	4/28/05	12:41	M. Ricke	8011	5581
METALS									
Lead	131.	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55954
Sample ID: MW-18
Project: C-04-12-008

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	109.	70. - 130.
VOA Surr Toluene-d8	103.	78. - 121.
VOA Surr, 4-BFB	107.	78. - 126.
VOA Surr, DBFM	105.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
8260 PQL's elevated due to sample matrix.
Analysis at a lower dilution did not meet method QC requirements.
EDB surrogate was diluted out due to sample matrix.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55955
Sample ID: MW-19
Sample Type: Water
Site ID:

Date Collected: 4/20/05
Time Collected: 9:30
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	18200	ug/l	100.	100.	4/27/05	2:44	S. Udeze	8260B	
Toluene	63600	ug/l	1000	1000	4/27/05	15:20	M.Himelick	8260B	
Ethylbenzene	2980	ug/l	100.	100.	4/27/05	2:44	S. Udeze	8260B	484
Xylenes (Total)	16300	ug/l	100.	100.	4/27/05	2:44	S. Udeze	8260B	484
Methyl-t-butyl ether	962.	ug/l	10.0	10.0	4/27/05	2:14	S. Udeze	8260B	468
Naphthalene	2290	ug/l	500.	100.	4/27/05	2:44	S. Udeze	8260B	484
Ethyl-t-butylether	ND	ug/l	10.0	10.0	4/27/05	2:14	S. Udeze	8260B	468
tert-amyl methyl ether	607.	ug/L	10.0	10.0	4/27/05	2:14	S. Udeze	8260B	468
Tertiary butyl alcohol	1740	ug/l	100.	10.0	4/27/05	13:45	M.Himelick	8260B	724
1,2-Dichloroethane	ND	ug/l	10.0	10.0	4/27/05	2:14	S. Udeze	8260B	468
Ethanol	ND	ug/L	1000	10.0	4/27/05	2:14	S. Udeze	8260B	468
t-Amyl Alcohol	9730	ug/L	1000	10.0	4/27/05	2:14	S. Udeze	8260B	468
t-Butyl Formate	ND	ug/L	100.	10.0	4/27/05	13:45	M.Himelick	8260B	724
Ethyl-t-butyl alcohol	4040	ug/L	100.	10.0	4/27/05	2:14	S. Udeze	8260B	468
Diisopropyl ether	2910	ug/l	500.	100.	4/27/05	2:44	S. Udeze	8260/SA05-77	484
VOLATILE ORGANICS by GC									
Ethylene Dibromide	24.1	ug/l	1.96	100.	4/28/05	11:47	M. Ricke	8011	5581
METALS									
Lead	85.0	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55955
Sample ID: MW-19
Project: C-04-12-008

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	101.	70. - 130.
VOA Surr Toluene-d8	97.	78. - 121.
VOA Surr, 4-BFB	98.	78. - 126.
VOA Surr, DBFM	99.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
8260 PQL's elevated due to sample matrix.
Analysis at a lower dilution did not meet method QC requirements.
EDB surrogate was diluted out due to sample matrix.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55956
Sample ID: MW-20
Sample Type: Water
Site ID:

Date Collected: 4/20/05
Time Collected: 9:45
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	12800	ug/l	100.	100.	4/27/05	3:43	S. Udeze	8260B	
Toluene	23400	ug/l	500.	500.	4/27/05	14:56	M.Himelick	8260B	726
Ethylbenzene	1630	ug/l	100.	100.	4/27/05	3:43	S. Udeze	8260B	484
Xylenes (Total)	12400	ug/l	100.	100.	4/27/05	3:43	S. Udeze	8260B	484
Methyl-t-butyl ether	18000	ug/l	500.	500.	4/27/05	14:56	M.Himelick	8260B	726
Naphthalene	1430	ug/l	50.0	10.0	4/27/05	3:13	S. Udeze	8260B	468
Ethyl-t-butylether	ND	ug/l	10.0	10.0	4/27/05	3:13	S. Udeze	8260B	468
tert-amyl methyl ether	641.	ug/L	10.0	10.0	4/27/05	3:13	S. Udeze	8260B	468
Tertiary butyl alcohol	3920	ug/l	100.	10.0	4/27/05	14:32	M.Himelick	8260B	724
1,2-Dichloroethane	ND	ug/l	10.0	10.0	4/27/05	3:13	S. Udeze	8260B	468
Ethanol	ND	ug/L	1000	10.0	4/27/05	3:13	S. Udeze	8260B	468
t-Amyl Alcohol	14600	ug/L	1000	10.0	4/27/05	3:13	S. Udeze	8260B	468
t-Butyl Formate	ND	ug/L	100.	10.0	4/27/05	14:32	M.Himelick	8260B	724
Ethyl-t-butyl alcohol	2950	ug/L	100.	10.0	4/27/05	3:13	S. Udeze	8260B	468
Diisopropyl ether	2200	ug/l	500.	100.	4/27/05	3:43	S. Udeze	8260/SA05-77	484
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/27/05	19:22	M. Ricke	8011	5581
METALS									
Lead	222.	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55956
Sample ID: MW-20
Project: C-04-12-008

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	101.	70. - 130.
VOA Surr Toluene-d8	97.	78. - 121.
VOA Surr, 4-BFB	98.	78. - 126.
VOA Surr, DBFM	97.	79. - 122.
Surr., 1,3-DCB	91.0	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
8260 PQL's elevated due to sample matrix.
Analysis at a lower dilution did not meet method QC requirements.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55957
Sample ID: MW-22
Sample Type: Water
Site ID:

Date Collected: 4/20/05
Time Collected: 10:00
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	800.	ug/l	500.	500.	4/26/05	19:51	C. Wani	8260B	[illegible]
Toluene	3640	ug/l	20.0	20.0	4/26/05	19:23	C. Wani	8260B	[illegible]
Ethylbenzene	126.	ug/l	20.0	20.0	4/26/05	19:23	C. Wani	8260B	310
Xylenes (Total)	760.	ug/l	20.0	20.0	4/26/05	19:23	C. Wani	8260B	310
Methyl-t-butyl ether	1800	ug/l	500.	500.	4/26/05	19:51	C. Wani	8260B	329
Naphthalene	148.	ug/l	100.	20.0	4/26/05	19:23	C. Wani	8260B	310
Ethyl-t-butylether	ND	ug/l	20.0	20.0	4/26/05	19:23	C. Wani	8260B	310
tert-amyl methyl ether	788.	ug/L	20.0	20.0	4/26/05	19:23	C. Wani	8260B	310
Tertiary butyl alcohol	484.	ug/l	200.	20.0	4/26/05	19:23	C. Wani	8260B	310
1,2-Dichloroethane	ND	ug/l	20.0	20.0	4/26/05	19:23	C. Wani	8260B	310
Ethanol	ND	ug/L	2000	20.0	4/26/05	19:23	C. Wani	8260B	310
t-Amyl Alcohol	5540	ug/L	200.	20.0	4/27/05	10:58	A. Steimle	8260B	601
t-Butyl Formate	ND	ug/L	200.	20.0	4/26/05	19:23	C. Wani	8260B	310
Ethyl-t-butyl alcohol	872.	ug/L	200.	20.0	4/26/05	19:23	C. Wani	8260B	310
Diisopropyl ether	2420	ug/l	100.	20.0	4/26/05	19:23	C. Wani	8260/SA05-77	310
VOLATILE ORGANICS by GC									
Ethylene Dibromide	0.04	ug/l	0.02	1.0	4/27/05	19:42	M. Ricke	8011	5581
METALS									
Lead	ND	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55957
Sample ID: MW-22
Project: C-04-12-008

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	90.	70. - 130.
VOA Surr Toluene-d8	96.	78. - 121.
VOA Surr, 4-BFB	98.	78. - 126.
VOA Surr, DBFM	97.	79. - 122.
Surr., 1,3-DCB	81.0 #	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
8260 PQL's elevated due to sample matrix.
Analysis at a lower dilution did not meet method QC requirements.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55958
Sample ID: MW-23
Sample Type: Water
Site ID:

Date Collected: 4/20/05
Time Collected: 10:15
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	1770	ug/l	10.0	10.0	4/26/05	20:18	C. Wani	8260B	
Toluene	1250	ug/l	100.	100.	4/26/05	20:45	C. Wani	8260B	310
Ethylbenzene	195.	ug/l	10.0	10.0	4/26/05	20:18	C. Wani	8260B	310
Xylenes (Total)	1650	ug/l	10.0	10.0	4/26/05	20:18	C. Wani	8260B	310
Methyl-t-butyl ether	1390	ug/l	10.0	10.0	4/26/05	20:18	C. Wani	8260B	310
Naphthalene	140.	ug/l	50.0	10.0	4/26/05	20:18	C. Wani	8260B	310
Ethyl-t-butylether	ND	ug/l	10.0	10.0	4/26/05	20:18	C. Wani	8260B	310
tert-amyl methyl ether	83.0	ug/L	10.0	10.0	4/26/05	20:18	C. Wani	8260B	310
Tertiary butyl alcohol	ND	ug/l	100.	10.0	4/26/05	20:18	C. Wani	8260B	310
1,2-Dichloroethane	ND	ug/l	10.0	10.0	4/26/05	20:18	C. Wani	8260B	310
Ethanol	ND	ug/L	1000	10.0	4/26/05	20:18	C. Wani	8260B	310
t-Amyl Alcohol	5210	ug/L	100.	10.0	4/27/05	11:21	A. Steimle	8260B	593
t-Butyl Formate	ND	ug/L	100.	10.0	4/26/05	20:18	C. Wani	8260B	310
Ethyl-t-butyl alcohol	777.	ug/L	100.	10.0	4/26/05	20:18	C. Wani	8260B	310
Diisopropyl ether	314.	ug/l	50.0	10.0	4/26/05	20:18	C. Wani	8260/SA05-77	310
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.20	10.0	4/27/05	20:01	M. Ricke	8011	5581
METALS									
Lead	26.0	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55958
Sample ID: MW-23
Project: C-04-12-008

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	89.	70. - 130.
VOA Surr Toluene-d8	99.	78. - 121.
VOA Surr, 4-BFB	98.	78. - 126.
VOA Surr, DBFM	100.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
8260 PQL's elevated due to sample matrix.
Analysis at a lower dilution did not meet method QC requirements.
EDB surrogate was diluted out due to sample matrix.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55959
Sample ID: MW-24
Sample Type: Water
Site ID:

Date Collected: 4/20/05
Time Collected: 10:30
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	1340	ug/l	50.0	50.0	4/26/05	21:40	C. Wani	8260B	329
Toluene	1520	ug/l	50.0	50.0	4/26/05	21:40	C. Wani	8260B	310
Ethylbenzene	98.0	ug/l	5.0	5.0	4/26/05	21:12	C. Wani	8260B	310
Xylenes (Total)	1730	ug/l	5.0	5.0	4/26/05	21:12	C. Wani	8260B	310
Methyl-t-butyl ether	610.	ug/l	5.0	5.0	4/26/05	21:12	C. Wani	8260B	310
Naphthalene	66.5	ug/l	25.0	5.0	4/26/05	21:12	C. Wani	8260B	310
Ethyl-t-butylether	ND	ug/l	5.0	5.0	4/26/05	21:12	C. Wani	8260B	310
tert-amyl methyl ether	60.0	ug/L	5.0	5.0	4/26/05	21:12	C. Wani	8260B	310
Tertiary butyl alcohol	ND	ug/l	50.0	5.0	4/26/05	21:12	C. Wani	8260B	310
1,2-Dichloroethane	ND	ug/l	5.00	5.0	4/26/05	21:12	C. Wani	8260B	310
Ethanol	ND	ug/L	500.	5.0	4/26/05	21:12	C. Wani	8260B	310
t-Amyl Alcohol	4890	ug/L	50.0	5.0	4/27/05	11:44	A. Steimle	8260B	593
t-Butyl Formate	ND	ug/L	50.0	5.0	4/26/05	21:12	C. Wani	8260B	310
Ethyl-t-butyl alcohol	1150	ug/L	50.0	5.0	4/26/05	21:12	C. Wani	8260B	310
Diisopropyl ether	449.	ug/l	25.0	5.0	4/26/05	21:12	C. Wani	8260/SA05-77	310
VOLATILE ORGANICS by GC									
Ethylene Dibromide	26.3	ug/l	4.02	200.	4/27/05	20:21	M. Ricke	8011	5581
METALS									
Lead	123.	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55959
Sample ID: MW-24
Project: C-04-12-008

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	82.	70. - 130.
VOA Surr Toluene-d8	98.	78. - 121.
VOA Surr, 4-BFB	98.	78. - 126.
VOA Surr, DBFM	98.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
8260 PQL's elevated due to sample matrix.
Analysis at a lower dilution did not meet method QC requirements.
EDB surrogate was diluted out due to sample matrix.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55960
Sample ID: MW-5AR
Sample Type: Water
Site ID:

Date Collected: 4/20/05
Time Collected: 16:00
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	2250	ug/l	500.	500.	4/26/05	22:34	C. Wani	8260B	
Toluene	3100	ug/l	500.	500.	4/26/05	22:34	C. Wani	8260B	329
Ethylbenzene	1500	ug/l	20.0	20.0	4/26/05	22:07	C. Wani	8260B	310
Xylenes (Total)	7740	ug/l	20.0	20.0	4/26/05	22:07	C. Wani	8260B	310
Methyl-t-butyl ether	2500	ug/l	500.	500.	4/26/05	22:34	C. Wani	8260B	329
Naphthalene	796.	ug/l	100.	20.0	4/26/05	22:07	C. Wani	8260B	310
Ethyl-t-butylether	ND	ug/l	20.0	20.0	4/26/05	22:07	C. Wani	8260B	310
tert-amyl methyl ether	1430	ug/L	20.0	20.0	4/26/05	22:07	C. Wani	8260B	310
Tertiary butyl alcohol	608.	ug/l	200.	20.0	4/26/05	22:07	C. Wani	8260B	310
1,2-Dichloroethane	ND	ug/l	20.0	20.0	4/26/05	22:07	C. Wani	8260B	310
Ethanol	ND	ug/L	2000	20.0	4/26/05	22:07	C. Wani	8260B	310
t-Amyl Alcohol	5120	ug/L	200.	20.0	4/27/05	12:08	A. Steimle	8260B	593
t-Butyl Formate	ND	ug/L	200.	20.0	4/26/05	22:07	C. Wani	8260B	310
Ethyl-t-butyl alcohol	1100	ug/L	200.	20.0	4/26/05	22:07	C. Wani	8260B	310
Diisopropyl ether	3240	ug/l	100.	20.0	4/26/05	22:07	C. Wani	8260/SA05-77	310
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/27/05	17:26	M. Ricke	8011	5581
METALS									
Lead	17.0	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55960
Sample ID: MW-5AR
Project: C-04-12-008

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	82.	70. - 130.
VOA Surr Toluene-d8	98.	78. - 121.
VOA Surr, 4-BFB	99.	78. - 126.
VOA Surr, DBFM	96.	79. - 122.
Surr., 1,3-DCB	114.	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
8260 PQL's elevated due to sample matrix.
Analysis at a lower dilution did not meet method QC requirements.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55961
Sample ID: PW-1R
Sample Type: Water
Site ID:

Date Collected: 4/20/05
Time Collected: 16:15
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	2740	ug/l	200.	200.	4/22/05	19:45	S. Udeze	8260B	7
Toluene	2640	ug/l	200.	200.	4/22/05	19:45	S. Udeze	8260B	7994
Ethylbenzene	732.	ug/l	20.0	20.0	4/22/05	19:15	S. Udeze	8260B	7296
Xylenes (Total)	2460	ug/l	20.0	20.0	4/22/05	19:15	S. Udeze	8260B	7296
Methyl-t-butyl ether	2040	ug/l	20.0	20.0	4/22/05	19:15	S. Udeze	8260B	7296
Naphthalene	250.	ug/l	100.	20.0	4/22/05	19:15	S. Udeze	8260B	7296
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	8:14	S. Udeze	8260B	6615
tert-amyl methyl ether	171.	ug/L	1.0	1.0	4/22/05	8:14	S. Udeze	8260B	6615
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/22/05	8:14	S. Udeze	8260B	6615
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	8:14	S. Udeze	8260B	6615
Ethanol	ND	ug/L	100.	1.0	4/22/05	8:14	S. Udeze	8260B	6615
t-Amyl Alcohol	8380	ug/L	200.	20.0	4/22/05	19:15	S. Udeze	8260B	7296
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	8:14	S. Udeze	8260B	6615
Ethyl-t-butyl alcohol	1210	ug/L	10.0	1.0	4/22/05	8:14	S. Udeze	8260B	6615
Diisopropyl ether	636.	ug/l	100.	20.0	4/22/05	19:15	S. Udeze	8260/SA05-77	7296
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/27/05	21:19	M. Ricke	8011	5581
METALS									
Lead	ND	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55961
Sample ID: PW-1R
Project: C-04-12-008

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	121.	70. - 130.
VOA Surr Toluene-d8	100.	78. - 121.
VOA Surr, 4-BFB	103.	78. - 126.
VOA Surr, DBFM	106.	79. - 122.
Surr., 1,3-DCB	108.	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55962
Sample ID: RW-1R
Sample Type: Water
Site ID:

Date Collected: 4/20/05
Time Collected: 16:30
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	9700	ug/l	500.	500.	4/26/05	23:29	C. Wani	8260B	329
Toluene	17000	ug/l	500.	500.	4/26/05	23:29	C. Wani	8260B	329
Ethylbenzene	2800	ug/l	20.0	20.0	4/26/05	23:02	C. Wani	8260B	310
Xylenes (Total)	7150	ug/l	500.	500.	4/26/05	23:29	C. Wani	8260B	329
Methyl-t-butyl ether	3100	ug/l	500.	500.	4/26/05	23:29	C. Wani	8260B	329
Naphthalene	932.	ug/l	100.	20.0	4/26/05	23:02	C. Wani	8260B	310
Ethyl-t-butylether	ND	ug/l	20.0	20.0	4/26/05	23:02	C. Wani	8260B	310
tert-amyl methyl ether	1080	ug/L	20.0	20.0	4/26/05	23:02	C. Wani	8260B	310
Tertiary butyl alcohol	1470	ug/l	200.	20.0	4/26/05	23:02	C. Wani	8260B	310
1,2-Dichloroethane	ND	ug/l	20.0	20.0	4/26/05	23:02	C. Wani	8260B	310
Ethanol	ND	ug/L	2000	20.0	4/26/05	23:02	C. Wani	8260B	310
t-Amyl Alcohol	14500	ug/L	200.	20.0	4/27/05	12:31	A. Steimle	8260B	593
t-Butyl Formate	ND	ug/L	200.	20.0	4/26/05	23:02	C. Wani	8260B	310
Ethyl-t-butyl alcohol	3320	ug/L	200.	20.0	4/26/05	23:02	C. Wani	8260B	310
Diisopropyl ether	3840	ug/l	100.	20.0	4/26/05	23:02	C. Wani	8260/SA05-77	310
VOLATILE ORGANICS by GC									
Ethylene Dibromide	4.32	ug/l	0.99	50.0	4/28/05	3:28	M. Ricke	8011	5583
METALS									
Lead	50.0	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55962
Sample ID: RW-1R
Project: C-04-12-008

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	82.	70. - 130.
VOA Surr Toluene-d8	97.	78. - 121.
VOA Surr, 4-BFB	99.	78. - 126.
VOA Surr, DBFM	96.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
8260 PQL's elevated due to sample matrix.
Analysis at a lower dilution did not meet method QC requirements.
EDB surrogate was diluted out due to sample matrix.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55963
Sample ID: DMW-3
Sample Type: Water
Site ID:

Date Collected: 4/20/05
Time Collected: 14:30
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	6350	ug/l	50.0	50.0	4/28/05	21:27	M.Himelick	8260B	3
Toluene	4600	ug/l	50.0	50.0	4/28/05	21:27	M.Himelick	8260B	30
Ethylbenzene	265.	ug/l	50.0	50.0	4/28/05	21:27	M.Himelick	8260B	3017
Xylenes (Total)	2400	ug/l	50.0	50.0	4/28/05	21:27	M.Himelick	8260B	3017
Methyl-t-butyl ether	5350	ug/l	50.0	50.0	4/28/05	21:27	M.Himelick	8260B	3017
Naphthalene	86.7	ug/l	5.00	1.0	4/28/05	21:03	M.Himelick	8260B	2995
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/28/05	21:03	M.Himelick	8260B	2995
tert-amyl methyl ether	360.	ug/L	50.0	50.0	4/28/05	21:27	M.Himelick	8260B	3017
Tertiary butyl alcohol	1810	ug/l	10.0	1.0	4/28/05	21:03	M.Himelick	8260B	2995
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/28/05	21:03	M.Himelick	8260B	2995
Ethanol	ND	ug/L	100.	1.0	4/28/05	21:03	M.Himelick	8260B	2995
t-Amyl Alcohol	11700	ug/L	500.	50.0	4/28/05	21:27	M.Himelick	8260B	3017
t-Butyl Formate	ND	ug/L	10.0	1.0	4/28/05	21:03	M.Himelick	8260B	2995
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/28/05	21:03	M.Himelick	8260B	2995
Diisopropyl ether	1430	ug/l	250.	50.0	4/28/05	21:27	M.Himelick	8260/SA05-77	3017
VOLATILE ORGANICS by GC									
Ethylene Dibromide	1.08	ug/l	0.02	1.0	4/29/05	10:21	M. Ricke	8011	6593
METALS									
Lead	ND	ug/l	5.0	1.0	4/29/05	10:24	G.McCord	6010B	2250

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55963
Sample ID: DMW-3
Project: C-04-12-008

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	99.	70. - 130.
VOA Surr Toluene-d8	98.	78. - 121.
VOA Surr, 4-BFB	97.	78. - 126.
VOA Surr, DBFM	99.	79. - 122.
Surr., 1,3-DCB	95.0	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55964
Sample ID: MW-27
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 11:15
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/22/05	17:16	S. Udeze	8260B	7
Toluene	1.0	ug/l	1.0	1.0	4/22/05	17:16	S. Udeze	8260B	729
Ethylbenzene	ND	ug/l	1.0	1.0	4/22/05	17:16	S. Udeze	8260B	7296
Xylenes (Total)	ND	ug/l	1.0	1.0	4/22/05	17:16	S. Udeze	8260B	7296
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/22/05	17:16	S. Udeze	8260B	7296
Naphthalene	ND	ug/l	5.00	1.0	4/22/05	17:16	S. Udeze	8260B	7296
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	17:16	S. Udeze	8260B	7296
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/22/05	17:16	S. Udeze	8260B	7296
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/29/05	10:15	S. Edwards	8260B	2655
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	17:16	S. Udeze	8260B	7296
Ethanol	ND	ug/L	100.	1.0	4/22/05	17:16	S. Udeze	8260B	7296
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/22/05	17:16	S. Udeze	8260B	7296
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	17:16	S. Udeze	8260B	7296
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/22/05	17:16	S. Udeze	8260B	7296
Diisopropyl ether	ND	ug/l	5.00	1.0	4/22/05	17:16	S. Udeze	8260/SA05-77	7296
VOLATILE ORGANICS by GC									
Ethylene Dibromide	11.1	ug/l	0.98	50.0	4/28/05	12:41	M. Ricke	8011	5583
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/22/05	12:19	K. Roberso	RSK175M	5577
METALS									
Iron, Dissolved	556.	ug/l	50.0	1.0	4/23/05	12:53	K. Ahmed	6010B	5986
Lead	ND	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55964
Sample ID: MW-27
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	4.85	mg/l	0.10	1.0	4/21/05	14:38	G. Baun	9056	5468
Sulfate	61.2	mg/l	3.00	3.0	4/21/05	14:38	G. Baun	9056	5468

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	115.	70. - 130.
VOA Surr Toluene-d8	100.	78. - 121.
VOA Surr, 4-BFB	102.	78. - 126.
VOA Surr, DBFM	105.	79. - 122.
Surr - Acetylene	96.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.
EDB surrogate was diluted out due to sample matrix.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55965
Sample ID: MW-28
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 11:30
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/22/05	17:45	S. Udeze	8260B	7[illegible]
Toluene	ND	ug/l	1.0	1.0	4/22/05	17:45	S. Udeze	8260B	729[illegible]
Ethylbenzene	ND	ug/l	1.0	1.0	4/22/05	17:45	S. Udeze	8260B	7296
Xylenes (Total)	ND	ug/l	1.0	1.0	4/22/05	17:45	S. Udeze	8260B	7296
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/22/05	17:45	S. Udeze	8260B	7296
Naphthalene	ND	ug/l	5.00	1.0	4/22/05	17:45	S. Udeze	8260B	7296
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	17:45	S. Udeze	8260B	7296
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/22/05	17:45	S. Udeze	8260B	7296
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/29/05	10:41	S. Edwards	8260B	2655
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	17:45	S. Udeze	8260B	7296
Ethanol	ND	ug/L	100.	1.0	4/22/05	17:45	S. Udeze	8260B	7296
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/22/05	17:45	S. Udeze	8260B	7296
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	17:45	S. Udeze	8260B	7296
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/22/05	17:45	S. Udeze	8260B	7296
Diisopropyl ether	ND	ug/l	5.00	1.0	4/22/05	17:45	S. Udeze	8260/SA05-77	7296
VOLATILE ORGANICS by GC									
Ethylene Dibromide	5.17	ug/l	1.01	50.0	4/28/05	14:38	M. Ricke	8011	5583
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/22/05	12:23	K. Roberso	RSK175M	5577
METALS									
Iron, Dissolved	87.0	ug/l	50.0	1.0	4/23/05	12:53	K. Ahmed	6010B	5986
Lead	ND	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55965
Sample ID: MW-28
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	2.54	mg/l	0.10	1.0	4/21/05	14:38	G. Baun	9056	5468
Sulfate	33.0	mg/l	1.00	1.0	4/21/05	14:38	G. Baun	9056	5468

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	119.	70. - 130.
VOA Surr Toluene-d8	100.	78. - 121.
VOA Surr, 4-BFB	99.	78. - 126.
VOA Surr, DBFM	107.	79. - 122.
Surr - Acetylene	95.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.
EDB surrogate was diluted out due to sample matrix.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55966
Sample ID: MW-29
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 11:45
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/22/05	9:43	S. Udeze	8260B	6
Toluene	ND	ug/l	1.0	1.0	4/22/05	9:43	S. Udeze	8260B	66
Ethylbenzene	ND	ug/l	1.0	1.0	4/22/05	9:43	S. Udeze	8260B	6615
Xylenes (Total)	ND	ug/l	1.0	1.0	4/22/05	9:43	S. Udeze	8260B	6615
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/22/05	9:43	S. Udeze	8260B	6615
Naphthalene	ND	ug/l	5.00	1.0	4/22/05	9:43	S. Udeze	8260B	6615
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	9:43	S. Udeze	8260B	6615
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/22/05	9:43	S. Udeze	8260B	6615
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/22/05	9:43	S. Udeze	8260B	6615
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	9:43	S. Udeze	8260B	6615
Ethanol	ND	ug/L	100.	1.0	4/22/05	9:43	S. Udeze	8260B	6615
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/22/05	9:43	S. Udeze	8260B	6615
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	9:43	S. Udeze	8260B	6615
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/22/05	9:43	S. Udeze	8260B	6615
Diisopropyl ether	ND	ug/l	5.00	1.0	4/22/05	9:43	S. Udeze	8260/SA05-77	6615
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/28/05	4:26	M. Ricke	8011	5583
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/22/05	12:33	K. Roberso	RSK175M	5577
METALS									
Iron, Dissolved	68.0	ug/l	50.0	1.0	4/23/05	12:53	K. Ahmed	6010B	5986
Lead	86.0	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55966
Sample ID: MW-29
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	2.64	mg/l	0.10	1.0	4/21/05	14:38	G. Baun	9056	5468
Sulfate	21.4	mg/l	1.00	1.0	4/21/05	14:38	G. Baun	9056	5468

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	107.	70. - 130.
VOA Surr Toluene-d8	100.	78. - 121.
VOA Surr, 4-BFB	94.	78. - 126.
VOA Surr, DBFM	100.	79. - 122.
Surr., 1,3-DCB	88.0	83. - 134.
Surr - Acetylene	95.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55967
Sample ID: MW-30
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 12:00
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/22/05	10:13	S. Udeze	8260B	6
Toluene	ND	ug/l	1.0	1.0	4/22/05	10:13	S. Udeze	8260B	66
Ethylbenzene	ND	ug/l	1.0	1.0	4/22/05	10:13	S. Udeze	8260B	6615
Xylenes (Total)	ND	ug/l	1.0	1.0	4/22/05	10:13	S. Udeze	8260B	6615
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/22/05	10:13	S. Udeze	8260B	6615
Naphthalene	ND	ug/l	5.00	1.0	4/22/05	10:13	S. Udeze	8260B	6615
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	10:13	S. Udeze	8260B	6615
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/22/05	10:13	S. Udeze	8260B	6615
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/22/05	10:13	S. Udeze	8260B	6615
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	10:13	S. Udeze	8260B	6615
Ethanol	ND	ug/L	100.	1.0	4/22/05	10:13	S. Udeze	8260B	6615
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/22/05	10:13	S. Udeze	8260B	6615
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	10:13	S. Udeze	8260B	6615
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/22/05	10:13	S. Udeze	8260B	6615
Diisopropyl ether	ND	ug/l	5.00	1.0	4/22/05	10:13	S. Udeze	8260/SA05-77	6615
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/28/05	4:46	M. Ricke	8011	5583
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/22/05	12:39	K. Roberso	RSK175M	5577
METALS									
Iron, Dissolved	102.	ug/l	50.0	1.0	4/23/05	12:53	K. Ahmed	6010B	5986
Lead	ND	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55967
Sample ID: MW-30
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	1.49	mg/l	0.10	1.0	4/21/05	14:38	G. Baun	9056	5468
Sulfate	48.8	mg/l	2.00	2.0	4/21/05	14:38	G. Baun	9056	5468

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	110.	70. - 130.
VOA Surr Toluene-d8	99.	78. - 121.
VOA Surr, 4-BFB	100.	78. - 126.
VOA Surr, DBFM	102.	79. - 122.
Surr., 1,3-DCB	101.	83. - 134.
Surr - Acetylene	96.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55968
Sample ID: MW-31
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 12:15
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	227.	ug/l	10.0	10.0	4/22/05	18:45	S. Udeze	8260B	7
Toluene	251.	ug/l	10.0	10.0	4/22/05	18:45	S. Udeze	8260B	72
Ethylbenzene	261.	ug/l	10.0	10.0	4/22/05	18:45	S. Udeze	8260B	7296
Xylenes (Total)	450.	ug/l	1.0	1.0	4/22/05	10:43	S. Udeze	8260B	6615
Methyl-t-butyl ether	2.2	ug/l	1.0	1.0	4/22/05	10:43	S. Udeze	8260B	6615
Naphthalene	82.9	ug/l	5.00	1.0	4/22/05	10:43	S. Udeze	8260B	6615
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	10:43	S. Udeze	8260B	6615
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/22/05	10:43	S. Udeze	8260B	6615
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/22/05	10:43	S. Udeze	8260B	6615
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	10:43	S. Udeze	8260B	6615
Ethanol	ND	ug/L	100.	1.0	4/22/05	10:43	S. Udeze	8260B	6615
t-Amyl Alcohol	1100	ug/L	10.0	1.0	4/22/05	10:43	S. Udeze	8260B	6615
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	10:43	S. Udeze	8260B	6615
Ethyl-t-butyl alcohol	329.	ug/L	10.0	1.0	4/22/05	10:43	S. Udeze	8260B	6615
Diisopropyl ether	ND	ug/l	5.00	1.0	4/22/05	10:43	S. Udeze	8260/SA05-77	6615
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/28/05	5:05	M. Ricke	8011	5583
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/22/05	12:41	K. Roberso	RSK175M	5577
METALS									
Iron, Dissolved	12800	ug/l	50.0	1.0	4/23/05	12:53	K. Ahmed	6010B	5986
Lead	ND	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55968
Sample ID: MW-31
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	ND	mg/l	0.10	1.0	4/21/05	14:38	G. Baun	9056	5468
Sulfate	ND	mg/l	1.00	1.0	4/21/05	14:38	G. Baun	9056	5468

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	116.	70. - 130.
VOA Surr Toluene-d8	100.	78. - 121.
VOA Surr, 4-BFB	99.	78. - 126.
VOA Surr, DBFM	103.	79. - 122.
Surr., 1,3-DCB	94.0	83. - 134.
Surr - Acetylene	99.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55969
Sample ID: MW-33
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 12:45
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	3860	ug/l	200.	200.	4/22/05	20:14	S. Udeze	8260B	7[redacted]
Toluene	7820	ug/l	200.	200.	4/22/05	20:14	S. Udeze	8260B	7[redacted]
Ethylbenzene	938.	ug/l	20.0	20.0	4/22/05	20:44	S. Udeze	8260B	7296
Xylenes (Total)	4660	ug/l	20.0	20.0	4/22/05	20:44	S. Udeze	8260B	7296
Methyl-t-butyl ether	25.6	ug/l	1.0	1.0	4/22/05	11:12	S. Udeze	8260B	6615
Naphthalene	164.	ug/l	5.00	1.0	4/22/05	11:12	S. Udeze	8260B	6615
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	11:12	S. Udeze	8260B	6615
tert-amyl methyl ether	65.5	ug/L	1.0	1.0	4/22/05	11:12	S. Udeze	8260B	6615
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/22/05	11:12	S. Udeze	8260B	6615
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	11:12	S. Udeze	8260B	6615
Ethanol	ND	ug/L	100.	1.0	4/22/05	11:12	S. Udeze	8260B	6615
t-Amyl Alcohol	13100	ug/L	200.	20.0	4/22/05	20:44	S. Udeze	8260B	7296
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	11:12	S. Udeze	8260B	6615
Ethyl-t-butyl alcohol	1190	ug/L	10.0	1.0	4/22/05	11:12	S. Udeze	8260B	6615
Diisopropyl ether	392.	ug/l	100.	20.0	4/22/05	20:44	S. Udeze	8260/SA05-77	7296
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/28/05	5:44	M. Ricke	8011	5583
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/22/05	12:44	K. Roberso	RSK175M	5577
METALS									
Iron, Dissolved	9990	ug/l	50.0	1.0	4/23/05	12:53	K. Ahmed	6010B	5986
Lead	27.0	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55969
Sample ID: MW-33
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	0.30	mg/l	0.10	1.0	4/21/05	14:38	G. Baun	9056	5468
Sulfate	24.2	mg/l	1.00	1.0	4/21/05	14:38	G. Baun	9056	5468

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	123.	70. - 130.
VOA Surr Toluene-d8	103.	78. - 121.
VOA Surr, 4-BFB	100.	78. - 126.
VOA Surr, DBFM	108.	79. - 122.
Surr., 1,3-DCB	115.	83. - 134.
Surr - Acetylene	99.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55970
Sample ID: MW-34
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 13:00
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	2020	ug/l	200.	200.	4/22/05	21:43	S. Udeze	8260B	7
Toluene	9180	ug/l	200.	200.	4/22/05	21:43	S. Udeze	8260B	72
Ethylbenzene	1840	ug/l	200.	200.	4/22/05	21:43	S. Udeze	8260B	7296
Xylenes (Total)	10300	ug/l	200.	200.	4/22/05	21:43	S. Udeze	8260B	7296
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/22/05	11:42	S. Udeze	8260B	6615
Naphthalene	1060	ug/l	1000	200.	4/22/05	21:43	S. Udeze	8260B	7296
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	11:42	S. Udeze	8260B	6615
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/22/05	11:42	S. Udeze	8260B	6615
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/22/05	11:42	S. Udeze	8260B	6615
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	11:42	S. Udeze	8260B	6615
Ethanol	ND	ug/L	100.	1.0	4/22/05	11:42	S. Udeze	8260B	6615
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/22/05	11:42	S. Udeze	8260B	6615
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	11:42	S. Udeze	8260B	6615
Ethyl-t-butyl alcohol	779.	ug/L	10.0	1.0	4/22/05	11:42	S. Udeze	8260B	6615
Diisopropyl ether	34.1	ug/l	5.00	1.0	4/22/05	11:42	S. Udeze	8260/SA05-77	6615
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/28/05	6:03	M. Ricke	8011	5583
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/22/05	12:47	K. Roberso	RSK175M	5577
METALS									
Iron, Dissolved	1690	ug/l	50.0	1.0	4/23/05	12:53	K. Ahmed	6010B	5986
Lead	ND	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55970
Sample ID: MW-34
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	ND	mg/l	0.10	1.0	4/21/05	14:38	G. Baun	9056	5468
Sulfate	5.85	mg/l	1.00	1.0	4/21/05	14:38	G. Baun	9056	5468

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	122.	70. - 130.
VOA Surr Toluene-d8	103.	78. - 121.
VOA Surr, 4-BFB	106.	78. - 126.
VOA Surr, DBFM	107.	79. - 122.
Surr., 1,3-DCB	94.0	83. - 134.
Surr - Acetylene	100.	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55971
Sample ID: MW-35
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 13:15
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	4090	ug/l	100.	100.	4/27/05	0:24	C. Wani	8260B	[illegible]
Toluene	4060	ug/l	100.	100.	4/27/05	0:24	C. Wani	8260B	3[illegible]
Ethylbenzene	296.	ug/l	10.0	10.0	4/26/05	23:56	C. Wani	8260B	310
Xylenes (Total)	1590	ug/l	10.0	10.0	4/26/05	23:56	C. Wani	8260B	310
Methyl-t-butyl ether	1730	ug/l	10.0	10.0	4/26/05	23:56	C. Wani	8260B	310
Naphthalene	238.	ug/l	50.0	10.0	4/26/05	23:56	C. Wani	8260B	310
Ethyl-t-butylether	ND	ug/l	10.0	10.0	4/26/05	23:56	C. Wani	8260B	310
tert-amyl methyl ether	286.	ug/L	10.0	10.0	4/26/05	23:56	C. Wani	8260B	310
Tertiary butyl alcohol	536.	ug/l	100.	10.0	4/26/05	23:56	C. Wani	8260B	310
1,2-Dichloroethane	ND	ug/l	10.0	10.0	4/26/05	23:56	C. Wani	8260B	310
Ethanol	ND	ug/L	1000	10.0	4/26/05	23:56	C. Wani	8260B	310
t-Amyl Alcohol	11400	ug/L	100.	10.0	4/27/05	12:55	A. Steimle	8260B	593
t-Butyl Formate	ND	ug/L	100.	10.0	4/26/05	23:56	C. Wani	8260B	310
Ethyl-t-butyl alcohol	2010	ug/L	100.	10.0	4/26/05	23:56	C. Wani	8260B	310
Diisopropyl ether	1200	ug/l	50.0	10.0	4/26/05	23:56	C. Wani	8260/SA05-77	310
VOLATILE ORGANICS by GC									
Ethylene Dibromide	0.03	ug/l	0.02	1.0	4/28/05	6:23	M. Ricke	8011	5583
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/22/05	12:49	K. Roberso	RSK175M	5577
METALS									
Iron, Dissolved	5300	ug/l	50.0	1.0	4/23/05	12:53	K. Ahmed	6010B	5986
Lead	36.0	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55971
Sample ID: MW-35
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	4.62	mg/l	0.10	1.0	4/21/05	14:38	G. Baun	9056	5468
Sulfate	2.01	mg/l	1.00	1.0	4/21/05	14:38	G. Baun	9056	5468

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	81.	70. - 130.
VOA Surr Toluene-d8	98.	78. - 121.
VOA Surr, 4-BFB	98.	78. - 126.
VOA Surr, DBFM	95.	79. - 122.
Surr - Acetylene	102.	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.
8260 PQL's elevated due to sample matrix.
Analysis at a lower dilution did not meet method QC requirements.
EDB surrogate not reported due to sample matrix.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55972
Sample ID: MW-36
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 13:30
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	302.	ug/l	10.0	10.0	4/27/05	11:37	S. Udeze	8260B	7[redacted]
Toluene	621.	ug/l	10.0	10.0	4/27/05	11:37	S. Udeze	8260B	7996
Ethylbenzene	165.	ug/l	1.0	1.0	4/22/05	22:13	S. Udeze	8260B	7296
Xylenes (Total)	427.	ug/l	1.0	1.0	4/22/05	22:13	S. Udeze	8260B	7296
Methyl-t-butyl ether	3.7	ug/l	1.0	1.0	4/22/05	22:13	S. Udeze	8260B	7296
Naphthalene	29.4	ug/l	5.00	1.0	4/22/05	22:13	S. Udeze	8260B	7296
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	22:13	S. Udeze	8260B	7296
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/22/05	22:13	S. Udeze	8260B	7296
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/29/05	22:13	S. Edwards	8260B	2655
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	22:13	S. Udeze	8260B	7296
Ethanol	ND	ug/L	100.	1.0	4/22/05	22:13	S. Udeze	8260B	7296
t-Amyl Alcohol	2000	ug/L	10.0	1.0	4/22/05	22:13	S. Udeze	8260B	7296
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	22:13	S. Udeze	8260B	7296
Ethyl-t-butyl alcohol	326.	ug/L	10.0	1.0	4/22/05	22:13	S. Udeze	8260B	7296
Diisopropyl ether	ND	ug/l	5.00	1.0	4/22/05	22:13	S. Udeze	8260/SA05-77	7296
VOLATILE ORGANICS by GC									
Ethylene Dibromide	0.48	ug/l	0.02	1.0	4/28/05	6:42	M. Ricke	8011	5583
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/22/05	12:58	K. Roberso	RSK175M	5577
METALS									
Iron, Dissolved	4630	ug/l	50.0	1.0	4/23/05	12:53	K. Ahmed	6010B	5986
Lead	ND	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55972
Sample ID: MW-36
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	ND	mg/l	0.10	1.0	4/21/05	14:38	G. Baun	9056	5468
Sulfate	20.5	mg/l	1.00	1.0	4/21/05	14:38	G. Baun	9056	5468

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	95.	70. - 130.
VOA Surr Toluene-d8	94.	78. - 121.
VOA Surr, 4-BFB	94.	78. - 126.
VOA Surr, DBFM	94.	79. - 122.
Surr., 1,3-DCB	68.0 #	83. - 134.
Surr - Acetylene	96.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.
The EDB surrogate recovery was outside laboratory historical limits. The recovery was within the method default limits of 60-140%, therefore the data was accepted without further analysis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55973
Sample ID: MW-37
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 13:45
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	764.	ug/l	20.0	20.0	4/27/05	12:07	S. Udeze	8260B	7
Toluene	1750	ug/l	20.0	20.0	4/27/05	12:07	S. Udeze	8260B	799
Ethylbenzene	780.	ug/l	20.0	20.0	4/27/05	12:07	S. Udeze	8260B	7996
Xylenes (Total)	1870	ug/l	20.0	20.0	4/27/05	12:07	S. Udeze	8260B	7996
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/22/05	22:42	S. Udeze	8260B	7296
Naphthalene	158.	ug/l	5.00	1.0	4/22/05	22:42	S. Udeze	8260B	7296
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	22:42	S. Udeze	8260B	7296
tert-amyl methyl ether	2.4	ug/L	1.0	1.0	4/22/05	22:42	S. Udeze	8260B	7296
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/29/05	11:32	S. Edwards	8260B	2655
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	22:42	S. Udeze	8260B	7296
Ethanol	ND	ug/L	100.	1.0	4/22/05	22:42	S. Udeze	8260B	7296
t-Amyl Alcohol	1420	ug/L	10.0	1.0	4/22/05	22:42	S. Udeze	8260B	7296
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	22:42	S. Udeze	8260B	7296
Ethyl-t-butyl alcohol	1100	ug/L	10.0	1.0	4/22/05	22:42	S. Udeze	8260B	7296
Diisopropyl ether	14.2	ug/l	5.00	1.0	4/22/05	22:42	S. Udeze	8260/SA05-77	7296
VOLATILE ORGANICS by GC									
Ethylene Dibromide	2.01	ug/l	0.21	10.0	4/28/05	14:57	M. Ricke	8011	5583
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/22/05	13:02	K. Roberso	RSK175M	5577
METALS									
Iron, Dissolved	8110	ug/l	50.0	1.0	4/23/05	12:53	K. Ahmed	6010B	5986
Lead	ND	ug/l	5.0	1.0	4/22/05	14:01	C. Otero	6010B	5982

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55973
Sample ID: MW-37
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	ND	mg/l	0.10	1.0	4/21/05	14:38	G. Baun	9056	5468
Sulfate	1.88	mg/l	1.00	1.0	4/21/05	14:38	G. Baun	9056	5468

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	94.	70. - 130.
VOA Surr Toluene-d8	94.	78. - 121.
VOA Surr, 4-BFB	94.	78. - 126.
VOA Surr, DBFM	94.	79. - 122.
Surr - Acetylene	105.	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.
EDB surrogate diluted out due to sample matrix.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55974
Sample ID: MW-38
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 14:00
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/27/05	12:27	S. Udeze	8260B	[redacted]
Toluene	ND	ug/l	1.0	1.0	4/27/05	12:27	S. Udeze	8260B	579
Ethylbenzene	ND	ug/l	1.0	1.0	4/27/05	12:27	S. Udeze	8260B	579
Xylenes (Total)	ND	ug/l	1.0	1.0	4/27/05	12:27	S. Udeze	8260B	579
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/27/05	12:27	S. Udeze	8260B	579
Naphthalene	ND	ug/l	5.00	1.0	4/27/05	12:27	S. Udeze	8260B	579
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/27/05	12:27	S. Udeze	8260B	579
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/27/05	12:27	S. Udeze	8260B	579
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/27/05	12:27	S. Udeze	8260B	579
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/27/05	12:27	S. Udeze	8260B	579
Ethanol	ND	ug/L	100.	1.0	4/27/05	12:27	S. Udeze	8260B	579
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/27/05	12:27	S. Udeze	8260B	579
t-Butyl Formate	ND	ug/L	10.0	1.0	4/27/05	12:27	S. Udeze	8260B	579
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/27/05	12:27	S. Udeze	8260B	579
Diisopropyl ether	ND	ug/l	5.00	1.0	4/27/05	12:27	S. Udeze	8260/SA05-77	579
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/28/05	7:21	M. Ricke	8011	5583
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/22/05	13:04	K. Roberso	RSK175M	5577
METALS									
Iron, Dissolved	1030	ug/l	50.0	1.0	4/23/05	12:53	K. Ahmed	6010B	5986
Lead	ND	ug/l	5.0	1.0	4/22/05	16:50	K. Ahmed	6010B	5983

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55974
Sample ID: MW-38
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	3.47	mg/l	0.10	1.0	4/21/05	14:38	G. Baun	9056	5468
Sulfate	5.02	mg/l	1.00	1.0	4/21/05	14:38	G. Baun	9056	5468

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	110.	70. - 130.
VOA Surr Toluene-d8	101.	78. - 121.
VOA Surr, 4-BFB	110.	78. - 126.
VOA Surr, DBFM	111.	79. - 122.
Surr., 1,3-DCB	64.0 #	83. - 134.
Surr - Acetylene	105.	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.
The EDB surrogate recovery was outside laboratory historical limits. The recovery was within the method default limits of 60-140%, therefore the data was accepted without further analysis.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55975
Sample ID: MW-39
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 14:15
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	3680	ug/l	20.0	20.0	4/27/05	0:51	C. Wani	8260B	
Toluene	23200	ug/l	500.	500.	4/27/05	1:18	C. Wani	8260B	329
Ethylbenzene	3050	ug/l	500.	500.	4/27/05	1:18	C. Wani	8260B	329
Xylenes (Total)	16800	ug/l	500.	500.	4/27/05	1:18	C. Wani	8260B	329
Methyl-t-butyl ether	66.0	ug/l	20.0	20.0	4/27/05	0:51	C. Wani	8260B	310
Naphthalene	2120	ug/l	100.	20.0	4/27/05	0:51	C. Wani	8260B	310
Ethyl-t-butylether	ND	ug/l	20.0	20.0	4/27/05	0:51	C. Wani	8260B	310
tert-amyl methyl ether	ND	ug/L	20.0	20.0	4/27/05	0:51	C. Wani	8260B	310
Tertiary butyl alcohol	ND	ug/l	200.	20.0	4/27/05	0:51	C. Wani	8260B	310
1,2-Dichloroethane	ND	ug/l	20.0	20.0	4/27/05	0:51	C. Wani	8260B	310
Ethanol	ND	ug/L	2000	20.0	4/27/05	0:51	C. Wani	8260B	310
t-Amyl Alcohol	2180	ug/L	200.	20.0	4/27/05	13:18	A. Steimle	8260B	593
t-Butyl Formate	ND	ug/L	200.	20.0	4/27/05	0:51	C. Wani	8260B	310
Ethyl-t-butyl alcohol	1920	ug/L	200.	20.0	4/27/05	0:51	C. Wani	8260B	310
Diisopropyl ether	ND	ug/l	100.	20.0	4/27/05	0:51	C. Wani	8260/SA05-77	310
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/28/05	7:41	M. Ricke	8011	5583
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/22/05	13:07	K. Roberso	RSK175M	5577
METALS									
Iron, Dissolved	ND	ug/l	50.0	1.0	4/23/05	12:53	K. Ahmed	6010B	5986
Lead	121.	ug/l	5.0	1.0	4/22/05	16:50	K. Ahmed	6010B	5983

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55975
Sample ID: MW-39
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	ND	mg/l	0.10	1.0	4/21/05	14:38	G. Baun	9056	5468
Sulfate	16.9	mg/l	1.00	1.0	4/21/05	14:38	G. Baun	9056	5468

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	82.	70. - 130.
VOA Surr Toluene-d8	97.	78. - 121.
VOA Surr, 4-BFB	98.	78. - 126.
VOA Surr, DBFM	98.	79. - 122.
Surr., 1,3-DCB	110.	83. - 134.
Surr - Acetylene	107.	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.
8260 PQL's elevated due to sample matrix.
Analysis at a lower dilution did not meet method QC requirements.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55976
Sample ID: MW-40
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 14:30
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	1940	ug/l	200.	200.	4/27/05	13:36	S. Udeze	8260B	[illegible]
Toluene	7660	ug/l	200.	200.	4/27/05	13:36	S. Udeze	8260B	[illegible]
Ethylbenzene	3880	ug/l	20.0	20.0	4/27/05	13:06	S. Udeze	8260B	7996
Xylenes (Total)	5220	ug/l	200.	200.	4/27/05	13:36	S. Udeze	8260B	576
Methyl-t-butyl ether	1.8	ug/l	1.0	1.0	4/22/05	23:42	S. Udeze	8260B	7296
Naphthalene	1140	ug/l	100.	20.0	4/27/05	13:06	S. Udeze	8260B	7996
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	23:42	S. Udeze	8260B	7296
tert-amyl methyl ether	17.7	ug/L	1.0	1.0	4/22/05	23:42	S. Udeze	8260B	7296
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/29/05	11:24	S. Edwards	8260B	2646
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	23:42	S. Udeze	8260B	7296
Ethanol	1130	ug/L	100.	1.0	4/22/05	23:42	S. Udeze	8260B	7296
t-Amyl Alcohol	630.	ug/L	10.0	1.0	4/22/05	23:42	S. Udeze	8260B	7296
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	23:42	S. Udeze	8260B	7296
Ethyl-t-butyl alcohol	1290	ug/L	10.0	1.0	4/22/05	23:42	S. Udeze	8260B	7296
Diisopropyl ether	183.	ug/l	5.00	1.0	4/22/05	23:42	S. Udeze	8260/SA05-77	7296
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/28/05	8:00	M. Ricke	8011	5583
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/26/05	11:38	K. Roberso	RSK175M	5578
METALS									
Iron, Dissolved	493.	ug/l	50.0	1.0	4/23/05	12:53	K. Ahmed	6010B	5986
Lead	9.6	ug/l	5.0	1.0	4/22/05	16:50	K. Ahmed	6010B	5983

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55976
Sample ID: MW-40
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	ND	mg/l	0.10	1.0	4/21/05	14:38	G. Baun	9056	5468
Sulfate	1.28	mg/l	1.00	1.0	4/21/05	14:38	G. Baun	9056	5468

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	94.	70. - 130.
VOA Surr Toluene-d8	93.	78. - 121.
VOA Surr, 4-BFB	92.	78. - 126.
VOA Surr, DBFM	92.	79. - 122.
Surr., 1,3-DCB	118.	83. - 134.
Surr - Acetylene	63.0 #	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55977
Sample ID: MW-41
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 14:45
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	869.	ug/l	10.0	10.0	4/27/05	13:19	S. Udeze	8260B	614
Toluene	8580	ug/l	200.	200.	4/27/05	14:18	S. Udeze	8260B	579
Ethylbenzene	462.	ug/l	10.0	10.0	4/27/05	13:19	S. Udeze	8260B	579
Xylenes (Total)	2370	ug/l	10.0	10.0	4/27/05	13:19	S. Udeze	8260B	7296
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/23/05	0:11	S. Udeze	8260B	7296
Naphthalene	182.	ug/l	5.00	1.0	4/23/05	0:11	S. Udeze	8260B	7296
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/23/05	0:11	S. Udeze	8260B	7296
tert-amyl methyl ether	1.6	ug/L	1.0	1.0	4/23/05	0:11	S. Udeze	8260B	2646
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/29/05	11:47	S. Edwards	8260B	7296
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/23/05	0:11	S. Udeze	8260B	7296
Ethanol	ND	ug/L	100.	1.0	4/23/05	0:11	S. Udeze	8260B	7296
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/23/05	0:11	S. Udeze	8260B	7296
t-Butyl Formate	ND	ug/L	10.0	1.0	4/23/05	0:11	S. Udeze	8260B	7296
Ethyl-t-butyl alcohol	130.	ug/L	10.0	1.0	4/23/05	0:11	S. Udeze	8260B	7296
Diisopropyl ether	19.3	ug/l	5.00	1.0	4/23/05	0:11	S. Udeze	8260/SA05-77	7296
VOLATILE ORGANICS by GC									
Ethylene Dibromide	1.98	ug/l	0.20	10.0	4/28/05	15:17	M. Ricke	8011	5583
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/26/05	11:46	K. Roberso	RSK175M	5578
METALS									
Iron, Dissolved	947.	ug/l	50.0	1.0	4/23/05	12:53	K. Ahmed	6010B	5986
Lead	ND	ug/l	5.0	1.0	4/22/05	16:50	K. Ahmed	6010B	5983

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55977
Sample ID: MW-41
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	0.11	mg/l	0.10	1.0	4/21/05	14:38	G. Baun	9056	5468
Sulfate	70.0	mg/l	5.00	5.0	4/21/05	14:38	G. Baun	9056	5468

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	97.	70. - 130.
VOA Surr Toluene-d8	94.	78. - 121.
VOA Surr, 4-BFB	93.	78. - 126.
VOA Surr, DBFM	94.	79. - 122.
Surr - Acetylene	64.0 #	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.
EDB surrogate was diluted out due to sample matrix.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55978
Sample ID: MW-42
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 15:00
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	16.0	ug/l	1.0	1.0	4/23/05	0:41	S. Udeze	8260B	72[illegible]
Toluene	2460	ug/l	20.0	20.0	4/27/05	12:36	S. Udeze	8260B	7996
Ethylbenzene	546.	ug/l	20.0	20.0	4/27/05	12:36	S. Udeze	8260B	7996
Xylenes (Total)	2980	ug/l	20.0	20.0	4/27/05	12:36	S. Udeze	8260B	7996
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/23/05	0:41	S. Udeze	8260B	7296
Naphthalene	124.	ug/l	5.00	1.0	4/23/05	0:41	S. Udeze	8260B	7296
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/23/05	0:41	S. Udeze	8260B	7296
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/23/05	0:41	S. Udeze	8260B	7296
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/29/05	12:09	S. Edwards	8260B	2646
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/23/05	0:41	S. Udeze	8260B	7296
Ethanol	ND	ug/L	100.	1.0	4/23/05	0:41	S. Udeze	8260B	7296
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/23/05	0:41	S. Udeze	8260B	7296
t-Butyl Formate	ND	ug/L	10.0	1.0	4/23/05	0:41	S. Udeze	8260B	7296
Ethyl-t-butyl alcohol	82.4	ug/L	10.0	1.0	4/23/05	0:41	S. Udeze	8260B	7296
Diisopropyl ether	ND	ug/l	5.00	1.0	4/23/05	0:41	S. Udeze	8260/SA05-77	7296
VOLATILE ORGANICS by GC									
Ethylene Dibromide	1.15	ug/l	0.02	1.0	4/28/05	8:39	M. Ricke	8011	5583
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/26/05	11:43	K. Roberso	RSK175M	5578
METALS									
Iron, Dissolved	476.	ug/l	50.0	1.0	4/23/05	12:53	K. Ahmed	6010B	5986
Lead	ND	ug/l	5.0	1.0	4/22/05	16:50	K. Ahmed	6010B	59[illegible]

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55978
Sample ID: MW-42
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	0.54	mg/l	0.10	1.0	4/21/05	14:38	G. Baun	9056	5468
Sulfate	7.05	mg/l	1.00	1.0	4/21/05	14:38	G. Baun	9056	5468

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	96.	70. - 130.
VOA Surr Toluene-d8	95.	78. - 121.
VOA Surr, 4-BFB	95.	78. - 126.
VOA Surr, DBFM	94.	79. - 122.
Surr., 1,3-DCB	87.0	83. - 134.
Surr - Acetylene	72.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A55979
Sample ID: DW-6
Sample Type: Ground water
Site ID:

Date Collected: 4/20/05
Time Collected: 15:15
Date Received: 4/21/05
Time Received: 7:45
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/27/05	12:53	S. Udeze	8260B	[redacted]
Toluene	3.2	ug/l	1.0	1.0	4/27/05	12:53	S. Udeze	8260B	[redacted]
Ethylbenzene	ND	ug/l	1.0	1.0	4/27/05	12:53	S. Udeze	8260B	579
Xylenes (Total)	3.2	ug/l	1.0	1.0	4/27/05	12:53	S. Udeze	8260B	579
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/27/05	12:53	S. Udeze	8260B	579
Naphthalene	ND	ug/l	5.00	1.0	4/27/05	12:53	S. Udeze	8260B	579
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/27/05	12:53	S. Udeze	8260B	579
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/27/05	12:53	S. Udeze	8260B	579
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/27/05	12:53	S. Udeze	8260B	579
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/27/05	12:53	S. Udeze	8260B	579
Ethanol	ND	ug/L	100.	1.0	4/27/05	12:53	S. Udeze	8260B	579
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/27/05	12:53	S. Udeze	8260B	579
t-Butyl Formate	ND	ug/L	10.0	1.0	4/27/05	12:53	S. Udeze	8260B	579
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/27/05	12:53	S. Udeze	8260B	579
Diisopropyl ether	ND	ug/l	5.00	1.0	4/27/05	12:53	S. Udeze	8260/SA05-77	579
VOLATILE ORGANICS by GC									
Ethylene Dibromide	0.11	ug/l	0.02	1.0	4/28/05	9:23	M. Ricke	8011	5583
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/26/05	11:49	K. Roberso	RSK175M	5578
METALS									
Iron, Dissolved	ND	ug/l	50.0	1.0	4/23/05	12:53	K. Ahmed	6010B	5986
Lead	23.0	ug/l	5.0	1.0	4/22/05	16:50	K. Ahmed	6010B	5983

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A55979
Sample ID: DW-6
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	0.36	mg/l	0.10	1.0	4/21/05	14:38	G. Baun	9056	5468
Sulfate	37.5	mg/l	1.00	1.0	4/21/05	14:38	G. Baun	9056	5468

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	111.	70. - 130.
VOA Surr Toluene-d8	102.	78. - 121.
VOA Surr, 4-BFB	112.	78. - 126.
VOA Surr, DBFM	107.	79. - 122.
Surr., 1,3-DCB	89.0	83. - 134.
Surr - Acetylene	79.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65

Laboratory Receipt Date: 4/21/05

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/l	< 0.0010	0.0481	0.0500	96	62 - 146	6615	5589
Benzene	mg/l	< 0.0003	0.0521	0.0500	104	62 - 146	7296	blank
Benzene	mg/l	< 0.0010	0.0537	0.0500	107	62 - 146	579	57982
Benzene	mg/l	< 0.0003	0.0513	0.0500	103	62 - 146	310	blank
Toluene	mg/l	< 0.0010	0.0590	0.0500	118	68 - 141	6615	55894
Toluene	mg/l	< 0.0002	0.0554	0.0500	111	68 - 141	7296	blank
Toluene	mg/l	< 0.0010	0.0540	0.0500	108	68 - 141	579	57982
Toluene	mg/l	< 0.0002	0.0493	0.0500	99	68 - 141	310	blank
VOA Surr 1,2-DCA-d4	% Rec				105	70 - 130	6615	
VOA Surr 1,2-DCA-d4	% Rec				124	70 - 130	7296	
VOA Surr 1,2-DCA-d4	% Rec				107	70 - 130	579	
VOA Surr Toluene-d8	% Rec				101	78 - 121	6615	
VOA Surr Toluene-d8	% Rec				101	78 - 121	7296	
VOA Surr Toluene-d8	% Rec				106	78 - 121	579	
VOA Surr, 4-BFB	% Rec				95	78 - 126	6615	
VOA Surr, 4-BFB	% Rec				103	78 - 126	7296	
VOA Surr, 4-BFB	% Rec				108	78 - 126	579	
VOA Surr, DBFM	% Rec				99	79 - 122	6615	
VOA Surr, DBFM	% Rec				108	79 - 122	7296	
VOA Surr, DBFM	% Rec				109	79 - 122	579	
METALS								
Lead	mg/l	< 0.0050	0.0490	0.0500	98	75. - 125.	5982	'55961
Lead	mg/l	< 0.0050	0.0480	0.0500	96	75. - 125.	5983	05-A55763
Lead	mg/l	< 0.0050	0.0600	0.0500	120	75. - 125.	2250	05-A59554

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 2
Laboratory Receipt Date: 4/21/05

MISC PARAMETERS								
Nitrate-N as N	mg/l	4.85	7.23	3.00	79#	80. - 120.	5468	05-A55964
Sulfate	mg/l	61.2	104.	45.0	95	80. - 120.	5468	05-A55964
Ethylene Dibromide	mg/l	< 0.00002	0.00030	0.00029	103	61. - 134.	5581	05-A55653
Ethylene Dibromide	mg/l	< 0.00002	0.00030	0.00029	103	61. - 134.	6593	blank
Methane	mg/L	< 0.026	1.36	1.33	102	62. - 132.	5577	blank
Methane	mg/L	< 0.026	1.35	1.33	102	62. - 132.	5578	05-A55976

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0481	0.0502	4.27	25.	6615
Benzene	mg/l	0.0521	0.0493	5.52	25.	7296
Benzene	mg/l	0.0537	0.0533	0.75	25.	579
Benzene	mg/l	0.0513	0.0441	15.09	25.	310
Toluene	mg/l	0.0590	0.0540	8.85	29.	6615
Toluene	mg/l	0.0554	0.0539	2.74	29.	7296
Toluene	mg/l	0.0540	0.0535	0.93	29.	579
Toluene	mg/l	0.0493	0.0428	14.12	29.	310
VOA Surr 1,2-DCA-d4	% Rec		106.			6615
VOA Surr 1,2-DCA-d4	% Rec		125.			7296
VOA Surr 1,2-DCA-d4	% Rec		110.			579
VOA Surr Toluene-d8	% Rec		102.			6615
VOA Surr Toluene-d8	% Rec		105.			7296
VOA Surr Toluene-d8	% Rec		103.			579
VOA Surr, 4-BFB	% Rec		99.			6615
VOA Surr, 4-BFB	% Rec		101.			7296
VOA Surr, 4-BFB	% Rec		106.			579
VOA Surr, DBFM	% Rec		99.			6615
VOA Surr, DBFM	% Rec		105.			7296
VOA Surr, DBFM	% Rec		107.			579

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65

Laboratory Receipt Date: 4/21/05

METALS						
Iron, Dissolved	mg/l	57.2	58.3	1.90	20	5986
Lead	mg/l	0.0490	0.0500	2.02	20	5982
Lead	mg/l	0.0480	0.0470	2.11	20	5983
Lead	mg/l	0.0600	0.0590	1.68	20	2250
MISC PARAMETERS						
Ethylene Dibromide	mg/l	0.00030	0.00008	115.79#	50	5581
Ethylene Dibromide	mg/l	0.0181	0.0547	100.55#	50	5583
Ethylene Dibromide	mg/l	0.00030	0.00030	0.00	50	6593
Methane	mg/L	1.36	1.39	2.18	50	5577
Methane	mg/L	1.35	1.33	1.49	50	5578
Nitrate-N as N	mg/l	7.23	7.24	0.14	20	5468
Sulfate	mg/l	104.	104.	0.00	20	5468

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Ethyl-t-butylether	mg/l	0.0500	0.0529	106	63 - 141	6615
Ethyl-t-butylether	mg/l	0.0500	0.0515	103	63 - 141	7296
Ethyl-t-butylether	mg/l	0.0500	0.0529	106	63 - 141	310
Ethyl-t-butylether	mg/l	0.0500	0.0488	98	63 - 141	468
Ethyl-t-butylether	mg/l	0.0500	0.0533	107	63 - 141	579
Ethyl-t-butylether	mg/l	0.0500	0.0502	100	63 - 141	2995
tert-amyl methyl ether	mg/L	0.0500	0.0532	106	63 - 133	6615
tert-amyl methyl ether	mg/L	0.0500	0.0523	105	63 - 133	7296
tert-amyl methyl ether	mg/L	0.0500	0.0524	105	63 - 133	310
tert-amyl methyl ether	mg/L	0.0500	0.0496	99	63 - 133	468
tert-amyl methyl ether	mg/L	0.0500	0.0509	102	63 - 133	579
tert-amyl methyl ether	mg/L	0.0500	0.0510	102	63 - 133	3017
Tertiary butyl alcohol	mg/l	0.500	0.272	54	41 - 160	6615
Tertiary butyl alcohol	mg/l	0.500	0.466	93	41 - 160	310

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 4
Laboratory Receipt Date: 4/21/05

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Tertiary butyl alcohol	mg/l	0.500	0.399	80	41 - 160	579
Tertiary butyl alcohol	mg/l	0.500	0.508	102	41 - 160	724
Tertiary butyl alcohol	mg/l	0.500	0.581	116	41 - 160	2995
Benzene	mg/l	0.0500	0.0506	101	76 - 127	6615
Benzene	mg/l	0.0500	0.0482	96	76 - 127	7296
Benzene	mg/l	0.0500	0.0482	96	76 - 127	7994
Benzene	mg/l	0.0500	0.0517	103	76 - 127	310
Benzene	mg/l	0.0500	0.0517	103	76 - 127	329
Benzene	mg/l	0.0500	0.0498	100	76 - 127	484
Benzene	mg/l	0.0500	0.0496	99	76 - 127	576
Benzene	mg/l	0.0500	0.0489	98	76 - 127	579
Benzene	mg/l	0.0500	0.0496	99	76 - 127	7996
Benzene	mg/l	0.0500	0.0509	102	76 - 127	3017
1,2-Dichloroethane	mg/l	0.0500	0.0568	114	72 - 129	6615
1,2-Dichloroethane	mg/l	0.0500	0.0562	112	72 - 129	7296
1,2-Dichloroethane	mg/l	0.0500	0.0552	110	72 - 129	310
1,2-Dichloroethane	mg/l	0.0500	0.0538	108	72 - 129	468
1,2-Dichloroethane	mg/l	0.0500	0.0536	107	72 - 129	579
1,2-Dichloroethane	mg/l	0.0500	0.0522	104	72 - 129	2995
Ethylbenzene	mg/l	0.0500	0.0526	105	80 - 124	6615
Ethylbenzene	mg/l	0.0500	0.0500	100	80 - 124	7296
Ethylbenzene	mg/l	0.0500	0.0513	103	80 - 124	310
Ethylbenzene	mg/l	0.0500	0.0513	103	80 - 124	329
Ethylbenzene	mg/l	0.0500	0.0508	102	80 - 124	484
Ethylbenzene	mg/l	0.0500	0.0499	100	80 - 124	579
Ethylbenzene	mg/l	0.0500	0.0490	98	80 - 124	7996
Ethylbenzene	mg/l	0.0500	0.0507	101	80 - 124	3017
Naphthalene	mg/l	0.0500	0.0554	111	61 - 143	6615
Naphthalene	mg/l	0.0500	0.0552	110	61 - 143	7296
Naphthalene	mg/l	0.0500	0.0535	107	61 - 143	310
Naphthalene	mg/l	0.0500	0.0527	105	61 - 143	468

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 5
Laboratory Receipt Date: 4/21/05

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Naphthalene	mg/l	0.0500	0.0527	105	61 - 143	484
Naphthalene	mg/l	0.0500	0.0519	104	61 - 143	579
Naphthalene	mg/l	0.0500	0.0524	105	61 - 143	7996
Naphthalene	mg/l	0.0500	0.0476	95	61 - 143	2995
Toluene	mg/l	0.0500	0.0504	101	79 - 124	6615
Toluene	mg/l	0.0500	0.0492	98	79 - 124	7296
Toluene	mg/l	0.0500	0.0492	98	79 - 124	7994
Toluene	mg/l	0.0500	0.0500	100	79 - 124	310
Toluene	mg/l	0.0500	0.0500	100	79 - 124	329
Toluene	mg/l	0.0500	0.0489	98	79 - 124	484
Toluene	mg/l	0.0500	0.0480	96	79 - 124	576
Toluene	mg/l	0.0500	0.0490	98	79 - 124	579
Toluene	mg/l	0.0500	0.0480	96	79 - 124	614
Toluene	mg/l	0.0500	0.0517	103	79 - 124	726
Toluene	mg/l	0.0500	0.0480	96	79 - 124	7996
Toluene	mg/l	0.0500	0.0498	100	79 - 124	3017
Xylenes (Total)	mg/l	0.150	0.160	107	80 - 125	6615
Xylenes (Total)	mg/l	0.150	0.157	105	80 - 125	7296
Xylenes (Total)	mg/l	0.150	0.154	103	80 - 125	310
Xylenes (Total)	mg/l	0.150	0.154	103	80 - 125	329
Xylenes (Total)	mg/l	0.150	0.152	101	80 - 125	484
Xylenes (Total)	mg/l	0.150	0.148	99	80 - 125	576
Xylenes (Total)	mg/l	0.150	0.150	100	80 - 125	579
Xylenes (Total)	mg/l	0.150	0.148	99	80 - 125	7996
Xylenes (Total)	mg/l	0.150	0.153	102	80 - 125	3017
Ethanol	mg/L	5.00	4.39	88	40 - 163	6615
Ethanol	mg/L	5.00	4.96	99	40 - 163	7296
Ethanol	mg/L	5.00	5.16	103	40 - 163	310
Ethanol	mg/L	5.00	4.93	99	40 - 163	468
Ethanol	mg/L	5.00	4.07	81	40 - 163	579
Ethanol	mg/L	5.00	5.03	101	40 - 163	2995

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 6
Laboratory Receipt Date: 4/21/05

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Methyl-t-butyl ether	mg/l	0.0500	0.0484	97	66 - 136	6615
Methyl-t-butyl ether	mg/l	0.0500	0.0422	84	66 - 136	7296
Methyl-t-butyl ether	mg/l	0.0500	0.0521	104	66 - 136	310
Methyl-t-butyl ether	mg/l	0.0500	0.0521	104	66 - 136	329
Methyl-t-butyl ether	mg/l	0.0500	0.0497	99	66 - 136	468
Methyl-t-butyl ether	mg/l	0.0500	0.0497	99	66 - 136	484
Methyl-t-butyl ether	mg/l	0.0500	0.0524	105	66 - 136	579
Methyl-t-butyl ether	mg/l	0.0500	0.0512	102	66 - 136	726
Methyl-t-butyl ether	mg/l	0.0500	0.0502	100	66 - 136	3017
t-Amyl Alcohol	mg/L	0.500	0.524	105	37 - 150	6615
t-Amyl Alcohol	mg/L	0.500	0.488	98	37 - 150	7296
t-Amyl Alcohol	mg/L	0.500	0.459	92	37 - 150	468
t-Amyl Alcohol	mg/L	0.500	0.459	92	37 - 150	484
t-Amyl Alcohol	mg/L	0.500	0.408	82	37 - 150	579
t-Amyl Alcohol	mg/L	0.500	0.424	85	37 - 150	593
t-Amyl Alcohol	mg/L	0.500	0.424	85	37 - 150	601
t-Amyl Alcohol	mg/L	0.500	0.469	94	37 - 150	3017
t-Butyl Formate	mg/L	0.500	0.185	37	29 - 143	6615
t-Butyl Formate	mg/L	0.500	0.158	32	29 - 143	7296
t-Butyl Formate	mg/L	0.500	0.430	86	29 - 143	310
t-Butyl Formate	mg/L	0.500	0.557	111	29 - 143	579
t-Butyl Formate	mg/L	0.500	0.616	123	29 - 143	724
t-Butyl Formate	mg/L	0.500	0.542	108	29 - 143	2995
Ethyl-t-butyl alcohol	mg/L	0.500	0.581	116	34 - 154	6615
Ethyl-t-butyl alcohol	mg/L	0.500	0.586	117	34 - 154	7296
Ethyl-t-butyl alcohol	mg/L	0.500	0.477	95	34 - 154	310
Ethyl-t-butyl alcohol	mg/L	0.500	0.500	100	34 - 154	468
Ethyl-t-butyl alcohol	mg/L	0.500	0.436	87	34 - 154	579
Ethyl-t-butyl alcohol	mg/L	0.500	0.480	96	34 - 154	2995
Diisopropyl ether	mg/l	0.0500	0.0515	103	79 - 130	6615
Diisopropyl ether	mg/l	0.0500	0.0502	100	79 - 130	7296

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 7
Laboratory Receipt Date: 4/21/05

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Diisopropyl ether	mg/l	0.0500	0.0519	104	79 - 130	310
Diisopropyl ether	mg/l	0.0500	0.0501	100	79 - 130	484
Diisopropyl ether	mg/l	0.0500	0.0542	108	79 - 130	579
Diisopropyl ether	mg/l	0.0500	0.0494	99	79 - 130	3017
Ethylene Dibromide	mg/l	0.00029	0.00030	103	70 - 133	5581
Ethylene Dibromide	mg/l	0.00029	0.00031	107	70 - 133	5583
Ethylene Dibromide	mg/l	0.00029	0.00030	103	70 - 133	6593
Methane	mg/L	1.33	1.40	105	79 - 121	5577
Methane	mg/L	1.33	1.51	114	79 - 121	5578
VOA Surr 1,2-DCA-d4	% Rec			109	70 - 130	6615
VOA Surr 1,2-DCA-d4	% Rec			109	70 - 130	7296
VOA Surr 1,2-DCA-d4	% Rec			109	70 - 130	7994
VOA Surr 1,2-DCA-d4	% Rec			99	70 - 130	576
VOA Surr 1,2-DCA-d4	% Rec			107	70 - 130	579
VOA Surr 1,2-DCA-d4	% Rec			88	70 - 130	593
VOA Surr 1,2-DCA-d4	% Rec			88	70 - 130	601
VOA Surr 1,2-DCA-d4	% Rec			99	70 - 130	614
VOA Surr 1,2-DCA-d4	% Rec			99	70 - 130	726
VOA Surr 1,2-DCA-d4	% Rec			99	70 - 130	7996
VOA Surr 1,2-DCA-d4	% Rec			98	70 - 130	3017
VOA Surr Toluene-d8	% Rec			102	78 - 121	6615
VOA Surr Toluene-d8	% Rec			101	78 - 121	7296
VOA Surr Toluene-d8	% Rec			101	78 - 121	7994
VOA Surr Toluene-d8	% Rec			94	78 - 121	576
VOA Surr Toluene-d8	% Rec			102	78 - 121	579
VOA Surr Toluene-d8	% Rec			98	78 - 121	593
VOA Surr Toluene-d8	% Rec			98	78 - 121	601
VOA Surr Toluene-d8	% Rec			94	78 - 121	614
VOA Surr Toluene-d8	% Rec			100	78 - 121	726
VOA Surr Toluene-d8	% Rec			94	78 - 121	7996
VOA Surr Toluene-d8	% Rec			98	78 - 121	3017

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 8
Laboratory Receipt Date: 4/21/05

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA Surr, 4-BFB	% Rec			98	78 - 126	6615
VOA Surr, 4-BFB	% Rec			98	78 - 126	7296
VOA Surr, 4-BFB	% Rec			98	78 - 126	7994
VOA Surr, 4-BFB	% Rec			95	78 - 126	576
VOA Surr, 4-BFB	% Rec			108	78 - 126	579
VOA Surr, 4-BFB	% Rec			96	78 - 126	593
VOA Surr, 4-BFB	% Rec			96	78 - 126	601
VOA Surr, 4-BFB	% Rec			95	78 - 126	614
VOA Surr, 4-BFB	% Rec			101	78 - 126	726
VOA Surr, 4-BFB	% Rec			95	78 - 126	7996
VOA Surr, 4-BFB	% Rec			99	78 - 126	3017
VOA Surr, DBFM	% Rec			101	79 - 122	6615
VOA Surr, DBFM	% Rec			99	79 - 122	7296
VOA Surr, DBFM	% Rec			99	79 - 122	7994
VOA Surr, DBFM	% Rec			96	79 - 122	576
VOA Surr, DBFM	% Rec			106	79 - 122	579
VOA Surr, DBFM	% Rec			100	79 - 122	593
VOA Surr, DBFM	% Rec			100	79 - 122	601
VOA Surr, DBFM	% Rec			96	79 - 122	614
VOA Surr, DBFM	% Rec			99	79 - 122	726
VOA Surr, DBFM	% Rec			96	79 - 122	7996
VOA Surr, DBFM	% Rec			107	79 - 122	3017
METALS						
Iron, Dissolved	mg/l	1.00	0.976	98	80 - 120	5986
Lead	mg/l	0.0500	0.0500	100	80 - 120	5982
Lead	mg/l	0.0500	0.0470	94	80 - 120	5983
Lead	mg/l	0.0500	0.0520	104	80 - 120	2250

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 9
Laboratory Receipt Date: 4/21/05

MISC PARAMETERS						
Nitrate-N as N	mg/l	3.00	3.02	101	90 - 110	5468
Sulfate	mg/l	15.0	14.9	99	90 - 110	5468

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Ethyl-t-butylether	< 0.0005	mg/l	6615	4/22/05	4:17
Ethyl-t-butylether	< 0.0005	mg/l	7296	4/22/05	16:46
Ethyl-t-butylether	< 0.0005	mg/l	310	4/26/05	18:56
Ethyl-t-butylether	< 0.0005	mg/l	468	4/27/05	0:16
Ethyl-t-butylether	< 0.0005	mg/l	579	4/27/05	12:01
Ethyl-t-butylether	< 0.0005	mg/l	2995	4/28/05	12:16
tert-amyl methyl ether	< 0.0005	mg/L	6615	4/22/05	4:17
tert-amyl methyl ether	< 0.0005	mg/L	7296	4/22/05	16:46
tert-amyl methyl ether	< 0.0005	mg/L	310	4/26/05	18:56
tert-amyl methyl ether	< 0.0005	mg/L	468	4/27/05	0:16
tert-amyl methyl ether	< 0.0005	mg/L	579	4/27/05	12:01
tert-amyl methyl ether	< 0.0005	mg/L	3017	4/28/05	12:16
Tertiary butyl alcohol	< 0.0063	mg/l	6615	4/22/05	4:17
Tertiary butyl alcohol	< 0.0063	mg/l	310	4/26/05	18:56
Tertiary butyl alcohol	< 0.0063	mg/l	579	4/27/05	12:01
Tertiary butyl alcohol	< 0.0063	mg/l	724	4/27/05	13:21

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 10
Laboratory Receipt Date: 4/21/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Tertiary butyl alcohol	< 0.0063	mg/l	2995	4/28/05	12:16
Benzene	< 0.0003	mg/l	6615	4/22/05	4:17
Benzene	< 0.0003	mg/l	7296	4/22/05	16:46
Benzene	< 0.0003	mg/l	7994	4/22/05	16:46
Benzene	< 0.0003	mg/l	310	4/26/05	18:56
Benzene	< 0.0003	mg/l	329	4/26/05	18:56
Benzene	< 0.0003	mg/l	484	4/27/05	0:16
Benzene	< 0.0003	mg/l	576	4/27/05	10:35
Benzene	< 0.0003	mg/l	579	4/27/05	12:01
Benzene	< 0.0003	mg/l	7996	4/27/05	10:35
Benzene	< 0.0003	mg/l	3017	4/28/05	12:16
1,2-Dichloroethane	< 0.00040	mg/l	6615	4/22/05	4:17
1,2-Dichloroethane	< 0.00040	mg/l	7296	4/22/05	16:46
1,2-Dichloroethane	< 0.00040	mg/l	310	4/26/05	18:56
1,2-Dichloroethane	< 0.00040	mg/l	468	4/27/05	0:16
1,2-Dichloroethane	< 0.00040	mg/l	579	4/27/05	12:01
1,2-Dichloroethane	< 0.00040	mg/l	2995	4/28/05	12:16
Ethylbenzene	< 0.0002	mg/l	6615	4/22/05	4:17
Ethylbenzene	< 0.0002	mg/l	7296	4/22/05	16:46
Ethylbenzene	< 0.0002	mg/l	310	4/26/05	18:56
Ethylbenzene	< 0.0002	mg/l	329	4/26/05	18:56
Ethylbenzene	< 0.0002	mg/l	484	4/27/05	0:16
Ethylbenzene	< 0.0002	mg/l	579	4/27/05	12:01
Ethylbenzene	< 0.0002	mg/l	7996	4/27/05	10:35
Ethylbenzene	< 0.0002	mg/l	3017	4/28/05	12:16
Naphthalene	< 0.00120	mg/l	6615	4/22/05	4:17
Naphthalene	< 0.00120	mg/l	7296	4/22/05	16:46
Naphthalene	< 0.00120	mg/l	310	4/26/05	18:56
Naphthalene	< 0.00120	mg/l	468	4/27/05	0:16
Naphthalene	< 0.00120	mg/l	484	4/27/05	0:16
Naphthalene	< 0.00120	mg/l	579	4/27/05	12:01

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65

Laboratory Receipt Date: 4/21/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Naphthalene	< 0.00120	mg/l	7996	4/27/05	10:35
Naphthalene	< 0.00120	mg/l	2995	4/28/05	12:16
Toluene	< 0.0002	mg/l	6615	4/22/05	4:17
Toluene	< 0.0002	mg/l	7296	4/22/05	16:46
Toluene	< 0.0002	mg/l	7994	4/22/05	16:46
Toluene	< 0.0002	mg/l	310	4/26/05	18:56
Toluene	< 0.0002	mg/l	329	4/26/05	18:56
Toluene	< 0.0002	mg/l	484	4/27/05	0:16
Toluene	< 0.0002	mg/l	576	4/27/05	10:35
Toluene	< 0.0002	mg/l	579	4/27/05	12:01
Toluene	< 0.0002	mg/l	614	4/27/05	10:35
Toluene	< 0.0002	mg/l	726	4/27/05	13:21
Toluene	< 0.0002	mg/l	7996	4/27/05	10:35
Toluene	< 0.0002	mg/l	3017	4/28/05	12:16
Xylenes (Total)	< 0.0006	mg/l	6615	4/22/05	4:17
Xylenes (Total)	< 0.0006	mg/l	7296	4/22/05	16:46
Xylenes (Total)	< 0.0006	mg/l	310	4/26/05	18:56
Xylenes (Total)	< 0.0006	mg/l	329	4/26/05	18:56
Xylenes (Total)	< 0.0006	mg/l	484	4/27/05	0:16
Xylenes (Total)	< 0.0006	mg/l	576	4/27/05	10:35
Xylenes (Total)	< 0.0006	mg/l	579	4/27/05	12:01
Xylenes (Total)	< 0.0006	mg/l	7996	4/27/05	10:35
Xylenes (Total)	< 0.0006	mg/l	3017	4/28/05	12:16
Ethanol	< 0.0503	mg/L	6615	4/22/05	4:17
Ethanol	< 0.0503	mg/L	7296	4/22/05	16:46
Ethanol	< 0.0503	mg/L	310	4/26/05	18:56
Ethanol	< 0.0503	mg/L	468	4/27/05	0:16
Ethanol	< 0.0503	mg/L	579	4/27/05	12:01
Ethanol	< 0.0503	mg/L	2995	4/28/05	12:16
Methyl-t-butyl ether	< 0.0002	mg/l	6615	4/22/05	4:17
Methyl-t-butyl ether	< 0.0002	mg/l	7296	4/22/05	16:46

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65

Laboratory Receipt Date: 4/21/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Methyl-t-butyl ether	< 0.0002	mg/l	310	4/26/05	18:56
Methyl-t-butyl ether	< 0.0002	mg/l	329	4/26/05	18:56
Methyl-t-butyl ether	< 0.0002	mg/l	468	4/27/05	0:16
Methyl-t-butyl ether	< 0.0002	mg/l	484	4/27/05	0:16
Methyl-t-butyl ether	< 0.0002	mg/l	579	4/27/05	12:01
Methyl-t-butyl ether	< 0.0002	mg/l	726	4/27/05	13:21
Methyl-t-butyl ether	< 0.0002	mg/l	3017	4/28/05	12:16
t-Amyl Alcohol	< 0.0050	mg/L	6615	4/22/05	4:17
t-Amyl Alcohol	< 0.0050	mg/L	7296	4/22/05	16:46
t-Amyl Alcohol	< 0.0050	mg/L	468	4/27/05	0:16
t-Amyl Alcohol	< 0.0050	mg/L	484	4/27/05	0:16
t-Amyl Alcohol	< 0.0050	mg/L	579	4/27/05	12:01
t-Amyl Alcohol	< 0.0050	mg/L	593	4/27/05	10:31
t-Amyl Alcohol	< 0.0050	mg/L	601	4/27/05	10:31
t-Amyl Alcohol	< 0.0050	mg/L	3017	4/28/05	12:16
t-Butyl Formate	< 0.0050	mg/L	6615	4/22/05	4:17
t-Butyl Formate	< 0.0050	mg/L	7296	4/22/05	16:46
t-Butyl Formate	< 0.0050	mg/L	310	4/26/05	18:56
t-Butyl Formate	< 0.0050	mg/L	579	4/27/05	12:01
t-Butyl Formate	< 0.0050	mg/L	724	4/27/05	13:21
t-Butyl Formate	< 0.0050	mg/L	2995	4/28/05	12:16
Ethyl-t-butyl alcohol	< 0.0050	mg/L	6615	4/22/05	4:17
Ethyl-t-butyl alcohol	< 0.0050	mg/L	7296	4/22/05	16:46
Ethyl-t-butyl alcohol	< 0.0050	mg/L	310	4/26/05	18:56
Ethyl-t-butyl alcohol	< 0.0050	mg/L	468	4/27/05	0:16
Ethyl-t-butyl alcohol	< 0.0050	mg/L	579	4/27/05	12:01
Ethyl-t-butyl alcohol	< 0.0050	mg/L	2995	4/28/05	12:16
Diisopropyl ether	< 0.00030	mg/l	6615	4/22/05	4:17
Diisopropyl ether	< 0.00030	mg/l	7296	4/22/05	16:46
Diisopropyl ether	< 0.00030	mg/l	310	4/26/05	18:56
Diisopropyl ether	< 0.00030	mg/l	484	4/27/05	0:16

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 13
Laboratory Receipt Date: 4/21/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Diisopropyl ether	< 0.00030	mg/l	579	4/27/05	12:01
Diisopropyl ether	< 0.00030	mg/l	3017	4/28/05	12:16
VOA Surr 1,2-DCA-d4	110.	% Rec	6615	4/22/05	4:17
VOA Surr 1,2-DCA-d4	115.	% Rec	7296	4/22/05	16:46
VOA Surr 1,2-DCA-d4	115.	% Rec	7994	4/22/05	16:46
VOA Surr 1,2-DCA-d4	95.	% Rec	576	4/27/05	10:35
VOA Surr 1,2-DCA-d4	112.	% Rec	579	4/27/05	12:01
VOA Surr 1,2-DCA-d4	93.	% Rec	593	4/27/05	10:31
VOA Surr 1,2-DCA-d4	93.	% Rec	601	4/27/05	10:31
VOA Surr 1,2-DCA-d4	95.	% Rec	614	4/27/05	10:35
VOA Surr 1,2-DCA-d4	98.	% Rec	726	4/27/05	13:21
VOA Surr 1,2-DCA-d4	95.	% Rec	7996	4/27/05	10:35
VOA Surr 1,2-DCA-d4	98.	% Rec	3017	4/28/05	12:16
VOA Surr Toluene-d8	101.	% Rec	6615	4/22/05	4:17
VOA Surr Toluene-d8	102.	% Rec	7296	4/22/05	16:46
VOA Surr Toluene-d8	102.	% Rec	7994	4/22/05	16:46
VOA Surr Toluene-d8	95.	% Rec	576	4/27/05	10:35
VOA Surr Toluene-d8	104.	% Rec	579	4/27/05	12:01
VOA Surr Toluene-d8	98.	% Rec	593	4/27/05	10:31
VOA Surr Toluene-d8	98.	% Rec	601	4/27/05	10:31
VOA Surr Toluene-d8	95.	% Rec	614	4/27/05	10:35
VOA Surr Toluene-d8	97.	% Rec	726	4/27/05	13:21
VOA Surr Toluene-d8	95.	% Rec	7996	4/27/05	10:35
VOA Surr Toluene-d8	98.	% Rec	3017	4/28/05	12:16
VOA Surr, 4-BFB	95.	% Rec	6615	4/22/05	4:17
VOA Surr, 4-BFB	100.	% Rec	7296	4/22/05	16:46
VOA Surr, 4-BFB	100.	% Rec	7994	4/22/05	16:46
VOA Surr, 4-BFB	93.	% Rec	576	4/27/05	10:35
VOA Surr, 4-BFB	106.	% Rec	579	4/27/05	12:01
VOA Surr, 4-BFB	100.	% Rec	593	4/27/05	10:31
VOA Surr, 4-BFB	100.	% Rec	601	4/27/05	10:31

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65

Laboratory Receipt Date: 4/21/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
VOA Surr, 4-BFB	93.	% Rec	614	4/27/05	10:35
VOA Surr, 4-BFB	94.	% Rec	726	4/27/05	13:21
VOA Surr, 4-BFB	93.	% Rec	7996	4/27/05	10:35
VOA Surr, 4-BFB	97.	% Rec	3017	4/28/05	12:16
VOA Surr, DBFM	102.	% Rec	6615	4/22/05	4:17
VOA Surr, DBFM	106.	% Rec	7296	4/22/05	16:46
VOA Surr, DBFM	106.	% Rec	7994	4/22/05	16:46
VOA Surr, DBFM	92.	% Rec	576	4/27/05	10:35
VOA Surr, DBFM	108.	% Rec	579	4/27/05	12:01
VOA Surr, DBFM	102.	% Rec	593	4/27/05	10:31
VOA Surr, DBFM	102.	% Rec	601	4/27/05	10:31
VOA Surr, DBFM	92.	% Rec	614	4/27/05	10:35
VOA Surr, DBFM	100.	% Rec	726	4/27/05	13:21
VOA Surr, DBFM	92.	% Rec	7996	4/27/05	10:35
VOA Surr, DBFM	98.	% Rec	3017	4/28/05	12:16
METALS					
Iron, Dissolved	< 0.0300	mg/l	5986	4/23/05	12:53
Lead	< 0.0024	mg/l	5982	4/22/05	14:01
Lead	< 0.0024	mg/l	5983	4/22/05	16:50
Lead	< 0.0024	mg/l	2250	4/29/05	10:24
MISC PARAMETERS					
Nitrate-N as N	< 0.10	mg/l	5468	4/21/05	14:38
Sulfate	< 1.00	mg/l	5468	4/21/05	14:38
Ethylene Dibromide	< 0.00002	mg/l	5581	4/26/05	17:03
Ethylene Dibromide	< 0.00002	mg/l	5583	4/28/05	22:10
Ethylene Dibromide	< 0.00002	mg/l	6593	4/29/05	2:54
Methane	< 0.026	mg/L	5577	4/22/05	10:31
Methane	< 0.026	mg/L	5578	4/26/05	11:20

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 413493

TestAmerica
ANALYTICAL TESTING CORPORATION

TESTAMERICA, INC.
ATLANTA SERVICE CENTER

413622

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Consultech Environmental Client #: 2628
Address: 1800 MacLeod Dr. Suite F
Code: Lawrenceville, GA 30043
Project Manager: Jim Wilson
Telephone Number: 678 377-0400 Fax: 678 377-0051
Sampler Name: (Print Name) Bob Robinson
Sampler Signature:

Project Name: Handy Pantry #65
Project #: C-04-12-008
Site/Location ID: Columbia State: SC
Report To: Jim Wilson
Invoice To:
Quote #: PO#:

TAT
X Standard
___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N

QC Deliverables
X None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX/MBE/NAP 1,2 DCA 8260B	EDB 8011	8 Oxygenates 8260B	Total Lead	Dissolved Iron	Nitrates	Sulfates	Methane	REMARKS
MW-25	4/20/05	1045	G	N	GW	1	7						3	1	2	1					56516
MW-32	4/21/05	1230				1	9				3		3	1		1	1	1	2		17
MW-43		1515					9						3	1		1	1	1	2		18
MW-44		1530									1		3	1		1	1	1	2		19
MW-45		1515																			20
MW-46		1600																			21
DW-4		1445																			22
DW-5	↓	1500	↓	↓	↓	↓	↓				↓		↓	↓	↓	↓	↓	↓	↓	↓	23

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

	Date:	Time:		Date:	Time:
Relinquished By:	4/21/05	1900	Received By:		
Relinquished By:			Received By:		
Relinquished By:			Received By:	4/22/05	8:10

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

4/29/05

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: HANDY PANTRY #65
Project Number: C-04-12-008.
Laboratory Project Number: 413622.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Collection Date
MW-25	05-A56516	4/20/05
MW-32	05-A56517	4/21/05
MW-43	05-A56518	4/21/05
MW-44	05-A56519	4/21/05
MW-45	05-A56520	4/21/05
MW-46	05-A56521	4/21/05
DW-4	05-A56522	4/21/05
DW-5	05-A56523	4/21/05

A2LA certification number 0453.07 for analysis of wastewater and solid/hazardous waste.
NELAC/Florida certification number E87358 for analysis of environmental water, soil/hazardous waste, and drinking water effective 07/01/99-06/30/05.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 4/29/05

Johnny A. Mitchell, Laboratory Director
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Senior Project Manager
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Senior Project Manager
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Senior Project Manag

Laboratory Certification Number: 84009

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A56516
Sample ID: MW-25
Sample Type: Water
Site ID:

Date Collected: 4/20/05
Time Collected: 10:45
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	6900	ug/l	50.0	50.0	4/24/05	6:44	T McCollum	8260B	8
Toluene	41800	ug/l	500.	500.	4/24/05	7:07	T McCollum	8260B	8439
Ethylbenzene	7800	ug/l	50.0	50.0	4/24/05	6:44	T McCollum	8260B	8433
Xylenes (Total)	45600	ug/l	500.	500.	4/24/05	7:07	T McCollum	8260B	8439
Methyl-t-butyl ether	17.7	ug/l	1.0	1.0	4/22/05	23:16	S. Edwards	8260B	8035
Naphthalene	3180	ug/l	250.	50.0	4/24/05	6:44	T McCollum	8260B	8433
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	23:16	S. Edwards	8260B	8035
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/22/05	23:16	S. Edwards	8260B	8035
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/22/05	23:16	S. Edwards	8260B	8035
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	23:16	S. Edwards	8260B	8035
Ethanol	ND	ug/L	100.	1.0	4/22/05	23:16	S. Edwards	8260B	8035
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/22/05	23:16	S. Edwards	8260B	8035
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	23:16	S. Edwards	8260B	8035
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/22/05	23:16	S. Edwards	8260B	8035
Diisopropyl ether	154.	ug/l	5.00	1.0	4/22/05	23:16	S. Edwards	8260/SA05-77	8035
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	7:07	M. Ricke	8011	6593
METALS									
Lead	106.	ug/l	5.0	1.0	4/25/05	20:05	K. Ahmed	6010B	7414

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56516
Sample ID: MW-25
Project: C-04-12-008

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	86.	70. - 130.
VOA Surr Toluene-d8	101.	78. - 121.
VOA Surr, 4-BFB	100.	78. - 126.
VOA Surr, DBFM	97.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
EDB surrogate was diluted out due to sample matrix.
The difference between the two channels for the EDB 8011 result is greater than forty percent.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A56517
Sample ID: MW-32
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 12:30
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	264.	ug/l	5.0	5.0	4/24/05	10:14	T McCollum	8260B	8474
Toluene	740.	ug/l	5.0	5.0	4/24/05	10:14	T McCollum	8260B	8474
Ethylbenzene	406.	ug/l	5.0	5.0	4/24/05	10:14	T McCollum	8260B	8474
Xylenes (Total)	2440	ug/l	5.0	5.0	4/24/05	10:14	T McCollum	8260B	8474
Methyl-t-butyl ether	ND	ug/l	5.0	5.0	4/24/05	10:14	T McCollum	8260B	8474
Naphthalene	176.	ug/l	25.0	5.0	4/24/05	10:14	T McCollum	8260B	8474
Ethyl-t-butylether	ND	ug/l	5.0	5.0	4/24/05	10:14	T McCollum	8260B	8474
tert-amyl methyl ether	ND	ug/L	5.0	5.0	4/24/05	10:14	T McCollum	8260B	8474
Tertiary butyl alcohol	202.	ug/l	50.0	5.0	4/24/05	10:14	T McCollum	8260B	8474
1,2-Dichloroethane	6.50	ug/l	5.00	5.0	4/24/05	10:14	T McCollum	8260B	8474
Ethanol	ND	ug/L	500.	5.0	4/24/05	10:14	T McCollum	8260B	8474
t-Amyl Alcohol	3220	ug/L	50.0	5.0	4/24/05	10:14	T McCollum	8260B	8474
t-Butyl Formate	ND	ug/L	50.0	5.0	4/24/05	10:14	T McCollum	8260B	8474
Ethyl-t-butyl alcohol	347.	ug/L	50.0	5.0	4/24/05	10:14	T McCollum	8260B	8474
Diisopropyl ether	ND	ug/l	25.0	5.0	4/24/05	10:14	T McCollum	8260/SA05-77	8474
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	7:26	M. Ricke	8011	6593
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/27/05	16:36	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	923.	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	ND	ug/l	5.0	1.0	4/25/05	20:05	K. Ahmed	6010B	7414

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56517
Sample ID: MW-32
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	0.120	mg/l	0.100	1.0	4/22/05	17:01	W. Choate	353.2	6795
Sulfate	21.9	mg/l	1.00	1.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	91.	70. - 130.
VOA Surr Toluene-d8	102.	78. - 121.
VOA Surr, 4-BFB	100.	78. - 126.
VOA Surr, DBFM	98.	79. - 122.
Surr., 1,3-DCB	122.	83. - 134.
Surr - Acetylene	94.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A56518
Sample ID: MW-43
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 15:15
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/23/05	22:35	T McCollum	8260B	8
Toluene	ND	ug/l	1.0	1.0	4/23/05	22:35	T McCollum	8260B	8433
Ethylbenzene	ND	ug/l	1.0	1.0	4/23/05	22:35	T McCollum	8260B	8433
Xylenes (Total)	ND	ug/l	1.0	1.0	4/23/05	22:35	T McCollum	8260B	8433
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/23/05	22:35	T McCollum	8260B	8433
Naphthalene	ND	ug/l	5.00	1.0	4/23/05	22:35	T McCollum	8260B	8433
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/23/05	22:35	T McCollum	8260B	8433
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/23/05	22:35	T McCollum	8260B	8433
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/23/05	22:35	T McCollum	8260B	8433
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/23/05	22:35	T McCollum	8260B	8433
Ethanol	ND	ug/L	100.	1.0	4/23/05	22:35	T McCollum	8260B	8433
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/23/05	22:35	T McCollum	8260B	8433
t-Butyl Formate	ND	ug/L	10.0	1.0	4/23/05	22:35	T McCollum	8260B	8433
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/23/05	22:35	T McCollum	8260B	8433
Diisopropyl ether	ND	ug/l	5.00	1.0	4/23/05	22:35	T McCollum	8260/SA05-77	8433
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	7:46	M. Ricke	8011	6593
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/27/05	16:40	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	ND	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	ND	ug/l	5.0	1.0	4/25/05	20:05	K. Ahmed	6010B	7414

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56518
Sample ID: MW-43
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	4.09	mg/l	0.100	1.0	4/22/05	17:02	W. Choate	353.2	6795
Sulfate	1.92	mg/l	1.00	1.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	88.	70. - 130.
VOA Surr Toluene-d8	100.	78. - 121.
VOA Surr, 4-BFB	100.	78. - 126.
VOA Surr, DBFM	100.	79. - 122.
Surr., 1,3-DCB	101.	83. - 134.
Surr - Acetylene	95.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A56519
Sample ID: MW-44
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 15:30
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/23/05	0:26	S. Edwards	8260B	8
Toluene	ND	ug/l	1.0	1.0	4/23/05	22:58	T McCollum	8260B	8433
Ethylbenzene	ND	ug/l	1.0	1.0	4/23/05	0:26	S. Edwards	8260B	8035
Xylenes (Total)	ND	ug/l	1.0	1.0	4/23/05	22:58	T McCollum	8260B	8433
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/23/05	0:26	S. Edwards	8260B	8035
Naphthalene	ND	ug/l	5.00	1.0	4/23/05	0:26	S. Edwards	8260B	8035
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/23/05	0:26	S. Edwards	8260B	8035
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/23/05	0:26	S. Edwards	8260B	8035
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/23/05	0:26	S. Edwards	8260B	8035
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/23/05	0:26	S. Edwards	8260B	8035
Ethanol	ND	ug/L	100.	1.0	4/23/05	0:26	S. Edwards	8260B	8035
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/23/05	0:26	S. Edwards	8260B	8035
t-Butyl Formate	ND	ug/L	10.0	1.0	4/23/05	0:26	S. Edwards	8260B	8035
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/23/05	0:26	S. Edwards	8260B	8035
Diisopropyl ether	ND	ug/l	5.00	1.0	4/23/05	0:26	S. Edwards	8260/SA05-77	8035
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/28/05	8:05	M. Ricke	8011	6593
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/27/05	16:45	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	212.	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	ND	ug/l	5.0	1.0	4/25/05	20:05	K. Ahmed	6010B	7414

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56519
Sample ID: MW-44
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	5.17	mg/l	0.100	1.0	4/22/05	17:02	W. Choate	353.2	6795
Sulfate	ND	mg/l	1.00	1.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	92.	70. - 130.
VOA Surr Toluene-d8	100.	78. - 121.
VOA Surr, 4-BFB	100.	78. - 126.
VOA Surr, DBFM	102.	79. - 122.
Surr., 1,3-DCB	93.0	83. - 134.
Surr - Acetylene	92.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A56520
Sample ID: MW-45
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 15:45
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/23/05	0:50	S. Edwards	8260B	80
Toluene	ND	ug/l	1.0	1.0	4/23/05	23:22	T McCollum	8260B	8433
Ethylbenzene	ND	ug/l	1.0	1.0	4/23/05	0:50	S. Edwards	8260B	8035
Xylenes (Total)	ND	ug/l	1.0	1.0	4/23/05	23:22	T McCollum	8260B	8433
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/23/05	0:50	S. Edwards	8260B	8035
Naphthalene	ND	ug/l	5.00	1.0	4/23/05	0:50	S. Edwards	8260B	8035
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/23/05	0:50	S. Edwards	8260B	8035
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/23/05	0:50	S. Edwards	8260B	8035
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/23/05	0:50	S. Edwards	8260B	8035
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/23/05	0:50	S. Edwards	8260B	8035
Ethanol	ND	ug/L	100.	1.0	4/23/05	0:50	S. Edwards	8260B	8035
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/23/05	0:50	S. Edwards	8260B	8035
t-Butyl Formate	ND	ug/L	10.0	1.0	4/23/05	0:50	S. Edwards	8260B	8035
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/23/05	0:50	S. Edwards	8260B	8035
Diisopropyl ether	ND	ug/l	5.00	1.0	4/23/05	0:50	S. Edwards	8260/SA05-77	8035
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	8:44	M. Ricke	8011	6593
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/27/05	16:48	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	ND	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	12.0	ug/l	5.0	1.0	4/25/05	20:05	K. Ahmed	6010B	7414

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56520
Sample ID: MW-45
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	6.14	mg/l	0.100	1.0	4/22/05	17:03	W. Choate	353.2	6795
Sulfate	13.6	mg/l	1.00	1.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	94.	70. - 130.
VOA Surr Toluene-d8	99.	78. - 121.
VOA Surr, 4-BFB	101.	78. - 126.
VOA Surr, DBFM	101.	79. - 122.
Surr., 1,3-DCB	90.0	83. - 134.
Surr - Acetylene	94.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A56521
Sample ID: MW-46
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 16:00
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/23/05	1:13	S. Edwards	8260B	8
Toluene	ND	ug/l	1.0	1.0	4/23/05	23:45	T McCollum	8260B	8433
Ethylbenzene	ND	ug/l	1.0	1.0	4/23/05	1:13	S. Edwards	8260B	8035
Xylenes (Total)	ND	ug/l	1.0	1.0	4/23/05	23:45	T McCollum	8260B	8433
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/23/05	1:13	S. Edwards	8260B	8035
Naphthalene	ND	ug/l	5.00	1.0	4/23/05	1:13	S. Edwards	8260B	8035
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/23/05	1:13	S. Edwards	8260B	8035
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/23/05	1:13	S. Edwards	8260B	8035
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/23/05	1:13	S. Edwards	8260B	8035
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/23/05	1:13	S. Edwards	8260B	8035
Ethanol	ND	ug/L	100.	1.0	4/23/05	1:13	S. Edwards	8260B	8035
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/23/05	1:13	S. Edwards	8260B	8035
t-Butyl Formate	ND	ug/L	10.0	1.0	4/23/05	1:13	S. Edwards	8260B	8035
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/23/05	1:13	S. Edwards	8260B	8035
Diisopropyl ether	ND	ug/l	5.00	1.0	4/23/05	1:13	S. Edwards	8260/SA05-77	8035
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	9:03	M. Ricke	8011	6593
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/29/05	10:56	K. Roberso	RSK175M	7555
METALS									
Iron, Dissolved	1220	ug/l	50.0	1.0	4/26/05	15:23	G.McCord	6010B	8697
Lead	ND	ug/l	5.0	1.0	4/25/05	20:05	K. Ahmed	6010B	7414

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56521
Sample ID: MW-46
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	5.64	mg/l	0.100	1.0	4/22/05	17:06	W. Choate	353.2	6799
Sulfate	ND	mg/l	1.00	1.0	4/23/05	1:26	G. Baun	9056	6420

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	96.	70. - 130.
VOA Surr Toluene-d8	100.	78. - 121.
VOA Surr, 4-BFB	101.	78. - 126.
VOA Surr, DBFM	102.	79. - 122.
Surr., 1,3-DCB	102.	83. - 134.
Surr - Acetylene	71.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A56522
Sample ID: DW-4
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 14:45
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	74.0	ug/l	5.0	5.0	4/24/05	11:00	T McCollum	8260B	8
Toluene	380.	ug/l	5.0	5.0	4/24/05	11:00	T McCollum	8260B	8474
Ethylbenzene	102.	ug/l	5.0	5.0	4/24/05	11:00	T McCollum	8260B	8474
Xylenes (Total)	524.	ug/l	5.0	5.0	4/24/05	11:00	T McCollum	8260B	8474
Methyl-t-butyl ether	11.5	ug/l	5.0	5.0	4/24/05	11:00	T McCollum	8260B	8474
Naphthalene	48.0	ug/l	25.0	5.0	4/24/05	11:00	T McCollum	8260B	8474
Ethyl-t-butylether	ND	ug/l	5.0	5.0	4/24/05	11:00	T McCollum	8260B	8474
tert-amyl methyl ether	ND	ug/L	5.0	5.0	4/24/05	11:00	T McCollum	8260B	8474
Tertiary butyl alcohol	ND	ug/l	50.0	5.0	4/24/05	11:00	T McCollum	8260B	8474
1,2-Dichloroethane	9.50	ug/l	5.00	5.0	4/24/05	11:00	T McCollum	8260B	8474
Ethanol	ND	ug/L	500.	5.0	4/24/05	11:00	T McCollum	8260B	8474
t-Amyl Alcohol	150.	ug/L	50.0	5.0	4/24/05	11:00	T McCollum	8260B	8474
t-Butyl Formate	ND	ug/L	50.0	5.0	4/24/05	11:00	T McCollum	8260B	8474
Ethyl-t-butyl alcohol	ND	ug/L	50.0	5.0	4/24/05	11:00	T McCollum	8260B	8474
Diisopropyl ether	ND	ug/l	25.0	5.0	4/24/05	11:00	T McCollum	8260/SA05-77	8474
VOLATILE ORGANICS by GC									
Ethylene Dibromide	1.46	ug/l	0.10	5.0	4/29/05	14:13	M. Ricke	8011	6593
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/29/05	11:01	K. Roberso	RSK175M	7555
METALS									
Iron, Dissolved	ND	ug/l	50.0	1.0	4/26/05	15:23	G.McCord	6010B	8697
Lead	ND	ug/l	5.0	1.0	4/25/05	20:05	K. Ahmed	6010B	7414

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56522
Sample ID: DW-4
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	0.750	mg/l	0.100	1.0	4/22/05	17:06	W. Choate	353.2	6799
Sulfate	17.5	mg/l	1.00	1.0	4/23/05	1:26	G. Baun	9056	6420

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	95.	70. - 130.
VOA Surr Toluene-d8	100.	78. - 121.
VOA Surr, 4-BFB	101.	78. - 126.
VOA Surr, DBFM	100.	79. - 122.
Surr - Acetylene	99.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.
EDB surrogate was diluted out due to sample matrix.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: ROB ROBINSON

Lab Number: 05-A56523
Sample ID: DW-5
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 15:00
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	2.8	ug/l	1.0	1.0	4/24/05	0:08	T McCollum	8260B	8
Toluene	6.4	ug/l	1.0	1.0	4/24/05	0:08	T McCollum	8260B	8433
Ethylbenzene	1.4	ug/l	1.0	1.0	4/24/05	0:08	T McCollum	8260B	8433
Xylenes (Total)	1.8	ug/l	1.0	1.0	4/24/05	0:08	T McCollum	8260B	8433
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/24/05	0:08	T McCollum	8260B	8433
Naphthalene	ND	ug/l	5.00	1.0	4/24/05	0:08	T McCollum	8260B	8433
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/24/05	0:08	T McCollum	8260B	8433
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/24/05	0:08	T McCollum	8260B	8433
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/24/05	0:08	T McCollum	8260B	8433
1,2-Dichloroethane	1.90	ug/l	1.00	1.0	4/24/05	0:08	T McCollum	8260B	8433
Ethanol	ND	ug/L	100.	1.0	4/24/05	0:08	T McCollum	8260B	8433
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/24/05	0:08	T McCollum	8260B	8433
t-Butyl Formate	ND	ug/L	10.0	1.0	4/24/05	0:08	T McCollum	8260B	8433
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/24/05	0:08	T McCollum	8260B	8433
Diisopropyl ether	ND	ug/l	5.00	1.0	4/24/05	0:08	T McCollum	8260/SA05-77	8433
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	9:42	M. Ricke	8011	6593
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/29/05	11:09	K. Roberso	RSK175M	7555
METALS									
Iron, Dissolved	ND	ug/l	50.0	1.0	4/26/05	15:23	G.McCord	6010B	8697
Lead	ND	ug/l	5.0	1.0	4/25/05	20:05	K. Ahmed	6010B	7414

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56523
Sample ID: DW-5
Project: C-04-12-008

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	0.440	mg/l	0.100	1.0	4/22/05	17:07	W. Choate	353.2	6799
Sulfate	80.3	mg/l	10.0	10.0	4/23/05	1:26	G. Baun	9056	6420

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	97.	70. - 130.
VOA Surr Toluene-d8	100.	78. - 121.
VOA Surr, 4-BFB	100.	78. - 126.
VOA Surr, DBFM	103.	79. - 122.
Surr., 1,3-DCB	107.	83. - 134.
Surr - Acetylene	85.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65

Laboratory Receipt Date: 4/22/05

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/l	0.232	0.261	0.0500	58#	62 - 146	8035	565
Benzene	mg/l	< 0.0003	0.0502	0.0500	100	62 - 146	8433	blank
Benzene	mg/l	< 0.0003	0.0480	0.0500	96	62 - 146	8474	blank
Toluene	mg/l	< 0.0002	0.0497	0.0500	99	68 - 141	8433	blank
Toluene	mg/l	< 0.0002	0.0481	0.0500	96	68 - 141	8474	blank
VOA Surr 1,2-DCA-d4	% Rec				94	70 - 130	8433	
VOA Surr 1,2-DCA-d4	% Rec				92	70 - 130	8474	
VOA Surr Toluene-d8	% Rec				100	78 - 121	8433	
VOA Surr Toluene-d8	% Rec				101	78 - 121	8474	
VOA Surr, 4-BFB	% Rec				97	78 - 126	8433	
VOA Surr, 4-BFB	% Rec				96	78 - 126	8474	
VOA Surr, DBFM	% Rec				100	79 - 122	8433	
VOA Surr, DBFM	% Rec				100	79 - 122	8474	
METALS								
Iron, Dissolved	mg/l	0.923	1.91	1.00	99	75. - 125.	7417	05-A56517
Iron, Dissolved	mg/l	< 0.0500	0.988	1.00	99	75. - 125.	8697	'56413
Lead	mg/l	< 0.0050	0.0460	0.0500	92	75. - 125.	7414	05-A56717
MISC PARAMETERS								
Nitrate-N as N	mg/l	4.58	10.4	6.00	97	90. - 110.	6795	05-A56439
Nitrate-N as N	mg/l	4.58	10.4	6.00	97	90. - 110.	6795	05-A56439
Nitrate-N as N	mg/l	0.440	6.24	6.00	97	90. - 110.	6799	05-A56523
Nitrate-N as N	mg/l	0.440	6.27	6.00	97	90. - 110.	6799	05-A56523
Sulfate	mg/l	6.15	20.2	15.0	94	80. - 120.	6419	05-A56439
Sulfate	mg/l	< 1.00	15.4	15.0	103	80. - 120.	6420	05-A56521

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 2
Laboratory Receipt Date: 4/22/05

Ethylene Dibromide	mg/l	< 0.00002	0.00030	0.00029	103	61. - 134.	6593	blank
Methane	mg/L	< 0.026	1.19	1.33	89	62. - 132.	7554	05-A56439
Methane	mg/L	< 0.026	1.08	1.33	81	62. - 132.	7555	05-A56521

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.261	0.254	2.72	25.	8035
Benzene	mg/l	0.0502	0.0507	0.99	25.	8433
Benzene	mg/l	0.0480	0.0488	1.65	25.	8474
Toluene	mg/l	0.0497	0.0507	1.99	29.	8433
Toluene	mg/l	0.0481	0.0490	1.85	29.	8474
VOA Surr 1,2-DCA-d4	% Rec		93.			8433
VOA Surr 1,2-DCA-d4	% Rec		92.			8474
VOA Surr Toluene-d8	% Rec		100.			8433
VOA Surr Toluene-d8	% Rec		101.			8474
VOA Surr, 4-BFB	% Rec		95.			8433
VOA Surr, 4-BFB	% Rec		97.			8474
VOA Surr, DBFM	% Rec		100.			8433
VOA Surr, DBFM	% Rec		101.			8474
METALS						
Iron, Dissolved	mg/l	1.91	1.93	1.04	20	7417
Iron, Dissolved	mg/l	0.988	1.04	5.13	20	8697
Lead	mg/l	0.0460	0.0480	4.26	20	7414
MISC PARAMETERS						
Ethylene Dibromide	mg/l	0.00030	0.00030	0.00	50	6593
Methane	mg/L	1.19	1.25	4.92	50	7554
Methane	mg/L	1.08	1.09	0.92	50	7555

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 3
Laboratory Receipt Date: 4/22/05

Nitrate-N as N	mg/l	10.4	10.4	0.00	20	6795
Nitrate-N as N	mg/l	6.24	6.27	0.48	20	6799
Sulfate	mg/l	20.2	20.2	0.00	20	6419
Sulfate	mg/l	15.4	15.5	0.65	20	6420

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Ethyl-t-butylether	mg/l	0.0500	0.0506	101	63 - 141	8035
Ethyl-t-butylether	mg/l	0.0500	0.0474	95	63 - 141	8433
Ethyl-t-butylether	mg/l	0.0500	0.0487	97	63 - 141	8474
tert-amyl methyl ether	mg/L	0.0500	0.0503	101	63 - 133	8035
tert-amyl methyl ether	mg/L	0.0500	0.0478	96	63 - 133	8433
tert-amyl methyl ether	mg/L	0.0500	0.0484	97	63 - 133	8474
Tertiary butyl alcohol	mg/l	0.500	0.496	99	41 - 160	8035
Tertiary butyl alcohol	mg/l	0.500	0.411	82	41 - 160	8433
Tertiary butyl alcohol	mg/l	0.500	0.474	95	41 - 160	8474
Benzene	mg/l	0.0500	0.0521	104	76 - 127	8035
Benzene	mg/l	0.0500	0.0482	96	76 - 127	8433
Benzene	mg/l	0.0500	0.0511	102	76 - 127	8474
1,2-Dichloroethane	mg/l	0.0500	0.0497	99	72 - 129	8035
1,2-Dichloroethane	mg/l	0.0500	0.0417	83	72 - 129	8433
1,2-Dichloroethane	mg/l	0.0500	0.0484	97	72 - 129	8474
Ethylbenzene	mg/l	0.0500	0.0515	103	80 - 124	8035
Ethylbenzene	mg/l	0.0500	0.0476	95	80 - 124	8433
Ethylbenzene	mg/l	0.0500	0.0493	99	80 - 124	8474
Naphthalene	mg/l	0.0500	0.0492	98	61 - 143	8035
Naphthalene	mg/l	0.0500	0.0488	98	61 - 143	8433
Naphthalene	mg/l	0.0500	0.0450	90	61 - 143	8474
Toluene	mg/l	0.0500	0.0483	97	79 - 124	8433
Toluene	mg/l	0.0500	0.0483	97	79 - 124	8439

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 4
Laboratory Receipt Date: 4/22/05

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Toluene	mg/l	0.0500	0.0500	100	79 - 124	8474
Xylenes (Total)	mg/l	0.150	0.142	95	80 - 125	8433
Xylenes (Total)	mg/l	0.150	0.142	95	80 - 125	8439
Xylenes (Total)	mg/l	0.150	0.149	99	80 - 125	8474
Ethanol	mg/L	5.00	5.28	106	40 - 163	8035
Ethanol	mg/L	5.00	4.89	98	40 - 163	8433
Ethanol	mg/L	5.00	4.67	93	40 - 163	8474
Methyl-t-butyl ether	mg/l	0.0500	0.0495	99	66 - 136	8035
Methyl-t-butyl ether	mg/l	0.0500	0.0459	92	66 - 136	8433
Methyl-t-butyl ether	mg/l	0.0500	0.0478	96	66 - 136	8474
t-Amyl Alcohol	mg/L	0.500	0.480	96	37 - 150	8035
t-Amyl Alcohol	mg/L	0.500	0.444	89	37 - 150	8433
t-Amyl Alcohol	mg/L	0.500	0.422	84	37 - 150	8474
t-Butyl Formate	mg/L	0.500	0.354	71	29 - 143	8035
t-Butyl Formate	mg/L	0.500	0.381	76	29 - 143	8433
t-Butyl Formate	mg/L	0.500	0.229	46	29 - 143	8474
Ethyl-t-butyl alcohol	mg/L	0.500	0.205	41	34 - 154	8035
Ethyl-t-butyl alcohol	mg/L	0.500	0.192	38	34 - 154	8433
Ethyl-t-butyl alcohol	mg/L	0.500	0.174	35	34 - 154	8474
Diisopropyl ether	mg/l	0.0500	0.0503	101	79 - 130	8035
Diisopropyl ether	mg/l	0.0500	0.0473	95	79 - 130	8433
Diisopropyl ether	mg/l	0.0500	0.0489	98	79 - 130	8474
Ethylene Dibromide	mg/l	0.00029	0.00030	103	70 - 133	6593
Methane	mg/L	1.33	1.35	102	79 - 121	7554
Methane	mg/L	2.66	2.76	104	79 - 121	7555
VOA Surr 1,2-DCA-d4	% Rec			80	70 - 130	8433
VOA Surr 1,2-DCA-d4	% Rec			80	70 - 130	8439
VOA Surr 1,2-DCA-d4	% Rec			91	70 - 130	8474
VOA Surr 1,2-DCA-d4	% Rec			91	70 - 130	8480
VOA Surr Toluene-d8	% Rec			101	78 - 121	8433
VOA Surr Toluene-d8	% Rec			101	78 - 121	8439

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 5
Laboratory Receipt Date: 4/22/05

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA Surr Toluene-d8	% Rec			100	78 - 121	8474
VOA Surr Toluene-d8	% Rec			100	78 - 121	8480
VOA Surr, 4-BFB	% Rec			97	78 - 126	8433
VOA Surr, 4-BFB	% Rec			97	78 - 126	8439
VOA Surr, 4-BFB	% Rec			96	78 - 126	8474
VOA Surr, 4-BFB	% Rec			96	78 - 126	8480
VOA Surr, DBFM	% Rec			98	79 - 122	8433
VOA Surr, DBFM	% Rec			98	79 - 122	8439
VOA Surr, DBFM	% Rec			101	79 - 122	8474
VOA Surr, DBFM	% Rec			101	79 - 122	8480
METALS						
Iron, Dissolved	mg/l	1.00	1.06	106	80 - 120	7417
Iron, Dissolved	mg/l	1.00	0.997	100	80 - 120	8697
Lead	mg/l	0.0500	0.0490	98	80 - 120	7414
MISC PARAMETERS						
Nitrate-N as N	mg/l	6.00	6.11	102	90 - 110	6795
Nitrate-N as N	mg/l	6.00	6.02	100	90 - 110	6799
Sulfate	mg/l	15.0	14.7	98	90 - 110	6419
Sulfate	mg/l	15.0	15.1	101	90 - 110	6420

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
Nitrate-N as N	mg/l	6.14	6.16	0.33	15.	6795	05-A56520
Nitrate-N as N	mg/l	29.2	29.1	0.34	15.	6799	05-A56617

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 6
Laboratory Receipt Date: 4/22/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Ethyl-t-butylether	< 0.0005	mg/l	8035	4/22/05	22:30
Ethyl-t-butylether	< 0.0005	mg/l	8433	4/23/05	21:25
Ethyl-t-butylether	< 0.0005	mg/l	8474	4/24/05	9:51
tert-amyl methyl ether	< 0.0005	mg/L	8035	4/22/05	22:30
tert-amyl methyl ether	< 0.0005	mg/L	8433	4/23/05	21:25
tert-amyl methyl ether	< 0.0005	mg/L	8474	4/24/05	9:51
Tertiary butyl alcohol	< 0.0063	mg/l	8035	4/22/05	22:30
Tertiary butyl alcohol	< 0.0063	mg/l	8433	4/23/05	21:25
Tertiary butyl alcohol	< 0.0063	mg/l	8474	4/24/05	9:51
Benzene	< 0.0003	mg/l	8035	4/22/05	22:30
Benzene	< 0.0003	mg/l	8433	4/23/05	21:25
Benzene	< 0.0003	mg/l	8474	4/24/05	9:51
1,2-Dichloroethane	< 0.00040	mg/l	8035	4/22/05	22:30
1,2-Dichloroethane	< 0.00040	mg/l	8433	4/23/05	21:25
1,2-Dichloroethane	< 0.00040	mg/l	8474	4/24/05	9:51
Ethylbenzene	< 0.0002	mg/l	8035	4/22/05	22:30
Ethylbenzene	< 0.0002	mg/l	8433	4/23/05	21:25
Ethylbenzene	< 0.0002	mg/l	8474	4/24/05	9:51
Naphthalene	< 0.00120	mg/l	8035	4/22/05	22:30
Naphthalene	< 0.00120	mg/l	8433	4/23/05	21:25
Naphthalene	< 0.00120	mg/l	8474	4/24/05	9:51
Toluene	< 0.0002	mg/l	8433	4/23/05	21:25
Toluene	< 0.0002	mg/l	8439	4/23/05	21:25
Toluene	< 0.0002	mg/l	8474	4/24/05	9:51
Xylenes (Total)	< 0.0006	mg/l	8433	4/23/05	21:25
Xylenes (Total)	< 0.0006	mg/l	8439	4/23/05	21:25
Xylenes (Total)	< 0.0006	mg/l	8474	4/24/05	9:51

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 7
Laboratory Receipt Date: 4/22/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Ethanol	< 0.0503	mg/L	8035	4/22/05	22:30
Ethanol	< 0.0503	mg/L	8433	4/23/05	21:25
Ethanol	< 0.0503	mg/L	8474	4/24/05	9:51
Methyl-t-butyl ether	< 0.0002	mg/l	8035	4/22/05	22:30
Methyl-t-butyl ether	< 0.0002	mg/l	8433	4/23/05	21:25
Methyl-t-butyl ether	< 0.0002	mg/l	8474	4/24/05	9:51
t-Amyl Alcohol	< 0.0050	mg/L	8035	4/22/05	22:30
t-Amyl Alcohol	< 0.0050	mg/L	8433	4/23/05	21:25
t-Amyl Alcohol	< 0.0050	mg/L	8474	4/24/05	9:51
t-Butyl Formate	< 0.0050	mg/L	8035	4/22/05	22:30
t-Butyl Formate	< 0.0050	mg/L	8433	4/23/05	21:25
t-Butyl Formate	< 0.0050	mg/L	8474	4/24/05	9:51
Ethyl-t-butyl alcohol	< 0.0050	mg/L	8035	4/22/05	22:30
Ethyl-t-butyl alcohol	< 0.0050	mg/L	8433	4/23/05	21:25
Ethyl-t-butyl alcohol	< 0.0050	mg/L	8474	4/24/05	9:51
Diisopropyl ether	< 0.00030	mg/l	8035	4/22/05	22:30
Diisopropyl ether	< 0.00030	mg/l	8433	4/23/05	21:25
Diisopropyl ether	< 0.00030	mg/l	8474	4/24/05	9:51
VOA Surr 1,2-DCA-d4	83.	% Rec	8433	4/23/05	21:25
VOA Surr 1,2-DCA-d4	83.	% Rec	8439	4/23/05	21:25
VOA Surr 1,2-DCA-d4	98.	% Rec	8474	4/24/05	9:51
VOA Surr 1,2-DCA-d4	98.	% Rec	8480	4/24/05	9:51
VOA Surr Toluene-d8	99.	% Rec	8433	4/23/05	21:25
VOA Surr Toluene-d8	99.	% Rec	8439	4/23/05	21:25
VOA Surr Toluene-d8	99.	% Rec	8474	4/24/05	9:51
VOA Surr Toluene-d8	99.	% Rec	8480	4/24/05	9:51
VOA Surr, 4-BFB	99.	% Rec	8433	4/23/05	21:25
VOA Surr, 4-BFB	99.	% Rec	8439	4/23/05	21:25
VOA Surr, 4-BFB	100.	% Rec	8474	4/24/05	9:51
VOA Surr, 4-BFB	100.	% Rec	8480	4/24/05	9:51
VOA Surr, DBFM	98.	% Rec	8433	4/23/05	21:25

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 8
Laboratory Receipt Date: 4/22/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
VOA Surr, DBFM	98.	% Rec	8439	4/23/05	21:25
VOA Surr, DBFM	102.	% Rec	8474	4/24/05	9:51
VOA Surr, DBFM	102.	% Rec	8480	4/24/05	9:51
METALS					
Iron, Dissolved	< 0.0300	mg/l	7417	4/26/05	10:52
Iron, Dissolved	< 0.0300	mg/l	8697	4/26/05	15:23
Lead	< 0.0024	mg/l	7414	4/25/05	20:05
MISC PARAMETERS					
Nitrate-N as N	< 0.100	mg/l	6795	4/22/05	16:47
Nitrate-N as N	< 0.100	mg/l	6799	4/22/05	17:04
Sulfate	< 1.00	mg/l	6419	4/22/05	15:18
Sulfate	< 1.00	mg/l	6420	4/23/05	1:26
Ethylene Dibromide	< 0.00002	mg/l	6593	4/29/05	2:54
Methane	< 0.026	mg/L	7554	4/27/05	12:57
Methane	< 0.026	mg/L	7555	4/29/05	10:24

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 413622

TESTAMERICA
ATLANTA SERVI

TestAmerica
ANALYTICAL TESTING CORPORATION

413610

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: CorbyTech Environmental Client #: 2628
Address: 1800 Macleod Dr Suite F
City/Zip Code: Lawrenceville, GA 30043
Project Manager: Jim Wilson
Telephone Number: 678 377 0400 Fax: 678 377 0051
Sampler Name: (Print Name) Rob Robinson
Sampler Signature: RR

Project Name: Former Clouds Chevron
Project #: C-04-12-009
Site/Location ID: Columbia State: SC
Report To: Jim Wilson
Invoice To:
Quote #: _____ PO#: _____

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX, MBE, NAP	1,2 DCA 8260B	EDB 8011	8 Oxygenates 8260B	Total Lead	Dissolved Iron	Nitrates	Sulfates	Methane			QC Deliverables: ___ None, ___ Level 2 (Batch QC), ___ Level 3, ___ Level 4, Other: _____ REMARKS
MW-11	4/19/05	1530	G	N	GW		4						3		2	2	1							56432
MW-12	4/20/05	800																						53
MW-13		815																						34
MW-16		845																						35
MW-17		900																						36
MW-26		1100																						37
MW-47		1615				1	9				3						1	1	1	2				56439
MW-48		1630																						40
MW-49		1645																						41
MW-50		1700																						42

Special Instructions:

	Date:	Time:		Date:	Time:
Relinquished By:	4/21/05	1900	Received By:		
Relinquished By:			Received By:		
Relinquished By:			Received By:	4/21/05	8:10

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

TestAmerica
ANALYTICAL TESTING CORPORATION

TESTAMERICA, INC.
ATLANTA SERVICE CENTER

413610

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring

Client Name: Consultech Environmental Client #: 2628
Address: 1800 MacLeod Dr Suite F
City/State/Zip Code: Lawrenceville, GA 30043
Project Manager: Jim Wilson
Telephone Number: 678 377 0400 Fax: 678 377 0051
Sampler Name: (Print Name) Rob Robinson
Sampler Signature:

Project Name: Former Clewis Chevron
Project #: GS4-12-009
Site/Location ID: Columbia State: SC
Report To: Jim Wilson
Invoice To:
Quote #: PO#:

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed:
Fax Results: Y N

QC Deliverables: ___ None; ___ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other:

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - GroundWater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX, MTBE, NAP, 1,2 DCA 8260B	EDB 8011	8 Oxygenates 8260B	Total Lead	Dissolved Iron	Nitrates	Sulfates	Methane			REMARKS
MW-51	4/21/05	1500	G	N	GW	1	3				3		3	2	2	1	1	1	1	2			56443
MW-52		1515																					44
MW-53		1715																					45
MW-54		1730																					46
MW-55		1745																					47
MW-56		1800																					48
MW-57		1300																					49
MW-58		1315																					50
MW-59		1330																					51
MW-60		1345																					52

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	4/21/05	1900			
Relinquished By:			Received By:		
Relinquished By:			Received By:	Date: 4/22/05	Time: 8:10

TestAmerica
ANALYTICAL TESTING CORPORATION

TESTAMERICA, INC.
ATLANTA SERVICE CENTER

413610

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Consultech Environmental Client #: 2628
Address: 1800 Mackland Dr. Suite F Project Name: Former Clouds Chevron
/Zip Code: Lawrenceville, GA 30043 Project #: C-04-12-009
t Manager: Jim Wilson Site/Location ID: Columbia State: SC
Telephone Number: 678 377 0400 Fax: 678 377 005 Report To: Jim Wilson
Sampler Name: (Print Name) Rob Robinson Invoice To: _____
Sampler Signature: _____ Quote #: _____ PO#: _____

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N

Matrix: DW - Drinking Water; GW - Groundwater; WW - Wastewater; S - Soil/Solid; SL - Sludge; Specify Other
Preservation & # of Containers: HNO3; HCl; NaOH; H2SO4; Methanol; None; Other (Specify)
Analyze For: BTEX, TMB, NAP 8260B; 1,2 DCA 8260B; EDB 8011; 8260 Oxygenates 8260B; Total Lead; Nitrates; Sulfates; Dissolved Iron; Methane

QC Deliverables: X None; ___ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	HNO3	HCl	NaOH	H2SO4	Methanol	None	Other (Specify)	BTEX, TMB, NAP 8260B	1,2 DCA 8260B	EDB 8011	8260 Oxygenates 8260B	Total Lead	Nitrates	Sulfates	Dissolved Iron	Methane			REMARKS
DW-7	4/21/05	1530	G	N	GW	1	9				X		3	2	2	1	1	1	1	2				56453
DW-8	↓	1545	↓	↓	↓	↓	↓				↓		↓	↓	↓	↓	↓	↓	↓	↓				↓54
SW-1	↓	1545	↓	↓	↓	↓	7				↓		↓	↓	↓	↓								56438

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

	Date:	Time:		Date:	Time:
Relinquished By:	4/21/05	1900	Received By:		
Relinquished By:			Received By:		
Relinquished By:			Received By:	4/22/05	8:10

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

4/29/05

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: FORMER CLOUDS CHEVRON
Project Number: C-04-12-009.
Laboratory Project Number: 413610.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Collection Date
MW-11	05-A56432	4/19/05
MW-12	05-A56433	4/21/05
MW-13	05-A56434	4/21/05
MW-16	05-A56435	4/21/05
MW-17	05-A56436	4/21/05
MW-26	05-A56437	4/21/05
SW-1	05-A56438	4/21/05
MW-47	05-A56439	4/21/05
MW-48	05-A56440	4/21/05
MW-49	05-A56441	4/21/05
MW-50	05-A56442	4/21/05
MW-51	05-A56443	4/21/05
MW-52	05-A56444	4/21/05
MW-53	05-A56445	4/21/05
MW-54	05-A56446	4/21/05
MW-55	05-A56447	4/21/05

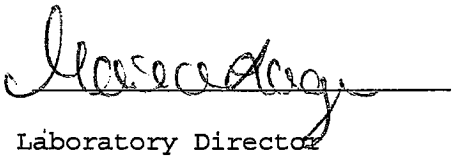
TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date
MW-56	05-A56448	4/21/05
MW-57	05-A56449	4/21/05
MW-58	05-A56450	4/21/05
MW-59	05-A56451	4/21/05
MW-60	05-A56452	4/21/05
DW-7	05-A56453	4/21/05
DW-8	05-A56454	4/21/05

A2LA certification number 0453.07 for analysis of wastewater and solid/hazardous waste.
NELAC/Florida certification number E87358 for analysis of environmental water, soil/hazardous waste, and drinking water effective 07/01/99-06/30/05.

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By:  Report Date: 4/29/05

Johnny A. Mitchell, Laboratory Director
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Senior Project Manager
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Senior Project Manager
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Senior Project Manag

Laboratory Certification Number: 84009

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56432
Sample ID: MW-11
Sample Type: Water
Site ID:

Date Collected: 4/19/05
Time Collected: 15:30
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	34.5	ug/l	1.0	1.0	4/28/05	9:00	A. Bruton	8260B	16
Toluene	20.0	ug/l	1.0	1.0	4/28/05	9:00	A. Bruton	8260B	1670
Ethylbenzene	2.0	ug/l	1.0	1.0	4/28/05	9:00	A. Bruton	8260B	1670
Xylenes (Total)	8.0	ug/l	1.0	1.0	4/28/05	9:00	A. Bruton	8260B	1670
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/28/05	9:00	A. Bruton	8260B	1670
Naphthalene	ND	ug/l	5.00	1.0	4/28/05	9:00	A. Bruton	8260B	1670
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/28/05	9:00	A. Bruton	8260B	1670
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/28/05	9:00	A. Bruton	8260B	1670
Tertiary butyl alcohol	26.5	ug/l	10.0	1.0	4/28/05	9:00	A. Bruton	8260B	1670
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/28/05	9:00	A. Bruton	8260B	1670
Ethanol	ND	ug/L	100.	1.0	4/28/05	9:00	A. Bruton	8260B	1670
t-Amyl Alcohol	1540	ug/L	10.0	1.0	4/28/05	9:00	A. Bruton	8260B	1670
t-Butyl Formate	ND	ug/L	10.0	1.0	4/28/05	9:00	A. Bruton	8260B	1670
Ethyl-t-butyl alcohol	176.	ug/L	10.0	1.0	4/28/05	9:00	A. Bruton	8260B	1670
Diisopropyl ether	ND	ug/l	5.00	1.0	4/28/05	9:00	A. Bruton	8260/SA05-77	1670
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/28/05	21:23	M. Ricke	8011	6591
METALS									
Lead	ND	ug/l	5.0	1.0	4/25/05	12:57	K. Ahmed	6010B	7413

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56432
Sample ID: MW-11
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	78.	70. - 130.
VOA Surr Toluene-d8	87.	78. - 121.
VOA Surr, 4-BFB	105.	78. - 126.
VOA Surr, DBFM	77. #	79. - 122.
Surr., 1,3-DCB	108.	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56433
Sample ID: MW-12
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 8:00
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	8550	ug/l	500.	500.	4/24/05	19:47	A. Bruton	8260B	9
Toluene	4000	ug/l	500.	500.	4/24/05	19:47	A. Bruton	8260B	9272
Ethylbenzene	1460	ug/l	20.0	20.0	4/24/05	19:23	A. Bruton	8260B	9270
Xylenes (Total)	2640	ug/l	20.0	20.0	4/24/05	19:23	A. Bruton	8260B	9270
Methyl-t-butyl ether	69.0	ug/l	1.0	1.0	4/23/05	14:45	S. Edwards	8260B	7959
Naphthalene	314.	ug/l	100.	20.0	4/24/05	19:23	A. Bruton	8260B	9270
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/23/05	14:45	S. Edwards	8260B	7959
tert-amyl methyl ether	91.3	ug/L	1.0	1.0	4/23/05	14:45	S. Edwards	8260B	7959
Tertiary butyl alcohol	191.	ug/l	10.0	1.0	4/23/05	14:45	S. Edwards	8260B	7959
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/23/05	14:45	S. Edwards	8260B	7959
Ethanol	ND	ug/L	100.	1.0	4/23/05	14:45	S. Edwards	8260B	7959
t-Amyl Alcohol	9840	ug/L	200.	20.0	4/24/05	19:23	A. Bruton	8260B	9270
t-Butyl Formate	ND	ug/L	10.0	1.0	4/23/05	14:45	S. Edwards	8260B	7959
Ethyl-t-butyl alcohol	730.	ug/L	10.0	1.0	4/23/05	14:45	S. Edwards	8260B	7959
Diisopropyl ether	816.	ug/l	100.	20.0	4/24/05	19:23	A. Bruton	8260/SA05-77	9270
VOLATILE ORGANICS by GC									
Ethylene Dibromide	0.10	ug/l	0.02	1.0	4/29/05	11:03	M. Ricke	8011	6591
METALS									
Lead	ND	ug/l	5.0	1.0	4/25/05	12:57	K. Ahmed	6010B	7413

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56433
Sample ID: MW-12
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	87.	70. - 130.
VOA Surr Toluene-d8	87.	78. - 121.
VOA Surr, 4-BFB	108.	78. - 126.
VOA Surr, DBFM	87.	79. - 122.
Surr., 1,3-DCB	83.0	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
The difference between the two channels for the EDB 8011 result is greater than forty percent.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56434
Sample ID: MW-13
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 8:15
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/23/05	19:19	S. Edwards	8260B	7
Toluene	ND	ug/l	1.0	1.0	4/23/05	19:19	S. Edwards	8260B	7965
Ethylbenzene	ND	ug/l	1.0	1.0	4/23/05	19:19	S. Edwards	8260B	7965
Xylenes (Total)	ND	ug/l	1.0	1.0	4/23/05	19:19	S. Edwards	8260B	7965
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/23/05	19:19	S. Edwards	8260B	7965
Naphthalene	ND	ug/l	5.00	1.0	4/23/05	19:19	S. Edwards	8260B	7965
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/23/05	19:19	S. Edwards	8260B	7965
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/23/05	19:19	S. Edwards	8260B	7965
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/23/05	19:19	S. Edwards	8260B	7965
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/23/05	19:19	S. Edwards	8260B	7965
Ethanol	ND	ug/L	100.	1.0	4/23/05	19:19	S. Edwards	8260B	7965
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/23/05	19:19	S. Edwards	8260B	7965
t-Butyl Formate	ND	ug/L	10.0	1.0	4/23/05	19:19	S. Edwards	8260B	7965
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/23/05	19:19	S. Edwards	8260B	7965
Diisopropyl ether	ND	ug/l	5.00	1.0	4/23/05	19:19	S. Edwards	8260/SA05-77	7965
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/28/05	22:22	M. Ricke	8011	6591
METALS									
Lead	ND	ug/l	5.0	1.0	4/25/05	12:57	K. Ahmed	6010B	7413

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56434
Sample ID: MW-13
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	87.	70. - 130.
VOA Surr Toluene-d8	87.	78. - 121.
VOA Surr, 4-BFB	107.	78. - 126.
VOA Surr, DBFM	87.	79. - 122.
Surr., 1,3-DCB	91.0	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56435
Sample ID: MW-16
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 8:45
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/23/05	19:44	S. Edwards	8260B	7
Toluene	1.6	ug/l	1.0	1.0	4/23/05	19:44	S. Edwards	8260B	7965
Ethylbenzene	ND	ug/l	1.0	1.0	4/23/05	19:44	S. Edwards	8260B	7965
Xylenes (Total)	7.7	ug/l	1.0	1.0	4/23/05	19:44	S. Edwards	8260B	7965
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/23/05	19:44	S. Edwards	8260B	7965
Naphthalene	ND	ug/l	5.00	1.0	4/23/05	19:44	S. Edwards	8260B	7965
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/23/05	19:44	S. Edwards	8260B	7965
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/23/05	19:44	S. Edwards	8260B	7965
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/23/05	19:44	S. Edwards	8260B	7965
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/23/05	19:44	S. Edwards	8260B	7965
Ethanol	ND	ug/L	100.	1.0	4/23/05	19:44	S. Edwards	8260B	7965
t-Amyl Alcohol	171.	ug/L	10.0	1.0	4/23/05	19:44	S. Edwards	8260B	7965
t-Butyl Formate	ND	ug/L	10.0	1.0	4/23/05	19:44	S. Edwards	8260B	7965
Ethyl-t-butyl alcohol	16.7	ug/L	10.0	1.0	4/23/05	19:44	S. Edwards	8260B	7965
Diisopropyl ether	ND	ug/l	5.00	1.0	4/23/05	19:44	S. Edwards	8260/SA05-77	7965
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/28/05	22:41	M. Ricke	8011	6591
METALS									
Lead	ND	ug/l	5.0	1.0	4/25/05	12:57	K. Ahmed	6010B	7413

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56435
Sample ID: MW-16
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	86.	70. - 130.
VOA Surr Toluene-d8	88.	78. - 121.
VOA Surr, 4-BFB	105.	78. - 126.
VOA Surr, DBFM	86.	79. - 122.
Surr., 1,3-DCB	95.0	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56436
Sample ID: MW-17
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 9:00
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	4720	ug/l	100.	100.	4/24/05	20:12	A. Bruton	8260B	9
Toluene	32600	ug/l	1000	1000	4/24/05	20:37	A. Bruton	8260B	9272
Ethylbenzene	4440	ug/l	100.	100.	4/24/05	20:12	A. Bruton	8260B	9270
Xylenes (Total)	23700	ug/l	100.	100.	4/24/05	20:12	A. Bruton	8260B	9270
Methyl-t-butyl ether	2.2	ug/l	1.0	1.0	4/23/05	20:09	S. Edwards	8260B	7965
Naphthalene	620.	ug/l	500.	100.	4/24/05	20:12	A. Bruton	8260B	9270
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/23/05	20:09	S. Edwards	8260B	7965
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/23/05	20:09	S. Edwards	8260B	7965
Tertiary butyl alcohol	97.8	ug/l	10.0	1.0	4/23/05	20:09	S. Edwards	8260B	7965
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/23/05	20:09	S. Edwards	8260B	7965
Ethanol	ND	ug/L	100.	1.0	4/23/05	20:09	S. Edwards	8260B	7965
t-Amyl Alcohol	13800	ug/L	1000	100.	4/24/05	20:12	A. Bruton	8260B	9270
t-Butyl Formate	ND	ug/L	10.0	1.0	4/23/05	20:09	S. Edwards	8260B	7965
Ethyl-t-butyl alcohol	1260	ug/L	1000	100.	4/24/05	20:12	A. Bruton	8260B	9270
Diisopropyl ether	55.1	ug/l	5.00	1.0	4/23/05	20:09	S. Edwards	8260/SA05-77	7965
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/28/05	23:01	M. Ricke	8011	6591
METALS									
Lead	48.0	ug/l	5.0	1.0	4/25/05	12:57	K. Ahmed	6010B	7413

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56436
Sample ID: MW-17
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	87.	70. - 130.
VOA Surr Toluene-d8	86.	78. - 121.
VOA Surr, 4-BFB	106.	78. - 126.
VOA Surr, DBFM	88.	79. - 122.
Surr., 1,3-DCB	80.0 #	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56437
Sample ID: MW-26
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 11:00
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/24/05	16:54	A. Bruton	8260B	9[illegible]
Toluene	ND	ug/l	1.0	1.0	4/24/05	16:54	A. Bruton	8260B	9270
Ethylbenzene	ND	ug/l	1.0	1.0	4/24/05	16:54	A. Bruton	8260B	9270
Xylenes (Total)	ND	ug/l	1.0	1.0	4/24/05	16:54	A. Bruton	8260B	9270
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/24/05	16:54	A. Bruton	8260B	9270
Naphthalene	ND	ug/l	5.00	1.0	4/24/05	16:54	A. Bruton	8260B	9270
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/24/05	16:54	A. Bruton	8260B	9270
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/24/05	16:54	A. Bruton	8260B	9270
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/24/05	16:54	A. Bruton	8260B	9270
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/24/05	16:54	A. Bruton	8260B	9270
Ethanol	ND	ug/L	100.	1.0	4/24/05	16:54	A. Bruton	8260B	9270
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/24/05	16:54	A. Bruton	8260B	9270
t-Butyl Formate	ND	ug/L	10.0	1.0	4/24/05	16:54	A. Bruton	8260B	9270
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/24/05	16:54	A. Bruton	8260B	9270
Diisopropyl ether	ND	ug/l	5.00	1.0	4/24/05	16:54	A. Bruton	8260/SA05-77	9270
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/28/05	23:20	M. Ricke	8011	6591
METALS									
Lead	ND	ug/l	5.0	1.0	4/25/05	12:57	K. Ahmed	6010B	7413

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56437
Sample ID: MW-26
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	88.	70. - 130.
VOA Surr Toluene-d8	88.	78. - 121.
VOA Surr, 4-BFB	107.	78. - 126.
VOA Surr, DBFM	87.	79. - 122.
Surr., 1,3-DCB	68.0 #	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56439
Sample ID: MW-47
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 16:15
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	5.8	ug/l	1.0	1.0	4/23/05	7:59	S. Edwards	8260B	7
Toluene	ND	ug/l	1.0	1.0	4/23/05	7:59	S. Edwards	8260B	7959
Ethylbenzene	ND	ug/l	1.0	1.0	4/23/05	7:59	S. Edwards	8260B	7959
Xylenes (Total)	7.5	ug/l	1.0	1.0	4/23/05	7:59	S. Edwards	8260B	7959
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/23/05	7:59	S. Edwards	8260B	7959
Naphthalene	ND	ug/l	5.00	1.0	4/23/05	7:59	S. Edwards	8260B	7959
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/23/05	7:59	S. Edwards	8260B	7959
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/23/05	7:59	S. Edwards	8260B	7959
Tertiary butyl alcohol	54.2	ug/l	10.0	1.0	4/23/05	7:59	S. Edwards	8260B	7959
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/23/05	7:59	S. Edwards	8260B	7959
Ethanol	ND	ug/L	100.	1.0	4/23/05	7:59	S. Edwards	8260B	7959
t-Amyl Alcohol	3710	ug/L	100.	10.0	4/25/05	16:32	A. Bruton	8260B	9287
t-Butyl Formate	ND	ug/L	10.0	1.0	4/23/05	7:59	S. Edwards	8260B	7959
Ethyl-t-butyl alcohol	369.	ug/L	10.0	1.0	4/23/05	7:59	S. Edwards	8260B	7959
Diisopropyl ether	ND	ug/l	5.00	1.0	4/23/05	7:59	S. Edwards	8260/SA05-77	7959
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/28/05	23:59	M. Ricke	8011	6591
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/27/05	14:37	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	56.0	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	ND	ug/l	5.0	1.0	4/25/05	12:57	K. Ahmed	6010B	7413

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56439
Sample ID: MW-47
Project: C-04-12-009

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	4.58	mg/l	0.100	1.0	4/22/05	18:23	W. Choate	353.2	6795
Sulfate	6.15	mg/l	1.00	1.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	86.	70. - 130.
VOA Surr Toluene-d8	86.	78. - 121.
VOA Surr, 4-BFB	104.	78. - 126.
VOA Surr, DBFM	87.	79. - 122.
Surr., 1,3-DCB	85.0	83. - 134.
Surr - Acetylene	97.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56440
Sample ID: MW-48
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 16:30
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/23/05	8:24	S. Edwards	8260B	7
Toluene	ND	ug/l	1.0	1.0	4/23/05	8:24	S. Edwards	8260B	7959
Ethylbenzene	ND	ug/l	1.0	1.0	4/23/05	8:24	S. Edwards	8260B	7959
Xylenes (Total)	ND	ug/l	1.0	1.0	4/23/05	8:24	S. Edwards	8260B	7959
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/23/05	8:24	S. Edwards	8260B	7959
Naphthalene	ND	ug/l	5.00	1.0	4/23/05	8:24	S. Edwards	8260B	7959
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/23/05	8:24	S. Edwards	8260B	7959
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/23/05	8:24	S. Edwards	8260B	7959
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/23/05	8:24	S. Edwards	8260B	7959
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/23/05	8:24	S. Edwards	8260B	7959
Ethanol	ND	ug/L	100.	1.0	4/23/05	8:24	S. Edwards	8260B	7959
t-Amyl Alcohol	49.9	ug/L	10.0	1.0	4/23/05	8:24	S. Edwards	8260B	7959
t-Butyl Formate	ND	ug/L	10.0	1.0	4/23/05	8:24	S. Edwards	8260B	7959
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/23/05	8:24	S. Edwards	8260B	7959
Diisopropyl ether	ND	ug/l	5.00	1.0	4/23/05	8:24	S. Edwards	8260/SA05-77	7959
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	0:19	M. Ricke	8011	6591
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/27/05	14:57	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	ND	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	6.9	ug/l	5.0	1.0	4/25/05	12:57	K. Ahmed	6010B	7413

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56440
Sample ID: MW-48
Project: C-04-12-009

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	8.85	mg/l	0.100	1.0	4/22/05	16:51	W. Choate	353.2	6795
Sulfate	126.	mg/l	10.0	10.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	86.	70. - 130.
VOA Surr Toluene-d8	86.	78. - 121.
VOA Surr, 4-BFB	105.	78. - 126.
VOA Surr, DBFM	88.	79. - 122.
Surr., 1,3-DCB	82.0 #	83. - 134.
Surr - Acetylene	94.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56441
Sample ID: MW-49
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 16:45
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/23/05	8:49	S. Edwards	8260B	7[illegible]
Toluene	ND	ug/l	1.0	1.0	4/23/05	8:49	S. Edwards	8260B	7959
Ethylbenzene	ND	ug/l	1.0	1.0	4/23/05	8:49	S. Edwards	8260B	7959
Xylenes (Total)	ND	ug/l	1.0	1.0	4/23/05	8:49	S. Edwards	8260B	7959
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/23/05	8:49	S. Edwards	8260B	7959
Naphthalene	ND	ug/l	5.00	1.0	4/23/05	8:49	S. Edwards	8260B	7959
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/23/05	8:49	S. Edwards	8260B	7959
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/23/05	8:49	S. Edwards	8260B	7959
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/23/05	8:49	S. Edwards	8260B	7959
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/23/05	8:49	S. Edwards	8260B	7959
Ethanol	ND	ug/L	100.	1.0	4/23/05	8:49	S. Edwards	8260B	7959
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/23/05	8:49	S. Edwards	8260B	7959
t-Butyl Formate	ND	ug/L	10.0	1.0	4/23/05	8:49	S. Edwards	8260B	7959
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/23/05	8:49	S. Edwards	8260B	7959
Diisopropyl ether	ND	ug/l	5.00	1.0	4/23/05	8:49	S. Edwards	8260/SA05-77	7959
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	0:38	M. Ricke	8011	6591
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/27/05	15:01	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	ND	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	ND	ug/l	5.0	1.0	4/25/05	12:57	K. Ahmed	6010B	7413

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56441
Sample ID: MW-49
Project: C-04-12-009

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	18.4	mg/l	0.200	2.0	4/22/05	17:18	W. Choate	353.2	6795
Sulfate	61.0	mg/l	5.00	5.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	87.	70. - 130.
VOA Surr Toluene-d8	87.	78. - 121.
VOA Surr, 4-BFB	106.	78. - 126.
VOA Surr, DBFM	87.	79. - 122.
Surr., 1,3-DCB	88.0	83. - 134.
Surr - Acetylene	91.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56442
Sample ID: MW-50
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 17:00
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/23/05	9:14	S. Edwards	8260B	7
Toluene	ND	ug/l	1.0	1.0	4/23/05	9:14	S. Edwards	8260B	7959
Ethylbenzene	ND	ug/l	1.0	1.0	4/23/05	9:14	S. Edwards	8260B	7959
Xylenes (Total)	ND	ug/l	1.0	1.0	4/23/05	9:14	S. Edwards	8260B	7959
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/23/05	9:14	S. Edwards	8260B	7959
Naphthalene	ND	ug/l	5.00	1.0	4/23/05	9:14	S. Edwards	8260B	7959
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/23/05	9:14	S. Edwards	8260B	7959
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/23/05	9:14	S. Edwards	8260B	7959
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/23/05	9:14	S. Edwards	8260B	7959
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/23/05	9:14	S. Edwards	8260B	7959
Ethanol	ND	ug/L	100.	1.0	4/23/05	9:14	S. Edwards	8260B	7959
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/23/05	9:14	S. Edwards	8260B	7959
t-Butyl Formate	ND	ug/L	10.0	1.0	4/23/05	9:14	S. Edwards	8260B	7959
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/23/05	9:14	S. Edwards	8260B	7959
Diisopropyl ether	ND	ug/l	5.00	1.0	4/23/05	9:14	S. Edwards	8260/SA05-77	7959
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	0:57	M. Ricke	8011	6591
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/27/05	15:07	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	ND	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	ND	ug/l	5.0	1.0	4/25/05	12:57	K. Ahmed	6010B	7413

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56442
Sample ID: MW-50
Project: C-04-12-009

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	0.670	mg/l	0.100	1.0	4/22/05	16:52	W. Choate	353.2	6795
Sulfate	51.5	mg/l	5.00	5.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	86.	70. - 130.
VOA Surr Toluene-d8	87.	78. - 121.
VOA Surr, 4-BFB	106.	78. - 126.
VOA Surr, DBFM	88.	79. - 122.
Surr., 1,3-DCB	68.0 #	83. - 134.
Surr - Acetylene	98.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56443
Sample ID: MW-51
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 15:00
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/23/05	9:39	S. Edwards	8260B	7959
Toluene	ND	ug/l	1.0	1.0	4/23/05	9:39	S. Edwards	8260B	7959
Ethylbenzene	ND	ug/l	1.0	1.0	4/23/05	9:39	S. Edwards	8260B	7959
Xylenes (Total)	ND	ug/l	1.0	1.0	4/23/05	9:39	S. Edwards	8260B	7959
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/23/05	9:39	S. Edwards	8260B	7959
Naphthalene	ND	ug/l	5.00	1.0	4/23/05	9:39	S. Edwards	8260B	7959
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/23/05	9:39	S. Edwards	8260B	7959
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/23/05	9:39	S. Edwards	8260B	7959
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/23/05	9:39	S. Edwards	8260B	7959
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/23/05	9:39	S. Edwards	8260B	7959
Ethanol	ND	ug/L	100.	1.0	4/23/05	9:39	S. Edwards	8260B	7959
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/23/05	9:39	S. Edwards	8260B	7959
t-Butyl Formate	ND	ug/L	10.0	1.0	4/23/05	9:39	S. Edwards	8260B	7959
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/23/05	9:39	S. Edwards	8260B	7959
Diisopropyl ether	ND	ug/l	5.00	1.0	4/23/05	9:39	S. Edwards	8260/SA05-77	7959
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	1:36	M. Ricke	8011	6591
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/27/05	15:12	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	ND	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	ND	ug/l	5.0	1.0	4/25/05	12:57	K. Ahmed	6010B	7413

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56443
Sample ID: MW-51
Project: C-04-12-009

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	4.52	mg/l	0.100	1.0	4/22/05	16:54	W. Choate	353.2	6795
Sulfate	1.70	mg/l	1.00	1.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	86.	70. - 130.
VOA Surr Toluene-d8	86.	78. - 121.
VOA Surr, 4-BFB	104.	78. - 126.
VOA Surr, DBFM	88.	79. - 122.
Surr., 1,3-DCB	106.	83. - 134.
Surr - Acetylene	99.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56444
Sample ID: MW-52
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 15:15
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/24/05	15:39	A. Bruton	8260B	9[illegible]
Toluene	ND	ug/l	1.0	1.0	4/24/05	15:39	A. Bruton	8260B	9270
Ethylbenzene	ND	ug/l	1.0	1.0	4/24/05	15:39	A. Bruton	8260B	9270
Xylenes (Total)	ND	ug/l	1.0	1.0	4/24/05	15:39	A. Bruton	8260B	9270
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/24/05	15:39	A. Bruton	8260B	9270
Naphthalene	ND	ug/l	5.00	1.0	4/24/05	15:39	A. Bruton	8260B	9270
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/24/05	15:39	A. Bruton	8260B	9270
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/24/05	15:39	A. Bruton	8260B	9270
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/24/05	15:39	A. Bruton	8260B	9270
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/24/05	15:39	A. Bruton	8260B	9270
Ethanol	ND	ug/L	100.	1.0	4/24/05	15:39	A. Bruton	8260B	9270
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/24/05	15:39	A. Bruton	8260B	9270
t-Butyl Formate	ND	ug/L	10.0	1.0	4/24/05	15:39	A. Bruton	8260B	9270
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/24/05	15:39	A. Bruton	8260B	9270
Diisopropyl ether	ND	ug/l	5.00	1.0	4/24/05	15:39	A. Bruton	8260/SA05-77	9270
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	1:56	M. Ricke	8011	6591
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/27/05	15:26	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	821.	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	ND	ug/l	5.0	1.0	4/25/05	12:57	K. Ahmed	6010B	7413

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56444
Sample ID: MW-52
Project: C-04-12-009

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	4.74	mg/l	0.100	1.0	4/22/05	16:54	W. Choate	353.2	6795
Sulfate	4.14	mg/l	1.00	1.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	87.	70. - 130.
VOA Surr Toluene-d8	87.	78. - 121.
VOA Surr, 4-BFB	108.	78. - 126.
VOA Surr, DBFM	87.	79. - 122.
Surr., 1,3-DCB	111.	83. - 134.
Surr - Acetylene	96.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56445
Sample ID: MW-53
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 17:15
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	1.5	ug/l	1.0	1.0	4/24/05	16:03	A. Bruton	8260B	9
Toluene	ND	ug/l	1.0	1.0	4/24/05	16:03	A. Bruton	8260B	9270
Ethylbenzene	ND	ug/l	1.0	1.0	4/24/05	16:03	A. Bruton	8260B	9270
Xylenes (Total)	ND	ug/l	1.0	1.0	4/24/05	16:03	A. Bruton	8260B	9270
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/24/05	16:03	A. Bruton	8260B	9270
Naphthalene	ND	ug/l	5.00	1.0	4/24/05	16:03	A. Bruton	8260B	9270
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/24/05	16:03	A. Bruton	8260B	9270
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/24/05	16:03	A. Bruton	8260B	9270
Tertiary butyl alcohol	19.9	ug/l	10.0	1.0	4/24/05	16:03	A. Bruton	8260B	9270
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/24/05	16:03	A. Bruton	8260B	9270
Ethanol	ND	ug/L	100.	1.0	4/24/05	16:03	A. Bruton	8260B	9270
t-Amyl Alcohol	533.	ug/L	10.0	1.0	4/24/05	16:03	A. Bruton	8260B	9270
t-Butyl Formate	ND	ug/L	10.0	1.0	4/24/05	16:03	A. Bruton	8260B	9270
Ethyl-t-butyl alcohol	75.9	ug/L	10.0	1.0	4/24/05	16:03	A. Bruton	8260B	9270
Diisopropyl ether	ND	ug/l	5.00	1.0	4/24/05	16:03	A. Bruton	8260/SA05-77	9270
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	2:16	M. Ricke	8011	6591
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/27/05	15:38	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	3010	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	ND	ug/l	5.0	1.0	4/25/05	12:57	K. Ahmed	6010B	7413

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56445
Sample ID: MW-53
Project: C-04-12-009

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	1.48	mg/l	0.100	1.0	4/22/05	16:55	W. Choate	353.2	6795
Sulfate	14.6	mg/l	1.00	1.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	82.	70. - 130.
VOA Surr Toluene-d8	88.	78. - 121.
VOA Surr, 4-BFB	108.	78. - 126.
VOA Surr, DBFM	81.	79. - 122.
Surr., 1,3-DCB	101.	83. - 134.
Surr - Acetylene	97.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56446
Sample ID: MW-54
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 17:30
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	139.	ug/l	1.0	1.0	4/24/05	16:28	A. Bruton	8260B	9[redacted]
Toluene	ND	ug/l	1.0	1.0	4/24/05	16:28	A. Bruton	8260B	9270
Ethylbenzene	ND	ug/l	1.0	1.0	4/24/05	16:28	A. Bruton	8260B	9270
Xylenes (Total)	2.8	ug/l	1.0	1.0	4/24/05	16:28	A. Bruton	8260B	9270
Methyl-t-butyl ether	14.8	ug/l	1.0	1.0	4/24/05	16:28	A. Bruton	8260B	9270
Naphthalene	ND	ug/l	5.00	1.0	4/24/05	16:28	A. Bruton	8260B	9270
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/24/05	16:28	A. Bruton	8260B	9270
tert-amyl methyl ether	5.2	ug/L	1.0	1.0	4/24/05	16:28	A. Bruton	8260B	9270
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/24/05	16:28	A. Bruton	8260B	9270
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/24/05	16:28	A. Bruton	8260B	9270
Ethanol	ND	ug/L	100.	1.0	4/24/05	16:28	A. Bruton	8260B	9270
t-Amyl Alcohol	263.	ug/L	10.0	1.0	4/24/05	16:28	A. Bruton	8260B	9270
t-Butyl Formate	ND	ug/L	10.0	1.0	4/24/05	16:28	A. Bruton	8260B	9270
Ethyl-t-butyl alcohol	17.5	ug/L	10.0	1.0	4/24/05	16:28	A. Bruton	8260B	9270
Diisopropyl ether	29.0	ug/l	5.00	1.0	4/24/05	16:28	A. Bruton	8260/SA05-77	9270
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	2:35	M. Ricke	8011	6591
MISCELLANEOUS GC PARAMETERS									
Methane	1530	ug/L	26.	1.0	4/27/05	15:42	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	ND	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	60.0	ug/l	5.0	1.0	4/25/05	20:05	K. Ahmed	6010B	7414

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56446
Sample ID: MW-54
Project: C-04-12-009

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	ND	mg/l	0.100	1.0	4/22/05	16:55	W. Choate	353.2	6795
Sulfate	24.6	mg/l	1.00	1.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	84.	70. - 130.
VOA Surr Toluene-d8	87.	78. - 121.
VOA Surr, 4-BFB	106.	78. - 126.
VOA Surr, DBFM	88.	79. - 122.
Surr., 1,3-DCB	81.0 #	83. - 134.
Surr - Acetylene	96.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56447
Sample ID: MW-55
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 17:45
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	213.	ug/l	5.0	5.0	4/24/05	18:58	A. Bruton	8260B	92
Toluene	ND	ug/l	1.0	1.0	4/24/05	18:33	A. Bruton	8260B	9270
Ethylbenzene	5.8	ug/l	1.0	1.0	4/24/05	18:33	A. Bruton	8260B	9270
Xylenes (Total)	ND	ug/l	1.0	1.0	4/24/05	18:33	A. Bruton	8260B	9270
Methyl-t-butyl ether	329.	ug/l	5.0	5.0	4/24/05	18:58	A. Bruton	8260B	9272
Naphthalene	16.9	ug/l	5.00	1.0	4/24/05	18:33	A. Bruton	8260B	9270
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/24/05	18:33	A. Bruton	8260B	9270
tert-amyl methyl ether	11.2	ug/L	1.0	1.0	4/24/05	18:33	A. Bruton	8260B	9270
Tertiary butyl alcohol	129.	ug/l	10.0	1.0	4/24/05	18:33	A. Bruton	8260B	9270
1,2-Dichloroethane	18.6	ug/l	1.00	1.0	4/24/05	18:33	A. Bruton	8260B	9270
Ethanol	ND	ug/L	100.	1.0	4/24/05	18:33	A. Bruton	8260B	9270
t-Amyl Alcohol	724.	ug/L	10.0	1.0	4/24/05	18:33	A. Bruton	8260B	9270
t-Butyl Formate	ND	ug/L	10.0	1.0	4/24/05	18:33	A. Bruton	8260B	9270
Ethyl-t-butyl alcohol	59.2	ug/L	10.0	1.0	4/24/05	18:33	A. Bruton	8260B	9270
Diisopropyl ether	63.4	ug/l	5.00	1.0	4/24/05	18:33	A. Bruton	8260/SA05-77	9270
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	4:12	M. Ricke	8011	6593
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/27/05	15:48	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	1680	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	ND	ug/l	5.0	1.0	4/25/05	20:05	K. Ahmed	6010B	7414

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56447
Sample ID: MW-55
Project: C-04-12-009

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	ND	mg/l	0.100	1.0	4/22/05	16:56	W. Choate	353.2	6795
Sulfate	19.9	mg/l	1.00	1.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	87.	70. - 130.
VOA Surr Toluene-d8	87.	78. - 121.
VOA Surr, 4-BFB	106.	78. - 126.
VOA Surr, DBFM	87.	79. - 122.
Surr., 1,3-DCB	99.0	83. - 134.
Surr - Acetylene	94.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56448
Sample ID: MW-56
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 18:00
Date Received: 4/22/05
Time Received: 8:10

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/22/05	17:26	S. Edwards	8260B	8
Toluene	ND	ug/l	1.0	1.0	4/22/05	17:26	S. Edwards	8260B	8029
Ethylbenzene	ND	ug/l	1.0	1.0	4/22/05	17:26	S. Edwards	8260B	8029
Xylenes (Total)	ND	ug/l	1.0	1.0	4/22/05	17:26	S. Edwards	8260B	8029
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/22/05	17:26	S. Edwards	8260B	8029
Naphthalene	ND	ug/l	5.00	1.0	4/22/05	17:26	S. Edwards	8260B	8029
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	17:26	S. Edwards	8260B	8029
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/22/05	17:26	S. Edwards	8260B	8029
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/22/05	17:26	S. Edwards	8260B	8029
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	17:26	S. Edwards	8260B	8029
Ethanol	ND	ug/L	100.	1.0	4/22/05	17:26	S. Edwards	8260B	8029
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/22/05	17:26	S. Edwards	8260B	8029
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	17:26	S. Edwards	8260B	8029
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/22/05	17:26	S. Edwards	8260B	8029
Diisopropyl ether	ND	ug/l	5.00	1.0	4/22/05	17:26	S. Edwards	8260/SA05-77	8029
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	5:11	M. Ricke	8011	6593
MISCELLANEOUS GC PARAMETERS									
Methane	76.	ug/L	26.	1.0	4/27/05	15:51	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	ND	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	ND	ug/l	5.0	1.0	4/25/05	20:05	K. Ahmed	6010B	7414

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56448
Sample ID: MW-56
Project: C-04-12-009

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	4.25	mg/l	0.100	1.0	4/22/05	16:56	W. Choate	353.2	6795
Sulfate	36.4	mg/l	1.00	1.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	99.	70. - 130.
VOA Surr Toluene-d8	100.	78. - 121.
VOA Surr, 4-BFB	102.	78. - 126.
VOA Surr, DBFM	102.	79. - 122.
Surr., 1,3-DCB	76.0 #	83. - 134.
Surr - Acetylene	98.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56449
Sample ID: MW-57
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 13:00
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	8390	ug/l	100.	100.	4/24/05	5:34	T McCollum	8260B	8
Toluene	5400	ug/l	100.	100.	4/24/05	5:34	T McCollum	8260B	8439
Ethylbenzene	1170	ug/l	10.0	10.0	4/24/05	5:11	T McCollum	8260B	8433
Xylenes (Total)	4390	ug/l	10.0	10.0	4/24/05	5:11	T McCollum	8260B	8433
Methyl-t-butyl ether	1590	ug/l	10.0	10.0	4/24/05	5:11	T McCollum	8260B	8433
Naphthalene	240.	ug/l	50.0	10.0	4/24/05	5:11	T McCollum	8260B	8433
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	17:49	S. Edwards	8260B	8029
tert-amyl methyl ether	129.	ug/L	1.0	1.0	4/22/05	17:49	S. Edwards	8260B	8029
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/22/05	17:49	S. Edwards	8260B	8029
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	17:49	S. Edwards	8260B	8029
Ethanol	ND	ug/L	100.	1.0	4/22/05	17:49	S. Edwards	8260B	8029
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/22/05	17:49	S. Edwards	8260B	8029
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	17:49	S. Edwards	8260B	8029
Ethyl-t-butyl alcohol	344.	ug/L	10.0	1.0	4/22/05	17:49	S. Edwards	8260B	8029
Diisopropyl ether	786.	ug/l	50.0	10.0	4/24/05	5:11	T McCollum	8260/SA05-77	8433
VOLATILE ORGANICS by GC									
Ethylene Dibromide	0.05	ug/l	0.02	1.0	4/29/05	4:32	M. Ricke	8011	6593
MISCELLANEOUS GC PARAMETERS									
Methane	2620	ug/L	26.	1.0	4/27/05	15:55	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	2220	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	ND	ug/l	5.0	1.0	4/25/05	20:05	K. Ahmed	6010B	7414

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56449
Sample ID: MW-57
Project: C-04-12-009

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	ND	mg/l	0.100	1.0	4/22/05	16:57	W. Choate	353.2	6795
Sulfate	5.21	mg/l	1.00	1.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	98.	70. - 130.
VOA Surr Toluene-d8	100.	78. - 121.
VOA Surr, 4-BFB	101.	78. - 126.
VOA Surr, DBFM	101.	79. - 122.
Surr., 1,3-DCB	78.0 #	83. - 134.
Surr - Acetylene	94.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.
The difference between the two EDB channels is greater than 40%.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56450
Sample ID: MW-58
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 13:15
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	5920	ug/l	100.	100.	4/24/05	6:21	T McCollum	8260B	84
Toluene	162.	ug/l	1.0	1.0	4/22/05	18:13	S. Edwards	8260B	8029
Ethylbenzene	380.	ug/l	5.0	5.0	4/24/05	5:58	T McCollum	8260B	8433
Xylenes (Total)	159.	ug/l	1.0	1.0	4/22/05	18:13	S. Edwards	8260B	8029
Methyl-t-butyl ether	442.	ug/l	5.0	5.0	4/24/05	5:58	T McCollum	8260B	8433
Naphthalene	218.	ug/l	25.0	5.0	4/24/05	5:58	T McCollum	8260B	8433
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	18:13	S. Edwards	8260B	8029
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/22/05	18:13	S. Edwards	8260B	8029
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/22/05	18:13	S. Edwards	8260B	8029
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	18:13	S. Edwards	8260B	8029
Ethanol	ND	ug/L	100.	1.0	4/22/05	18:13	S. Edwards	8260B	8029
t-Amyl Alcohol	9900	ug/L	50.0	5.0	4/24/05	5:58	T McCollum	8260B	8433
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	18:13	S. Edwards	8260B	8029
Ethyl-t-butyl alcohol	288.	ug/L	10.0	1.0	4/22/05	18:13	S. Edwards	8260B	8029
Diisopropyl ether	480.	ug/l	25.0	5.0	4/24/05	5:58	T McCollum	8260/SA05-77	8433
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	5:30	M. Ricke	8011	6593
MISCELLANEOUS GC PARAMETERS									
Methane	293.	ug/L	26.	1.0	4/27/05	15:59	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	2760	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	17.0	ug/l	5.0	1.0	4/25/05	20:05	K. Ahmed	6010B	7414

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56450
Sample ID: MW-58
Project: C-04-12-009

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	ND	mg/l	0.100	1.0	4/22/05	16:57	W. Choate	353.2	6795
Sulfate	65.0	mg/l	5.00	5.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	98.	70. - 130.
VOA Surr Toluene-d8	99.	78. - 121.
VOA Surr, 4-BFB	103.	78. - 126.
VOA Surr, DBFM	102.	79. - 122.
Surr., 1,3-DCB	94.0	83. - 134.
Surr - Acetylene	96.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56451
Sample ID: MW-59
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 13:30
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/23/05	22:12	T McCollum	8260B	84
Toluene	ND	ug/l	1.0	1.0	4/22/05	18:36	S. Edwards	8260B	8029
Ethylbenzene	ND	ug/l	1.0	1.0	4/22/05	18:36	S. Edwards	8260B	8029
Xylenes (Total)	ND	ug/l	1.0	1.0	4/22/05	18:36	S. Edwards	8260B	8029
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/22/05	18:36	S. Edwards	8260B	8029
Naphthalene	ND	ug/l	5.00	1.0	4/23/05	22:12	T McCollum	8260B	8433
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	18:36	S. Edwards	8260B	8029
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/22/05	18:36	S. Edwards	8260B	8029
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/22/05	18:36	S. Edwards	8260B	8029
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	18:36	S. Edwards	8260B	8029
Ethanol	ND	ug/L	100.	1.0	4/22/05	18:36	S. Edwards	8260B	8029
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/23/05	22:12	T McCollum	8260B	8433
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	18:36	S. Edwards	8260B	8029
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/22/05	18:36	S. Edwards	8260B	8029
Diisopropyl ether	ND	ug/l	5.00	1.0	4/22/05	18:36	S. Edwards	8260/SA05-77	8029
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	5:50	M. Ricke	8011	6593
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/27/05	16:05	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	ND	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	22.0	ug/l	5.0	1.0	4/25/05	20:05	K. Ahmed	6010B	7414

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56451
Sample ID: MW-59
Project: C-04-12-009

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	1.37	mg/l	0.100	1.0	4/22/05	16:59	W. Choate	353.2	6795
Sulfate	21.5	mg/l	1.00	1.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	88.	70. - 130.
VOA Surr Toluene-d8	100.	78. - 121.
VOA Surr, 4-BFB	98.	78. - 126.
VOA Surr, DBFM	99.	79. - 122.
Surr., 1,3-DCB	76.0 #	83. - 134.
Surr - Acetylene	95.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56452
Sample ID: MW-60
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 13:45
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	1.0	ug/l	1.0	1.0	4/22/05	18:59	S. Edwards	8260B	8
Toluene	ND	ug/l	1.0	1.0	4/22/05	18:59	S. Edwards	8260B	8029
Ethylbenzene	ND	ug/l	1.0	1.0	4/22/05	18:59	S. Edwards	8260B	8029
Xylenes (Total)	ND	ug/l	1.0	1.0	4/22/05	18:59	S. Edwards	8260B	8029
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/22/05	18:59	S. Edwards	8260B	8029
Naphthalene	ND	ug/l	5.00	1.0	4/22/05	18:59	S. Edwards	8260B	8029
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	18:59	S. Edwards	8260B	8029
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/22/05	18:59	S. Edwards	8260B	8029
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/22/05	18:59	S. Edwards	8260B	8029
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	18:59	S. Edwards	8260B	8029
Ethanol	ND	ug/L	100.	1.0	4/22/05	18:59	S. Edwards	8260B	8029
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/22/05	18:59	S. Edwards	8260B	8029
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	18:59	S. Edwards	8260B	8029
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/22/05	18:59	S. Edwards	8260B	8029
Diisopropyl ether	ND	ug/l	5.00	1.0	4/22/05	18:59	S. Edwards	8260/SA05-77	8029
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	6:09	M. Ricke	8011	6593
MISCELLANEOUS GC PARAMETERS									
Methane	33.	ug/L	26.	1.0	4/27/05	16:09	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	ND	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	5.0	ug/l	5.0	1.0	4/25/05	20:05	K. Ahmed	6010B	7414

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56452
Sample ID: MW-60
Project: C-04-12-009

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	0.320	mg/l	0.100	1.0	4/22/05	17:00	W. Choate	353.2	6795
Sulfate	18.2	mg/l	1.00	1.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	91.	70. - 130.
VOA Surr Toluene-d8	100.	78. - 121.
VOA Surr, 4-BFB	103.	78. - 126.
VOA Surr, DBFM	98.	79. - 122.
Surr., 1,3-DCB	88.0	83. - 134.
Surr - Acetylene	94.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56453
Sample ID: DW-7
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 15:30
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	87.0	ug/l	1.0	1.0	4/22/05	19:23	S. Edwards	8260B	[redacted]
Toluene	69.4	ug/l	1.0	1.0	4/22/05	19:23	S. Edwards	8260B	8029
Ethylbenzene	11.2	ug/l	1.0	1.0	4/22/05	19:23	S. Edwards	8260B	8029
Xylenes (Total)	33.1	ug/l	1.0	1.0	4/22/05	19:23	S. Edwards	8260B	8029
Methyl-t-butyl ether	17.2	ug/l	1.0	1.0	4/22/05	19:23	S. Edwards	8260B	8029
Naphthalene	8.00	ug/l	5.00	1.0	4/22/05	19:23	S. Edwards	8260B	8029
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	19:23	S. Edwards	8260B	8029
tert-amyl methyl ether	3.3	ug/L	1.0	1.0	4/22/05	19:23	S. Edwards	8260B	8029
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/22/05	19:23	S. Edwards	8260B	8029
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	19:23	S. Edwards	8260B	8029
Ethanol	ND	ug/L	100.	1.0	4/22/05	19:23	S. Edwards	8260B	8029
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/22/05	19:23	S. Edwards	8260B	8029
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	19:23	S. Edwards	8260B	8029
Ethyl-t-butyl alcohol	35.8	ug/L	10.0	1.0	4/22/05	19:23	S. Edwards	8260B	8029
Diisopropyl ether	14.5	ug/l	5.00	1.0	4/22/05	19:23	S. Edwards	8260/SA05-77	8029
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	6:28	M. Ricke	8011	6593
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/27/05	16:13	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	ND	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	8.0	ug/l	5.0	1.0	4/25/05	20:05	K. Ahmed	6010B	7414

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56453
Sample ID: DW-7
Project: C-04-12-009

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	0.510	mg/l	0.100	1.0	4/22/05	17:00	W. Choate	353.2	6795
Sulfate	35.0	mg/l	2.00	2.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	98.	70. - 130.
VOA Surr Toluene-d8	100.	78. - 121.
VOA Surr, 4-BFB	101.	78. - 126.
VOA Surr, DBFM	102.	79. - 122.
Surr., 1,3-DCB	90.0	83. - 134.
Surr - Acetylene	95.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56454
Sample ID: DW-8
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 15:45
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	4/22/05	19:46	S. Edwards	8260B	8[redacted]
Toluene	ND	ug/l	1.0	1.0	4/22/05	19:46	S. Edwards	8260B	8029
Ethylbenzene	ND	ug/l	1.0	1.0	4/22/05	19:46	S. Edwards	8260B	8029
Xylenes (Total)	ND	ug/l	1.0	1.0	4/22/05	19:46	S. Edwards	8260B	8029
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	4/22/05	19:46	S. Edwards	8260B	8029
Naphthalene	ND	ug/l	5.00	1.0	4/22/05	19:46	S. Edwards	8260B	8029
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/22/05	19:46	S. Edwards	8260B	8029
tert-amyl methyl ether	ND	ug/L	1.0	1.0	4/22/05	19:46	S. Edwards	8260B	8029
Tertiary butyl alcohol	ND	ug/l	10.0	1.0	4/22/05	19:46	S. Edwards	8260B	8029
1,2-Dichloroethane	ND	ug/l	1.00	1.0	4/22/05	19:46	S. Edwards	8260B	8029
Ethanol	ND	ug/L	100.	1.0	4/22/05	19:46	S. Edwards	8260B	8029
t-Amyl Alcohol	ND	ug/L	10.0	1.0	4/22/05	19:46	S. Edwards	8260B	8029
t-Butyl Formate	ND	ug/L	10.0	1.0	4/22/05	19:46	S. Edwards	8260B	8029
Ethyl-t-butyl alcohol	ND	ug/L	10.0	1.0	4/22/05	19:46	S. Edwards	8260B	8029
Diisopropyl ether	ND	ug/l	5.00	1.0	4/22/05	19:46	S. Edwards	8260/SA05-77	8029
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/29/05	6:48	M. Ricke	8011	6593
MISCELLANEOUS GC PARAMETERS									
Methane	ND	ug/L	26.	1.0	4/27/05	16:17	K. Roberso	RSK175M	7554
METALS									
Iron, Dissolved	ND	ug/l	50.0	1.0	4/26/05	10:52	C. Otero	6010B	7417
Lead	34.0	ug/l	5.0	1.0	4/25/05	20:05	K. Ahmed	6010B	7[redacted]

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56454
Sample ID: DW-8
Project: C-04-12-009

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
MISCELLANEOUS CHEMISTRY									
Nitrate-N as N	0.720	mg/l	0.100	1.0	4/22/05	18:33	W. Choate	353.2	6795
Sulfate	87.1	mg/l	10.0	10.0	4/22/05	15:18	G. Baun	9056	6419

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	98.	70. - 130.
VOA Surr Toluene-d8	100.	78. - 121.
VOA Surr, 4-BFB	100.	78. - 126.
VOA Surr, DBFM	102.	79. - 122.
Surr., 1,3-DCB	102.	83. - 134.
Surr - Acetylene	97.0	70. - 130.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
M = Method RSK175M/8015BM modified for use with Headspace analyzer.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Sampler: ROB ROBINSON

Lab Number: 05-A56438
Sample ID: SW-1
Sample Type: Water
Site ID:

Date Collected: 4/21/05
Time Collected: 16:45
Date Received: 4/22/05
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	200.	ug/l	1.0	1.0	4/24/05	17:43	A. Bruton	8260B	9
Toluene	38.1	ug/l	1.0	1.0	4/24/05	17:43	A. Bruton	8260B	9270
Ethylbenzene	11.7	ug/l	1.0	1.0	4/24/05	17:43	A. Bruton	8260B	9270
Xylenes (Total)	28.8	ug/l	1.0	1.0	4/24/05	17:43	A. Bruton	8260B	9270
Methyl-t-butyl ether	143.	ug/l	1.0	1.0	4/24/05	17:43	A. Bruton	8260B	9270
Naphthalene	ND	ug/l	5.00	1.0	4/24/05	17:43	A. Bruton	8260B	9270
Ethyl-t-butylether	ND	ug/l	1.0	1.0	4/24/05	17:43	A. Bruton	8260B	9270
tert-amyl methyl ether	11.0	ug/L	1.0	1.0	4/24/05	17:43	A. Bruton	8260B	9270
Tertiary butyl alcohol	37.0	ug/l	10.0	1.0	4/24/05	17:43	A. Bruton	8260B	9270
1,2-Dichloroethane	4.70	ug/l	1.00	1.0	4/24/05	17:43	A. Bruton	8260B	9270
Ethanol	ND	ug/L	100.	1.0	4/24/05	17:43	A. Bruton	8260B	9270
t-Amyl Alcohol	422.	ug/L	10.0	1.0	4/24/05	17:43	A. Bruton	8260B	9270
t-Butyl Formate	ND	ug/L	10.0	1.0	4/24/05	17:43	A. Bruton	8260B	9270
Ethyl-t-butyl alcohol	38.9	ug/L	10.0	1.0	4/24/05	17:43	A. Bruton	8260B	9270
Diisopropyl ether	67.2	ug/l	5.00	1.0	4/24/05	17:43	A. Bruton	8260/SA05-77	9270
VOLATILE ORGANICS by GC									
Ethylene Dibromide	ND	ug/l	0.02	1.0	4/28/05	23:40	M. Ricke	8011	6591
METALS									
Lead	ND	ug/l	5.0	1.0	4/25/05	12:57	K. Ahmed	6010B	7413

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 05-A56438
Sample ID: SW-1
Project: C-04-12-009

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	86.	70. - 130.
VOA Surr Toluene-d8	86.	78. - 121.
VOA Surr, 4-BFB	107.	78. - 126.
VOA Surr, DBFM	87.	79. - 122.
Surr., 1,3-DCB	104.	83. - 134.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Page: 1
Laboratory Receipt Date: 4/22/05

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/l	< 0.0010	0.0515	0.0500	103	62 - 146	8029	5644
Benzene	mg/l	0.0365	0.0960	0.0500	119	62 - 146	7959	56432
Benzene	mg/l	< 0.0010	0.0475	0.0500	95	62 - 146	7965	56434
Benzene	mg/l	< 0.0003	0.0502	0.0500	100	62 - 146	8433	blank
Benzene	mg/l	1.61	1.49	0.0500	-240#	62 - 146	9270	57187
Benzene	mg/l	< 0.0003	0.0471	0.0500	94	62 - 146	1670	blank
Toluene	mg/l	0.0005	0.0519	0.0500	103	68 - 141	8029	56448
Toluene	mg/l	0.0234	0.0728	0.0500	99	68 - 141	7959	56432
Toluene	mg/l	< 0.0010	0.0435	0.0500	87	68 - 141	7965	56434
Toluene	mg/l	0.262	0.293	0.0500	62#	68 - 141	9270	57187
Toluene	mg/l	< 0.0002	0.0418	0.0500	84	68 - 141	1670	blank
VOA Surr 1,2-DCA-d4	% Rec				95	70 - 130	8029	
VOA Surr 1,2-DCA-d4	% Rec				70	70 - 130	7959	
VOA Surr 1,2-DCA-d4	% Rec				84	70 - 130	7965	
VOA Surr 1,2-DCA-d4	% Rec				94	70 - 130	8433	
VOA Surr 1,2-DCA-d4	% Rec				84	70 - 130	9270	
VOA Surr 1,2-DCA-d4	% Rec				88	70 - 130	9287	
VOA Surr 1,2-DCA-d4	% Rec				86	70 - 130	1670	
VOA Surr Toluene-d8	% Rec				101	78 - 121	8029	
VOA Surr Toluene-d8	% Rec				87	78 - 121	7959	
VOA Surr Toluene-d8	% Rec				86	78 - 121	7965	
VOA Surr Toluene-d8	% Rec				100	78 - 121	8433	
VOA Surr Toluene-d8	% Rec				87	78 - 121	9270	
VOA Surr Toluene-d8	% Rec				86	78 - 121	9287	
VOA Surr Toluene-d8	% Rec				87	78 - 121	1670	
VOA Surr, 4-BFB	% Rec				96	78 - 126	8029	

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Page: 2
Laboratory Receipt Date: 4/22/05

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA Surr, 4-BFB	% Rec				104	78 - 126	7959	
VOA Surr, 4-BFB	% Rec				100	78 - 126	7965	
VOA Surr, 4-BFB	% Rec				97	78 - 126	8433	
VOA Surr, 4-BFB	% Rec				104	78 - 126	9270	
VOA Surr, 4-BFB	% Rec				102	78 - 126	9287	
VOA Surr, 4-BFB	% Rec				102	78 - 126	1670	
VOA Surr, DBFM	% Rec				101	79 - 122	8029	
VOA Surr, DBFM	% Rec				80	79 - 122	7959	
VOA Surr, DBFM	% Rec				90	79 - 122	7965	
VOA Surr, DBFM	% Rec				100	79 - 122	8433	
VOA Surr, DBFM	% Rec				86	79 - 122	9270	
VOA Surr, DBFM	% Rec				89	79 - 122	9287	
VOA Surr, DBFM	% Rec				88	79 - 122	1670	
METALS								
Iron, Dissolved	mg/l	0.923	1.91	1.00	99	75. - 125.	7417	05-A56517
Lead	mg/l	< 0.0050	0.0460	0.0500	92	75. - 125.	7413	05-A56331
Lead	mg/l	< 0.0050	0.0460	0.0500	92	75. - 125.	7414	05-A56717
MISC PARAMETERS								
Nitrate-N as N	mg/l	4.58	10.4	6.00	97	90. - 110.	6795	05-A56439
Nitrate-N as N	mg/l	4.58	10.4	6.00	97	90. - 110.	6795	05-A56439
Sulfate	mg/l	6.15	20.2	15.0	94	80. - 120.	6419	05-A56439
Ethylene Dibromide	mg/l	< 0.00002	0.00030	0.00029	103	61. - 134.	6591	blank
Ethylene Dibromide	mg/l	< 0.00002	0.00030	0.00029	103	61. - 134.	6593	blank
Methane	mg/L	< 0.026	1.19	1.33	89	62. - 132.	7554	05-A56439

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON

Laboratory Receipt Date: 4/22/05

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0515	0.0524	1.73	25.	8029
Benzene	mg/l	0.0960	0.0941	2.00	25.	7959
Benzene	mg/l	0.0475	0.0476	0.21	25.	7965
Benzene	mg/l	0.0502	0.0507	0.99	25.	8433
Benzene	mg/l	1.49	1.45	2.72	25.	9270
Benzene	mg/l	0.0471	0.0498	5.57	25.	1670
Toluene	mg/l	0.0519	0.0534	2.85	29.	8029
Toluene	mg/l	0.0728	0.0715	1.80	29.	7959
Toluene	mg/l	0.0435	0.0435	0.00	29.	7965
Toluene	mg/l	0.293	0.277	5.61	29.	9270
Toluene	mg/l	0.0418	0.0442	5.58	29.	1670
VOA Surr 1,2-DCA-d4	% Rec		96.			8029
VOA Surr 1,2-DCA-d4	% Rec		67.			7959
VOA Surr 1,2-DCA-d4	% Rec		84.			7965
VOA Surr 1,2-DCA-d4	% Rec		93.			8433
VOA Surr 1,2-DCA-d4	% Rec		85.			9270
VOA Surr 1,2-DCA-d4	% Rec		85.			9287
VOA Surr 1,2-DCA-d4	% Rec		85.			1670
VOA Surr Toluene-d8	% Rec		101.			8029
VOA Surr Toluene-d8	% Rec		87.			7959
VOA Surr Toluene-d8	% Rec		87.			7965
VOA Surr Toluene-d8	% Rec		100.			8433
VOA Surr Toluene-d8	% Rec		86.			9270
VOA Surr Toluene-d8	% Rec		86.			9287
VOA Surr Toluene-d8	% Rec		86.			1670
VOA Surr, 4-BFB	% Rec		96.			8029
VOA Surr, 4-BFB	% Rec		105.			7959

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Page: 4
Laboratory Receipt Date: 4/22/05

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA Surr, 4-BFB	% Rec		101.			7965
VOA Surr, 4-BFB	% Rec		95.			8433
VOA Surr, 4-BFB	% Rec		104.			9270
VOA Surr, 4-BFB	% Rec		101.			9287
VOA Surr, 4-BFB	% Rec		103.			1670
VOA Surr, DBFM	% Rec		102.			8029
VOA Surr, DBFM	% Rec		80.			7959
VOA Surr, DBFM	% Rec		90.			7965
VOA Surr, DBFM	% Rec		100.			8433
VOA Surr, DBFM	% Rec		86.			9270
VOA Surr, DBFM	% Rec		89.			9287
VOA Surr, DBFM	% Rec		90.			1670
METALS						
Iron, Dissolved	mg/l	1.91	1.93	1.04	20	7417
Lead	mg/l	0.0460	0.0460	0.00	20	7413
Lead	mg/l	0.0460	0.0480	4.26	20	7414
MISC PARAMETERS						
Ethylene Dibromide	mg/l	0.00030	0.00030	0.00	50	6591
Ethylene Dibromide	mg/l	0.00030	0.00030	0.00	50	6593
Methane	mg/L	1.19	1.25	4.92	50	7554
Nitrate-N as N	mg/l	10.4	10.4	0.00	20	6795
Sulfate	mg/l	20.2	20.2	0.00	20	6419

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON

Laboratory Receipt Date: 4/22/05

VOA PARAMETERS						
Ethyl-t-butylether	mg/l	0.0500	0.0486	97	63 - 141	8029
Ethyl-t-butylether	mg/l	0.0500	0.0491	98	63 - 141	7959
Ethyl-t-butylether	mg/l	0.0500	0.0554	111	63 - 141	7965
Ethyl-t-butylether	mg/l	0.0500	0.0498	100	63 - 141	9270
Ethyl-t-butylether	mg/l	0.0500	0.0530	106	63 - 141	1670
tert-amyl methyl ether	mg/L	0.0500	0.0486	97	63 - 133	8029
tert-amyl methyl ether	mg/L	0.0500	0.0510	102	63 - 133	7959
tert-amyl methyl ether	mg/L	0.0500	0.0578	116	63 - 133	7965
tert-amyl methyl ether	mg/L	0.0500	0.0524	105	63 - 133	9270
tert-amyl methyl ether	mg/L	0.0500	0.0547	109	63 - 133	1670
Tertiary butyl alcohol	mg/l	0.500	0.460	92	41 - 160	8029
Tertiary butyl alcohol	mg/l	0.500	0.465	93	41 - 160	7959
Tertiary butyl alcohol	mg/l	0.500	0.721	144	41 - 160	7965
Tertiary butyl alcohol	mg/l	0.500	0.581	116	41 - 160	9270
Tertiary butyl alcohol	mg/l	0.500	0.724	145	41 - 160	1670
Benzene	mg/l	0.0500	0.0488	98	76 - 127	8029
Benzene	mg/l	0.0500	0.0520	104	76 - 127	7959
Benzene	mg/l	0.0500	0.0518	104	76 - 127	7965
Benzene	mg/l	0.0500	0.0482	96	76 - 127	8433
Benzene	mg/l	0.0500	0.0482	96	76 - 127	8439
Benzene	mg/l	0.0500	0.0519	104	76 - 127	9270
Benzene	mg/l	0.0500	0.0519	104	76 - 127	9272
Benzene	mg/l	0.0500	0.0527	105	76 - 127	1670
1,2-Dichloroethane	mg/l	0.0500	0.0486	97	72 - 129	8029
1,2-Dichloroethane	mg/l	0.0500	0.0493	99	72 - 129	7959
1,2-Dichloroethane	mg/l	0.0500	0.0515	103	72 - 129	7965
1,2-Dichloroethane	mg/l	0.0500	0.0492	98	72 - 129	9270
1,2-Dichloroethane	mg/l	0.0500	0.0525	105	72 - 129	1670
Ethylbenzene	mg/l	0.0500	0.0490	98	80 - 124	8029
Ethylbenzene	mg/l	0.0500	0.0506	101	80 - 124	7959
Ethylbenzene	mg/l	0.0500	0.0495	99	80 - 124	7965
Ethylbenzene	mg/l	0.0500	0.0476	95	80 - 124	8433
Ethylbenzene	mg/l	0.0500	0.0510	102	80 - 124	9270
Ethylbenzene	mg/l	0.0500	0.0502	100	80 - 124	1670
Naphthalene	mg/l	0.0500	0.0475	95	61 - 143	8029

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Page: 6
Laboratory Receipt Date: 4/22/05

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Naphthalene	mg/l	0.0500	0.0511	102	61 - 143	7959
Naphthalene	mg/l	0.0500	0.0521	104	61 - 143	7965
Naphthalene	mg/l	0.0500	0.0488	98	61 - 143	8433
Naphthalene	mg/l	0.0500	0.0498	100	61 - 143	9270
Naphthalene	mg/l	0.0500	0.0468	94	61 - 143	1670
Toluene	mg/l	0.0500	0.0486	97	79 - 124	8029
Toluene	mg/l	0.0500	0.0465	93	79 - 124	7959
Toluene	mg/l	0.0500	0.0463	93	79 - 124	7965
Toluene	mg/l	0.0500	0.0483	97	79 - 124	8439
Toluene	mg/l	0.0500	0.0470	94	79 - 124	9270
Toluene	mg/l	0.0500	0.0470	94	79 - 124	9272
Toluene	mg/l	0.0500	0.0463	93	79 - 124	1670
Xylenes (Total)	mg/l	0.150	0.149	99	80 - 125	8029
Xylenes (Total)	mg/l	0.150	0.151	101	80 - 125	7959
Xylenes (Total)	mg/l	0.150	0.149	99	80 - 125	7965
Xylenes (Total)	mg/l	0.150	0.142	95	80 - 125	8433
Xylenes (Total)	mg/l	0.150	0.152	101	80 - 125	9270
Xylenes (Total)	mg/l	0.150	0.150	100	80 - 125	1670
Ethanol	mg/L	5.00	5.31	106	40 - 163	8029
Ethanol	mg/L	5.00	4.94	99	40 - 163	7959
Ethanol	mg/L	5.00	5.03	101	40 - 163	7965
Ethanol	mg/L	5.00	5.02	100	40 - 163	9270
Ethanol	mg/L	5.00	5.00	100	40 - 163	1670
Methyl-t-butyl ether	mg/l	0.0500	0.0478	96	66 - 136	8029
Methyl-t-butyl ether	mg/l	0.0500	0.0457	91	66 - 136	7959
Methyl-t-butyl ether	mg/l	0.0500	0.0568	114	66 - 136	7965
Methyl-t-butyl ether	mg/l	0.0500	0.0459	92	66 - 136	8433
Methyl-t-butyl ether	mg/l	0.0500	0.0490	98	66 - 136	9270
Methyl-t-butyl ether	mg/l	0.0500	0.0490	98	66 - 136	9272
Methyl-t-butyl ether	mg/l	0.0500	0.0539	108	66 - 136	1670
t-Amyl Alcohol	mg/L	0.500	0.473	95	37 - 150	8029

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Page: 7
Laboratory Receipt Date: 4/22/05

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
t-Amyl Alcohol	mg/L	0.500	0.551	110	37 - 150	7959
t-Amyl Alcohol	mg/L	0.500	0.667	133	37 - 150	7965
t-Amyl Alcohol	mg/L	0.500	0.444	89	37 - 150	8433
t-Amyl Alcohol	mg/L	0.500	0.555	111	37 - 150	9270
t-Amyl Alcohol	mg/L	0.500	0.708	142	37 - 150	9287
t-Amyl Alcohol	mg/L	0.500	0.627	125	37 - 150	1670
t-Butyl Formate	mg/L	0.500	0.415	83	29 - 143	8029
t-Butyl Formate	mg/L	0.500	0.169	34	29 - 143	7959
t-Butyl Formate	mg/L	0.500	0.385	77	29 - 143	7965
t-Butyl Formate	mg/L	0.500	0.255	51	29 - 143	9270
t-Butyl Formate	mg/L	0.500	0.367	73	29 - 143	1670
Ethyl-t-butyl alcohol	mg/L	0.500	0.210	42	34 - 154	8029
Ethyl-t-butyl alcohol	mg/L	0.500	0.515	103	34 - 154	7959
Ethyl-t-butyl alcohol	mg/L	0.500	0.558	112	34 - 154	7965
Ethyl-t-butyl alcohol	mg/L	0.500	0.547	109	34 - 154	9270
Ethyl-t-butyl alcohol	mg/L	0.500	0.562	112	34 - 154	1670
Diisopropyl ether	mg/l	0.0500	0.0481	96	79 - 130	8029
Diisopropyl ether	mg/l	0.0500	0.0516	103	79 - 130	7959
Diisopropyl ether	mg/l	0.0500	0.0536	107	79 - 130	7965
Diisopropyl ether	mg/l	0.0500	0.0473	95	79 - 130	8433
Diisopropyl ether	mg/l	0.0500	0.0522	104	79 - 130	9270
Diisopropyl ether	mg/l	0.0500	0.0552	110	79 - 130	1670
Ethylene Dibromide	mg/l	0.00029	0.00029	100	70 - 133	6591
Ethylene Dibromide	mg/l	0.00029	0.00030	103	70 - 133	6593
Methane	mg/L	1.33	1.35	102	79 - 121	7554
VOA Surr 1,2-DCA-d4	% Rec			95	70 - 130	8029
VOA Surr 1,2-DCA-d4	% Rec			83	70 - 130	7959
VOA Surr 1,2-DCA-d4	% Rec			85	70 - 130	7965
VOA Surr 1,2-DCA-d4	% Rec			80	70 - 130	8433
VOA Surr 1,2-DCA-d4	% Rec			80	70 - 130	8439
VOA Surr 1,2-DCA-d4	% Rec			85	70 - 130	9270

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Page: 8
Laboratory Receipt Date: 4/22/05

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA Surr 1,2-DCA-d4	% Rec			85	70 - 130	9272
VOA Surr 1,2-DCA-d4	% Rec			84	70 - 130	9287
VOA Surr 1,2-DCA-d4	% Rec			86	70 - 130	1670
VOA Surr Toluene-d8	% Rec			100	78 - 121	8029
VOA Surr Toluene-d8	% Rec			86	78 - 121	7959
VOA Surr Toluene-d8	% Rec			87	78 - 121	7965
VOA Surr Toluene-d8	% Rec			101	78 - 121	8433
VOA Surr Toluene-d8	% Rec			101	78 - 121	8439
VOA Surr Toluene-d8	% Rec			88	78 - 121	9270
VOA Surr Toluene-d8	% Rec			88	78 - 121	9272
VOA Surr Toluene-d8	% Rec			87	78 - 121	9287
VOA Surr Toluene-d8	% Rec			87	78 - 121	1670
VOA Surr, 4-BFB	% Rec			98	78 - 126	8029
VOA Surr, 4-BFB	% Rec			102	78 - 126	7959
VOA Surr, 4-BFB	% Rec			102	78 - 126	7965
VOA Surr, 4-BFB	% Rec			97	78 - 126	8433
VOA Surr, 4-BFB	% Rec			97	78 - 126	8439
VOA Surr, 4-BFB	% Rec			101	78 - 126	9270
VOA Surr, 4-BFB	% Rec			101	78 - 126	9272
VOA Surr, 4-BFB	% Rec			101	78 - 126	9287
VOA Surr, 4-BFB	% Rec			101	78 - 126	1670
VOA Surr, DBFM	% Rec			100	79 - 122	8029
VOA Surr, DBFM	% Rec			89	79 - 122	7959
VOA Surr, DBFM	% Rec			89	79 - 122	7965
VOA Surr, DBFM	% Rec			98	79 - 122	8433
VOA Surr, DBFM	% Rec			98	79 - 122	8439
VOA Surr, DBFM	% Rec			89	79 - 122	9270
VOA Surr, DBFM	% Rec			89	79 - 122	9272
VOA Surr, DBFM	% Rec			90	79 - 122	9287
VOA Surr, DBFM	% Rec			89	79 - 122	1670

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON

Laboratory Receipt Date: 4/22/05

METALS						
Iron, Dissolved	mg/l	1.00	1.06	106	80 - 120	7417
Lead	mg/l	0.0500	0.0480	96	80 - 120	7413
Lead	mg/l	0.0500	0.0490	98	80 - 120	7414
MISC PARAMETERS						
Nitrate-N as N	mg/l	6.00	6.11	102	90 - 110	6795
Sulfate	mg/l	15.0	14.7	98	90 - 110	6419

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd
Nitrate-N as N	mg/l	6.14	6.16	0.33	15.	6795	05-A56520

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Ethyl-t-butylether	< 0.0005	mg/l	8029	4/22/05	10:34
Ethyl-t-butylether	< 0.0005	mg/l	7959	4/23/05	7:35
Ethyl-t-butylether	< 0.0005	mg/l	7965	4/23/05	18:54
Ethyl-t-butylether	< 0.0005	mg/l	9270	4/24/05	15:14
Ethyl-t-butylether	< 0.0005	mg/l	1670	4/28/05	8:32
tert-amyl methyl ether	< 0.0005	mg/L	8029	4/22/05	10:34
tert-amyl methyl ether	< 0.0005	mg/L	7959	4/23/05	7:35
tert-amyl methyl ether	< 0.0005	mg/L	7965	4/23/05	18:54
tert-amyl methyl ether	< 0.0005	mg/L	9270	4/24/05	15:14
tert-amyl methyl ether	< 0.0005	mg/L	1670	4/28/05	8:32
Tertiary butyl alcohol	< 0.0063	mg/l	8029	4/22/05	10:34

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON

Laboratory Receipt Date: 4/22/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Tertiary butyl alcohol	< 0.0063	mg/l	7959	4/23/05	7:35
Tertiary butyl alcohol	< 0.0063	mg/l	7965	4/23/05	18:54
Tertiary butyl alcohol	< 0.0063	mg/l	9270	4/24/05	15:14
Tertiary butyl alcohol	< 0.0063	mg/l	1670	4/28/05	8:32
Benzene	< 0.0003	mg/l	8029	4/22/05	10:34
Benzene	< 0.0003	mg/l	7959	4/23/05	7:35
Benzene	< 0.0003	mg/l	7965	4/23/05	18:54
Benzene	< 0.0003	mg/l	8433	4/23/05	21:25
Benzene	< 0.0003	mg/l	8439	4/23/05	21:25
Benzene	< 0.0003	mg/l	9270	4/24/05	15:14
Benzene	< 0.0003	mg/l	9272	4/24/05	15:14
Benzene	< 0.0003	mg/l	1670	4/28/05	8:32
1,2-Dichloroethane	< 0.00040	mg/l	8029	4/22/05	10:34
1,2-Dichloroethane	< 0.00040	mg/l	7959	4/23/05	7:35
1,2-Dichloroethane	< 0.00040	mg/l	7965	4/23/05	18:54
1,2-Dichloroethane	< 0.00040	mg/l	9270	4/24/05	15:14
1,2-Dichloroethane	< 0.00040	mg/l	1670	4/28/05	8:32
Ethylbenzene	< 0.0002	mg/l	8029	4/22/05	10:34
Ethylbenzene	< 0.0002	mg/l	7959	4/23/05	7:35
Ethylbenzene	< 0.0002	mg/l	7965	4/23/05	18:54
Ethylbenzene	< 0.0002	mg/l	8433	4/23/05	21:25
Ethylbenzene	< 0.0002	mg/l	9270	4/24/05	15:14
Ethylbenzene	< 0.0002	mg/l	1670	4/28/05	8:32
Naphthalene	< 0.00120	mg/l	8029	4/22/05	10:34
Naphthalene	< 0.00120	mg/l	7959	4/23/05	7:35
Naphthalene	< 0.00120	mg/l	7965	4/23/05	18:54
Naphthalene	< 0.00120	mg/l	8433	4/23/05	21:25
Naphthalene	< 0.00120	mg/l	9270	4/24/05	15:14
Naphthalene	< 0.00120	mg/l	1670	4/28/05	8:32
Toluene	< 0.0002	mg/l	8029	4/22/05	10:34
Toluene	< 0.0002	mg/l	7959	4/23/05	7:35

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON

Laboratory Receipt Date: 4/22/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Toluene	< 0.0002	mg/l	7965	4/23/05	18:54
Toluene	< 0.0002	mg/l	8439	4/23/05	21:25
Toluene	< 0.0002	mg/l	9270	4/24/05	15:14
Toluene	< 0.0002	mg/l	9272	4/24/05	15:14
Toluene	< 0.0002	mg/l	1670	4/28/05	8:32
Xylenes (Total)	< 0.0006	mg/l	8029	4/22/05	10:34
Xylenes (Total)	< 0.0006	mg/l	7959	4/23/05	7:35
Xylenes (Total)	< 0.0006	mg/l	7965	4/23/05	18:54
Xylenes (Total)	< 0.0006	mg/l	8433	4/23/05	21:25
Xylenes (Total)	< 0.0006	mg/l	9270	4/24/05	15:14
Xylenes (Total)	< 0.0006	mg/l	1670	4/28/05	8:32
Ethanol	< 0.0503	mg/L	8029	4/22/05	10:34
Ethanol	< 0.0503	mg/L	7959	4/23/05	7:35
Ethanol	< 0.0503	mg/L	7965	4/23/05	18:54
Ethanol	< 0.0503	mg/L	9270	4/24/05	15:14
Ethanol	< 0.0503	mg/L	1670	4/28/05	8:32
Methyl-t-butyl ether	< 0.0002	mg/l	8029	4/22/05	10:34
Methyl-t-butyl ether	< 0.0002	mg/l	7959	4/23/05	7:35
Methyl-t-butyl ether	< 0.0002	mg/l	7965	4/23/05	18:54
Methyl-t-butyl ether	< 0.0002	mg/l	8433	4/23/05	21:25
Methyl-t-butyl ether	< 0.0002	mg/l	9270	4/24/05	15:14
Methyl-t-butyl ether	< 0.0002	mg/l	9272	4/24/05	15:14
Methyl-t-butyl ether	< 0.0002	mg/l	1670	4/28/05	8:32
t-Amyl Alcohol	< 0.0050	mg/L	8029	4/22/05	10:34
t-Amyl Alcohol	< 0.0050	mg/L	7959	4/23/05	7:35
t-Amyl Alcohol	< 0.0050	mg/L	7965	4/23/05	18:54
t-Amyl Alcohol	< 0.0050	mg/L	8433	4/23/05	21:25
t-Amyl Alcohol	< 0.0050	mg/L	9270	4/24/05	15:14
t-Amyl Alcohol	< 0.0050	mg/L	9287	4/25/05	13:54
t-Amyl Alcohol	< 0.0050	mg/L	1670	4/28/05	8:32
t-Butyl Formate	< 0.0050	mg/L	8029	4/22/05	10:34

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON
Page: 12
Laboratory Receipt Date: 4/22/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
t-Butyl Formate	< 0.0050	mg/L	7959	4/23/05	7:35
t-Butyl Formate	< 0.0050	mg/L	7965	4/23/05	18:54
t-Butyl Formate	< 0.0050	mg/L	9270	4/24/05	15:14
t-Butyl Formate	< 0.0050	mg/L	1670	4/28/05	8:32
Ethyl-t-butyl alcohol	< 0.0050	mg/L	8029	4/22/05	10:34
Ethyl-t-butyl alcohol	< 0.0050	mg/L	7959	4/23/05	7:35
Ethyl-t-butyl alcohol	< 0.0050	mg/L	7965	4/23/05	18:54
Ethyl-t-butyl alcohol	< 0.0050	mg/L	9270	4/24/05	15:14
Ethyl-t-butyl alcohol	< 0.0050	mg/L	1670	4/28/05	8:32
Diisopropyl ether	< 0.00030	mg/l	8029	4/22/05	10:34
Diisopropyl ether	< 0.00030	mg/l	7959	4/23/05	7:35
Diisopropyl ether	< 0.00030	mg/l	7965	4/23/05	18:54
Diisopropyl ether	< 0.00030	mg/l	8433	4/23/05	21:25
Diisopropyl ether	< 0.00030	mg/l	9270	4/24/05	15:14
Diisopropyl ether	< 0.00030	mg/l	1670	4/28/05	8:32
VOA Surr 1,2-DCA-d4	100.	% Rec	8029	4/22/05	10:34
VOA Surr 1,2-DCA-d4	86.	% Rec	7959	4/23/05	7:35
VOA Surr 1,2-DCA-d4	87.	% Rec	7965	4/23/05	18:54
VOA Surr 1,2-DCA-d4	83.	% Rec	8433	4/23/05	21:25
VOA Surr 1,2-DCA-d4	83.	% Rec	8439	4/23/05	21:25
VOA Surr 1,2-DCA-d4	90.	% Rec	9270	4/24/05	15:14
VOA Surr 1,2-DCA-d4	90.	% Rec	9272	4/24/05	15:14
VOA Surr 1,2-DCA-d4	87.	% Rec	9287	4/25/05	13:54
VOA Surr 1,2-DCA-d4	85.	% Rec	1670	4/28/05	8:32
VOA Surr Toluene-d8	100.	% Rec	8029	4/22/05	10:34
VOA Surr Toluene-d8	86.	% Rec	7959	4/23/05	7:35
VOA Surr Toluene-d8	86.	% Rec	7965	4/23/05	18:54
VOA Surr Toluene-d8	99.	% Rec	8433	4/23/05	21:25
VOA Surr Toluene-d8	99.	% Rec	8439	4/23/05	21:25
VOA Surr Toluene-d8	87.	% Rec	9270	4/24/05	15:14
VOA Surr Toluene-d8	87.	% Rec	9272	4/24/05	15:14

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON

Laboratory Receipt Date: 4/22/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
VOA Surr Toluene-d8	87.	% Rec	9287	4/25/05	13:54
VOA Surr Toluene-d8	85.	% Rec	1670	4/28/05	8:32
VOA Surr, 4-BFB	103.	% Rec	8029	4/22/05	10:34
VOA Surr, 4-BFB	107.	% Rec	7959	4/23/05	7:35
VOA Surr, 4-BFB	106.	% Rec	7965	4/23/05	18:54
VOA Surr, 4-BFB	99.	% Rec	8433	4/23/05	21:25
VOA Surr, 4-BFB	99.	% Rec	8439	4/23/05	21:25
VOA Surr, 4-BFB	107.	% Rec	9270	4/24/05	15:14
VOA Surr, 4-BFB	107.	% Rec	9272	4/24/05	15:14
VOA Surr, 4-BFB	107.	% Rec	9287	4/25/05	13:54
VOA Surr, 4-BFB	108.	% Rec	1670	4/28/05	8:32
VOA Surr, DBFM	102.	% Rec	8029	4/22/05	10:34
VOA Surr, DBFM	88.	% Rec	7959	4/23/05	7:35
VOA Surr, DBFM	88.	% Rec	7965	4/23/05	18:54
VOA Surr, DBFM	98.	% Rec	8433	4/23/05	21:25
VOA Surr, DBFM	98.	% Rec	8439	4/23/05	21:25
VOA Surr, DBFM	88.	% Rec	9270	4/24/05	15:14
VOA Surr, DBFM	88.	% Rec	9272	4/24/05	15:14
VOA Surr, DBFM	86.	% Rec	9287	4/25/05	13:54
VOA Surr, DBFM	89.	% Rec	1670	4/28/05	8:32
METALS					
Iron, Dissolved	< 0.0300	mg/l	7417	4/26/05	10:52
Lead	< 0.0024	mg/l	7413	4/25/05	12:57
Lead	< 0.0024	mg/l	7414	4/25/05	20:05
MISC PARAMETERS					
Nitrate-N as N	< 0.100	mg/l	6795	4/22/05	16:47
Sulfate	< 1.00	mg/l	6419	4/22/05	15:18

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-009
Project Name: FORMER CLOUDS CHEVRON

Laboratory Receipt Date: 4/22/05

Ethylene Dibromide	< 0.00002	mg/l	6591	4/28/05	18:28
Ethylene Dibromide	< 0.00002	mg/l	6593	4/29/05	2:54
Methane	< 0.026	mg/L	7554	4/27/05	12:57

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 413610

416442

TestAmerica
ANALYTICAL TESTING CORPORATION

TESTAMERICA, INC.
ATLANTA SERVICE CENTER

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Consultech Env. Client #: 2628
Address: 1800 Macleod Dr. Suite F.
City/State/Zip Code: Lawrenceville, Ga., 30043
Project Manager: Jim Wilson
Telephone Number: 678-377-0050 Fax: 678 377 0041
Sampler Name: (Print Name) Drew Miller
Sampler Signature: Drew Miller

Project Name: Handy Pantry #65
Project #: C-04-12-08
Site/Location ID: Columbia State: S.C.
Report To: Jim Wilson
Invoice To:
Quote #: PO#:

TAT
___ Standard
100% Rush (surcharges may apply)
Date Needed: 100% rush
Fax Results: (Y) N

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge DW - Drinking Water GW - Groundwater S - Soil/Solid WW - Wastewater Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX MtBE Naph 8260B										REMARKS
MW 61	5/17	1300	G		GW		3																05A 70618
MW 62		1315																					19
MW 63		1330																					20
MW 64		1345																					21
MW 65		1400																					22
MW 66		1415																					23
MW 67		1430																					24
~~MW~~ DW9		1445																					70625

Special Instructions:

Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Drew Miller	5/17	6:15			
				5/8/05	0800

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 24c
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

5/19/05

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: HANDY PANTRY #65
Project Number: C-04-12-08.
Laboratory Project Number: 416442.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Collection Date
MW 61	05-A70618	5/17/05
MW 62	05-A70619	5/17/05
MW 63	05-A70620	5/17/05
MW 64	05-A70621	5/17/05
MW 65	05-A70622	5/17/05
MW 66	05-A70623	5/17/05
MW 67	05-A70624	5/17/05
DW 9	05-A70625	5/17/05

A2LA certification number 0453.07 for analysis of wastewater and solid/hazardous waste.
NELAC/Florida certification number E87358 for analysis of environmental water, soil/hazardous waste, and drinking water effective 07/01/99-06/30/05.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 5/19/05

Johnny A. Mitchell, Laboratory Director
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Senior Project Manager
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Senior Project Manager
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Senior Project Manag

Laboratory Certification Number: 84009

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-08
Project Name: HANDY PANTRY #65
Sampler: DREW MILLER

Lab Number: 05-A70618
Sample ID: MW 61
Sample Type: Water
Site ID:

Date Collected: 5/17/05
Time Collected: 13:00
Date Received: 5/18/05
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	5/18/05	14:00	B.Herford	8260B	1088
Toluene	ND	ug/l	1.0	1.0	5/18/05	14:00	B.Herford	8260B	1088
Ethylbenzene	ND	ug/l	1.0	1.0	5/18/05	14:00	B.Herford	8260B	1088
Xylenes (Total)	ND	ug/l	1.0	1.0	5/18/05	14:00	B.Herford	8260B	1088
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	5/18/05	14:00	B.Herford	8260B	1088
Naphthalene	ND	ug/l	5.00	1.0	5/18/05	14:00	B.Herford	8260B	1088

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	99.	70. - 130.
VOA Surr Toluene-d8	97.	78. - 121.
VOA Surr, 4-BFB	118.	78. - 126.
VOA Surr, DBFM	99.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-08
Project Name: HANDY PANTRY #65
Sampler: DREW MILLER

Lab Number: 05-A70619
Sample ID: MW 62
Sample Type: Water
Site ID:

Date Collected: 5/17/05
Time Collected: 13:15
Date Received: 5/18/05
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	5/18/05	14:32	B.Herford	8260B	1088
Toluene	ND	ug/l	1.0	1.0	5/18/05	14:32	B.Herford	8260B	1088
Ethylbenzene	ND	ug/l	1.0	1.0	5/18/05	14:32	B.Herford	8260B	1088
Xylenes (Total)	ND	ug/l	1.0	1.0	5/18/05	14:32	B.Herford	8260B	1088
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	5/18/05	14:32	B.Herford	8260B	1088
Naphthalene	ND	ug/l	5.00	1.0	5/18/05	14:32	B.Herford	8260B	1088

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	101.	70. - 130.
VOA Surr Toluene-d8	97.	78. - 121.
VOA Surr, 4-BFB	106.	78. - 126.
VOA Surr, DBFM	99.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-08
Project Name: HANDY PANTRY #65
Sampler: DREW MILLER

Lab Number: 05-A70620
Sample ID: MW 63
Sample Type: Water
Site ID:

Date Collected: 5/17/05
Time Collected: 13:30
Date Received: 5/18/05
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	5/18/05	15:04	B.Herford	8260B	1088
Toluene	ND	ug/l	1.0	1.0	5/18/05	15:04	B.Herford	8260B	1088
Ethylbenzene	ND	ug/l	1.0	1.0	5/18/05	15:04	B.Herford	8260B	1088
Xylenes (Total)	ND	ug/l	1.0	1.0	5/18/05	15:04	B.Herford	8260B	1088
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	5/18/05	15:04	B.Herford	8260B	1088
Naphthalene	ND	ug/l	5.00	1.0	5/18/05	15:04	B.Herford	8260B	1088

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	101.	70. - 130.
VOA Surr Toluene-d8	96.	78. - 121.
VOA Surr, 4-BFB	108.	78. - 126.
VOA Surr, DBFM	99.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-08
Project Name: HANDY PANTRY #65
Sampler: DREW MILLER

Lab Number: 05-A70621
Sample ID: MW 64
Sample Type: Water
Site ID:

Date Collected: 5/17/05
Time Collected: 13:45
Date Received: 5/18/05
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	2460	ug/l	20.0	20.0	5/19/05	11:32	C. Wani	8260B	1180
Toluene	76.6	ug/l	1.0	1.0	5/18/05	15:36	B.Herford	8260B	1088
Ethylbenzene	382.	ug/l	20.0	20.0	5/19/05	11:32	C. Wani	8260B	1180
Xylenes (Total)	48.8	ug/l	1.0	1.0	5/18/05	15:36	B.Herford	8260B	1088
Methyl-t-butyl ether	444.	ug/l	20.0	20.0	5/19/05	11:32	C. Wani	8260B	1180
Naphthalene	151.	ug/l	5.00	1.0	5/18/05	15:36	B.Herford	8260B	1088

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	103.	70. - 130.
VOA Surr Toluene-d8	95.	78. - 121.
VOA Surr, 4-BFB	109.	78. - 126.
VOA Surr, DBFM	96.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-08
Project Name: HANDY PANTRY #65
Sampler: DREW MILLER

Lab Number: 05-A70622
Sample ID: MW 65
Sample Type: Water
Site ID:

Date Collected: 5/17/05
Time Collected: 14:00
Date Received: 5/18/05
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	2860	ug/l	50.0	50.0	5/19/05	10:10	C. Wani	8260B	1494
Toluene	2610	ug/l	50.0	50.0	5/19/05	10:10	C. Wani	8260B	1494
Ethylbenzene	1760	ug/l	50.0	50.0	5/19/05	10:10	C. Wani	8260B	1494
Xylenes (Total)	1720	ug/l	50.0	50.0	5/19/05	10:10	C. Wani	8260B	1494
Methyl-t-butyl ether	43.7	ug/l	1.0	1.0	5/19/05	9:43	C. Wani	8260B	1180
Naphthalene	745.	ug/l	250.	50.0	5/19/05	10:10	C. Wani	8260B	1494

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	101.	70. - 130.
VOA Surr Toluene-d8	96.	78. - 121.
VOA Surr, 4-BFB	96.	78. - 126.
VOA Surr, DBFM	95.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-08
Project Name: HANDY PANTRY #65
Sampler: DREW MILLER

Lab Number: 05-A70623
Sample ID: MW 66
Sample Type: Water
Site ID:

Date Collected: 5/17/05
Time Collected: 14:15
Date Received: 5/18/05
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	3.8	ug/l	1.0	1.0	5/19/05	10:37	C. Wani	8260B	1180
Toluene	2.3	ug/l	1.0	1.0	5/19/05	10:37	C. Wani	8260B	1180
Ethylbenzene	5.2	ug/l	1.0	1.0	5/19/05	10:37	C. Wani	8260B	1180
Xylenes (Total)	318.	ug/l	10.0	10.0	5/19/05	11:05	C. Wani	8260B	1494
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	5/18/05	16:40	B.Herford	8260B	1088
Naphthalene	80.1	ug/l	5.00	1.0	5/19/05	10:37	C. Wani	8260B	1180

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	103.	70. - 130.
VOA Surr Toluene-d8	95.	78. - 121.
VOA Surr, 4-BFB	108.	78. - 126.
VOA Surr, DBFM	96.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-08
Project Name: HANDY PANTRY #65
Sampler: DREW MILLER

Lab Number: 05-A70624
Sample ID: MW 67
Sample Type: Water
Site ID:

Date Collected: 5/17/05
Time Collected: 14:30
Date Received: 5/18/05
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	5/19/05	9:16	C. Wani	8260B	1180
Toluene	ND	ug/l	1.0	1.0	5/19/05	9:16	C. Wani	8260B	1180
Ethylbenzene	ND	ug/l	1.0	1.0	5/19/05	9:16	C. Wani	8260B	1180
Xylenes (Total)	2.6	ug/l	1.0	1.0	5/19/05	9:16	C. Wani	8260B	1180
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	5/18/05	17:12	B.Herford	8260B	1088
Naphthalene	ND	ug/l	5.00	1.0	5/19/05	9:16	C. Wani	8260B	1180

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	104.	70. - 130.
VOA Surr Toluene-d8	95.	78. - 121.
VOA Surr, 4-BFB	99.	78. - 126.
VOA Surr, DBFM	97.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-08
Project Name: HANDY PANTRY #65
Sampler: DREW MILLER

Lab Number: 05-A70625
Sample ID: DW 9
Sample Type: Water
Site ID:

Date Collected: 5/17/05
Time Collected: 14:45
Date Received: 5/18/05
Time Received: 8:00
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	6.8	ug/l	1.0	1.0	5/18/05	17:44	B.Herford	8260B	1088
Toluene	1.5	ug/l	1.0	1.0	5/18/05	17:44	B.Herford	8260B	1088
Ethylbenzene	ND	ug/l	1.0	1.0	5/18/05	17:44	B.Herford	8260B	1088
Xylenes (Total)	ND	ug/l	1.0	1.0	5/18/05	17:44	B.Herford	8260B	1088
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	5/18/05	17:44	B.Herford	8260B	1088
Naphthalene	ND	ug/l	5.00	1.0	5/18/05	17:44	B.Herford	8260B	1088

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	99.	70. - 130.
VOA Surr Toluene-d8	95.	78. - 121.
VOA Surr, 4-BFB	105.	78. - 126.
VOA Surr, DBFM	98.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-08
Project Name: HANDY PANTRY #65
Page: 1
Laboratory Receipt Date: 5/18/05

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/l	< 0.0010	0.0716	0.0500	143	62 - 146	1088	68361
Benzene	mg/l	0.0395	0.114	0.0500	149#	62 - 146	1180	67952
Toluene	mg/l	< 0.0010	0.0856	0.0500	171#	68 - 141	1088	68361
Toluene	mg/l	< 0.0010	0.0514	0.0500	103	68 - 141	1180	67952
VOA Surr 1,2-DCA-d4	% Rec				89	70 - 130	1088	
VOA Surr 1,2-DCA-d4	% Rec				109	70 - 130	1180	
VOA Surr Toluene-d8	% Rec				95	78 - 121	1088	
VOA Surr Toluene-d8	% Rec				93	78 - 121	1180	
VOA Surr, 4-BFB	% Rec				98	78 - 126	1088	
VOA Surr, 4-BFB	% Rec				91	78 - 126	1180	
VOA Surr, DBFM	% Rec				97	79 - 122	1088	
VOA Surr, DBFM	% Rec				103	79 - 122	1180	

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0716	0.0549	26.40#	25.	1088
Benzene	mg/l	0.114	0.146	24.62	25.	1180
Toluene	mg/l	0.0856	0.0576	39.11#	29.	1088
Toluene	mg/l	0.0514	0.0491	4.58	29.	1180

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-08
Project Name: HANDY PANTRY #65
Page: 2
Laboratory Receipt Date: 5/18/05

VOA Surr 1,2-DCA-d4	% Rec	88.	1088
VOA Surr 1,2-DCA-d4	% Rec	112.	1180
VOA Surr Toluene-d8	% Rec	94.	1088
VOA Surr Toluene-d8	% Rec	88.	1180
VOA Surr, 4-BFB	% Rec	98.	1088
VOA Surr, 4-BFB	% Rec	91.	1180
VOA Surr, DBFM	% Rec	98.	1088
VOA Surr, DBFM	% Rec	105.	1180

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0500	0.0489	98	76 - 127	1088
Benzene	mg/l	0.0500	0.0522	104	76 - 127	1180
Benzene	mg/l	0.0500	0.0522	104	76 - 127	1494
Ethylbenzene	mg/l	0.0500	0.0492	98	80 - 124	1088
Ethylbenzene	mg/l	0.0500	0.0508	102	80 - 124	1180
Ethylbenzene	mg/l	0.0500	0.0508	102	80 - 124	1494
Naphthalene	mg/l	0.0500	0.0545	109	61 - 143	1088
Naphthalene	mg/l	0.0500	0.0503	101	61 - 143	1180
Naphthalene	mg/l	0.0500	0.0503	101	61 - 143	1494
Toluene	mg/l	0.0500	0.0473	95	79 - 124	1088
Toluene	mg/l	0.0500	0.0490	98	79 - 124	1180
Toluene	mg/l	0.0500	0.0490	98	79 - 124	1494
Xylenes (Total)	mg/l	0.150	0.148	99	80 - 125	1088
Xylenes (Total)	mg/l	0.150	0.149	99	80 - 125	1180
Xylenes (Total)	mg/l	0.150	0.149	99	80 - 125	1494
Methyl-t-butyl ether	mg/l	0.0500	0.0510	102	66 - 136	1088
Methyl-t-butyl ether	mg/l	0.0500	0.0528	106	66 - 136	1180

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-08
Project Name: HANDY PANTRY #65
Page: 3
Laboratory Receipt Date: 5/18/05

VOA Surr 1,2-DCA-d4	% Rec	94	70 - 130	1088
VOA Surr 1,2-DCA-d4	% Rec	102	70 - 130	1180
VOA Surr 1,2-DCA-d4	% Rec	102	70 - 130	1494
VOA Surr Toluene-d8	% Rec	97	78 - 121	1088
VOA Surr Toluene-d8	% Rec	94	78 - 121	1180
VOA Surr Toluene-d8	% Rec	94	78 - 121	1494
VOA Surr, 4-BFB	% Rec	98	78 - 126	1088
VOA Surr, 4-BFB	% Rec	91	78 - 126	1180
VOA Surr, 4-BFB	% Rec	91	78 - 126	1494
VOA Surr, DBFM	% Rec	100	79 - 122	1088
VOA Surr, DBFM	% Rec	99	79 - 122	1180
VOA Surr, DBFM	% Rec	99	79 - 122	1494

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Benzene	< 0.0003	mg/l	1088	5/18/05	12:49
Benzene	< 0.0003	mg/l	1180	5/19/05	7:53
Benzene	< 0.0003	mg/l	1494	5/19/05	7:53
Ethylbenzene	< 0.0002	mg/l	1088	5/18/05	12:49
Ethylbenzene	< 0.0002	mg/l	1180	5/19/05	7:53
Ethylbenzene	< 0.0002	mg/l	1494	5/19/05	7:53
Naphthalene	< 0.00120	mg/l	1088	5/18/05	12:49

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION
2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-08
Project Name: HANDY PANTRY #65
Page: 4
Laboratory Receipt Date: 5/18/05

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Naphthalene	< 0.00120	mg/l	1180	5/19/05	7:53
Naphthalene	< 0.00120	mg/l	1494	5/19/05	7:53
Toluene	< 0.0002	mg/l	1088	5/18/05	12:49
Toluene	< 0.0002	mg/l	1180	5/19/05	7:53
Toluene	< 0.0002	mg/l	1494	5/19/05	7:53
Xylenes (Total)	< 0.0006	mg/l	1088	5/18/05	12:49
Xylenes (Total)	0.0007	mg/l	1180	5/19/05	7:53
Xylenes (Total)	0.0007	mg/l	1494	5/19/05	7:53
Methyl-t-butyl ether	< 0.0002	mg/l	1088	5/18/05	12:49
Methyl-t-butyl ether	< 0.0002	mg/l	1180	5/19/05	7:53
VOA Surr 1,2-DCA-d4	98.	% Rec	1088	5/18/05	12:49
VOA Surr 1,2-DCA-d4	101.	% Rec	1180	5/19/05	7:53
VOA Surr 1,2-DCA-d4	101.	% Rec	1494	5/19/05	7:53
VOA Surr Toluene-d8	96.	% Rec	1088	5/18/05	12:49
VOA Surr Toluene-d8	94.	% Rec	1180	5/19/05	7:53
VOA Surr Toluene-d8	94.	% Rec	1494	5/19/05	7:53
VOA Surr, 4-BFB	103.	% Rec	1088	5/18/05	12:49
VOA Surr, 4-BFB	97.	% Rec	1180	5/19/05	7:53
VOA Surr, 4-BFB	97.	% Rec	1494	5/19/05	7:53
VOA Surr, DBFM	98.	% Rec	1088	5/18/05	12:49
VOA Surr, DBFM	96.	% Rec	1180	5/19/05	7:53
VOA Surr, DBFM	96.	% Rec	1494	5/19/05	7:53

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 416442

TestAmerica
ANALYTICAL TESTING CORPORATION

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Consultech Env. Client #: 2628
Address: 1800 Macleod Dr. Suite F.
City/State/Zip Code: Lawrenceville, Ga., 30043
Project Manager: Jim Wilson
Telephone Number: 678 377 0400 Fax: 678 377 0051
Sampler Name: (Print Name) Drew Miller
Sampler Signature: Drew Miller

Project Name: Handy Pantry #65
Project #: C-04-12-008
Site/Location ID: Columbia State: S.C.
Report To: Jim Wilson
Invoice To:
Quote #: PO#:

TAT
___ Standard
___ Rush (surcharges may apply)
Date Needed: 100 % rush
Fax Results: Y N

SAMPLE ID | Date Sampled | Time Sampled | G = Grab, C = Composite | Field Filtered | Matrix: DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other | Preservation & # of Containers: HNO_3, HCl, NaOH, H_2SO_4, Methanol, None, Other (Specify) | Analyze For: BTEX MTBE NAPH 8260B | QC Deliverables | REMARKS

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix	HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	BTEX MTBE NAPH 8260B	REMARKS
MW 68	5/18	1400	G		GW		3							OSA 71126
MW 69	↓	1415	↓		↓		3							127
MW 70	↓	1430	↓		↓		3						↓	71128

QC Deliverables
___ None
___ Level 2 (Batch QC)
___ Level 3
___ Level 4
Other: _____

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 1.1c
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

	Date	Time		Date	Time
Relinquished By: Drew Miller	Date: 5/18	Time: 6:30	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 5/19/05	Time: 0750

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

5/20/05

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: HANDY PANTRY #65
Project Number: C-04-12-008.
Laboratory Project Number: 416577.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accreditation.

Sample Identification	Lab Number	Collection Date
MW 68	05-A71126	5/18/05
MW 69	05-A71127	5/18/05
MW 70	05-A71128	5/18/05

A2LA certification number 0453.07 for analysis of wastewater and solid/hazardous waste.
NELAC/Florida certification number E87358 for analysis of environmental water, soil/hazardous waste, and drinking water effective 07/01/99-06/30/05.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 5/20/05

Johnny A. Mitchell, Laboratory Director
Michael H. Dunn, M.S., Technical Director
Pamela A. Langford, Senior Project Manager
Eric S. Smith, QA/QC Director
Sandra McMillin, Technical Services
Gail A. Lage, Senior Project Manager
Glenn L. Norton, Technical Services
Kelly S. Comstock, Technical Services
Roxanne L. Connor, Senior Project Manag

Laboratory Certification Number: 84009

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: DREW MILLER

Lab Number: 05-A71126
Sample ID: MW 68
Sample Type: Water
Site ID:

Date Collected: 5/18/05
Time Collected: 14:00
Date Received: 5/19/05
Time Received: 7:50
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	6.6	ug/l	1.0	1.0	5/20/05	15:51	M.Himelick	8260B	29
Toluene	ND	ug/l	1.0	1.0	5/20/05	15:51	M.Himelick	8260B	2931
Ethylbenzene	ND	ug/l	1.0	1.0	5/20/05	15:51	M.Himelick	8260B	2931
Xylenes (Total)	ND	ug/l	1.0	1.0	5/20/05	15:51	M.Himelick	8260B	2931
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	5/20/05	15:51	M.Himelick	8260B	2931
Naphthalene	ND	ug/l	5.00	1.0	5/20/05	15:51	M.Himelick	8260B	2931

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	102.	70. - 130.
VOA Surr Toluene-d8	98.	78. - 121.
VOA Surr, 4-BFB	88.	78. - 126.
VOA Surr, DBFM	99.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: DREW MILLER

Lab Number: 05-A71127
Sample ID: MW 69
Sample Type: Water
Site ID:

Date Collected: 5/18/05
Time Collected: 14:15
Date Received: 5/19/05
Time Received: 7:50
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	5/20/05	16:16	M.Himelick	8260B	2931
Toluene	ND	ug/l	1.0	1.0	5/20/05	16:16	M.Himelick	8260B	2931
Ethylbenzene	ND	ug/l	1.0	1.0	5/20/05	16:16	M.Himelick	8260B	2931
Xylenes (Total)	ND	ug/l	1.0	1.0	5/20/05	16:16	M.Himelick	8260B	2931
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	5/20/05	16:16	M.Himelick	8260B	2931
Naphthalene	ND	ug/l	5.00	1.0	5/20/05	16:16	M.Himelick	8260B	2931

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	103.	70. - 130.
VOA Surr Toluene-d8	98.	78. - 121.
VOA Surr, 4-BFB	88.	78. - 126.
VOA Surr, DBFM	98.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

CONSULTECH ENVIRONMENTAL 2628
JIM WILSON
1800 MACLEOD DR, STE 150
LAWRENCEVILLE, GA 30043-5736

Project: C-04-12-008
Project Name: HANDY PANTRY #65
Sampler: DREW MILLER

Lab Number: 05-A71128
Sample ID: MW 70
Sample Type: Water
Site ID:

Date Collected: 5/18/05
Time Collected: 14:30
Date Received: 5/19/05
Time Received: 7:50
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	ND	ug/l	1.0	1.0	5/20/05	16:40	M.Himelick	8260B	29
Toluene	ND	ug/l	1.0	1.0	5/20/05	16:40	M.Himelick	8260B	2931
Ethylbenzene	ND	ug/l	1.0	1.0	5/20/05	16:40	M.Himelick	8260B	2931
Xylenes (Total)	ND	ug/l	1.0	1.0	5/20/05	16:40	M.Himelick	8260B	2931
Methyl-t-butyl ether	ND	ug/l	1.0	1.0	5/20/05	16:40	M.Himelick	8260B	2931
Naphthalene	ND	ug/l	5.00	1.0	5/20/05	16:40	M.Himelick	8260B	2931

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	102.	70. - 130.
VOA Surr Toluene-d8	98.	78. - 121.
VOA Surr, 4-BFB	87.	78. - 126.
VOA Surr, DBFM	97.	79. - 122.

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 1
Laboratory Receipt Date: 5/19/05

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/l	0.104	0.186	0.0500	164#	62 - 146	2931	69037
Toluene	mg/l	0.0040	0.0609	0.0500	114	68 - 141	2931	69037
VOA Surr 1,2-DCA-d4	% Rec				100	70 - 130	2931	
VOA Surr Toluene-d8	% Rec				102	78 - 121	2931	
VOA Surr, 4-BFB	% Rec				88	78 - 126	2931	
VOA Surr, DBFM	% Rec				103	79 - 122	2931	

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.186	0.185	0.54	25.	2931
Toluene	mg/l	0.0609	0.0620	1.79	29.	2931
VOA Surr 1,2-DCA-d4	% Rec		100.			2931
VOA Surr Toluene-d8	% Rec		106.			2931
VOA Surr, 4-BFB	% Rec		90.			2931
VOA Surr, DBFM	% Rec		101.			2931

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 2
Laboratory Receipt Date: 5/19/05

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0500	0.0474	95	76 - 127	2931
Ethylbenzene	mg/l	0.0500	0.0481	96	80 - 124	2931
Naphthalene	mg/l	0.0500	0.0584	117	61 - 143	2931
Toluene	mg/l	0.0500	0.0490	98	79 - 124	2931
Xylenes (Total)	mg/l	0.150	0.152	101	80 - 125	2931
Methyl-t-butyl ether	mg/l	0.0500	0.0546	109	66 - 136	2931
VOA Surr 1,2-DCA-d4	% Rec			97	70 - 130	2931
VOA Surr Toluene-d8	% Rec			104	78 - 121	2931
VOA Surr, 4-BFB	% Rec			88	78 - 126	2931
VOA Surr, DBFM	% Rec			100	79 - 122	2931

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: C-04-12-008
Project Name: HANDY PANTRY #65
Page: 3
Laboratory Receipt Date: 5/19/05

VOA PARAMETERS					
Benzene	< 0.0003	mg/l	2931	5/20/05	15:27
Ethylbenzene	< 0.0002	mg/l	2931	5/20/05	15:27
Naphthalene	< 0.00120	mg/l	2931	5/20/05	15:27
Toluene	< 0.0002	mg/l	2931	5/20/05	15:27
Xylenes (Total)	< 0.0006	mg/l	2931	5/20/05	15:27
Methyl-t-butyl ether	< 0.0002	mg/l	2931	5/20/05	15:27
VOA Surr 1,2-DCA-d4	104.	% Rec	2931	5/20/05	15:27
VOA Surr Toluene-d8	97.	% Rec	2931	5/20/05	15:27
VOA Surr, 4-BFB	89.	% Rec	2931	5/20/05	15:27
VOA Surr, DBFM	100.	% Rec	2931	5/20/05	15:27

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 416577

Notes

APPENDIX 6
Soil, Water, and LPH Waste Disposal Manifest

CONSULTECH ENVIRONMENTAL, INC.

May 23, 2005

Mr. Art Shrader
Assessment and Corrective Action Division
Underground storage Tank Program
South Carolina DHEC
2600 Bull Street
Columbia, South Carolina 29201

RE: Disposal manifests for soil and water encountered during Tier II work
Former Handy Pantry #65, 2367 Taylor Street
UST Permit #07584 & #18389, CA 23764
Former Clouds Chevron, 1600 Two Notch Road
UST Permit #07777 & #12352, CA 23767
Columbia, Richland County, South Carolina

Dear Mr. Shrader,

This letter serves as certification that all water and soil encountered during our Tier II work was handled in a manner that complies with all conditions established by DHEC for treatment of small amounts of petroleum hydrocarbon contaminated soils and groundwater.

Source:
Soil and groundwater obtained as a result of soil sampling, well development and groundwater sampling.
Conditions:

- No free product was disposed of separately from the drums of water.
- Analytical results show an average concentration of less than 1600 ppb Benzene and less than 6,000 ppb total BTEX.
- The water obtained was containerized on site, for a period of less than 30 days, prior to treatment by the activated carbon canisters.
- Records of carbon canister usage are maintained by Consultech.
- The carbon canisters have an expected life of 5,000 gallons before replacement is required.
- Recommendations and conditions issued by the canister manufacturer and SCDHEC have been followed.
- All water obtained was treated on site using an up-flow treatment drum consisting of 90 lbs. of activated carbon. Manufacturer's suggested treatment life is 5,000 gallons of water.

Specific site conditions of referenced site:

- A total of fourteen 55-gallon drums of water were treated on April 21, and May 19, 2005 at the referenced site.
- Sixty-six 55-gallon drums of soil were removed from the referenced site and disposed of at Lee County Landfill in Bishopville, SC.
- Twenty-four 55-gallon drums of soil were also removed from the referenced site and disposed of at Eagle Point Landfill in Ball Ground, GA. See attached manifests.

Should you have any questions, please contact me at 678-377-0400.

Sincerely,
Consultech Environmental, Inc.

James R. Wilson, P.G.
Senior Project Manager

1800 MacLeod Drive, Suite F * Lawrenceville, GA 30043-5376
678 377-0400 * FAX 678 377-0051

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1 of

3. Generator's Name and Mailing Address
Various SC DHEC UST Sites
Various
South Carolina

4. Generator's Phone ~~803-896-6584~~ 905

5. Transporter 1 Company Name | 6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone

7. Transporter 2 Company Name | 8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address
Lee County Landfill

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Petroleum Contaminated Soil Non-Hazardous, Special Waste	001	CM	000 Y	
b. 8.91 tons	45	DRUMS		
c.				
d.				

G. Additional Descriptions for Materials Listed Above
LEE COUNTY LANDFILL APPROVAL :767Y29958-PETROLEUM CONTAMINATED SOIL
AWIU EXPIRATION DATE: NOVEMBER 20, 2005

ANDERSON REGIONAL LANDFILL APPROVAL :771Y32071
AWIU EXP: MARCH 7,2006

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information
Former Clouds Chevron C-009 UST#07777
1600 Two Notch Rd. Columbia, SC Richland County

16. GENERATOR'S CERTIFICATION: I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Consultech Environmental Inc

Printed/Typed Name: Rob Robinson | Signature | Date: Month 4 Day 18 Year 05

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: George Taylor | Signature: George Taylor | Date: Month 4 Day 19 Year 05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name | Signature | Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name: MARSHA WYATT | Signature: Marsha Wyatt | Date: Month 4 Day 19 Year 05

GENERATOR
TRANSPORTER
FACILITY
NON-HAZARDOUS WASTE

© 2002 LABELMASTER® (800) 621-5808 www.labelmaster.com
PRINTED ON RECYCLED PAPER USING SOYBEAN INK
PRINTED WITH SOY INK

NON-HAZARDOUS WASTE MANIFEST

Please print or type (Form designed for use on elite (12 pitch) typewriter)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

Manifest Document No.

2. Page 1 of

3. Generator's Name and Mailing Address

Various SC DHEC UST Sites
Various
South Carolina

4. Generator's Phone (803-896-2584)

906

5. Transporter 1 Company Name

6. US EPA ID Number

A. State Transporter's ID

B. Transporter 1 Phone

7. Transporter 2 Company Name

8. US EPA ID Number

C. State Transporter's ID

D. Transporter 2 Phone

9. Designated Facility Name and Site Address

Lee County Landfill

10. US EPA ID Number

E. State Facility's ID

F. Facility's Phone

11. WASTE DESCRIPTION	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
Petroleum Contaminated Soil				
a. Non-Hazardous, Special Waste 4.10 tons	001 21	CM Drums	000 Y	
b.				
c.				
d.				

G. Additional Descriptions for Materials Listed Above

LEE COUNTY LANDFILL APPROVAL :767Y29958-PETROLEUM CONTAMINATED SOIL
AWIU EXPIRATION DATE: NOVEMBER 20, 2005

ANDERSON REGIONAL LANDFILL APPROVAL :771Y32071
AWIU EXP: MARCH 7,2006

H. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

~~Sub~~ Hardy Pantry #65 C-008 UST#07584
2367 Taylor Street Columbia, SC Richland County

16. **GENERATOR'S CERTIFICATION:** I hereby certify that the contents of this shipment are fully and accurately described and are in all respects in proper condition for transport. The materials described on this manifest are not subject to federal hazardous waste regulations.

Consultech Environmental, Inc-Authorized Agent

Printed/Typed Name: Rob Robinson

Signature: [signature]

Date: Month 4 Day 18 Year 05

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name: James Williams Jr

Signature: James Williams Jr

Date: Month 4 Day 20 Year 05

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

Date: Month Day Year

19. Discrepancy Indication Space

20. Facility Owner or Operator; Certification of receipt of the waste materials covered by this manifest, except as noted in item 19.

Printed/Typed Name: Carolyn Green

Signature: C. Green

Date: Month 4 Day 20 Year 05

GENERATOR

TRANSPORTER

FACILITY

NON-HAZARDOUS WASTE

CF14 © 2002 LABELMASTER® (800) 621-5808 www.labelmaster.com

PRINTED ON RECYCLED PAPER USING SOYBEAN INK PRINTED WITH SOY INK

NON-HAZARDOUS WASTE MANIFEST

GDST
5 Picadilly Court NE
Conyers, GA 30013
Office (770) 918-8956
Fax (770) 860-8893

No. 001 [illegible]

Section 1 GENERATOR (Generator completes all of Section 1)

a. Generator Name: SCDOT EC
b. Address 1600 BULL STREET
COLUMBIA, SC 29201
c. Phone No.:
If owner generating facility differs from the generator, provide:
d. Owners Name:
e. Description of Waste: SW Burn - Unprocessable Soil

g. Generating Location: Farmers Supply Pantry #65
h. Address: 3567 TAYLOR STREET
COLUMBIA, SC
i. Phone No.:
j. Owners Phone No.:

k.

Quantity	Units	No.	Type
35	G	04	DM

TYPE	
DM	-METAL DRUM
DP	-PLASTIC DRUM
B	-BAG
BA	-6MIL. PLASTIC BAG or WRAP
T	-TRUCK
O	-OTHER

I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

UNITS	
T	-TONS
G	-GALLONS
M^3	-CUBIC METERS
Y^3	-CUBIC YARDS
O	-OTHER

[illegible] Environmental — [signature] — 09/11/25
Generator Authorized Agent Name — Signature — Ship Date

Section II TRANSPORTER (Generator completes a-d; Transporter I completes e-g; Transporter II completes h-n)

a. Name: GDST
b. Address 2467 Highway 81 [illegible]
[illegible]
c. Driver Name/Title: [illegible]
d. Phone No.: [illegible] e. Truck No.: 01
f. Vehicle License No./State:
Acknowledgement of Receipt of Materials.
g. [signature] — Driver Signature — Shipment Date: 09/12/25

h. Name:
i. Address
j. Driver Name/Title:
k. Phone No.: l. Truck No.:
m. Vehicle License No./State:
Acknowledgement of Receipt of Materials.
n. Driver Signature — Shipment Date

Section III DESTINATION (Destination site completes e-f)

a. Site Name: Tech Park Landfill
b. Physical Address: [illegible]
[illegible]
c. Phone No.:
d. Mailing Address:
e. Discrepancy Indication Space:

I hereby certify that the above material has been accepted and to the best of my knowledge the foregoing is true and accurate.

f. [illegible] — Name of Authorized Agent — [signature] — Signature — Receipt Date

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

June 14, 2005

RECEIVED
JUN 17 2005
UNDERGROUND STORAGE TANK PROGRAM

Ms. Debra Thoma
SCDHEC
UST Program
2600 Bull Street
Columbia, SC 29201

RE: Lab Project Number: 9295729
Client Project ID: University Mart/07584/24767

Dear Ms. Thoma:

Enclosed are the analytical results for sample(s) received by the laboratory on June 3, 2005. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

Inorganic Wet Chemistry and Metals Analyses were performed at our Pace Asheville laboratory and Organic testing was performed at our Pace Charlotte laboratory unless otherwise footnoted.

If you have any questions concerning this report please feel free to contact me.

Sincerely,

Sherri Stabel
Sherri.Stabel@pacelabs.com
Project Manager

UST PROGRAM
DOCKETING # 223 Tech

Enclosures

Ashville Certification IDs	
NC Wastewater	40
NC Drinking Water	37712
SC Environment	99030
FL NELAP	E87648

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

Charlotte Certification IDs	
NC Wastewater	12
NC Drinking Water	37706
SC	99006
FL NELAP	E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9295729
Client Project ID: University Mart/07584/24767

Lab Sample No: 925704991 Project Sample Number: 9295729-001 Date Collected: 06/02/05 13:30
Client Sample ID: MW-70 Matrix: Water Date Received: 06/03/05 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC Semivolatiles									
EDB and DBCP in Water	Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	1.0	06/10/05 13:46	RPJ	106-93-4		
1-Chloro-2-bromopropane (S)	113	%		1.0	06/10/05 13:46	RPJ	301-79-56		

Ashville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environment 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9295729
Client Project ID: University Mart/07584/24767

Lab Sample No: 925705105 Project Sample Number: 9295729-002 Date Collected: 06/02/05 13:45
Client Sample ID: MW-69 Matrix: Water Date Received: 06/03/05 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry									
Iron, Ferrous	Method: SM 3500-Fe D#4								
Iron, Ferrous	ND	mg/l	0.50	1.0	06/07/05 03:30	BMF		1	
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2								
Nitrate as N	3.4	mg/l	0.10	1.0	06/03/05 23:01	JDA1			
GC Semivolatiles									
EDB and DBCP in Water	Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	1.0	06/10/05 14:27	RPJ	106-93-4		
1-Chloro-2-bromopropane (S)	117	%		1.0	06/10/05 14:27	RPJ	301-79-56		

Ashville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environment 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9295729
Client Project ID: University Mart/07584/24767

Lab Sample No: 925705154 Project Sample Number: 9295729-003 Date Collected: 06/02/05 14:00
Client Sample ID: MW-68 Matrix: Water Date Received: 06/03/05 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC Semivolatiles									
EDB and DBCP in Water	Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	1.0	06/10/05 15:08	RPJ	106-93-4		
1-Chloro-2-bromopropane (S)	115	%		1.0	06/10/05 15:08	RPJ	301-79-56		

Ashville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environment 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9295729
Client Project ID: University Mart/07584/24767

Lab Sample No: 925705204 Project Sample Number: 9295729-004 Date Collected: 06/02/05 14:15
Client Sample ID: MW-65 Matrix: Water Date Received: 06/03/05 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry									
Iron, Ferrous	Method: SM 3500-Fe D#4								
Iron, Ferrous	4.0	mg/l	0.50	1.0	06/07/05 03:30	BMF		1	
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2								
Nitrate as N	0.35	mg/l	0.10	1.0	06/03/05 23:01	JDA1			
GC Semivolatiles									
EDB and DBCP in Water	Method: EPA 8011								
1,2-Dibromoethane (EDB)	0.26	ug/l	0.020	1.0	06/10/05 15:29	RPJ	106-93-4		
1-Chloro-2-bromopropane (S)	125	%		1.0	06/10/05 15:29	RPJ	301-79-56		

Ashville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environment 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9295729
Client Project ID: University Mart/07584/24767

Lab Sample No: 925705238 Project Sample Number: 9295729-005 Date Collected: 06/02/05 14:25
Client Sample ID: MW-64 Matrix: Water Date Received: 06/03/05 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC Semivolatiles									
EDB and DBCP in Water	Method: EPA 8011								
1,2-Dibromoethane (EDB)	0.025	ug/l	0.020	1.0	06/10/05 15:49	RPJ	106-93-4		
1-Chloro-2-bromopropane (S)	115	%		1.0	06/10/05 15:49	RPJ	301-79-56		

Ashville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environment 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9295729
Client Project ID: University Mart/07584/24767

Lab Sample No: 925705279 Project Sample Number: 9295729-006 Date Collected: 06/02/05 14:35
Client Sample ID: MW-66 Matrix: Water Date Received: 06/03/05 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
Wet Chemistry									
Iron, Ferrous	Method: SM 3500-Fe D#4								
Iron, Ferrous	1.2	mg/l	0.50	1.0	06/07/05 03:30	BMF		1	
48 Hour NO3 / NO2 / NOX	Method: EPA 353.2								
Nitrate as N	5.1	mg/l	0.10	1.0	06/03/05 23:01	JDA1			
GC Semivolatiles									
EDB and DBCP in Water	Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	1.0	06/10/05 16:10	RPJ	106-93-4		
1-Chloro-2-bromopropane (S)	85	%		1.0	06/10/05 16:10	RPJ	301-79-56		

Ashville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environment 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9295729
Client Project ID: University Mart/07584/24767

Lab Sample No: 925705295 Project Sample Number: 9295729-007 Date Collected: 06/02/05 14:50
Client Sample ID: MW-63 Matrix: Water Date Received: 06/03/05 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC Semivolatiles									
EDB and DBCP in Water	Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	1.0	06/10/05 16:31	RPJ	106-93-4		
1-Chloro-2-bromopropane (S)	106	%		1.0	06/10/05 16:31	RPJ	301-79-56		

Ashville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environment 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9295729
Client Project ID: University Mart/07584/24767

Lab Sample No: 925705303 Project Sample Number: 9295729-008 Date Collected: 06/02/05 15:10
Client Sample ID: MW-62 Matrix: Water Date Received: 06/03/05 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC Semivolatiles									
EDB and DBCP in Water	Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	1.0	06/10/05 16:51	RPJ	106-93-4		
1-Chloro-2-bromopropane (S)	108	%		1.0	06/10/05 16:51	RPJ	301-79-56		

Ashville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environment 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9295729
Client Project ID: University Mart/07584/24767

Lab Sample No: 925705311 Project Sample Number: 9295729-009 Date Collected: 06/02/05 15:30
Client Sample ID: MW-67 Matrix: Water Date Received: 06/03/05 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC Semivolatiles									
EDB and DBCP in Water	Method: EPA 8011								
1,2-Dibromoethane (EDB)	ND	ug/l	0.020	1.0	06/10/05 17:12	RPJ	106-93-4		
1-Chloro-2-bromopropane (S)	88	%		1.0	06/10/05 17:12	RPJ	301-79-56		

Ashville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environment 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9295729
Client Project ID: University Mart/07584/24767

Lab Sample No: 925705329 Project Sample Number: 9295729-010 Date Collected: 06/02/05 16:00
Client Sample ID: ST-1 Matrix: Water Date Received: 06/03/05 09:30

Parameters	Results	Units	Report Limit	DF	Analyzed	By	CAS No.	Qual	RegLmt
GC/MS Volatiles									
GC/MS VOCs by 8260	Method: EPA 8260								
Benzene	390	ug/l	25.	5.0	06/06/05 02:05	MSF	71-43-2		
Ethylbenzene	31.	ug/l	5.0	1.0	06/06/05 02:05	MSF	100-41-4		
Methyl-tert-butyl ether	140	ug/l	5.0	1.0	06/06/05 02:05	MSF	1634-04-4		
Naphthalene	5.3	ug/l	5.0	1.0	06/06/05 02:05	MSF	91-20-3		
Toluene	110	ug/l	5.0	1.0	06/06/05 02:05	MSF	108-88-3		
m&p-Xylene	41.	ug/l	10.	1.0	06/06/05 02:05	MSF			
o-Xylene	26.	ug/l	5.0	1.0	06/06/05 02:05	MSF	95-47-6		
Toluene-d8 (S)	99	%		1.0	06/06/05 02:05	MSF	2037-26-5		
4-Bromofluorobenzene (S)	96	%		1.0	06/06/05 02:05	MSF	460-00-4		
Dibromofluoromethane (S)	89	%		1.0	06/06/05 02:05	MSF	1868-53-7		
1,2-Dichloroethane-d4 (S)	91	%		1.0	06/06/05 02:05	MSF	17060-07-0		

Ashville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environment 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

PARAMETER FOOTNOTES

Dilution factor shown represents the factor applied to the reported result and reporting limit due to changes in sample preparation, dilution of the extract, or moisture content

Method 9071B modified to use ASE.

All pH, Free Chlorine, Total Chlorine and Ferrous Iron analyses conducted outside of EPA recommended immediate hold time.

Depending on the moisture content the PRLs can be elevated for all soil samples reported on a dry weight basis.

2-Chloroethyl vinyl ether has been shown to degrade in the presence of acid.

ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
(S)	Surrogate
[1]	Analysis conducted in excess of EPA recommended holding time.

Ashville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environment 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

QUALITY CONTROL DATA

Lab Project Number: 9295729
Client Project ID: University Mart/07584/24767

QC Batch: 130130 Analysis Method: EPA 8011
QC Batch Method: EPA 504.1 Analysis Description: EDB and DBCP in Water
Associated Lab Samples: 925704991 925705105 925705154 925705204 925705238 925705279 925705295 925705303 925705311

METHOD BLANK: 925729287
Associated Lab Samples: 925704991 925705105 925705154 925705204 925705238 925705279 925705295 925705303 925705311

Parameter	Units	Blank Result	Reporting Limit	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	0.020	
1-Chloro-2-bromopropane (S)	%	110		

LABORATORY CONTROL SAMPLE & LCSD: 925729295 925729303

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0.2500	0.2768	0.2747	111	110	1	
1-Chloro-2-bromopropane (S)					110	114		

MATRIX SPIKE: 925729329

Parameter	Units	925705105 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
1,2-Dibromoethane (EDB)	ug/l	0	0.2500	0.2550	102	
1-Chloro-2-bromopropane (S)					110	

SAMPLE DUPLICATE: 925729311

Parameter	Units	925704991 Result	DUP Result	RPD	Footnotes
1,2-Dibromoethane (EDB)	ug/l	ND	ND	NC	
1-Chloro-2-bromopropane (S)	%	113	116		

Ashville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environment 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

QUALITY CONTROL DATA

Lab Project Number: 9295729
Client Project ID: University Mart/07584/24767

QC Batch: 129753 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: GC/MS VOCs by 8260
Associated Lab Samples: 925705329

METHOD BLANK: 925710006
Associated Lab Samples: 925705329

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Benzene	ug/l	ND	5.0	
Ethylbenzene	ug/l	ND	5.0	
Methyl-tert-butyl ether	ug/l	ND	5.0	
Naphthalene	ug/l	ND	5.0	
Toluene	ug/l	ND	5.0	
m&p-Xylene	ug/l	ND	10.	
o-Xylene	ug/l	ND	5.0	
Toluene-d8 (S)	%	98		
4-Bromofluorobenzene (S)	%	96		
Dibromofluoromethane (S)	%	95		
1,2-Dichloroethane-d4 (S)	%	93		

LABORATORY CONTROL SAMPLE: 925710014

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Benzene	ug/l	50.00	49.23	98	
Ethylbenzene	ug/l	50.00	49.68	99	
Methyl-tert-butyl ether	ug/l	50.00	44.66	89	
Naphthalene	ug/l	50.00	43.49	87	
Toluene	ug/l	50.00	48.34	97	
m&p-Xylene	ug/l	100.00	99.32	99	
o-Xylene	ug/l	50.00	48.53	97	
Toluene-d8 (S)				101	
4-Bromofluorobenzene (S)				100	
Dibromofluoromethane (S)				96	
1,2-Dichloroethane-d4 (S)				90	

Ashville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environment 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

QUALITY CONTROL DATA

Lab Project Number: 9295729
Client Project ID: University Mart/07584/24767

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 925710030 925710048

Parameter	Units	925708521 Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	RPD	Footnotes
Benzene	ug/l	0	50.00	50.53	50.45	101	101	0	
Toluene	ug/l	0	50.00	49.73	48.57	100	97	2	
Toluene-d8 (S)						98	99		
4-Bromofluorobenzene (S)						96	94		
Dibromofluoromethane (S)						96	98		
1,2-Dichloroethane-d4 (S)						94	93		

SAMPLE DUPLICATE: 925710022

Parameter	Units	925704736 Result	DUP Result	RPD	Footnotes
Benzene	ug/l	ND	ND	NC	
Ethylbenzene	ug/l	ND	ND	NC	
Methyl-tert-butyl ether	ug/l	ND	ND	NC	
Naphthalene	ug/l	ND	ND	NC	
Toluene	ug/l	ND	ND	NC	
m&p-Xylene	ug/l	ND	ND	NC	
o-Xylene	ug/l	ND	ND	NC	
Toluene-d8 (S)	%	98	99		
4-Bromofluorobenzene (S)	%	94	94		
Dibromofluoromethane (S)	%	95	94		
1,2-Dichloroethane-d4 (S)	%	93	91		

Ashville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environment 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

QUALITY CONTROL DATA

Lab Project Number: 9295729
Client Project ID: University Mart/07584/24767

QC Batch: 129841 Analysis Method: SM 3500-Fe D#4
QC Batch Method: SM 3500-Fe D#4 Analysis Description: Iron, Ferrous
Associated Lab Samples: 925705105 925705204 925705279

METHOD BLANK: 925712846
Associated Lab Samples: 925705105 925705204 925705279

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Iron, Ferrous	mg/l	ND	0.50	

SAMPLE DUPLICATE: 925712853

Parameter	Units	925705105 Result	DUP Result	RPD	Footnotes
Iron, Ferrous	mg/l	ND	ND	NC	1

Date: 06/14/05

Ashville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environment 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

QUALITY CONTROL DATA

Lab Project Number: 9295729
Client Project ID: University Mart/07584/24767

QC Batch: 129736 Analysis Method: EPA 353.2
QC Batch Method: EPA 353.2 Analysis Description: 48 Hour NO3 / NO2 / NOX
Associated Lab Samples: 925705105 925705204 925705279

METHOD BLANK: 925708992
Associated Lab Samples: 925705105 925705204 925705279

Parameter	Units	Blank Result	Reporting Limit	Footnotes
Nitrate as N	mg/l	ND	0.10	

LABORATORY CONTROL SAMPLE: 925709008

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	Footnotes
Nitrate as N	mg/l	10.00	10.90	109	

MATRIX SPIKE: 925709016

Parameter	Units	925707283 Result	Spike Conc.	MS Result	MS % Rec	Footnotes
Nitrate as N	mg/l	0	10.00	11.40	114	

SAMPLE DUPLICATE: 925709024

Parameter	Units	925707291 Result	DUP Result	RPD	Footnotes
Nitrate as N	mg/l	ND	ND	NC	

Ashville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environment 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical®
www.pacelabs.com

Pace Analytical Services, Inc.
9800 Kincey Avenue, Suite 100
Huntersville, NC 28078
Phone: 704.875.9092
Fax: 704.875.9091

Pace Analytical Services, Inc.
2225 Riverside Drive
Asheville, NC 28804
Phone: 828.254.7176
Fax: 828.252.4618

Lab Project Number: 9295729
Client Project ID: University Mart/07584/24767

QUALITY CONTROL DATA PARAMETER FOOTNOTES

Consistent with EPA guidelines, unrounded concentrations are displayed and have been used to calculate % Rec and RPD values.

LCS(D)	Laboratory Control Sample (Duplicate)
MS(D)	Matrix Spike (Duplicate)
DUP	Sample Duplicate
ND	Not detected at or above adjusted reporting limit
NC	Not Calculable
J	Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit
MDL	Adjusted Method Detection Limit
RPD	Relative Percent Difference
(S)	Surrogate
[1]	Analysis conducted in excess of EPA recommended holding time.

Ashville Certification IDs
NC Wastewater 40
NC Drinking Water 37712
SC Environment 99030
FL NELAP E87648

REPORT OF LABORATORY ANALYSIS
This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, Inc.

Charlotte Certification IDs
NC Wastewater 12
NC Drinking Water 37706
SC 99006
FL NELAP E87627

Pace Analytical Services, Inc.

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Analytical Report Number: 860048

Client : PACE ANALYTICAL SERVICES, INC.-HUNTERSVILLE
Project Name : SCDHEC
Project Number : 9295729
Field ID : MW-69 925705105

Matrix Type : WATER
Collection Date : 06/02/05
Report Date : 06/08/05
Lab Sample Number : 860048-001

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Sulfate	15	4.0	1	mg/L		06/07/05	EPA 300.0	EPA 300.0

Pace Analytical Services, Inc.

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Analytical Report Number: 860048

Client : PACE ANALYTICAL SERVICES, INC.-HUNTERSVILLE
Project Name : SCDHEC
Project Number : 9295729
Field ID : MW-65 925705204

Matrix Type : WATER
Collection Date : 06/02/05
Report Date : 06/08/05
Lab Sample Number : 860048-002

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Sulfate	25	4.0	1	mg/L		06/07/05	EPA 300.0	EPA 300.0

Pace Analytical Services, Inc.

1241 Bellevue Street
Green Bay, WI 54302
920-469-2436

Analytical Report Number: 860048

Client : PACE ANALYTICAL SERVICES, INC.-HUNTERSVILLE
Project Name : SCDHEC
Project Number : 9295729
Field ID : MW-66 925705279

Matrix Type : WATER
Collection Date : 06/02/05
Report Date : 06/08/05
Lab Sample Number : 860048-003

INORGANICS

Test	Result	EQL	Dilution	Units	Code	Anl Date	Prep Method	Anl Method
Sulfate	33	4.0	1	mg/L		06/07/05	EPA 300.0	EPA 300.0

Pace Analytical Services, Inc.

Analysis Summary by Laboratory

1241 Bellevue Street
Green Bay, WI 54302

Test Group Name	860048-001	860048-002	860048-003
SULFATE	B	B	B

Code	Facility	Address	SC Certification
B	Green Bay Lab (Bellevue St)	1241 Bellevue Street, Suite 9 Green Bay, WI 54302	83006001

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

846050

Pace Analytical® www.pacelabs.com

Page: 1 of 1

Required Client Information: Section A

Company: SCDHEC UST Program
Address: 2600 Bull Street
Columbia SC 29201
Phone: (803) 896-6240 Fax: (803) 896-6245

Required Client Information: Section B

Report To: D THOMA
Copy To:
Invoice To: Finance
P.O.: 416276
Project Name: University Mart
Project Number: 07584/24767

Client Information (Check quote/contract):
Requested Due Date: 6/10/05 *TAT: 7 DAY
*Turn around time less than 14 days subject to laboratory and contractual obligations and may result in a Rush Turnaround Surcharge.
Turn Around Time (TAT) in calendar days.

To Be Completed by Pace Analytical and Client Section C

Quote Reference:
Project Manager:
Project #: 9295729
Profile #: 1700 1

Section D Required Client Information:

SAMPLE ID

One character per box. (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Valid Matrix Codes: MATRIX / CODE — DRINKING WATER DW; GROUNDWATER GW; SURFACE WATER SW; WASTE WATER WW; PRODUCT P; SOIL SL; OIL OL; WIPE WP; AIR AR; OTHER OT

ITEM #	SAMPLE ID	MATRIX CODE	SAMPLE TYPE G=GRAB C=COMP	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	Methanol	Other	EDB	Nitrate/Sulfate (No Preservative)	Ferrous Iron (No Preservative)	BTEX + MTBE (8260 B)	Remarks / Lab ID
1	MW-70	WT	G	6/2/5	1300	6/2/5	1300	55°F						X			X				9257049911
2	MW-69	WT	G	6/2/5	1450	6/2/5	1450	55°F						X			X	X	X		5310F
3	MW-68	WT	G	6/2/5	2000	6/2/5	2000	55°F						X			X				5154
4	MW-65	WT	G	6/2/5	2150	6/2/5	2150	55°F						X			X	X	X		5204
5	MW-64	WT	G	6/2/5	2250	6/2/5	2250	55°F						X			X				5239
6	MW-66	WT	G	6/2/5	2350	6/2/5	2350	55°F						X			X	X	X		5279
7	MW-63	WT	G	6/2/5	2500	6/2/5	2500	55°F						X			X				5295
8	MW-62	WT	G	6/2/5	3100	6/2/5	3100	55°F						X			X				5303
9	MW-67	WT	G	6/2/5	3300	6/2/5	3300	55°F						X			X				5311
10	ST-1	WT	G	6/2/5	4000	6/2/5	4000	58°F				X								X	5329
11																					
12																					

SITE LOCATION: ☐ NC ☒ SC ☐ GA ☐ Other

REGULATORY AGENCY: ☐ NPDES ☐ GROUND WATER ☐ DRINKING WATER ☒ UST ☐ RCRA ☐ Other

RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
			D. Shrader	6/3	930

SAMPLE CONDITION

Temp in °C	2.0
Received on Ice	(Y/N)
Sealed Cooler	(Y/N)
Samples Intact	(Y/N)

SAMPLE NOTES

Additional Comments:

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: ARTHUR A SHRADER
SIGNATURE of SAMPLER: Arthur A Shrader
DATE Signed: 06/02/05 (MM / DD / YY)

SEE REVERSE SIDE FOR INSTRUCTIONS

Form COC01 Rev. 0304

Instructions for completing Chain of Custody (COC)

1. Complete all Client Information at top of sheet: name, address, phone, contact (person to whom report will be sent and contact can be made if questions arise), billing information if different from client, PO#, Project Name and/or Project Number as it will appear on the report.
2. Quote Reference, Project Manager, Project No. and Profile No. will be completed by Pace.
3. A separate COC must be filled out for each day of sample collection.
4. Sampler should print their name in the space provided and sign their name followed by the date of the sampling event.
5. Complete Sample Description as it will appear on the laboratory report; include time of sampling, sample matrix, no. of containers and preservative used.
6. Analysis Requested: Complete analysis on the lines provided and place a check in the column for the samples requiring the analysis. It may be necessary to use the space provided for additional comments or include attachments for extended lists of parameters.
7. Submission of samples to laboratory: Indicate Item Number of those samples being transferred; sign relinquished by, and include your affiliation.

*** IMPORTANT NOTE:**

Standard Turnaround Time is 2 weeks. If this does not satisfy your requirements, arrangements must be made prior to samples being submitted to the laboratory. Contact your project manager.

Special Project Requirements such as Low Level Detection Limits or level of QC reported must be indicated on the chain of custody. (Use Additional Comments Section.)

And
269-3908

MODIFIED TIER II ASSESSMENT

CLOUDS CHEVRON
1600 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA
SCDHEC SITE ID #07777 & #12352
AND
FAST POINT #24
2367 TAYLOR STREET
COLUMBIA, SOUTH CAROLINA
SCDHEC SITE ID #07584 & #18389

Prepared For:

SOUTH CAROLINA DEPARTMENT OF HEALTH
AND ENVIRONMENTAL CONTROL
BUREAU OF UNDERGROUND STORAGE TANK MANAGEMENT
ASSESSMENT & CORRECTIVE ACTION DIVISION
STATE LEAD & FIELD SERVICES SECTION
2600 BULL STREET
COLUMBIA, SOUTH CAROLINA 29201-1708

Prepared By:

FORCE & ASSOCIATES, INC.
147 VERA ROAD, SUITE F
LEXINGTON, SOUTH CAROLINA 29072
(803) 359-3200 (803) 359-6682-FAX

UST PROGRAM
DOCKETING # 224 Tech

FEBRUARY 2004

Force & Associates, Inc.
147 Vera Road, Suite F, Lexington, South Carolina 29072 (803) 359-3200 (803) 359-6682 fax

February 5, 2004

Ms. Debra L. Thoma, Hydrogeologist
Owner/Operator Assistance Section
Assessment & Corrective Action Division
UST Program
Bureau of Land and Waste Management
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

ATTN: Ms. Debra L. Thoma, Hydrogeologist

RE: Modified Tier II Assessment
Clouds Chevron, SCDHEC Site ID #07777 & #12352
1600 Two Notch Road
Columbia, South Carolina
And
Fast Point #24, SCDHEC SITE ID #07584 & #18389
2367 Taylor Street
Columbia, South Carolina

Dear Ms. Thoma:

Force & Associates, Inc. is pleased to submit the results from our Tier II assessment of the referenced facilities for your review and approval. This Tier II was performed to evaluate the impact of a petroleum release at the site and to gain additional information for the Tier II risk-based corrective action (RBCA) evaluation. This work was performed in accordance with the South Carolina Department of Health and Environmental Control (SCDHEC) Tier II guidance document.

Force & Associates, Inc. appreciates your assistance with this project. Please contact our office at (803) 359-3200 if you have any questions or require additional information pertaining to this project.

Sincerely,
FORCE & ASSOCIATES, INC.
SCDHEC UST Certified Contractor #17

Katherine M. Kelly

Katherine M. Kelly, P.G. (#1007)

TABLE OF CONTENTS

1.0 INTRODUCTION 1
1.1 UST Owner Information 1
1.2 Tier II Contractor 1
1.3 Tier II Approval/Field Work Implementation Dates 1
1.4 Site Location Description 1
1.5 Present and Future Site Use 1
1.6 Past Site Use and Previous Releases 1
1.7 Land Use 2
1.8 Nature and Estimated Quantity of Release 2
2.0 SITE CHARACTERISTICS 2
2.1 Topography 2
2.2 Site Geology and Stratigraphy 2
3.0 GROUNDWATER ASSESSMENT 3
3.1 Monitoring Well Installation, Development and Sampling Dates 3
3.2 Monitoring Well Locations 3
3.3 New Monitoring Well Numbering System 4
4.0 CHEMICALS OF CONCERN - GROUNDWATER 7
4.1 Summary of Monitoring Well and Groundwater Data 7
4.2 Horizontal and Vertical Extent of COC in the Groundwater 8
4.3 Groundwater COC Analytical Data 10
5.0 CHEMICALS OF CONCERN 12
5.1 Free Product and Free Product Recovery Test 12
5.2 Extent of COC in Groundwater 12
6.0 CONCLUSIONS & RECOMMENDATIONS 12
6.1 Recommendations 12

FIGURES

FIGURE 1 - TOPOGRAPHIC SITE MAP 5
FIGURE 2 - SITE MAP 6
FIGURE 3 - GROUNDWATER COC SITE MAP 9
FIGURE 4 - POTENTIOMETRIC SURFACE MAP 13
FIGURE 5 – FREE PRODUCT ISO – CONCENTRATION SITE MAP 14
FIGURE 6 - BENZENE ISO - CONCENTRATION SITE MAP 15
FIGURE 7 - TOLUENE ISO - CONCENTRATION SITE MAP 16
FIGURE 8 - ETHYLBENZENE ISO - CONCENTRATION SITE MAP 17
FIGURE 9 - XLYENE ISO - CONCENTRATION SITE MAP 18
FIGURE 10 - NAPHTHALENE ISO - CONCENTRATION SITE MAP 19
FIGURE 11 - MTBE ISO - CONCENTRATION SITE MAP 20
FIGURE 12 - EDB ISO - CONCENTRATION SITE MAP 21

APPENDICES

APPENDIX A WELL CONSTRUCTION LOGS
APPENDIX B LABORATORY DATA
APPENDIX C FIELD DATA SHEETS
APPENDIX D DISPOSAL MANIFESTS
APPENDIX E TAX MAP DATA
APPENDIX F SITE SURVEY MAP

MODIFED TIER II ASSESSMENT
CLOUDS CHEVRON
SCDHEC SITE ID #07777 & #12352
AND
FAST POINT #24
SCDHEC SITE ID #07584 & #18389

1.0 INTRODUCTION

1.1 UST Owner Information

Clouds Chevron:
Wallace Scott
Deceased

Fast Point #24:
Pete Overton
Acme Petroleum & Fuel Co. Inc.
P.O. Box 2359, Gastonia, NC 28053
704-867-2336

1.2 Tier II Contractor

Force & Associates, Inc.
147 Vera Road, Suite F
Lexington, South Carolina 29072
(803) 359-3200 (803) 359-6682 fax

1.3 Tier II Approval/Field Work Implementation Dates

Tier II Approval – May 16, 2003
Field Work Implementation – October 22, 2003 through December 30, 2003

1.4 Site Location Description

The "site" is the combination of two sites located in a commercial/ residential setting at the northwest and northeast corners of the intersection of Taylor Street/Forest Drive and Two Notch Road in Richland County. Approximately 95 percent of both properties are covered with buildings and/or pavement.

1.5 Present and Future Site Use

The former Cloud's Chevron site, formerly located at 1600 Two Notch Road, was purchased by the Sisters of Charity Providence Hospital and currently is an employee parking lot. The Fast Point #24 site, located at 2367 Taylor Street is a retail gasoline/convenience store. The SCDOT has slated Two Notch Road for lane widening and has purchased an approximate 40-foot wide strip of the Fast Point site bordering Two Notch Road for its new right-of-way. Fast Point has relocated its underground storage tanks, dispensers and canopy to the portion of its site that fronts Taylor Street.

1.6 Past Site Use and Previous Releases

According to the regulatory files for Cloud's Chevron, two 8,000-gallon and two 5,000-gallon petroleum underground storage tanks (USTs) were utilized

for the storage and retail sale of gasoline. The USTs were removed from the site on May 28, 1992. Free product and petroleum contaminated groundwater were confirmed on March 18, 1992. According to the regulatory files for Fast Point #24, three releases have been reported and confirmed from April 17, 1998 through April 29, 1999. Three 10,000-gallon USTs were removed on June 16, 1998 (UST #1) and on March 24, 1999 (UST #2 and #2). The site currently has two USTs (12,000-gallon and 8,000-gallon) in operation.

1.7 Land Use

The sites are bordered by commercial properties and Providence Hospital to the north and northeast; a Chinese restaurant to the east; Gonzales Garden Apartments to the south across Forest Drive; a fast food restaurant and automotive retail business to the south across Taylor Street; a closed former bank to the west; and a vacant lot to the northwest.

1.8 Nature and Estimated Quantity of Release

Based on the analytical results, it appears that the majority of the contaminants detected in the soil and groundwater samples are gasoline range constituents, however, the estimated quantity and nature of the releases are unknown.

2.0 SITE CHARACTERISTICS

2.1 Topography

Topography in the assessment area slopes to the south-southwest. Surface runoff flows to the edges of the properties where it is removed by a storm water drainage system located along Taylor Street/Forest Drive and Two Notch Road. The closest surface water body is a ditch located approximately 600-feet south of the sites. The approximate elevation of the Cloud's Chevron site is 305-feet (msl) and the Fast Point #24 site is 297-feet (msl).

2.2 Site Geology and Stratigraphy

The site is located in the Upper Coastal Plain Physiographic Province. The geology consists of Cretaceous Age sediments.

This portion of Richland County is within the Congaree River Sub-Basin. Groundwater occurs in the Middendorf Aquifer System. The South Carolina Water Resources Commission's 1983 State Water Assessment reports that 96 percent of the public water supply needs within the sub-basin are supplied from surface water sources. All of the self-supplied domestic water needs are supplied from groundwater. Sixty-four percent of agricultural activities are met through groundwater resources. It is estimated that 67 percent of the water used for irrigation and 56 percent of the livestock water needs are met by groundwater

sources. Ninety-seven percent of the industrial water demand within the sub-basin is meet by utilizing surface water.

The general site stratigraphy, documented from the borehole soil samples consists of sandy clay and clayey, silty sand.

3.0 GROUNDWATER ASSESSMENT

3.1 Monitoring Well Installation, Development and Sampling Dates

Replacement monitoring wells MW-1 through MW-8 and deep monitoring wells DMW-1 and DMW-2 were installed in the Providence Hospital employee parking lot (former Cloud's Chevron site) from October 22 through October 25, 2003. Replacement monitoring wells MW-22 through MW-24 were installed on the Fast Point site from November 20 through November 21, 2003. The deep monitoring well DMW-3 was completed on December 30, 2003. All monitoring wells, including other monitoring wells previously installed, were sampled from October 27 through December 30, 2003. The new monitoring wells were developed and sampled following well completion. In addition, the creek located approximately 100-feet south of the NAPA Auto Parts property was sampled on November 18, 2003.

Four wells were abandoned. Three were on the Fast Point property within the new SCDOT right-of-way and were abandoned after being sampled. The fourth, on Cloud's Chevron, could not be sampled. All four were abandoned on November 25, 2003.

3.2 Monitoring Well Locations

On the former Cloud's Chevron site, the new monitoring wells replaced the monitoring wells destroyed by redevelopment of the lot into a parking lot. Replacement wells MW-1 through MW-5 replaced their respective old monitoring wells. New MW-6 replaced old MW-8; new MW-7 replaced old MW-9 and MW-10, however, the previous MW-10 was found to be accessible and thus, was renamed MW-26. New MW-8 replaced old MW-15. Old MW-15, which was not accessible, was abandoned.

On the Fast Point #24 site, three previous wells, MW-5a, PW-1 and RW-1, were abandoned after sampling because they were in the new right-of-way for the SCDOT's road-widening project. Well MW-5a was replaced by new well MW-22, and PW-1 was replaced by new deep well DMW-3. The previous well MW-4 had been paved over when Fast Point relocated its tanks and canopy. That monitoring well was replaced with new well MW-23. The previous well MW-3, supposedly located in the southwest corner of the site, could not be located. It was replaced by new well MW-24.

3.3 New Monitoring Well Numbering System

New Force & Associates MW No.	Old Midlands Environmental Consultants MW No.	Old Kimbrell & Associates MW No.	General Property Location	Comments
MW-1	Replaced MW-1	--	Providence Hosp. Parking Lot	
MW-2	Replaced MW-2	--	Providence Hosp. Parking Lot	
MW-3	Replaced MW-3	--	Providence Hosp. Parking Lot	
MW-4	Replaced MW-4	--	Providence Hosp. Parking Lot	
MW-5	Replaced MW-5	--	Providence Hosp. Parking Lot	
MW-6	Replaced MW-8	--	Providence Hosp. Parking Lot	
MW-7	Replaced MW-9 & MW-10	--	Providence Hosp. Parking Lot	
MW-8	Replaced MW-15	--	Providence Hosp. Parking Lot	
MW-9	MW-5A	MW-8	Church's Fried Chicken	Free Product on 11/18/03
MW-10	--	MW-1a	Church's Fried Chicken	Free Product on 11/18/03
MW-11	MW-11	--	Gonzales Garden Apts.	
MW-12	MW-12	--	NAPA Auto	
MW-13	MW-13	--	NAPA Auto	
MW-14	MW-14	--	Suddeth's Towing	Not Located
MW-15	--	MW-2a	Church's Fried Chicken	Free Product on 11/18/03
MW-16	--	MW-6a	Kar-Kare Auto.	11/18/03
MW-17	MW-4A	MW-7	Kar-Kare Auto.	Free Product on 11/18/03
MW-18	--	MW-3a	Bank of America	Free Product on 10/29/03
MW-19	MW-2A	MW-6	Fast Point	Free Product on 10/29/03
MW-20	MW-3A	MW-5	Fast Point	
MW-21	MW-1A	MW-4a	Car Wash	
MW-22	--	Replaced MW-5a	Fast Point	
MW-23	--	Replaced MW-4	Fast Point	
MW-24	--	Replaced MW-3	Fast Point	
MW-25	--	--	Car Wash	Sampled as PW-2
MW-26	MW-10	--	Providence Hosp. Parking Lot	
DMW-1	Replaced PW-1	--	Providence Hosp. Parking Lot	
DMW-2	Replaced MW-17D	--	Providence Hosp. Parking Lot	
DMW-3	--	Replaced PW-1	Fast Point	
- (Not Located)	MW-16	--	Donahue Auto	Not Located
- (Not Located)	--	MW-3	Fast Point	Not Located
-	--	MW-5a	Fast Point	Abandoned 11/25/03
-	--	PW-1	Fast Point	Abandoned 11/25/03
-	--	RW-1 4" diameter	Fast Point	Abandoned 11/25/03
-	MW-15	-	Providence Hosp. Parking Lot	Abandoned 11/25/03



FORCE & ASSOCIATES, INC. Environmental & Hydrogeological Consulting 147 Vera Road, Suite F Lexington, SC 29072	FIGURE 1 TOPOGRAPHIC SITE MAP	FIGURE 1 CLOUDS' CHEVRON / FAST POINT #24 TWO NOTCH RD / TAYLOR ST COLUMBIA, SOUTH CAROLINA SCDHEC UST ID #0777 & 07584

4.0 CHEMICALS OF CONCERN - GROUNDWATER

4.1 Summary of Monitoring Well and Groundwater Data

WELL #	SAMPLING DATE	SCREEN DEPTH (FT)	SCREENED INTERVAL (FT)	DEPTH TO WATER (FT) 12/30/03	WATER TABLE ELEV. (FT) 12/30/03
MW-1	11/18/03	27	27 to 17	21.45	83.22
MW-2	11/18/03	30	30 to 20	23.30	82.19
MW-3	10/27/03	29	29 to 19	23.44	81.78
MW-4	11/18/03	28	28 to 18	21.29	84.35
MW-5	10/27/03	26	26 to 16	22.92	82.67
MW-6	11/18/03	30	30 to 20	23.55	82.22
MW-7	11/18/03	30	30 to 20	23.59	83.17
MW-8	11/18/03	28.5	28.5 to 18.5	20.28	85.29
MW-9	0.01' FP 11/18	30	30 to 20[1]	22.75/22.74[4]	81.02
MW-10	0.01' FP 11/18	28	28 to 18[2]	17.44	79.94
MW-11	11/18/03	30	Unknown	19.57	80.24
MW-12	11/18/03	30	Unknown	4.75	79.41
MW-13	11/18/03	29.6	Unknown	12.18	80.06
MW-14	Not Located	-	Unknown	-	-
MW-15	0.03' FP 11/18	25	25 to 15[2]	17.58/17.56[4]	80.29
MW-16	11/18/03	25	25 to 15[2]	18.95	80.62
MW-17	0.65' FP 11/18	30	30 to 20[1]	23.74	80.21
MW-18	0.13' FP 10/29	30	30 to 20[2]	25.72/25.48[4]	80.57
MW-19	0.02' FP 10/29	30	30 to 20[1]	24.59	80.86
MW-20	10/29/03	25	25 to 15[1]	23.05	82.99
MW-21	10/29/03	25	25 to 15[2]	21.03	82.84
MW-22	11/25/03	30	30 to 20	22.36	83.25
MW-23	11/25/03	30	30 to 20	24.82	80.70
MW-24	11/25/03	30	30 to 20	23.88	81.46
MW-25	10/29/03	25.2	Unknown	21.23	82.45
MW-26	11/25/03	30[3]	Unknown	20.50	86.06
DMW-1	10/27/03	70	70 to 65	45.44	59.99
DMW-2	10/27/03	75	75 to 70	44.67	60.15
DMW-3	12/30/03	52	52 to 47	24.54	
MW-5a	10/27/03	28	28 to 18[2]	20.0	Abandoned 11/25/03
PW-1	10/29/03	45.65	50 to 45[1]	28.6	Abandoned 11/25/03
RW-1 (4"diam)	0.01' FP 10/29	29	29 to 9[1]	22.63	Abandoned 11/25/03
MW-15 (MEC)	-	30[3]	Unknown	-	Abandoned 11/25/03

FP = Free Product

[1] From 1992 and 1993 SPATCO Well Logs

[2] From 1999 Froehling & Robertson Well Logs for Kimbrell & Associates, Inc.

[3] Data supplied by SCDHEC

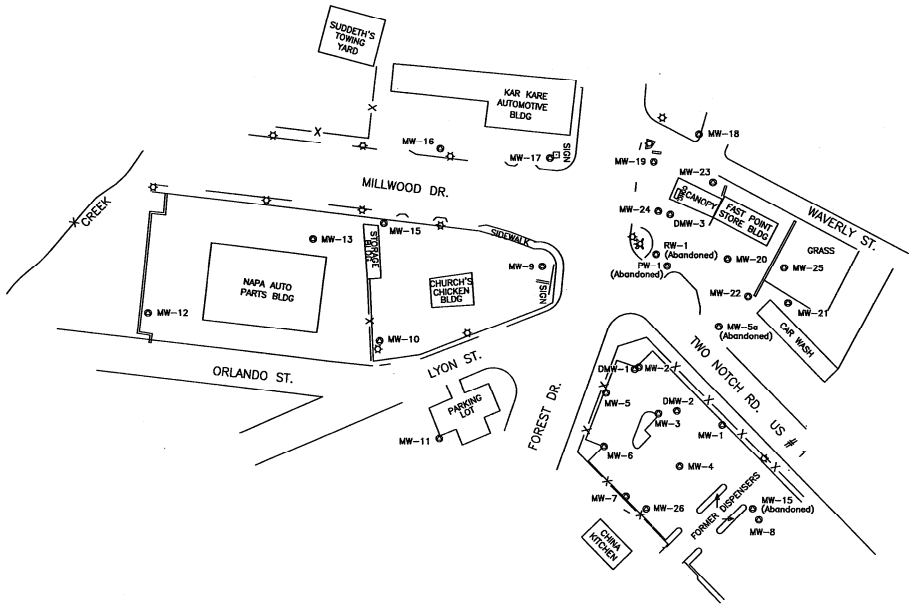
[4] DTW/corrected DTW using 0.78 correction factor for free product thickness.

4.2 Horizontal and Vertical Extent of COC in the Groundwater

Based on the laboratory results of groundwater samples from the replacement wells and other previously installed monitoring wells, neither the horizontal nor the vertical extent of CoC in groundwater has been fully defined. The horizontal extent has been defined to the northeast on the Cloud's Chevron site. However, all other perimeter monitoring wells had detectable concentrations of CoC or measurable free product.

The vertical extent of CoC in groundwater has been defined on the Cloud's Chevron property. One deep monitoring well, DMW-1 (screened 65 - 70 feet), had low detections of toluene, ethylbenzene, and xylenes, while the other deep well, DMW-2 (screened 70 - 75 feet), had low detectable levels of benzene, toluene, xylenes, and MTBE. All of the concentrations were below RBSLs.

The vertical extent of CoC in groundwater on the Fast Point site has not been defined. The deep monitoring well DMW-3 (screened 47 – 52 feet) had concentrations of benzene, toluene, ethylbenzene, MTBE, and naphthalene above their respective RBSLs. In addition, xylenes and EDB were detected at or below their respective RBSLs.



GRAPHIC SCALE

0 50 100

1 inch = 100 ft.

LEGEND

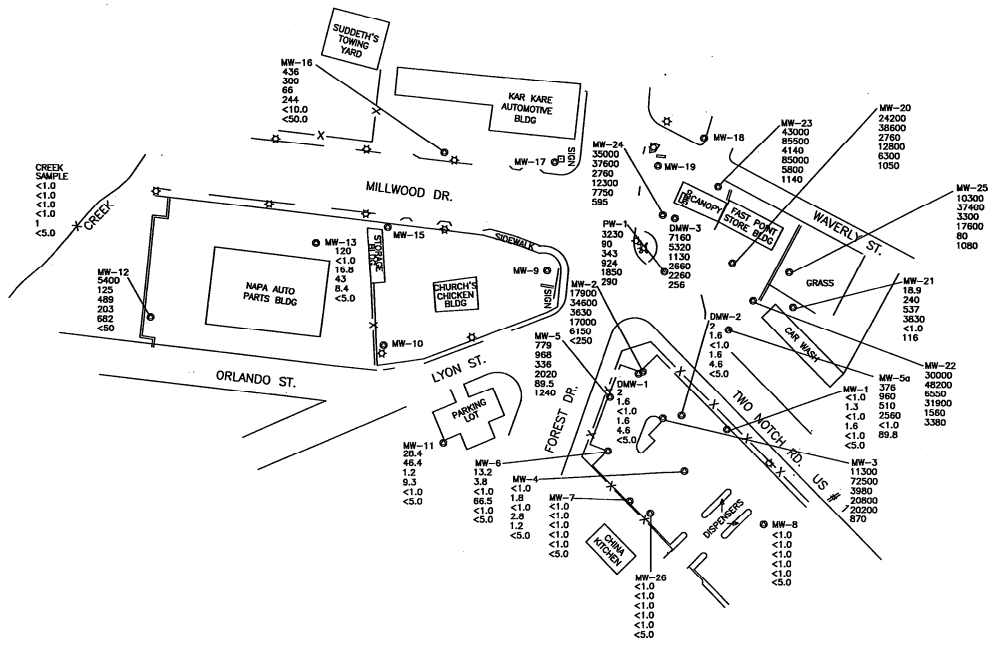
⊘ Monitoring Well Location

X Approximate Location of Creek Sample

SITE MAP
SCDHEC SITE ID #07777
CLOUD'S CHEVRON
1600 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vera Road
Lexington, SC 29072
Phone: 803-359-3200

DRAWN BY	CHECKED BY	SCALE	CADD NO.
CAB	KK	1"=100'	CloudsChev
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
OA	01/28/04	CloudsChev	2



GRAPHIC SCALE

0 50 100

1 inch = 100 ft.

LEGEND

X Approximate Location of Creek Sample

Monitoring Well Location

Benzene (ug/l)

Toluene (ug/l)

Ethylbenzene (ug/l)

Xylene (ug/l)

MTBE (ug/l)

Naphthalene (ug/l)

GROUNDWATER COC SITE MAP
SCDHEC SITE ID #07777
CLOUD'S CHEVRON
1600 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vera Road
Lexington, SC 29072
Phone: 803-359-3200

DRAWN BY	CHECKED BY	SCALE	CADD NO.
CAB	KK	1"=100'	CloudsChev
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
OA	01/28/04	CloudsChev	3

4.3 Groundwater COC Analytical Data

ANALYTE (UG/L)	RBSL	MW-1	MW-2	MW-3	MW-4	MW-5	MW-5a[1]	MW-6	MW-7
Date		11/18/03	11/18/03	10/27/03	11/18/03	10/27/03	10/27/03	11/18/03	11/18/03
Free Product Thickness		None	None	None	None	None	None	None	None
Benzene	5	<1.0	17900	11300	<1.0	779	376	13.2	<1.0
Toluene	1000	1.3	34600	72500	1.8	968	960	3.8	<1.0
Ethylbenzene	700	<1.0	3630	3980	<1.0	336	510	<1.0	<1.0
Xylenes, total	10000	1.6	17000	20800	2.8	2020	2560	66.5	<1.0
Total BTEX		2.9	73130	108580	4.6	4130	4406	83.5	<1.0
MTBE	40	<1.0	6150	20200	1.2	89.5	<1.0	<1.0	<1.0
Naphthalene 8260B	25	< 5.00	<250.	870	< 5.00	1240	89.8	< 5.00	< 5.00
Ethylene Dibromide	0.05	<0.02	108	66.1	0.15	1.62	<0.02	< 0.02	<0.02
PH (S.U.)		5.3	5.2	7.1	5.6	7.9	6.7	5.1	4.9
Conductivity (umhos/cm)		101	095	134	114	184	095	124	105
Temperature (°C)		23.5	23.8	22.6	24.7	21.8	22.9	24.5	24.3

ANALYTE (UG/L)	MW-8	MW-9	MW-10	MW-11	MW-12	MW-13	MW-15	MW-16	MW-17
Date	11/18/03	11/18/03	11/18/03	11/18/03	11/18/03	11/18/03	11/18/03	11/18/03	11/18/03
Free Product Thickness	None	0.01	0.10	None	None	None	0.03	None	0.65
Benzene	<1.0	-	-	28.4	5400	120	-	436	-
Toluene	<1.0	-	-	46.4	125	<1.0	-	300	-
Ethylbenzene	<1.0	-	-	1.2	489	16.8	-	66	-
Xylenes, total	<1.0	-	-	9.3	203	43	-	244	-
Total BTEX	<1.0	-	-	85.3	6217	179.8	-	1046	-
MTBE	<1.0	-	-	<1.0	682	8.4	-	<10.0	-
Naphthalene 8260B	< 5.00	-	-	< 5.00	<50.0	< 5.00	-	<50.0	-
Ethylene Dibromide	< 0.02	-	-	< 0.02	0.04	< 0.02	-	<0.02	-
PH (S.U.)	4.9	-	-	4.8	5.5	4.6	-	6.9	-
Conductivity (umhos/cm)	085	-	-	065	229	192	-	353	-
Temperature (°C)	24.6	-	-	22.8	25.7	23.8	-	23.1	-

ANALYTE (UG/L)	MW-18	MW-19	MW-20	MW-21	MW-22	MW-23	MW-24	MW-25[2]	MW-26
Date	10/29/03	10/29/03	10/29/03	10/29/03	11/25/03	11/25/03	11/25/03	10/29/03	11/25/03
Free Product Thickness	0.13	0.02	None	None	None	None	None	None	None
Benzene	-	-	24200	18.9	30000	43000	35000	10300	<1.0
Toluene	-	-	38600	240	48200	85500	37600	37400	<1.0
Ethylbenzene	-	-	2760	537	6550	4140	2760	3300	<1.0
Xylenes, total	-	-	12800	3830	31900	85000	12300	17600	<1.0
Total BTEX	-	-	78360	4625.9	116650	217640	87660	68600	<1.0
MTBE	-	-	6300	<1.0	1560	5800	7750	80	<1.0
Naphthalene 8260B	-	-	1050	116	3380	1140	595	1080	<5.00
Ethylene Dibromide	-	-	< 0.02	<0.02	< 0.02	3.51	168	<0.02	0.05
PH (S.U.)	-	-	4.7	5.5	5.5	5.5	4.7	6.1	4.5
Conductivity (umhos/cm)	-	-	568	580	255	097	102	589	089
Temperature (°C)	-	-	21.1	20.2	23.1	23.1	24.3	19.6	24.1

ANALYTE (UG/L)	RBSL	PW-1[1]	DMW-1	DMW-2	DMW-3	RW-1[1]	CREEK
Date		10/29/03	10/27/03	10/27/03	12/30/03	10/29/03	11/18/03
Free Product Thickness		None	None	None	None	0.01	None
Benzene	5	3230	<1.0	2	7160	-	<1.0
Toluene	1000	90	4.1	1.6	5320	-	<1.0
Ethylbenzene	700	343	1.7	<1.0	1130	-	<1.0
Xylenes, total	10000	924	9.3	1.6	2660	-	<1.0
Total BTEX		4587	15.1	3.4	16270	-	<1.0
MTBE	40	1850	<1.0	4.6	2260	-	1
Naphthalene 8260B	25	290	< 5.00	< 5.00	256	-	< 5.00
Ethylene Dibromide	0.05	<0.02	<0.02	<0.02	0.05	-	0.04
PH (S.U.)		5.9	10.9	9.7	10.8	-	-
Conductivity (umhos/cm)		571	1150	147	1232	-	-
Temperature (°C)		21.2	21.0	20.7	22.1	-	-

Notes:

[1]After sampling, wells MW-5a, PW-1 and RW-1, along with MW-15 (MEC), were abandoned on 11/25/03.
[2] MW sampled as PW-2, later renamed MW-25.

5.0 CHEMICALS OF CONCERN

5.1 Free Product and Free Product Recovery Test

Free product was detected in 6 monitoring wells (MW-9, MW-10, MW-15, MW-17, MW-18, MW-19) and one recovery well (RW-1) on October 29 or November 18, 2003. Free product thickness ranged from 0.65 feet in MW-17 to 0.01 feet in MW-9. Only 0.01 feet was measured in RW-1. The replacement well for MW-3 did not have free product, thus, a free product recovery test was not performed, per SCDHEC instructions.

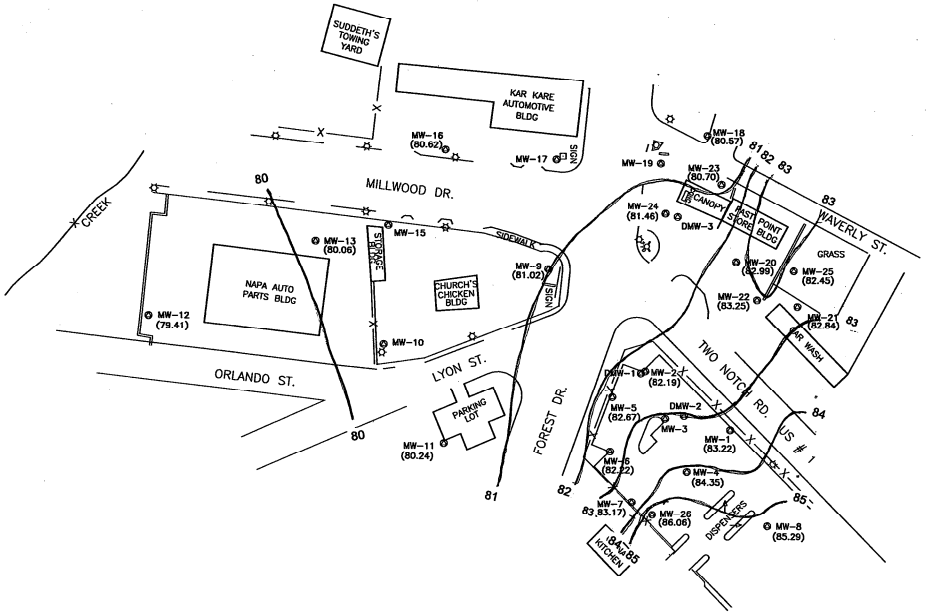
5.2 Extent of COC in Groundwater

The COC site concentrations for benzene exceed the groundwater risk based screening levels (RBSLs) in monitoring wells MW-2, MW-3, MW-5, MW-5a, MW-6, MW-11, MW-12, MW-13, MW-16, MW-21, MW-22, MW-23, MW-24, MW-25, PW-1, and DMW-3; toluene in monitoring wells MW-2, MW-3, MW-20, MW-22, MW-23, MW-24, MW-25, and DMW-3; ethylbenzene in monitoring wells MW-2, MW-3, MW-20, MW-22, MW-23, MW-24, MW-25, and DMW-3; xylenes in monitoring wells MW-2, MW-3, MW-20, MW-22, MW-23, MW-24, and MW-25; naphthalene in monitoring wells MW-3, MW-5, MW-5a, MW-20, MW-21, MW-22, MW-23, MW-24, MW-25, PW-1, and DMW-3; MTBE in monitoring wells MW-2, MW-3, MW-5, MW-12, MW-20, MW-22, MW-23, MW-24, MW-25, PW-1, and DMW-3; and, EDB in monitoring wells MW-2, MW-3, MW-4, MW-5, MW-23, and MW-24. Additional COC detected at concentrations less than the RBSLs included: benzene in monitoring well DMW-2; toluene in monitoring wells MW-1, MW-4, MW-5, MW5a, MW-6, MW-11, MW-12, MW-16, MW-21, PW-1, DMW-1, and DMW-2; ethylbenzene in monitoring wells MW-5, MW-5a, MW-11, MW-12, MW-13, MW-16, MW-21, PW-1, and DMW-1; xylenes in monitoring wells MW-1, MW-4, MW-5, MW-5a, MW-6, MW-11, MW-12, MW-13, MW-16, MW-21, PW-1, DMW-1, DMW-2, and DMW-3; MTBE in monitoring wells MW-4, MW-13, DMW-2, and the creek; and EDB in monitoring wells MW-12, MW-26, DMW-3, and the creek.

6.0 CONCLUSIONS & RECOMMENDATIONS

6.1 Recommendations

Based on the results of the modified Tier II assessment, Force & Associates, Inc. recommends that additional assessment be performed in order to fully delineate the horizontal and vertical extent of CoC in groundwater at the site.



GRAPHIC SCALE

0 50 100

1 inch = 100 ft.

LEGEND

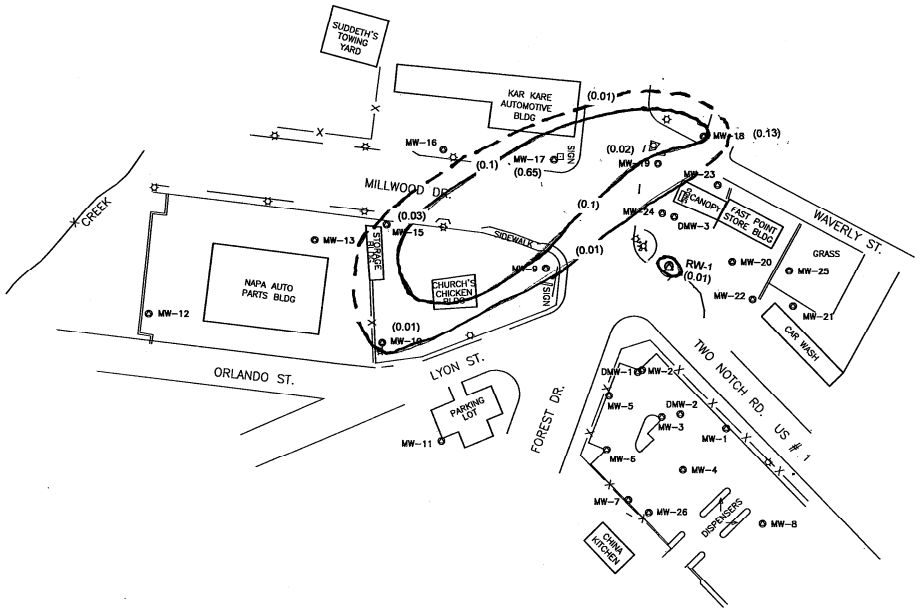
- Monitoring Well Location
- X Approximate Location of Creek Sample
- (80.24) Groundwater Elevation

Groundwater Elevations are based on an assumed benchmark of 100.00'

POTENTIOMETRIC SURFACE MAP (12/30/03)
SCDHEC SITE ID #07777
CLOUD'S CHEVRON
1600 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vera Road
Lexington, SC 29072
Phone: 803-359-3200

DRAWN BY	CHECKED BY	SCALE	CADD NO.
CAB	KK	1"=100'	CloudsChev
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
OA	01/28/04	CloudsChev	4



GRAPHIC SCALE

0 50 100

1 inch = 100 ft.

LEGEND

⊗ Monitoring Well Location

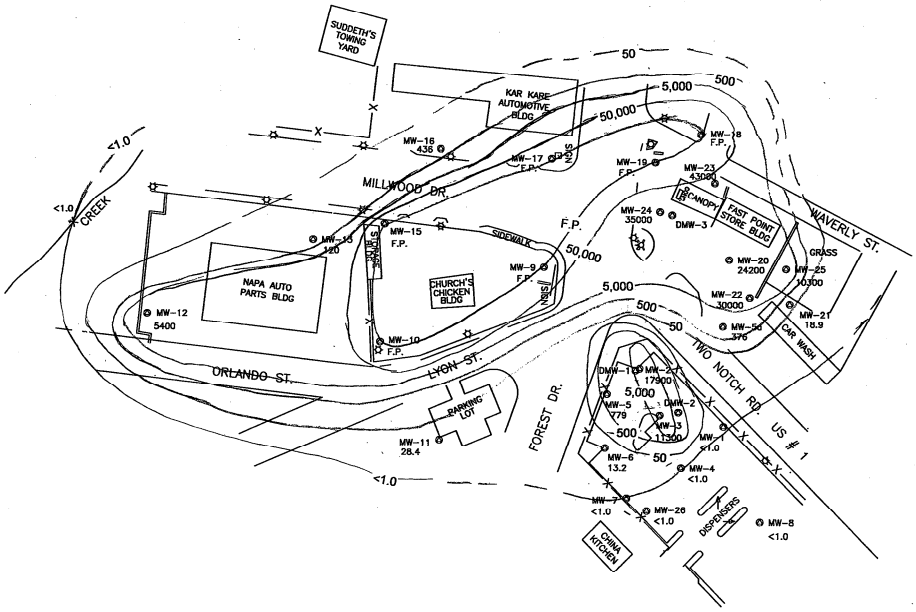
X Approximate Location of Creek Sample

(0.01) Approximate Thickness of Free Product (in feet)

FREE PRODUCT ISO -- CONCENTRATION MAP
SCDHEC SITE ID #07777
CLOUD'S CHEVRON
1600 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vera Road
Lexington, SC 29072
Phone: 803-359-3200

DRAWN BY	CHECKED BY	SCALE	CADD NO.
CAB	KK	1" = 100'	CloudsChev
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
OA	01/28/04	CloudsChev	5



GRAPHIC SCALE

0 50 100

1 inch = 100 ft.

LEGEND

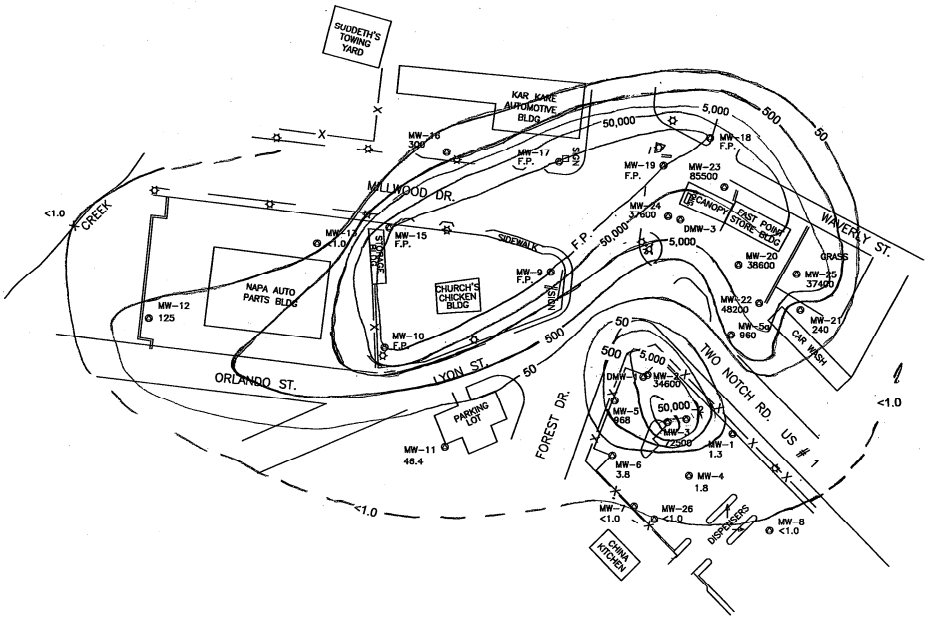
Ⓐ Monitoring Well Location

X Approximate Location of Creek Sample

BENZENE ISO – CONCENTRATION MAP
SCDHEC SITE ID #07777
CLOUD'S CHEVRON
1600 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vera Road
Lexington, SC 29072
Phone: 803-359-3200

DRAWN BY	CHECKED BY	SCALE	CADD NO.
CAB	KK	1"=100'	CloudsChev
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
OA	01/28/04	CloudsChev	6



GRAPHIC SCALE

0 50 100

1 inch = 100 ft.

LEGEND

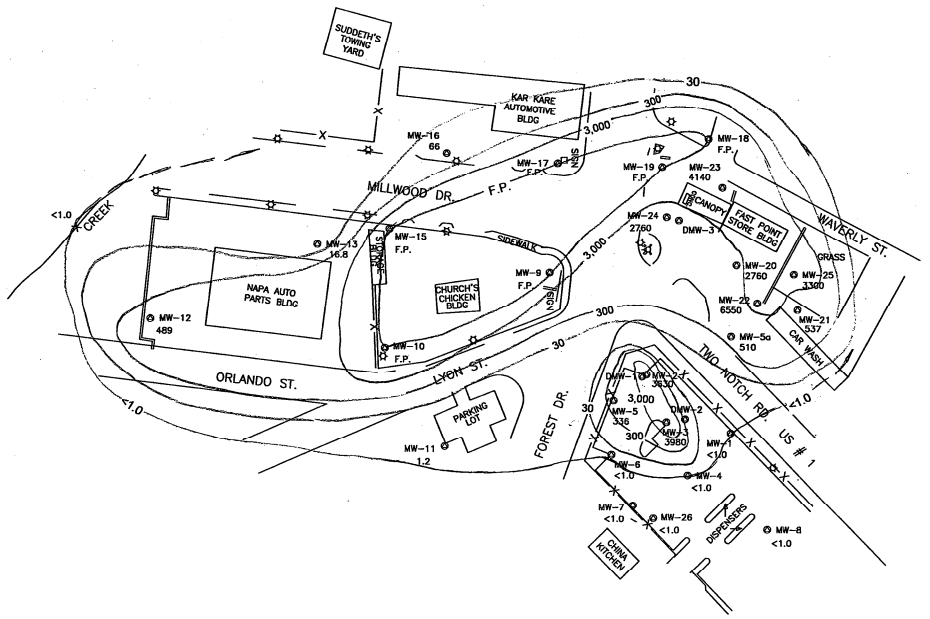
⊘ Monitoring Well Location

X Approximate Location of Creek Sample

TOLUENE ISO – CONCENTRATION MAP
SCDHEC SITE ID #07777
CLOUD'S CHEVRON
1600 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vera Road
Lexington, SC 29072
Phone: 803-359-3200

DRAWN BY	CHECKED BY	SCALE	CADD NO.
CAB	KK	1"=100'	CloudsChev
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
OA	01/28/04	CloudsChev	7



GRAPHIC SCALE

0 50 100

1 inch = 100 ft.

LEGEND

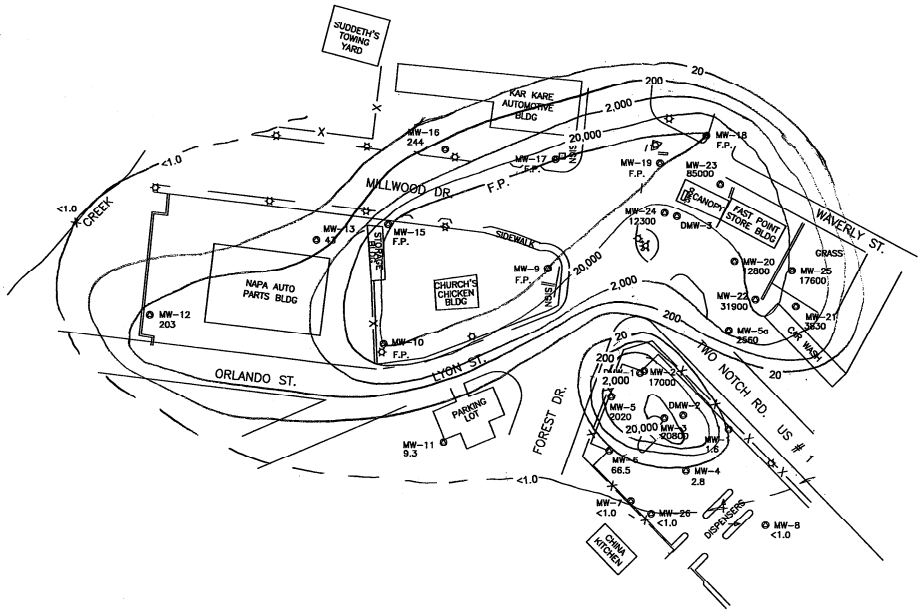
◎ Monitoring Well Location

X Approximate Location of Creek Sample

ETHYLBENZENE ISO – CONCENTRATION MAP
SCDHEC SITE ID #07777
CLOUD'S CHEVRON
1600 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vera Road
Lexington, SC 29072
Phone: 803-359-3200

DRAWN BY	CHECKED BY	SCALE	CADD NO.
CAB	KK	1"=100'	CloudsChev
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
OA	01/28/04	CloudsChev	8



GRAPHIC SCALE

0 50 100

1 inch = 100 ft.

LEGEND

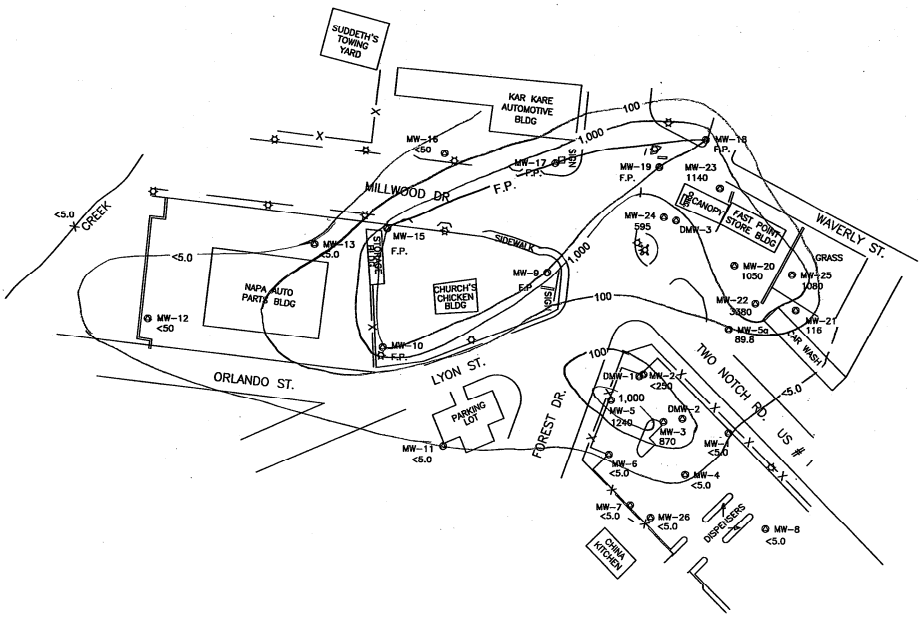
⊙ Monitoring Well Location

X Approximate Location of Creek Sample

XYLENE ISO – CONCENTRATION MAP
SCDHEC SITE ID #07777
CLOUD'S CHEVRON
1600 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vera Road
Lexington, SC 29072
Phone: 803-359-3200

DRAWN BY	CHECKED BY	SCALE	CADD NO.
CAB	KK	1"=100'	CloudsChev
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
OA	01/28/04	CloudsChev	9



GRAPHIC SCALE

0 50 100

1 inch = 100 ft.

LEGEND

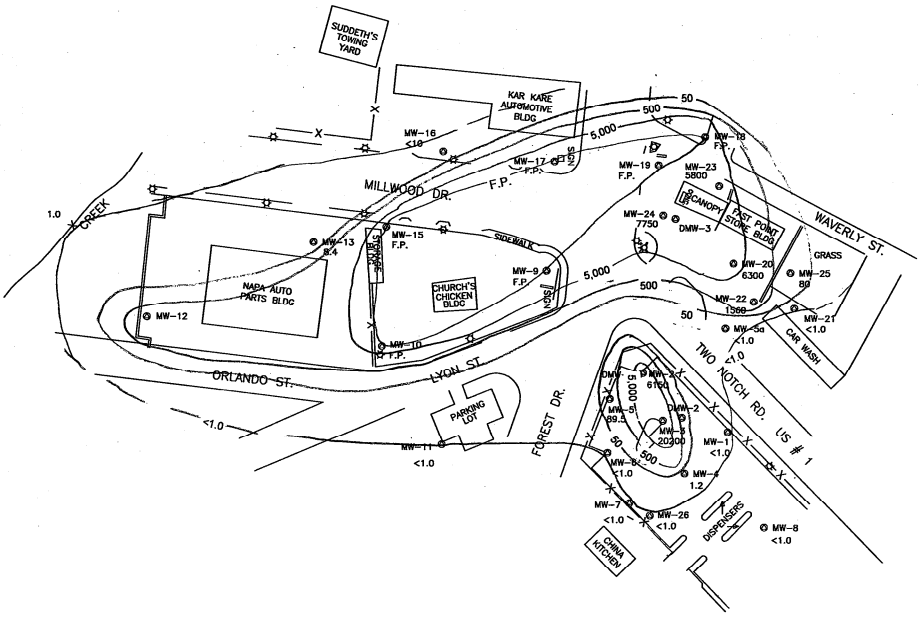
◎ Monitoring Well Location

X Approximate Location of Creek Sample

NAPHTHALENE ISO – CONCENTRATION MAP
SCDHEC SITE ID #07777
CLOUD'S CHEVRON
1600 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vera Road
Lexington, SC 29072
Phone: 803-359-3200

DRAWN BY	CHECKED BY	SCALE	CADD NO.
CAB	KK	1"=100'	CloudsChev
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
OA	01/28/04	CloudsChev	10



GRAPHIC SCALE

0 50 100

1 inch = 100 ft.

LEGEND

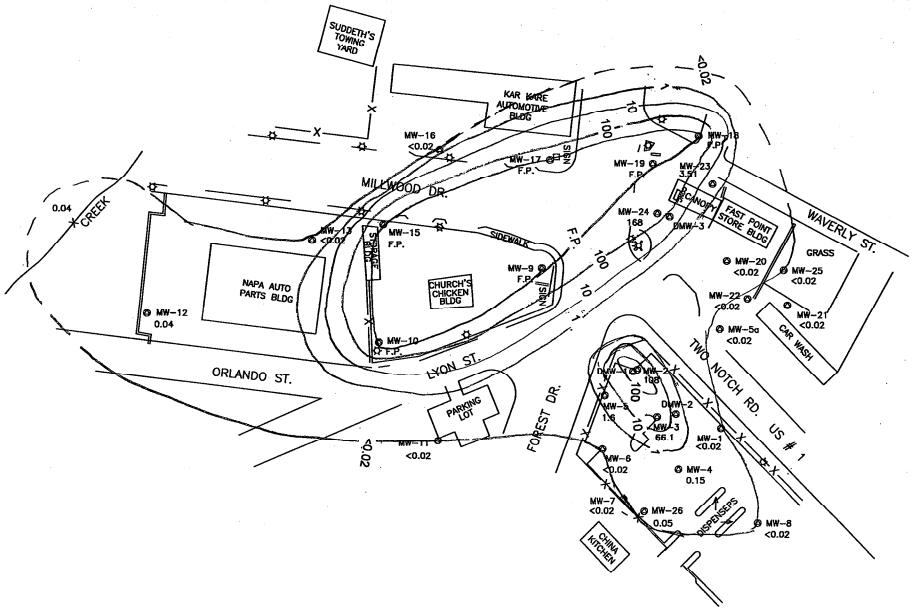
◎ Monitoring Well Location

X Approximate Location of Creek Sample

MTBE ISO – CONCENTRATION MAP
SCDHEC SITE ID #07777
CLOUD'S CHEVRON
1600 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vera Road
Lexington, SC 29072
Phone: 803-359-3200

DRAWN BY	CHECKED BY	SCALE	CADD NO.
CAB	KK	1"=100'	CloudsChev
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
OA	01/28/04	CloudsChev	11



GRAPHIC SCALE

0 50 100

1 inch = 100 ft.

LEGEND

◎ Monitoring Well Location

X Approximate Location of Creek Sample

EDB ISO – CONCENTRATION MAP
SCDHEC SITE ID #07777
CLOUD'S CHEVRON
1600 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vera Road
Lexington, SC 29072
Phone: 803-359-3200

DRAWN BY	CHECKED BY	SCALE	CADD NO.
CAB	KK	1"=100'	CloudsChev
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
OA	01/28/04	CloudsChev	12

APPENDIX A

WELL CONSTRUCTION LOGS

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Providence Hospital (last) (first)
Address: 2435 Forest Drive
City: Columbia State: SC Zip: 29204-2098
Telephone: Work: (803) 256-5388 Home:

2. LOCATION OF WELL: COUNTY: Richland
Name: Cloud's Chevron
Street Address: 1600 Two Notch Road
City: Columbia, SC Zip: 29204-2098
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown sand -fine	9'	9'
Brown sand - fine med	5'	14'
Reddish orange sand clay fine-med	5'	19'
Brown sand / clayey med-coarse *	9'	28'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-1

TYPE: ☐ Mud Rotary ☐ Jetted ☑ Bored ☑ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07777

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 10/22/03
27 ft. Date Completed: 10/23/03

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 17 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☑
Surface .5 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2
Slot/Gauge: .010 Length: 10'
Set Between: 17 ft. and 27 ft. NOTE: MULTIPLE SCREENS
_____ ft. and _____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 21.45' ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 15 ft. to 27 ft.
Effective size FX-50 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 5 ft. to 13 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date Installed: _____ Not Installed ☑
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Todd Allred CERT. NO.: 1446
Address: (Print) Level: A ☐ B ☑ C ☐ D ☐ (circle one)
1753 Old Stagecoach Road
Camden, SC 29020
Telephone No.: 803-713-8500 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Todd Allred Date: 2-6-04
Well Driller

If D Level Driller, provide supervising driller's name:

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Providence Hospital (last) (first)
Address: 2435 Forest Drive
City: Columbia State: SC Zip: 29204-2098
Telephone: Work: (803) 256-5388 Home:

2. LOCATION OF WELL: COUNTY: Richland
Name: Cloud's Chevron
Street Address: 1600 Two Notch Road
City: Columbia, SC Zip: 29204-2098
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from ____ ft. to ____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown sand -fine	6'	6'
Brown sand - fine med	9'	15'
Reddish orange sand clay fine-med	4'	19'
Brown sand / clayey med-coarse *	21'	30'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-2

6. TYPE: ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07777

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 30 ft. Date Started: 10/22/03 Date Completed: 10/23/03

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 20 ft. depth
____ in. to ____ ft. depth
Height: Above ☐ Below ☑
Surface 5 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2
Slot/Gauge: 010 Length: 10'
Set Between: 20 ft. and 30 ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 23.30 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 18 ft. to 30 ft.
Effective size FX-50 Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other ____
Depth: From 5 ft. to 16 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☑
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Todd Allred CERT. NO.: 1446
Address: (Print)
1753 Old Stagecoach Road
Camden,sc 29020
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 803-713-8500 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Todd Allred Date: 2-6-04
Well Driller

If D Level Driller, provide supervising driller's name:

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Providence Hospital (last) (first)
Address: 2435 Forest Drive
City: Columbia State: SC Zip: 29204-2098
Telephone: Work: (803) 256-5388 Home:

2. LOCATION OF WELL: **COUNTY:** Richland
Name: Cloud's Chevron
Street Address: 1600 Two Notch Road
City: Columbia, SC Zip: 29204-2098
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown sand -fine	11'	11'
Brown sand - fine med	5'	16'
Reddish orange sand clay fine-med	6'	24'
Brown sand / clayey med-coarse *	7'	31'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-3

6. TYPE: ☐ Mud Rotary ☐ Jetted ☑ Bored ☑ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07777

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 10/22/03
29 ft. Date Completed: 10/23/03

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 19 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☑
Surface 5 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2
Slot/Gauge: .010 Length: 10'
Set Between: 19 ft. and 29 ft. NOTE: MULTIPLE SCREENS
_____ ft. and _____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 23.44 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 17 ft. to 29 ft.
Effective size FX-50 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 5 ft. to 15 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Todd Allred **CERT. NO.:** 1446
Address: (Print) Level: A ☐ B ☑ C ☐ D ☐ (circle one)
1753 Old Stagecoach Road
Camden, SC 29020
Telephone No.: 803-713-8500 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Todd Allred Date: 2-6-04
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Providence Hospital (last) (first)
Address: 2435 Forest Drive
City: Columbia State: SC Zip: 29204-2098
Telephone: Work: (803) 256-5388 Home:

2. LOCATION OF WELL: **COUNTY:** Richland
Name: Cloud's Chevron
Street Address: 1600 Two Notch Road
City: Columbia, SC Zip: 29204-2098
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from ____ ft. to ____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown sand -fine	7'	7'
Brown sand - fine med	5'	12'
Reddish orange sand clay fine-med	6'	18'
Brown sand / clayey med-coarse *	21'	31'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-4

6. TYPE: ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07777

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 28 ft. Date Started: 10/22/03 Date Completed: 10/23/03

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 18 ft. depth
____ in. to ____ ft. depth
Height: Above ☐ Below ☑
Surface .5 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 10'
Set Between: 18 ft. and 28 ft. NOTE: MULTIPLE SCREENS
____ ft. and ____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 21.29' ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 16 ft. to 28 ft.
Effective size FX-50 Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other ____
Depth: From .5 ft. to 14 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☑
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Todd Allred **CERT. NO.:** 1446
Address: (Print)
1753 Old Stagecoach Road
Camden. SC 29020
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 803-713-8500 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Todd Allred Well Driller Date: 2-6-04

If D Level Driller, provide supervising driller's name:

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Providence Hospital (last) (first)
Address: 2435 Forest Drive
City: Columbia State: SC Zip: 29204-2098
Telephone: Work: (803) 256-5388 Home:

2. LOCATION OF WELL: COUNTY: Richland
Name: Cloud's Chevron
Street Address: 1600 Two Notch Road
City: Columbia, SC Zip: 29204-2098
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown sand -fine	7'	7'
Brown sand - fine med	5'	12'
Reddish orange sand clay fine-med	6'	18'
Brown sand / clayey med-coarse *	8'	26'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-5

TYPE: ☐ Mud Rotary ☐ Jetted ☑ Bored ☑ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07777

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 10/22/03
26 ft. Date Completed: 10/23/03

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 16 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☑
Surface 5 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2
Slot/Gauge: .010 Length: 10'
Set Between: 16 ft. and 26 ft. NOTE: MULTIPLE SCREENS
_____ ft. and _____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 22.92 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 14 ft. to 26 ft.
Effective size FX-50 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 5 ft. to 12 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe _____ ft. Capacity _____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Todd Allred CERT. NO.: 1446
Address: (Print) Level: A ☐ B ☑ C ☐ D ☐ (circle one)
1753 Old Stagecoach Road
Camden, SC 29020
Telephone No.: 803-713-8500 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Todd Allred Date: 2-6-04
Well Driller

If D Level Driller, provide supervising driller's name:

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Providence Hospital (last) (first)
Address: 2435 Forest Drive
City: Columbia State: SC Zip: 29204-2098
Telephone: Work: (803) 256-5388 Home:

2. LOCATION OF WELL: COUNTY: Richland
Name: Cloud's Chevron
Street Address: 1600 Two Notch Road
City: Columbia, SC Zip: 29204-2098
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown sand -fine	7'	7'
Brown sand - fine med	5'	12'
Reddish orange sand clay fine-med	6'	18'
Brown sand / clayey med-coarse *	21'	31'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-6

6. TYPE: ☐ Mud Rotary ☐ Jetted ☑ Bored ☒ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07777

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 10/22/03
30 ft. Date Completed: 10/23/03

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 20 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☑
Surface 5 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2
Slot/Gauge: .010 Length: 10'
Set Between: 20 ft. and 30 ft. NOTE: MULTIPLE SCREENS
_____ ft. and _____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 23.55 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 18 ft. to 30 ft.
Effective size FX-50 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 5 ft. to 16 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date Installed: _____ Not installed ☒
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Todd Allred CERT. NO.: 1446
Address: (Print) Level: A ☐ B ☑ C ☐ D ☐ (circle one)
1753 Old Stagecoach Road
Camden' SC 29020
Telephone No.: 803-713-8500 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Todd Allred Date: 2-08-05
Well Driller

If D Level Driller, provide supervising driller's name:

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Providence Hospital (last) (first)
Address: 2435 Forest Drive
City: Columbia State: SC Zip: 29204-2098
Telephone: Work: (803) 256-5388 Home:

2. LOCATION OF WELL: COUNTY: Richland
Name: Cloud's Chevron
Street Address: 1600 Two Notch Road
City: Columbia, SC Zip: 29204-2098
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown sand -fine	7'	7'
Brown sand - fine med	5'	12'
Reddish orange sand clay fine-med	6'	18'
Brown sand / clayey med-coarse *	21'	31'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-7

6. TYPE: ☐ Mud Rotary ☐ Jetted ☑ Bored ☑ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07777

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 10/22/03
30 ft. Date Completed: 10/23/03

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 20 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☑
Surface 5 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2
Slot/Gauge: .010 Length: 10'
Set Between: 20 ft. and 30 ft. NOTE: MULTIPLE SCREENS
_____ ft. and _____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 23.59 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 18 ft. to 30 ft.
Effective size FX-50 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 5 ft. to 16 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date Installed: _____ Not Installed ☑
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe _____ ft. Capacity _____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Todd Allred CERT. NO.: 1446
Address: (Print) Level: A ☐ B ☑ C ☐ D ☐ (circle one)
1753 Old Stagecoach Road
Camden, SC 29020
Telephone No.: 803-713-8500 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Todd Allred Date: 2-06-04
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC
PROMOTE. PROTECT. PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Providence Hospital (last) (first)
Address: 2435 Forest Drive
City: Columbia State: SC Zip: 29204-2098
Telephone: Work: (803) 256-5388 Home:

2. LOCATION OF WELL: **COUNTY:** Richland
Name: Cloud's Chevron
Street Address: 1600 Two Notch Road
City: Columbia, SC Zip: 29204-2098
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from ____ ft. to ____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown sand -fine	6'	6'
Brown sand - fine med	5'	11'
Reddish orange sand clay fine-med	8'	19'
Brown sand / clayey med-coarse *	11'	30'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-8

6. TYPE: ☐ Mud Rotary ☐ Jetted ☑ Bored ☑ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07777

8. USE:
☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 28.5 ft. Date Started: 10/22/03 Date Completed: 10/23/03

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 18.5 ft. depth
____ in. to ____ ft. depth
Height: Above ☐ Below ☑
Surface .5 ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2
Slot/Gauge: .010 Length: 10'
Set Between: 18.5 ft. and 28.5 ft. NOTE: MULTIPLE SCREENS
____ ft. and ____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 20.28' ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: ____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 16.5 ft. to 28.5 ft.
Effective size FX-50 Uniformity Coefficient ____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other ____
Depth: From .5 ft. to 14 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: ____ Amount: ____

18. PUMP: Date installed: ____ Not installed ☑
Mfr. Name: ____ Model No.: ____
H.P. ____ Volts ____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Todd Allred **CERT. NO.:** 1446
Address: (Print) 1753 Old Stagecoach Road
Camden, SC 29020
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 803-713-8500 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Todd Allred (Well Driller) Date: 2-6-04

If D Level Driller, provide supervising driller's name:

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Providence Hospital (last) (first)
Address: 2435 Forest Drive
City: Columbia State: SC Zip: 29204-2098
Telephone: Work: (803) 256-5388 Home:

2. LOCATION OF WELL: **COUNTY:** Richland
Name: Cloud's Chevron
Street Address: 1600 Two Notch Road
City: Columbia, SC Zip: 29204-2098
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown sand -fine	7'	7'
Brown sand - fine med	5'	12'
Reddish orange sand clay fine-med	6'	18'
Brown sand / clayey med-coarse *	21'	31'
Gray fine-med sandy clay	6'	37'
Gray clay-soft	9'	46'
Gray brown clay little silt tight	15'	61'
Brown sand fine med some clay	9'	70'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
DMW-1

TYPE: ☐ Mud Rotary ☐ Jetted ☑ Bored ☑ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07777

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 70 ft. Date Started: 10/22/03 Date Completed: 10/23/03

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
6 in. to 50 ft. depth
2 in. to 65 ft. depth
Height: Above ☐ Below ☑
Surface .5 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2
Slot/Gauge: .010 Length: 5'
Set Between: 65 ft. and 70 ft. NOTE: MULTIPLE SCREENS
_____ ft. and _____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 45.44' ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 63 ft. to 70 ft.
Effective size FX-50 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From .5 ft. to 60 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Todd Allred **CERT. NO.:** 1446
Address: (Print) Level: A ☐ B ☑ C ☐ D ☐ (circle one)
1753 Old Stagecoach Road
Camden, SC 29020
Telephone No.: 803-713-8500 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Todd Allred Date: 2 Nov 04
Well Driller

If D Level Driller, provide supervising driller's name:

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Providence Hospital (last) (first)
Address: 2435 Forest Drive
City: Columbia State: SC Zip: 29204-2098
Telephone: Work: (803) 256-5388 Home:

2. LOCATION OF WELL: COUNTY: Richland
Name: Cloud's Chevron
Street Address: 1600 Two Notch Road
City: Columbia, SC Zip: 29204-2098
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Brown sand -fine	7'	7'
Brown sand - fine med	5'	12'
Reddish orange sand clay fine-med	6'	18'
Brown sand / clayey med-coarse *	21'	31'
Gray fine-med sandy clay	6'	37'
Gray clay-soft	9'	46'
Gray brown clay little silt tight	15'	61'
Brown sand fine med some clay	6'	67'
Brown sand fine med loose	9'	76'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
DMW-2

6. TYPE: ☐ Mud Rotary ☐ Jetted ☑ Bored ☑ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07777

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 75 ft. Date Started: 10/22/03 Date Completed: 10/23/03

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
6 in. to 50 ft. depth
2 in. to 70 ft. depth
Height: Above ☐ Below ☑
Surface 5 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2
Slot/Gauge: .010 Length: 5'
Set Between: 70 ft. and 75 ft. NOTE: MULTIPLE SCREENS
_____ ft. and _____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 44.67' ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 68 ft. to 75 ft.
Effective size FX-50 Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 5 ft. to 65 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Todd Allred CERT. NO.: 1446
Address: (Print) Level: A B C D (circle one) ☐ ☑ ☐ ☐
1753 Old Stagecoach Road
Camden, SC 29020
Telephone No.: 803-713-8500 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Todd Allred (Well Driller) Date: 2-6-04

If D Level Driller, provide supervising driller's name:

Application ID: 232

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Fast Point (last) (first)
Address: 2811 Reidville Road Suite 11
City: Spartanbug State: SC Zip:
Telephone: Work: (864) 587-1009 Home:

2. LOCATION OF WELL: COUNTY: Richland
Name: Fast Point #24
Street Address: 2367 Taylor Street
City: Columbia, SC Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Asphalt	0.5'	0.5'
Red clay	4.5'	5.0'
Reddish tan sandy clay	9.5'	15'
Tan clayey sand	13'	28'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-22

6. TYPE: ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07584

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 30 ft. Date Started: 11/20/03 Date Completed: 11/21/03

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 20 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☑
Surface .5 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 10'
Set Between: 20 ft. and 30 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 22.36 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 18 ft. to 30 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From .5 ft. to 16 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Alan J. Hill CERT. NO.: 1375
Address: (Print) 1753 Old Stagecoach Road
Level: A B C D (circle one) ☐ ☑ ☐ ☐
Telephone No.: 803-713-8300 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Alan J. Hill Well Driller Date: 12/17/03

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Application ID: 232

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Fast Point (last) (first)
Address: 2811 Reidville Road Suite 11
City: Spartanbug State: SC Zip:
Telephone: Work: (864) 587-1009 Home:

2. LOCATION OF WELL: COUNTY: Richland
Name: Fast Point #24
Street Address: 2367 Taylor Street
City: Columbia, SC Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Orange/red silty sandy clay, moist	14.5'	14.5'
Orange clayey silty f/m sand, moist	5.0'	19.5'
Orange silty f/m sand, moist	6.0'	24.5'
Tan/gray clayey f/m sand, moist	5.5'	30'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-23

6. TYPE: ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07584

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 30 ft. Date Started: 11/20/03 Date Completed: 11/21/03

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 20 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☑
Surface .5 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2
Slot/Gauge: .010 Length: 10'
Set Between: 20 ft. and 30 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 24.82 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 18 ft. to 30 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From .5 ft. to 16 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe ____ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Alan J. Hill CERT. NO.: 1375
Address: (Print) 1753 Old Stagecoach Road
Level: A ☑ B ☐ C ☐ D ☐ (circle one)
Telephone No.: 803-713-8500 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Alan J. Hill (Well Driller) Date: 12/2/03

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Application ID: 232

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Fast Point (last) (first)
Address: 2811 Reidville Road Suite 11
City: Spartanbug State: SC Zip:
Telephone: Work: (864) 587-1009 Home:

2. LOCATION OF WELL: COUNTY: Richland
Name: Fast Point #24
Street Address: 2367 Taylor Street
City: Columbia, SC Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Orange red clay silt	14'	14'
Orange red fine-medium sand	11'	25'
Orange tan fine-medium, kaolin	6'	31'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-24

6. TYPE: ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07584

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 30 ft. Date Started: 11/20/03 Date Completed: 11/21/03

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
2 in. to 20 ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☑
Surface .3 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: .010 Length: 10'
Set Between: 20 ft. and 30 ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 23.88 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 18 ft. to 30 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From .5 ft. to 16 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. _____ direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Alan J. Hill CERT. NO.: 1375
Address: (Print) 1753 Old Stagecoach Road
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 803-713-8300 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Alan J. Hill (Well Driller) Date: 12/17/03

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Application ID: 232

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Fast Point (last) (first)
Address: 2811 Reidville Road Suite 11
City: Spartanbug State: SC Zip:
Telephone: Work: (864) 587-1009 Home:

2. LOCATION OF WELL: COUNTY: Richland
Name: Fast Point #24
Street Address: 2367 Taylor Street
City: Columbia, SC Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☐ Yes ☑ No
Grouted Depth: from _____ ft. to _____ ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Light brown, f/m grained sand	7.5'	7.5'
Red, clayey, fine grained sand	7.5'	15'
Orange, clayey, fine grained sand	5'	20'
White/tan, medium gained sand	5'	25'
Orange, medium grained sand	9'	34'
Gray, dense clay	6'	40'
Tan, light orange, f/m grained sand	9'	49'
Orange, medium grained sand	3'	52'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: DMW-3

6. TYPE: ☐ Mud Rotary ☐ Jetted ☑ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07584

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 52 ft. Date Started: 12/29/03 Date Completed: 12/30/03

10. CASING: ☑ Threaded ☐ Welded
Diam.: 6
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
6 in. to 40 ft. depth
2 in. to 52 ft. depth
Height: Above ☐ Below ☑
Surface .5 ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: PVC Diam.: 2
Slot/Gauge: .010 Length: 5'
Set Between: 52 ft. and 47 ft. NOTE: MULTIPLE SCREENS
_____ ft. and _____ ft. USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 24.54 ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 45 ft. to 52 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0 ft. to 43 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ___ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Todd Allred CERT. NO.: 1446
Address: (Print) 1753 Old Stagecoach Rd, Camden, SC
Level: A B C D (circle one) ☐ ☑ ☐ ☐
Telephone No.: 803-713-8500 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Todd Allred Date: 2-4-04
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Application ID: 232

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Providence Hospital (last) (first)
Address: 2435 Forest Drive
City: Columbia State: SC Zip: 29204-2098
Telephone: Work: (803) 256-5388 Home:

2. LOCATION OF WELL: COUNTY: Richland
Name: Cloud's Chevron
Street Address: 1600 Two Notch Road
City: Columbia, SC Zip: 29204-2098
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☑ Yes ☐ No
Grouted Depth: from 0 ft. to 30 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-15 (MEC) abandoned on 11/25/03

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07777

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started:
_____ ft. Date Completed:

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☐ Yes ☐ No
☑ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From _____ ft. to _____ ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Todd Allred CERT. NO.: 1446
Address: (Print) 1753 Old Stagecoach Rd, Camden, SC
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 803-713-8500 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Todd Allred Date: 2-4-04
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)

Application ID: 232

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Fast Point (last) (first)
Address: 2811 Reidville Road Suite 11
City: Spartanbug State: SC Zip:
Telephone: Work: (864) 587-1009 Home:

2. LOCATION OF WELL: **COUNTY:** Richland
Name: Fast Point #24
Street Address: 2367 Taylor Street
City: Columbia, SC Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☑ Yes ☐ No
Grouted Depth: from 0 ft. to 28 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-5a abandoned on 11/25/03

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07584

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started:
ft. Date Completed:

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
in. to ft. depth
in. to ft. depth
Height: Above ☐ Below ☐
Surface ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: Diam.:
Slot/Gauge: Length:
Set Between: ft. and ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 20' ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from ft. to ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☐ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other
Depth: From ft. to ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: Amount:

18. PUMP: Date installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Todd Allred **CERT. NO.:** 1375
Address: (Print) 1753 Old Stagecoach Rd, Camden, SC
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 803-713-8300 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Todd Allred Date: 2-4-04
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Application ID: 232

D H E C
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Fast Point (last) (first)
Address: 2811 Reidville Road Suite 11
City: Spartanbug State: SC Zip:
Telephone: Work: (864) 587-1009 Home:

2. LOCATION OF WELL: COUNTY: Richland
Name: Fast Point #24
Street Address: 2367 Taylor Street
City: Columbia, SC Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: **PUBLIC SYSTEM NUMBER:**

4. ABANDONMENT: ☑ Yes ☐ No
Grouted Depth: from 0 ft. to 45.6 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
PW-1 abandoned on 11/25/03

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07584

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started:
_____ ft. Date Completed:

10. CASING: ☑ Threaded ☐ Welded
Diam.: 2
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 28.6' ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☐ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From _____ ft. to _____ ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Todd Allred CERT. NO.: 1375
Address: (Print)
1753 Old Stagecoach Rd, Camden, SC
Level: A ☐ B ☑ C ☐ D ☐ (circle one)
Telephone No.: 803-713-8300 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Todd Allred Well Driller Date: 2-4-04

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

Application ID: 232

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 898-4300

1. WELL OWNER INFORMATION:
Name: Fast Point
(last) (first)
Address: 2811 Reidville Road Suite 11
City: Spartanbug State: SC Zip:
Telephone: Work: (864) 587-1009 Home:

2. LOCATION OF WELL: COUNTY: Richland
Name: Fast Point #24
Street Address: 2367 Taylor Street
City: Columbia, SC Zip:
Latitude: Longitude:

3. PUBLIC SYSTEM NAME: PUBLIC SYSTEM NUMBER:

4. ABANDONMENT: ☑ Yes ☐ No
Grouted Depth: from 0 ft. to 29 ft.

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
RW-1 abandoned on 11/25/03

6. TYPE: ☐ Mud Rotary ☐ Jetted ☐ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 07584

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☑ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started:
_____ ft. Date Completed:

10. CASING: ☑ Threaded ☐ Welded
Diam.: 4"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
_____ in. to _____ ft. depth
_____ in. to _____ ft. depth
Height: Above ☐ Below ☐
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☑ No

11. SCREEN:
Type: _____ Diam.: _____
Slot/Gauge: _____ Length: _____
Set Between: _____ ft. and _____ ft.
_____ ft. and _____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL 22.63' ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface.
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☐ No Bacterial Analysis ☐ Yes ☐ No
Please enclose lab results.

15. ARTIFICIAL FILTER (filter pack) ☐ Yes ☐ No
Installed from _____ ft. to _____ ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☐ Yes ☐ No
☐ Neat Cement ☐ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From _____ ft. to _____ ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
Type Former UST
Well Disinfected ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date installed: _____ Not installed ☑
Mfr. Name: _____ Model No.: _____
H.P._____ Volts_____ Length of drop pipe ___ ft. Capacity ____ gpm
TYPE: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Todd Allred CERT. NO.: 1375
Address: (Print) Level: A B C D (circle one)
1753 Old Stagecoach Rd, Camden, S ☐ ☑ ☐ ☐
Telephone No.: 803-713-8300 Fax No.: 803-424-8492

20. WATER WELL DRILLER'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Todd Allred Date: 2-4-04
Well Driller

If D Level Driller, provide supervising driller's name:

DHEC 1903 (07/2003) **COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)**

APPENDIX B

LABORATORY DATA

TestAmerica ANALYTICAL TESTING CORPORATION

Nashville Division
2960 Foster Creighton
Nashville, TN 37204

Phone: 615-726-0177
Fax: 615-726-3404

354939

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Force + Associates Client #: 6883
Address: 147 Vera Rd, Ste F
City/State/Zip Code: Lexington, SC 29072
Project Manager: KATHERINE KELLY
Telephone Number: 803-359-3200 Fax: 803-359-6682
Sampler Name: (Print Name) KATHERINE M. KELLY / OWEN ATTWOOD
Sampler Signature: Katherine M. Kelly / Owen Att

Project Name: Cloud's Chevron/Fast Point No. 24
Project #: 07777/07584
Site/Location ID: Columbia State: SC
Report To: Katherine Kelly
Invoice To: Greg Force
Quote #: _____ PO#: _____

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)

QC Deliverables: ___ None; ___ Level 2 (Batch QC); ___ Level 3; ___ Level 4; Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, S - Soil/Solid, GW - Groundwater, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX, Naphz, MTBE	EDB 8011									REMARKS
MW-1	11-18	16:45	G	N	GW		6						✓	✓				18	745				some HC odor
MW-2		17:20					6						✓	✓					6				some HC odor
MW-4		16:30					6						✓	✓					7				
MW-6		17:35					6						✓	✓					8				
MW-7		17:02					6						✓	✓					9				
MW-8		18:00					6						✓	✓					50				
MW-11		14:55					6						✓	✓					1				
MW-12		13:37					6						✓	✓					2				
MW-13		1335											✓	✓					3				
MW-16		1540											✓	✓					9				
Special Instructions: Creek	11-18	1230											✓	✓				18	745				

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: -1.0
Custody Seals: (Y) N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

Relinquished By: Katherine M. Kelly	Date: 11-19-03	Time: 1320	Received By: [illegible]	Date: 11/19/03	Time: 1320
Relinquished By: [illegible]	Date: 11/19/03	Time: 1725	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By:	Date: 11/20/03	Time: 0815

352100

TestAmerica INCORPORATED

Nashville Division
2960 Foster Creighton
Nashville, TN 37204

Phone: 615-726-0177
Fax: 615-726-3404

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Force + Associates, Inc Client #: 6883
Address: 147 Vera Rd. STE F
City/State/Zip Code: Lexington, SC 29072
Project Manager: Katherine Kelly
Telephone Number: 803-359-3200 Fax: 803.359.6682
Sampler Name: (Print Name) Katherine Kelly
Sampler Signature: Katherine M. Kelly

Project Name: Cloud's Chevron/Fast Point No. 24
Project #: 07777 / 07584
Site/Location ID: Columbia State: SC
Report To: Katherine Kelly
Invoice To: Greg Force
Quote #: _____ PO#: _____

TAT: X Standard; __ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX, Naphs, MTBE	EDB	QC Deliverables	REMARKS
DMW-1	10.27	13:17	G	N	GW		6						✓	✓	None	169035
DMW-2		13:45					6						✓	✓	Level 2 (Batch QC)	6
MW-3		15:07					6						✓	✓	Level 3	7
MW-5		14:25					6						✓	✓	Level 4	8
															Other:	
MW-5a	↓	16:00	↓	↓	↓		6						✓	✓		169039

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 5.0
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

	Date	Time		Date	Time
Relinquished By: Katherine M. Kelly	10.28.03	1205	Received By: [signature]	10/28/03	1205
Relinquished By: [signature]	10/28/03	1800	Received By:	Date:	Time:
Relinquished By:	Date:	Time:	Received By: [signature]	10/29/03	0850

TestAmerica INCORPORATED

Nashville Division
2960 Foster Creighton
Nashville, TN 37204

Phone: 615-726-0177
Fax: 615-726-3404

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: Force + Associates Client #: 6883
Address: 147 Vera Rd, Ste F
City/State/Zip Code: Lexington, SC 29072
Project Manager: KATHERINE KELLY
Telephone Number: 803·359·3200 Fax: 803·359·6682
Sampler Name: (Print Name) KATHERINE M. KELLY
Sampler Signature: Katherine M. Kelly

Project Name: Cloud's Chevron/ Fast Point No. 24
Project #: 07777/07584
Site/Location ID: Columbia State: SC
Report To: KATHERINE KELLY
Invoice To: GREG FORCE
Quote #: _____ PO#: _____

352525

TAT: X Standard ___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y N

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX, Naph, MTBE	EDB							QC Deliverables	REMARKS
MW-20	10·29	15:43	G	N	GW		6						✓	✓					170941			
MW-21	10.29	16:56					6						✓	✓					170942			sheen/strong odor
PW-1	10·29	15:55					6						✓	✓					170943			strong odor
PW-2	10·29	17:20	↓	↓	↓		6						✓	✓					170944			sheen/strong odor

QC Deliverables: ___ None ___ Level 2 (Batch QC) ___ Level 3 ___ Level 4 Other: _____

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 3.4
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

	Date:	Time:		Date:	Time:
Relinquished By: Katherine M. Kelly	10.30.03	1530	Received By: P Simoneau	10/30/03	1530
Relinquished By: P Simoneau	10/31/03	1815	Received By: Ma Gibb	11-3	8:15
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division
2960 Foster Creighton
Nashville, TN 37204

Phone: 615-726-0177
Fax: 615-726-3404

To assist us in using the proper analytical methods, is this work being conducted for regulatory purposes?
Compliance Monitoring _____

355812

Client Name: Force + Associates Client #: 6883
Address: 147 Vera Rd, Ste F
City/State/Zip Code: Lexington, SC 29072
Project Manager: Katherine M. Kelly
Telephone Number: 803-359-3200 Fax: 803-359-6682
Sampler Name: (Print Name) KATHERINE M. KELLY
Sampler Signature: Katherine M. Kelly

Project Name: Cloud's Chevron / Fast Point
Project #: 07777 / 07584
Site/Location ID: Columbia State: SC
Report To: Katherine M. Kelly
Invoice To: Greg Force
Quote #: _____ PO#: _____

TAT: X Standard; ___ Rush (surcharges may apply)
Date Needed: _____
Fax Results: Y (N)

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX, Naphs, MTBE	EPA 8011								QC Deliverables: ___ None, ___ Level 2 (Batch QC), ___ Level 3, ___ Level 4, Other: _____ — REMARKS
MW-22	11-25	10:35	G	N			6						✓	✓			185	592					Strong HC odor
MW-23	↓	12:38					6						✓	✓			↓	593					Strong HC odor
MW-24		12:00					6						✓	✓			↓	594					Strong HC Odor
MW-26	↓	14:07	↓	↓			6						✓	✓			185	595					

Special Instructions:
Note: B, N, M on bottles = BTEX, Naphs, MTBE

Relinquished By: Katherine M. Kelly	Date: 11.25.03	Time: 1605	Received By: PD Monneau	Date: 11/25/03	Time: 1605
Relinquished By: PD Monneau	Date: 11/25/03	Time: 1845	Received By: J Jones	Date: 11/26/03	Time: 930
Relinquished By:	Date:	Time:	Received By:	Date:	Time:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp: 1.0°C
Custody Seals: (X) N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division
2960 Foster Creighton
Nashville, TN 37204
Phone: 615-726-0177
Fax: 615-726-3404

359461

To assist us in using the proper analytical methods, this work being conducted for regulatory purposes?
Compliance Monitoring _____

Client Name: FORCE & ASSOCIATES Client #: 6883
Address: 147 Vine Rd suite F
City/State/Zip Code: Lexington, SC 29072
Project Manager: Greg Force
Telephone Number: 803-359-3200 Fax: 803-359-6682
Sampler Name: (Print Name) Owen Ashwood
Sampler Signature:

Project Name: Cloud's Chevron / Fast Point
Project #:
Site/Location ID: 07777/12352 State: SC
Report To: Greg Force
Invoice To: Greg Force
Quote #: PO#:

TAT
X Standard
__ Rush (surcharges may apply)
Date Needed: 5 DAY T.A.T.
Fax Results: Y (N)

QC Deliverables
__ None
__ Level 2 (Batch QC)
__ Level 3
__ Level 4
Other: _____

SAMPLE ID	Date Sampled	Time Sampled	G = Grab, C = Composite	Field Filtered	Matrix: SL - Sludge, DW - Drinking Water, GW - Groundwater, S - Soil/Solid, WW - Wastewater, Specify Other	Preservation & # of Containers: HNO_3	HCl	NaOH	H_2SO_4	Methanol	None	Other (Specify)	Analyze For: BTEX, Naph, MTBE 8260	EDB (504)	REMARKS
DMW-3	12/30/03	1700	G	N	GW		3						✓	✓	04-A295-1

Special Instructions:

LABORATORY COMMENTS:
Init Lab Temp:
Rec Lab Temp:
Custody Seals: Y N N/A
Bottles Supplied by Test America: Y N
Method of Shipment:

Relinquished By:	1/2/04	1640	Received By:	1/2/04	1640
Relinquished By:	1/2/04	1745	Received By:		
Relinquished By:	Date:	Time:	Received By:	1/3/04	8:10

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM BC# 352100

Client: Force & Associates

Cooler Received On: 10/29/03 **And Opened On:** 10/29/03 **By:** Shawn Gracey

(Signature)

1. Temperature of Cooler when opened 5.8 **Degrees Celsius**
2. Were custody seals on outside of cooler?.....YES...NO....NA
   a. If yes, how many, what kind and where: 1, Front
3. Were custody seals on containers and intact?.....NO...YES...NA
4. Were the seals intact, signed, and dated correctly?.....YES...NO...NA
5. Were custody papers inside cooler?.....YES...NO...NA
6. Were custody papers properly filled out (ink,signed,etc)?.....YES...NO...NA
7. Did you sign the custody papers in the appropriate place?.....YES...NO...NA
8. What kind of packing material used? Bubblewrap Peanuts Vermiculite Other None
9. Cooling process: Ice Ice pack Ice(direct contact) Dry ice Other None
10. Did all containers arrive in good condition(unbroken)?.....YES...NO...NA
11. Were all container labels complete (#,date,signed,pres,etc)?.....YES...NO...NA
12. Did all container labels and tags agree with custody papers?.....YES...NO...NA
13. Were correct containers used for the analysis requested?.....YES...NO...NA
14. a. Were VOA vials received?.....YES...NO...NA
    b. Was there any observable head space present in any VOA vial?.....NO...YES...NA
15. Was sufficient amount of sample sent in each container?.....YES...NO...NA
16. Were correct preservatives used?.....YES...NO...NA
    If not, record standard ID of preservative used here_____
17. Was residual chlorine present?.....NO...YES...NA
18. See attached for resolution of non-conformance:

Fed-Ex UPS Velocity Airborne Route Off-street Misc.

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM **BC#** 354939

Client: Force & Associates

Cooler Received On: 11/20/03 **And Opened On:** 11/20/03 **By:** Shawn Gracey

(Signature)

1. **Temperature of Cooler when opened** -1.0 **Degrees Celsius**
2. **Were custody seals on outside of cooler?** ....YES....NO....NA
   a. **If yes, how many, what kind and where:** 1, Front
3. **Were custody seals on containers and intact?** ....NO...YES...NA
4. **Were the seals intact, signed, and dated correctly?** ....YES...NO...NA
5. **Were custody papers inside cooler?** ....YES....NO...NA
6. **Were custody papers properly filled out (ink,signed,etc)?** ....YES....NO...NA
7. **Did you sign the custody papers in the appropriate place?** ....YES....NO...NA
8. **What kind of packing material used?** Bubblewrap Peanuts Vermiculite Other None
9. **Cooling process:** Ice Ice pack Ice(direct contact) Dry ice Other None
10. **Did all containers arrive in good condition(unbroken)?** ....YES....NO...NA
11. **Were all container labels complete (#,date,signed,pres,etc)?** ....YES....NO...NA
12. **Did all container labels and tags agree with custody papers?** ....YES....NO...NA
13. **Were correct containers used for the analysis requested?** ....YES....NO...NA
14. a. **Were VOA vials received?** ....YES....NO...NA
    b. **Was there any observable head space present in any VOA vial?** ....NO....YES...NA
15. **Was sufficient amount of sample sent in each container?** ....YES....NO...NA
16. **Were correct preservatives used?** ....YES....NO...NA
    If not, record standard ID of preservative used here _____
17. **Was residual chlorine present?** ....NO...YES....NA
18. **See attached for resolution of non-conformance:**

Fed-Ex **UPS** **Velocity** **Airborne** **Route** **Off-street** **Misc.**

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM **BC#** 352525

Client: Force E Associates

Cooler Received On: 11-1-03 And Opened On: 11-1-03 By: MARVIN BLUMHOEFER

(Signature)

1. Temperature of Cooler when opened 3.4 **Degrees Celsius**
2. Were custody seals on outside of cooler?.....YES...NO....NA 9:00
   a. If yes, how many, what kind and where: 1 Red
3. Were custody seals on containers and intact?.....NO...YES...NA
4. Were the seals intact, signed, and dated correctly?.....YES....NO...NA
5. Were custody papers inside cooler?.....YES....NO...NA
6. Were custody papers properly filled out (ink,signed,etc)?.....YES...NO...NA
7. Did you sign the custody papers in the appropriate place?.....YES...NO...NA
8. What kind of packing material used? Bubblewrap Peanuts Vermiculite Other None
9. Cooling process: Ice Ice pack Ice(direct contact) Dry ice Other None
10. Did all containers arrive in good condition(unbroken)?.....YES...NO...NA
11. Were all container labels complete (#,date,signed,pres,etc)?.....YES...NO...NA
12. Did all container labels and tags agree with custody papers?.....YES...NO...NA
13. Were correct containers used for the analysis requested?.....YES...NO...NA
14. a. Were VOA vials received?.....YES...NO...NA
    b. Was there any observable head space present in any VOA vial?.....NO...YES...NA
15. Was sufficient amount of sample sent in each container?.....YES...NO...NA
16. Were correct preservatives used?.....YES...NO...NA
    If not, record standard ID of preservative used here_____
17. Was residual chlorine present?.....NO...YES...NA
18. See attached for resolution of non-conformance:

Fed-Ex UPS Velocity Airborne Route Off-street Misc.

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM **BC#** 355812

Client: Force & Assoc.

Cooler Received On: 11/26/03 **And Opened On:** 11/26/03 **By:** James Jacobs

(Signature)

1. Temperature of Cooler when opened 1.2 **Degrees Celsius**
2. Were custody seals on outside of cooler?.....(YES)...NO...NA
   a. If yes, how many, what kind and where: 1 Tape Front
3. Were custody seals on containers and intact?.....(NO)..YES...NA
4. Were the seals intact, signed, and dated correctly?.....(YES)...NO...NA
5. Were custody papers inside cooler?.....(YES)...NO...NA
6. Were custody papers properly filled out (ink,signed,etc)?.....(YES)...NO...NA
7. Did you sign the custody papers in the appropriate place?.....(YES)...NO...NA
8. What kind of packing material used? (Bubblewrap) Peanuts Vermiculite Other None
9. Cooling process: (Ice) Ice pack Ice(direct contact) Dry ice Other None
10. Did all containers arrive in good condition(unbroken)?.....(YES)...NO...NA
11. Were all container labels complete (#,date,signed,pres,etc)?.....(YES)..NO...NA
12. Did all container labels and tags agree with custody papers?.....(YES)..NO...NA
13. Were correct containers used for the analysis requested?.....(YES)...NO...NA
14. a. Were VOA vials received?.....(YES)..NO...NA
    b. Was there any observable head space present in any VOA vial?.....(NO)..YES...NA
15. Was sufficient amount of sample sent in each container?.....(YES)...NO...NA
16. Were correct preservatives used?.....(YES)..NO...NA
    If not, record standard ID of preservative used here_____
17. Was residual chlorine present?.....NO...YES...(NA)
18. See attached for resolution of non-conformance:

Fed-Ex (UPS) Velocity Airborne Route Off-street Misc.

TestAmerica
ANALYTICAL TESTING CORPORATION

Nashville Division

COOLER RECEIPT FORM BC# 359461

Client: Force

Cooler Received On: 1/3/04 And Opened On: 1/3/04 By: Paul R Buckingham II

(Signature)

1. Temperature of Cooler when opened 2.8 Degrees Celsius
2. Were custody seals on outside of cooler?.....YES...NO....NA
   a. If yes, how many, what kind and where: 1 front
3. Were custody seals on containers and intact?..... NO...YES...NA
4. Were the seals intact, signed, and dated correctly?.....YES...NO...NA
5. Were custody papers inside cooler?.....YES...NO...NA
6. Were custody papers properly filled out (ink,signed,etc)?.....YES...NO...NA
7. Did you sign the custody papers in the appropriate place?.....YES...NO...NA
8. What kind of packing material used? Bubblewrap Peanuts Vermiculite Other None
9. Cooling process: Ice Ice pack Ice(direct contact) Dry ice Other None
10. Did all containers arrive in good condition(unbroken)?.....YES...NO...NA
11. Were all container labels complete (#,date,signed,pres,etc)?.....YES...NO...NA
12. Did all container labels and tags agree with custody papers?.....YES...NO...NA
13. Were correct containers used for the analysis requested?.....YES...NO...NA
14. a. Were VOA vials received?.....YES...NO...NA
    b. Was there any observable head space present in any VOA vial?.....NO...YES...NA
15. Was sufficient amount of sample sent in each container?.....YES...NO...NA
16. Were correct preservatives used?.....YES...NO...NA
    If not, record standard ID of preservative used here_____
17. Was residual chlorine present?.....NO...YES...NA
18. See attached for resolution of non-conformance:

Fed-Ex UPS Velocity Airborne Route Off-street Misc.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE M. KELLY/OWEN

Lab Number: 03-A181745
Sample ID: MW-1
Sample Type: Water
Site ID: COLUMBIA

Date Collected: 11/18/03
Time Collected: 16:45
Date Received: 11/20/03
Time Received: 9:15

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	<1.0	ug/L	1.0	1.0	11/24/03	9:41	C. Spry	8260B	8900
Toluene	1.3	ug/L	1.0	1.0	11/24/03	9:41	C. Spry	8260B	8900
Ethylbenzene	<1.0	ug/L	1.0	1.0	11/24/03	9:41	C. Spry	8260B	8900
Xylenes (Total)	1.6	ug/L	1.0	1.0	11/24/03	9:41	C. Spry	8260B	8900
Methyl-t-butyl ether	<1.0	ug/L	1.0	1.0	11/24/03	9:41	C. Spry	8260B	8900
Naphthalene	< 5.00	ug/L	5.00	1.0	11/24/03	9:41	C. Spry	8260B	8900
VOLATILE ORGANICS by GC									
Ethylene Dibromide	<0.02	ug/L	0.02	1.0	11/21/03	14:24	K. Burritt	8011	3607

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	111.	70. - 133.
VOA Surr Toluene-d8	100.	76. - 123.
VOA Surr, 4-BFB	116.	71. - 132.
VOA Surr, DBFM	108.	74. - 128.
Surr., 1,3-DCB	127.	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A181745
Sample ID: MW-1
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville. Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE M. KELLY/OWEN

Lab Number: 03-A181746
Sample ID: MW-2
Sample Type: Water
Site ID: COLUMBIA

Date Collected: 11/18/03
Time Collected: 17:20
Date Received: 11/20/03
Time Received: 9:15

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	17900	ug/L	500.	500.	11/28/03	22:12	J.Haley	8260B	687
Toluene	34600	ug/L	500.	500.	11/28/03	22:12	J.Haley	8260B	687
Ethylbenzene	3630	ug/L	50.0	50.0	11/25/03	12:39	J.Haley	8260B	9000
Xylenes (Total)	17000	ug/L	50.0	50.0	11/25/03	12:39	J.Haley	8260B	9000
Methyl-t-butyl ether	6150	ug/L	50.0	50.0	11/25/03	12:39	J.Haley	8260B	9000
Naphthalene	<250.	ug/L	250.	50.0	11/25/03	12:39	J.Haley	8260B	9000
VOLATILE ORGANICS by GC									
Ethylene Dibromide	108.	ug/L	2.00	100.	11/22/03	2:03	K. Burritt	8011	3607

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	104.	70. - 133.
VOA Surr Toluene-d8	99.	76. - 123.
VOA Surr, 4-BFB	114.	71. - 132.
VOA Surr, DBFM	105.	74. - 128.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A181746
Sample ID: MW-2
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON'S/FAST
Sampler: KATHERINE KELLY

Lab Number: 03-A169037
Sample ID: MW-3
Sample Type: Water
Site ID:

Date Collected: 10/27/03
Time Collected: 15:07
Date Received: 10/29/03
Time Received: 9:50
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	11300	ug/L	100.	100.	11/ 3/03	22:53	C. Spry	8260B	9103
Toluene	72500	ug/L	500.	500.	11/ 4/03	15:54	C. Spry	8260B	9640
Ethylbenzene	3980	ug/L	100.	100.	11/ 3/03	22:53	C. Spry	8260B	9103
Xylenes (Total)	20800	ug/L	100.	100.	11/ 3/03	22:53	C. Spry	8260B	9103
Methyl-t-butyl ether	20200	ug/L	500.	500.	11/ 4/03	15:54	C. Spry	8260B	9640
Naphthalene	870.	ug/L	500.	100.	11/ 3/03	22:53	C. Spry	8260B	9103
VOLATILE ORGANICS by GC									
Ethylene Dibromide	66.1	ug/L	2.01	100.	10/31/03	10:16	K. Burritt	8011	5516

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	92.	70. - 133.
VOA Surr Toluene-d8	101.	76. - 123.
VOA Surr, 4-BFB	87.	71. - 132.
VOA Surr, DBFM	93.	74. - 128.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A169037
Sample ID: MW-3
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Lab Number: 03-A181747
Sample ID: MW-4
Sample Type: Water
Site ID: COLUMBIA

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE M. KELLY/OWEN

Date Collected: 11/18/03
Time Collected: 16:30
Date Received: 11/20/03
Time Received: 9:15

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	<1.0	ug/L	1.0	1.0	11/24/03	10:10	C. Spry	8260B	8900
Toluene	1.8	ug/L	1.0	1.0	11/24/03	10:10	C. Spry	8260B	8900
Ethylbenzene	<1.0	ug/L	1.0	1.0	11/24/03	10:10	C. Spry	8260B	8900
Xylenes (Total)	2.8	ug/L	1.0	1.0	11/24/03	10:10	C. Spry	8260B	8900
Methyl-t-butyl ether	1.2	ug/L	1.0	1.0	11/24/03	10:10	C. Spry	8260B	8900
Naphthalene	< 5.00	ug/L	5.00	1.0	11/24/03	10:10	C. Spry	8260B	8900
VOLATILE ORGANICS by GC									
Ethylene Dibromide	0.15	ug/L	0.02	1.0	11/21/03	15:00	K. Burritt	8011	3607

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	117.	70. - 133.
VOA Surr Toluene-d8	98.	76. - 123.
VOA Surr, 4-BFB	114.	71. - 132.
VOA Surr, DBFM	111.	74. - 128.
Surr., 1,3-DCB	126.	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A181747
Sample ID: MW-4
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON'S/FAST
Sampler: KATHERINE KELLY

Lab Number: 03-A169038
Sample ID: MW-5
Sample Type: Water
Site ID:

Date Collected: 10/27/03
Time Collected: 14:25
Date Received: 10/29/03
Time Received: 9:50

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	779.	ug/L	10.0	10.0	11/ 3/03	17:47	C. Spry	8260B	9103
Toluene	968.	ug/L	10.0	10.0	11/ 3/03	18:17	C. Spry	8260B	9115
Ethylbenzene	336.	ug/L	10.0	10.0	11/ 3/03	18:17	C. Spry	8260B	9115
Xylenes (Total)	2020	ug/L	10.0	10.0	11/ 3/03	18:17	C. Spry	8260B	9115
Methyl-t-butyl ether	89.5	ug/L	1.0	1.0	11/ 1/03	17:59	C. Spry	8260B	8714
Naphthalene	1240	ug/L	50.0	10.0	11/ 3/03	17:47	C. Spry	8260B	9103
VOLATILE ORGANICS by GC									
Ethylene Dibromide	1.62	ug/L	0.10	5.0	10/31/03	9:41	K. Burritt	8011	5516

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	93.	70. - 133.
VOA Surr Toluene-d8	98.	76. - 123.
VOA Surr, 4-BFB	103.	71. - 132.
VOA Surr, DBFM	96.	74. - 128.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A169038
Sample ID: MW-5
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON'S/FAST
Sampler: KATHERINE KELLY

Lab Number: 03-A169039
Sample ID: MW-5A
Sample Type: Water
Site ID:

Date Collected: 10/27/03
Time Collected: 16:00
Date Received: 10/29/03
Time Received: 9:50
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	376.	ug/L	5.0	5.0	11/ 3/03	18:48	C. Spry	8260B	9103
Toluene	960.	ug/L	5.0	5.0	11/ 3/03	18:48	C. Spry	8260B	9103
Ethylbenzene	510.	ug/L	5.0	5.0	11/ 3/03	18:48	C. Spry	8260B	9103
Xylenes (Total)	2560	ug/L	50.0	50.0	11/ 3/03	19:19	C. Spry	8260B	9115
Methyl-t-butyl ether	<1.0	ug/L	1.0	1.0	11/ 2/03	0:39	C. Spry	8260B	8721
Naphthalene	89.8	ug/L	5.00	1.0	11/ 2/03	0:39	C. Spry	8260B	8721
VOLATILE ORGANICS by GC									
Ethylene Dibromide	<0.02	ug/L	0.02	1.0	10/30/03	19:30	K. Burritt	8011	5516

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	96.	70. - 133.
VOA Surr Toluene-d8	97.	76. - 123.
VOA Surr, 4-BFB	103.	71. - 132.
VOA Surr, DBFM	96.	74. - 128.
Surr., 1,3-DCB	76.0 #	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A169039
Sample ID: MW-5A
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE M. KELLY/OWEN

Lab Number: 03-A181748
Sample ID: MW-6
Sample Type: Water
Site ID: COLUMBIA

Date Collected: 11/18/03
Time Collected: 17:35
Date Received: 11/20/03
Time Received: 9:15
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	13.2	ug/L	1.0	1.0	11/24/03	10:40	C. Spry	8260B	8900
Toluene	3.8	ug/L	1.0	1.0	11/24/03	10:40	C. Spry	8260B	8900
Ethylbenzene	<1.0	ug/L	1.0	1.0	11/24/03	10:40	C. Spry	8260B	8900
Xylenes (Total)	66.5	ug/L	1.0	1.0	11/24/03	10:40	C. Spry	8260B	8900
Methyl-t-butyl ether	<1.0	ug/L	1.0	1.0	11/24/03	10:40	C. Spry	8260B	8900
Naphthalene	< 5.00	ug/L	5.00	1.0	11/24/03	10:40	C. Spry	8260B	8900
VOLATILE ORGANICS by GC									
Ethylene Dibromide	< 0.02	ug/L	0.02	1.0	11/21/03	15:18	K. Burritt	8011	3607

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	112.	70. - 133.
VOA Surr Toluene-d8	99.	76. - 123.
VOA Surr, 4-BFB	110.	71. - 132.
VOA Surr, DBFM	107.	74. - 128.
Surr., 1,3-DCB	125.	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A181748
Sample ID: MW-6
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Lab Number: 03-A181749
Sample ID: MW-7
Sample Type: Water
Site ID: COLUMBIA

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE M. KELLY/OWEN

Date Collected: 11/18/03
Time Collected: 17:02
Date Received: 11/20/03
Time Received: 9:15
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	<1.0	ug/L	1.0	1.0	11/25/03	0:31	C. Spry	8260B	8900
Toluene	<1.0	ug/L	1.0	1.0	11/25/03	0:31	C. Spry	8260B	8900
Ethylbenzene	<1.0	ug/L	1.0	1.0	11/25/03	0:31	C. Spry	8260B	8900
Xylenes (Total)	<1.0	ug/L	1.0	1.0	11/25/03	0:31	C. Spry	8260B	8900
Methyl-t-butyl ether	<1.0	ug/L	1.0	1.0	11/25/03	0:31	C. Spry	8260B	8900
Naphthalene	< 5.00	ug/L	5.00	1.0	11/25/03	0:31	C. Spry	8260B	8900
VOLATILE ORGANICS by GC									
Ethylene Dibromide	<0.02	ug/L	0.02	1.0	11/21/03	15:36	K. Burritt	8011	3607

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	114.	70. - 133.
VOA Surr Toluene-d8	104.	76. - 123.
VOA Surr, 4-BFB	116.	71. - 132.
VOA Surr, DBFM	109.	74. - 128.
Surr., 1,3-DCB	115.	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A181749
Sample ID: MW-7
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE M. KELLY/OWEN

Lab Number: 03-A181750
Sample ID: MW-8
Sample Type: Water
Site ID: COLUMBIA

Date Collected: 11/18/03
Time Collected: 18:00
Date Received: 11/20/03
Time Received: 9:15
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	<1.0	ug/L	1.0	1.0	11/25/03	1:00	J.Haley	8260B	234
Toluene	<1.0	ug/L	1.0	1.0	11/25/03	1:00	J.Haley	8260B	234
Ethylbenzene	<1.0	ug/L	1.0	1.0	11/25/03	1:00	J.Haley	8260B	234
Xylenes (Total)	<1.0	ug/L	1.0	1.0	11/25/03	1:00	J.Haley	8260B	234
Methyl-t-butyl ether	<1.0	ug/L	1.0	1.0	11/25/03	1:00	J.Haley	8260B	234
Naphthalene	< 5.00	ug/L	5.00	1.0	11/25/03	1:00	J.Haley	8260B	234
VOLATILE ORGANICS by GC									
Ethylene Dibromide	< 0.02	ug/L	0.02	1.0	11/21/03	15:53	K. Burritt	8011	3607

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	116.	70. - 133.
VOA Surr Toluene-d8	100.	76. - 123.
VOA Surr, 4-BFB	113.	71. - 132.
VOA Surr, DBFM	108.	74. - 128.
Surr., 1,3-DCB	123.	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A181750
Sample ID: MW-8
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE M. KELLY/OWEN

Lab Number: 03-A181751
Sample ID: MW-11
Sample Type: Water
Site ID: COLUMBIA

Date Collected: 11/18/03
Time Collected: 14:55
Date Received: 11/20/03
Time Received: 9:15

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	28.4	ug/L	1.0	1.0	11/25/03	10:11	J.Haley	8260B	9000
Toluene	46.4	ug/L	1.0	1.0	11/25/03	10:11	J.Haley	8260B	9000
Ethylbenzene	1.2	ug/L	1.0	1.0	11/25/03	10:11	J.Haley	8260B	9000
Xylenes (Total)	9.3	ug/L	1.0	1.0	11/25/03	10:11	J.Haley	8260B	9000
Methyl-t-butyl ether	<1.0	ug/L	1.0	1.0	11/25/03	10:11	J.Haley	8260B	9000
Naphthalene	< 5.00	ug/L	5.00	1.0	11/25/03	10:11	J.Haley	8260B	9000
VOLATILE ORGANICS by GC									
Ethylene Dibromide	< 0.02	ug/L	0.02	1.0	11/21/03	16:11	K. Burritt	8011	3607

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	115.	70. - 133.
VOA Surr Toluene-d8	100.	76. - 123.
VOA Surr, 4-BFB	120.	71. - 132.
VOA Surr, DBFM	110.	74. - 128.
Surr., 1,3-DCB	115.	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A181751
Sample ID: MW-11
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE M. KELLY/OWEN

Lab Number: 03-A181752
Sample ID: MW-12
Sample Type: Water
Site ID: COLUMBIA

Date Collected: 11/18/03
Time Collected: 13:37
Date Received: 11/20/03
Time Received: 9:15
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	5400	ug/L	50.0	50.0	11/25/03	16:06	J.Haley	8260B	9025
Toluene	125.	ug/L	10.0	10.0	11/25/03	10:41	J.Haley	8260B	9000
Ethylbenzene	489.	ug/L	10.0	10.0	11/25/03	10:41	J.Haley	8260B	9000
Xylenes (Total)	203.	ug/L	10.0	10.0	11/25/03	10:41	J.Haley	8260B	9000
Methyl-t-butyl ether	682.	ug/L	10.0	10.0	11/25/03	10:41	J.Haley	8260B	9000
Naphthalene	<50.0	ug/L	50.0	10.0	11/25/03	10:41	J.Haley	8260B	9000
VOLATILE ORGANICS by GC									
Ethylene Dibromide	0.04	ug/L	0.02	1.0	11/21/03	16:29	K. Burritt	8011	3607

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	119.	70. - 133.
VOA Surr Toluene-d8	98.	76. - 123.
VOA Surr, 4-BFB	112.	71. - 132.
VOA Surr, DBFM	108.	74. - 128.
Surr., 1,3-DCB	123.	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A181752
Sample ID: MW-12
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE M. KELLY/OWEN

Lab Number: 03-A181753
Sample ID: MW-13
Sample Type: Water
Site ID: COLUMBIA

Date Collected: 11/18/03
Time Collected: 13:35
Date Received: 11/20/03
Time Received: 9:15

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	120.	ug/L	1.0	1.0	11/25/03	11:10	J.Haley	8260B	9000
Toluene	<1.0	ug/L	1.0	1.0	11/25/03	11:10	J.Haley	8260B	9000
Ethylbenzene	16.8	ug/L	1.0	1.0	11/25/03	11:10	J.Haley	8260B	9000
Xylenes (Total)	43.0	ug/L	1.0	1.0	11/25/03	11:10	J.Haley	8260B	9000
Methyl-t-butyl ether	8.4	ug/L	1.0	1.0	11/25/03	11:10	J.Haley	8260B	9000
Naphthalene	< 5.00	ug/L	5.00	1.0	11/25/03	11:10	J.Haley	8260B	9000
VOLATILE ORGANICS by GC									
Ethylene Dibromide	< 0.02	ug/L	0.02	1.0	11/21/03	17:06	K. Burritt	8011	3607

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	116.	70. - 133.
VOA Surr Toluene-d8	98.	76. - 123.
VOA Surr, 4-BFB	114.	71. - 132.
VOA Surr, DBFM	106.	74. - 128.
Surr., 1,3-DCB	168. #	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A181753
Sample ID: MW-13
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE M. KELLY/OWEN

Lab Number: 03-A181754
Sample ID: MW-16
Sample Type: Water
Site ID: COLUMBIA

Date Collected: 11/18/03
Time Collected: 15:40
Date Received: 11/20/03
Time Received: 9:15

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	436.	ug/L	10.0	10.0	11/25/03	11:40	J.Haley	8260B	9000
Toluene	300.	ug/L	10.0	10.0	11/25/03	11:40	J.Haley	8260B	9000
Ethylbenzene	66.0	ug/L	10.0	10.0	11/25/03	11:40	J.Haley	8260B	9000
Xylenes (Total)	244.	ug/L	10.0	10.0	11/25/03	11:40	J.Haley	8260B	9000
Methyl-t-butyl ether	<10.0	ug/L	10.0	10.0	11/25/03	11:40	J.Haley	8260B	9000
Naphthalene	<50.0	ug/L	50.0	10.0	11/25/03	11:40	J.Haley	8260B	9000
VOLATILE ORGANICS by GC									
Ethylene Dibromide	<0.02	ug/L	0.02	1.0	11/21/03	17:23	K. Burritt	8011	3607

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	115.	70. - 133.
VOA Surr Toluene-d8	99.	76. - 123.
VOA Surr, 4-BFB	113.	71. - 132.
VOA Surr, DBFM	107.	74. - 128.
Surr., 1,3-DCB	121.	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A181754
Sample ID: MW-16
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Lab Number: 03-A170961
Sample ID: MW-20
Sample Type: Water
Site ID:

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE M. KELLY

Date Collected: 10/29/03
Time Collected: 15:43
Date Received: 11/ 1/03
Time Received: 8:15
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	24200	ug/L	500.	500.	11/ 6/03	18:42	S. Udeze	8260B	2692
Toluene	38600	ug/L	500.	500.	11/ 6/03	18:42	S. Udeze	8260B	2692
Ethylbenzene	2760	ug/L	20.0	20.0	11/ 6/03	17:17	S. Udeze	8260B	2672
Xylenes (Total)	12800	ug/L	500.	500.	11/ 6/03	18:42	S. Udeze	8260B	2692
Methyl-t-butyl ether	6300	ug/L	500.	500.	11/ 6/03	18:42	S. Udeze	8260B	2692
Naphthalene	1050	ug/L	100.	20.0	11/ 6/03	17:17	S. Udeze	8260B	2672
VOLATILE ORGANICS by GC									
Ethylene Dibromide	< 0.02	ug/L	0.02	1.0	11/ 6/03	3:05	K. Burritt	8011	8379

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	105.	70. - 133.
VOA Surr Toluene-d8	98.	76. - 123.
VOA Surr, 4-BFB	98.	71. - 132.
VOA Surr, DBFM	103.	74. - 128.
Surr., 1,3-DCB	81.0 #	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A170961
Sample ID: MW-20
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE M. KELLY

Lab Number: 03-A170962
Sample ID: MW-21
Sample Type: Water
Site ID:

Date Collected: 10/29/03
Time Collected: 16:50
Date Received: 11/ 1/03
Time Received: 8:15

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	18.9	ug/L	1.0	1.0	11/ 6/03	13:39	S. Udeze	8260B	1650
Toluene	240.	ug/L	10.0	10.0	11/ 6/03	14:06	S. Udeze	8260B	1658
Ethylbenzene	537.	ug/L	10.0	10.0	11/ 6/03	14:06	S. Udeze	8260B	1658
Xylenes (Total)	3830	ug/L	10.0	10.0	11/ 6/03	14:06	S. Udeze	8260B	1658
Methyl-t-butyl ether	<1.0	ug/L	1.0	1.0	11/ 6/03	13:39	S. Udeze	8260B	1650
Naphthalene	116.	ug/L	5.00	1.0	11/ 6/03	13:39	S. Udeze	8260B	1650
VOLATILE ORGANICS by GC									
Ethylene Dibromide	<0.02	ug/L	0.02	1.0	11/ 6/03	3:41	K. Burritt	8011	8379

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	97.	70. - 133.
VOA Surr Toluene-d8	99.	76. - 123.
VOA Surr, 4-BFB	93.	71. - 132.
VOA Surr, DBFM	99.	74. - 128.
Surr., 1,3-DCB	89.0	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A170962
Sample ID: MW-21
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE KELLY

Lab Number: 03-A185592
Sample ID: MW-22
Sample Type: Water
Site ID:

Date Collected: 11/25/03
Time Collected: 10:35
Date Received: 11/26/03
Time Received: 9:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	30000	ug/L	500.	500.	11/29/03	19:12	M.Himelick	8260B	1487
Toluene	48200	ug/L	500.	500.	11/29/03	19:12	M.Himelick	8260B	1487
Ethylbenzene	6550	ug/L	500.	500.	11/29/03	19:12	M.Himelick	8260B	1487
Xylenes (Total)	31900	ug/L	500.	500.	11/29/03	19:12	M.Himelick	8260B	1487
Methyl-t-butyl ether	1560	ug/L	50.0	50.0	11/29/03	18:42	M.Himelick	8260B	1457
Naphthalene	3380	ug/L	250.	50.0	11/29/03	18:42	M.Himelick	8260B	1457
VOLATILE ORGANICS by GC									
Ethylene Dibromide	< 0.02	ug/L	0.02	1.0	12/ 1/03	12:19	K. Burritt	8011	950

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	103.	70. - 133.
VOA Surr Toluene-d8	95.	76. - 123.
VOA Surr, 4-BFB	117.	71. - 132.
VOA Surr, DBFM	105.	74. - 128.
Surr., 1,3-DCB	95.0	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A185592
Sample ID: MW-22
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE KELLY

Lab Number: 03-A185593
Sample ID: MW-23
Sample Type: Water
Site ID:

Date Collected: 11/25/03
Time Collected: 12:38
Date Received: 11/26/03
Time Received: 9:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	43000	ug/L	500.	500.	11/29/03	20:11	M.Himelick	8260B	1487
Toluene	85500	ug/L	500.	500.	11/29/03	20:11	M.Himelick	8260B	1487
Ethylbenzene	4140	ug/L	50.0	50.0	11/29/03	19:42	M.Himelick	8260B	1457
Xylenes (Total)	85000	ug/L	500.	500.	11/29/03	20:11	M.Himelick	8260B	1487
Methyl-t-butyl ether	5800	ug/L	50.0	50.0	11/29/03	19:42	M.Himelick	8260B	1457
Naphthalene	1140	ug/L	250.	50.0	11/29/03	19:42	M.Himelick	8260B	1457
VOLATILE ORGANICS by GC									
Ethylene Dibromide	3.51	ug/L	0.40	20.0	12/ 1/03	19:09	K. Burritt	8011	950

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	104.	70. - 133.
VOA Surr Toluene-d8	94.	76. - 123.
VOA Surr, 4-BFB	113.	71. - 132.
VOA Surr, DBFM	105.	74. - 128.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A185593
Sample ID: MW-23
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
EDB surrogate diluted out due to sample matrix.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE KELLY

Lab Number: 03-A185594
Sample ID: MW-24
Sample Type: Water
Site ID:

Date Collected: 11/25/03
Time Collected: 12:00
Date Received: 11/26/03
Time Received: 9:30

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	35000	ug/L	500.	500.	11/29/03	21:10	M.Himelick	8260B	1487
Toluene	37600	ug/L	500.	500.	11/29/03	21:10	M.Himelick	8260B	1487
Ethylbenzene	2760	ug/L	50.0	50.0	11/29/03	20:41	M.Himelick	8260B	1457
Xylenes (Total)	12300	ug/L	50.0	50.0	11/29/03	20:41	M.Himelick	8260B	1457
Methyl-t-butyl ether	7750	ug/L	50.0	50.0	11/29/03	20:41	M.Himelick	8260B	1457
Naphthalene	595.	ug/L	250.	50.0	11/29/03	20:41	M.Himelick	8260B	1457
VOLATILE ORGANICS by GC									
Ethylene Dibromide	168.	ug/L	9.97	500.	12/ 2/03	9:19	K. Burritt	8011	950

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	105.	70. - 133.
VOA Surr Toluene-d8	94.	76. - 123.
VOA Surr, 4-BFB	112.	71. - 132.
VOA Surr, DBFM	109.	74. - 128.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A185594
Sample ID: MW-24
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Renamed MW-25

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE M. KELLY

Lab Number: 03-A170964
Sample ID: PW-2
Sample Type: Water
Site ID:

Date Collected: 10/29/03
Time Collected: 17:20
Date Received: 11/ 1/03
Time Received: 8:15
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	10300	ug/L	500.	500.	11/ 6/03	18:13	S. Udeze	8260B	2692
Toluene	37400	ug/L	500.	500.	11/ 6/03	18:13	S. Udeze	8260B	2692
Ethylbenzene	3300	ug/L	50.0	50.0	11/ 6/03	17:45	S. Udeze	8260B	2672
Xylenes (Total)	17600	ug/L	50.0	50.0	11/ 6/03	17:45	S. Udeze	8260B	2672
Methyl-t-butyl ether	80.0	ug/L	50.0	50.0	11/ 6/03	17:45	S. Udeze	8260B	2672
Naphthalene	1080	ug/L	250.	50.0	11/ 6/03	17:45	S. Udeze	8260B	2672
VOLATILE ORGANICS by GC									
Ethylene Dibromide	<0.02	ug/L	0.02	1.0	11/ 6/03	4:17	K. Burritt	8011	8379

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	102.	70. - 133.
VOA Surr Toluene-d8	99.	76. - 123.
VOA Surr, 4-BFB	97.	71. - 132.
VOA Surr, DBFM	99.	74. - 128.
Surr., 1,3-DCB	101.	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Renamed MW-25

ANALYTICAL REPORT

Laboratory Number: 03-A170964
Sample ID: PW-2
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE KELLY

Lab Number: 03-A185595
Sample ID: MW-26
Sample Type: Water
Site ID:

Date Collected: 11/25/03
Time Collected: 14:07
Date Received: 11/26/03
Time Received: 9:30
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	<1.0	ug/L	1.0	1.0	11/30/03	19:25	M.Himelick	8260B	1428
Toluene	<1.0	ug/L	1.0	1.0	11/30/03	19:25	M.Himelick	8260B	1428
Ethylbenzene	<1.0	ug/L	1.0	1.0	11/30/03	19:25	M.Himelick	8260B	1428
Xylenes (Total)	<1.0	ug/L	1.0	1.0	11/30/03	19:25	M.Himelick	8260B	1428
Methyl-t-butyl ether	<1.0	ug/L	1.0	1.0	11/30/03	19:25	M.Himelick	8260B	1428
Naphthalene	<5.00	ug/L	5.00	1.0	11/30/03	19:25	M.Himelick	8260B	1428
VOLATILE ORGANICS by GC									
Ethylene Dibromide	0.05	ug/L	0.02	1.0	12/ 1/03	13:31	K. Burritt	8011	950

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	116.	70. - 133.
VOA Surr Toluene-d8	116.	76. - 123.
VOA Surr, 4-BFB	110.	71. - 132.
VOA Surr, DBFM	104.	74. - 128.
Surr., 1,3-DCB	124.	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A185595
Sample ID: MW-26
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE M. KELLY

Lab Number: 03-A170963
Sample ID: PW-1
Sample Type: Water
Site ID:

Date Collected: 10/29/03
Time Collected: 15:55
Date Received: 11/ 1/03
Time Received: 8:15

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	3230	ug/L	100.	100.	11/ 7/03	9:47	S. Udeze	8260B	2703
Toluene	90.0	ug/L	1.0	1.0	11/ 5/03	4:57	S. Udeze	8260B	774
Ethylbenzene	343.	ug/L	10.0	10.0	11/ 6/03	18:52	S. Udeze	8260B	2657
Xylenes (Total)	924.	ug/L	10.0	10.0	11/ 6/03	18:52	S. Udeze	8260B	2657
Methyl-t-butyl ether	1850	ug/L	100.	100.	11/ 7/03	9:47	S. Udeze	8260B	2703
Naphthalene	290.	ug/L	50.0	10.0	11/ 6/03	18:52	S. Udeze	8260B	2657
VOLATILE ORGANICS by GC									
Ethylene Dibromide	<0.02	ug/L	0.02	1.0	11/ 6/03	3:59	K. Burritt	8011	8379

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	115.	70. - 133.
VOA Surr Toluene-d8	96.	76. - 123.
VOA Surr, 4-BFB	99.	71. - 132.
VOA Surr, DBFM	106.	74. - 128.
Surr., 1,3-DCB	89.0	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A170963
Sample ID: PW-1
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON'S/FAST
Sampler: KATHERINE KELLY

Lab Number: 03-A169035
Sample ID: DMW-1
Sample Type: Water
Site ID:

Date Collected: 10/27/03
Time Collected: 13:17
Date Received: 10/29/03
Time Received: 9:50
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	<1.0	ug/L	1.0	1.0	11/ 4/03	16:43	C.Reinbold	8260B	416
Toluene	4.1	ug/L	1.0	1.0	11/ 4/03	16:43	C.Reinbold	8260B	416
Ethylbenzene	1.7	ug/L	1.0	1.0	11/ 4/03	16:43	C.Reinbold	8260B	416
Xylenes (Total)	9.3	ug/L	1.0	1.0	11/ 4/03	16:43	C.Reinbold	8260B	416
Methyl-t-butyl ether	<1.0	ug/L	1.0	1.0	11/ 4/03	16:43	C.Reinbold	8260B	416
Naphthalene	< 5.00	ug/L	5.00	1.0	11/ 4/03	16:43	C.Reinbold	8260B	416
VOLATILE ORGANICS by GC									
Ethylene Dibromide	<0.02	ug/L	0.02	1.0	10/30/03	18:23	K. Burritt	8011	5516

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	97.	70. - 133.
VOA Surr Toluene-d8	96.	76. - 123.
VOA Surr, 4-BFB	99.	71. - 132.
VOA Surr, DBFM	100.	74. - 128.
Surr., 1,3-DCB	115.	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A169035
Sample ID: DMW-1
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON'S/FAST
Sampler: KATHERINE KELLY

Lab Number: 03-A169036
Sample ID: DMW-2
Sample Type: Water
Site ID:

Date Collected: 10/27/03
Time Collected: 13:45
Date Received: 10/29/03
Time Received: 9:50
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	2.0	ug/L	1.0	1.0	11/ 4/03	21:30	C.Reinbold	8260B	416
Toluene	1.6	ug/L	1.0	1.0	11/ 4/03	21:30	C.Reinbold	8260B	416
Ethylbenzene	<1.0	ug/L	1.0	1.0	11/ 4/03	21:30	C.Reinbold	8260B	416
Xylenes (Total)	1.6	ug/L	1.0	1.0	11/ 4/03	21:30	C.Reinbold	8260B	416
Methyl-t-butyl ether	4.6	ug/L	1.0	1.0	11/ 4/03	21:30	C.Reinbold	8260B	416
Naphthalene	< 5.00	ug/L	5.00	1.0	11/ 4/03	21:30	C.Reinbold	8260B	416
VOLATILE ORGANICS by GC									
Ethylene Dibromide	<0.02	ug/L	0.02	1.0	10/30/03	18:38	K. Burritt	8011	5516

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	101.	70. - 133.
VOA Surr Toluene-d8	96.	76. - 123.
VOA Surr, 4-BFB	101.	71. - 132.
VOA Surr, DBFM	102.	74. - 128.
Surr., 1,3-DCB	115.	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A169036
Sample ID: DMW-2
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/12352
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: OWEN ASTWOOD

Lab Number: 04-A295
Sample ID: DMW-3
Sample Type: Water
Site ID:

Date Collected: 12/30/03
Time Collected: 17:00
Date Received: 1/ 3/04
Time Received: 8:10
Page: 1

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	7160	ug/L	100.	100.	1/ 5/04	18:49	S. Roberts	8260B	1213
Toluene	5320	ug/L	100.	100.	1/ 5/04	18:49	S. Roberts	8260B	1216
Ethylbenzene	1130	ug/L	10.0	10.0	1/ 5/04	18:17	S. Roberts	8260B	1213
Xylenes (Total)	2660	ug/L	10.0	10.0	1/ 5/04	18:17	S. Roberts	8260B	1213
Methyl-t-butyl ether	2260	ug/L	100.	100.	1/ 5/04	18:49	S. Roberts	8260B	1216
Naphthalene	256.	ug/L	50.0	10.0	1/ 5/04	18:17	S. Roberts	8260B	1213
VOLATILE ORGANICS by GC									
Ethylene Dibromide	0.05	ug/L	0.02	1.0	1/ 5/04	11:21	K. Burritt	8011	89

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	85.	71. - 128.
VOA Surr Toluene-d8	93.	77. - 119.
VOA Surr, 4-BFB	95.	79. - 123.
VOA Surr, DBFM	88.	78. - 124.
Surr., 1,3-DCB	91.0	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 04-A295
Sample ID: DMW-3
Project: 07777/12352

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.
Removed a U flag that should not have been reported with Benzene 1-21-04.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

Project: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Sampler: KATHERINE M. KELLY/OWEN

Lab Number: 03-A181755
Sample ID: CREEK
Sample Type: Water
Site ID: COLUMBIA

Date Collected: 11/18/03
Time Collected: 12:30
Date Received: 11/20/03
Time Received: 9:15

Analyte	Result	Units	Report Limit	Dil Factor	Analysis Date	Analysis Time	Analyst	Method	Batch
VOLATILE ORGANICS									
Benzene	<1.0	ug/L	1.0	1.0	11/25/03	12:09	J.Haley	8260B	9000
Toluene	<1.0	ug/L	1.0	1.0	11/25/03	12:09	J.Haley	8260B	9000
Ethylbenzene	<1.0	ug/L	1.0	1.0	11/25/03	12:09	J.Haley	8260B	9000
Xylenes (Total)	<1.0	ug/L	1.0	1.0	11/25/03	12:09	J.Haley	8260B	9000
Methyl-t-butyl ether	1.0	ug/L	1.0	1.0	11/25/03	12:09	J.Haley	8260B	9000
Naphthalene	< 5.00	ug/L	5.00	1.0	11/25/03	12:09	J.Haley	8260B	9000
VOLATILE ORGANICS by GC									
Ethylene Dibromide	0.04	ug/L	0.02	1.0	11/21/03	17:42	K. Burritt	8011	3607

Surrogate	% Recovery	Target Range
VOA Surr 1,2-DCA-d4	117.	70. - 133.
VOA Surr Toluene-d8	100.	76. - 123.
VOA Surr, 4-BFB	114.	71. - 132.
VOA Surr, DBFM	108.	74. - 128.
Surr., 1,3-DCB	115.	86. - 158.

Sample report continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ANALYTICAL REPORT

Laboratory Number: 03-A181755
Sample ID: CREEK
Project: 07777/07584

LABORATORY COMMENTS:
ND = Not detected at the report limit.
B = Analyte was detected in the method blank.
J = Estimated Value below Report Limit.
E = Estimated Value above the calibration limit of the instrument.
# = Recovery outside Laboratory historical or method prescribed limits.

End of Sample Report.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

11/ 5/03 CASE NARRATIVE

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: CLOUD'S CHEVRON'S/FAST
Project Number: 07777/07584.
Laboratory Project Number: 352100.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accredidation.

Sample Identification	Lab Number	Collection Date
DMW-1	03-A169035	10/27/03
DMW-2	03-A169036	10/27/03
MW-3	03-A169037	10/27/03
MW-5	03-A169038	10/27/03
MW-5A	03-A169039	10/27/03

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: Roxanne L Connor Report Date: 11/ 5/03

Ashley Morris, Lab Director
Michael H. Dunn, M.S., QA/QC Director
Johnny A. Mitchell, Operations Manager Organics
Eric S. Smith, Assistant Technical Director
Roxanne L. Connor, Technical Services
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 84009

his material is intended only for the use of the individual(s) or entity to whom it is addressed,
nd may contain information that is privileged and confidential. If you are not the intended recipient,
r the employee or agent responsible for delivering this material to the intended recipient, you are
ereby notified that any dissemination, distribution, or copying of this material is strictly prohibited.
f you have received this material in error, please notify us immediately at 615-726-0177.

TestAmerica
INCORPORATED

Sample NonConformance/COC Revision Form

Initiated by:	Sgracey	**Phone:**		NC Closed	☑
Client Name:	FORCE & ASSOCI	**Sample Range:**	181745-55	Date Closed	11/25/2003
Client Contact:		**SDG:**	354939		
Client Account:	6883	**Analyst:**	GRACEY		
Date Created:	11/20/2003	**Supervisor:**			
NC #:	181755	**NC Type:**	NC Analytical 1		
Project Name:	CLOUD'S CHEVRON/FA	**Terminal Manager:**			
Project Number:	07777/07584				
Project Origin					
Regulatory :					

Process: Other NC/Process: See Comment Section Below — **Corrected By:** Randall Woodlee

Action: Run — **Closed:** ☑ Cgartner

Comments:

Comment added by: Sgracey on 11/25/2003 2:43:08 PM
NC closed with out comments

****

Comment added by: Cgartner on 11/25/2003 12:10:31 PM
Process Closed without Comment

****

Comment added by: Cgartner on 11/24/2003 1:40:55 PM
Refaxed Columbia Service Center

****

Comment added by: Rwoodlee on 11/20/2003 3:56:57 PM
Belongs to Cathy Gartner

****

GOT 3 EXTRA SAMPLES THAT I ADDED TO END OF COC. MW-13,16 AND CREEK. RUN?

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

12/ 1/03 CASE NARRATIVE

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: CLOUD'S CHEVRON/FAST POI
Project Number: 07777/07584.
Laboratory Project Number: 354939.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accredidation.

Sample Identification	Lab Number	Collection Date
MW-1	03-A181745	11/18/03
MW-2	03-A181746	11/18/03
MW-4	03-A181747	11/18/03
MW-6	03-A181748	11/18/03
MW-7	03-A181749	11/18/03
MW-8	03-A181750	11/18/03
MW-11	03-A181751	11/18/03
MW-12	03-A181752	11/18/03
MW-13	03-A181753	11/18/03
MW-16	03-A181754	11/18/03
CREEK	03-A181755	11/18/03

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: _____ Report Date: 12/ 1/03

Ashley Morris, Lab Director
Michael H. Dunn, M.S., QA/QC Director
Johnny A. Mitchell, Operations Manager Organics
Eric S. Smith, Assistant Technical Director
Roxanne L. Connor, Technical Services
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 84009

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

11/ 7/03 CASE NARRATIVE

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: CLOUD'S CHEVRON/FAST POI
Project Number: 07777/07584.
Laboratory Project Number: 352525.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accredidation.

Sample Identification	Lab Number	Collection Date
MW-20	03-A170961	10/29/03
MW-21	03-A170962	10/29/03
PW-1	03-A170963	10/29/03
PW-2	03-A170964	10/29/03

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By:  Report Date: 11/ 7/03

Ashley Morris, Lab Director
Michael H. Dunn, M.S., QA/QC Director
Johnny A. Mitchell, Operations Manager Organics
Eric S. Smith, Assistant Technical Director
Roxanne L. Connor, Technical Services
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 84009

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

12/ 2/03 CASE NARRATIVE

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: CLOUD'S CHEVRON/FAST POI
Project Number: 07777/07584.
Laboratory Project Number: 355812.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accredidation.

Sample Identification	Lab Number	Collection Date
MW-22	03-A185592	11/25/03
MW-23	03-A185593	11/25/03
MW-24	03-A185594	11/25/03
MW-26	03-A185595	11/25/03

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory.

Report Approved By: [signature] Report Date: 12/ 2/03

Ashley Morris, Lab Director
Michael H. Dunn, M.S., QA/QC Director
Johnny A. Mitchell, Operations Manager Organics
Eric S. Smith, Assistant Technical Director
Roxanne L. Connor, Technical Services
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 84009

This material is intended only for the use of the individual(s) or entity to whom it is addressed, and may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

1/21/04 CASE NARRATIVE

FORCE & ASSOCIATES 6883
GREG FORCE
147 VERA ROAD, SUITE F
LEXINGTON, SC 29072

This report includes the analytical certificates of analysis for all samples listed below. These samples relate to your project identified below:

Project Name: CLOUD'S CHEVRON/FAST POI
Project Number: 07777/12352.
Laboratory Project Number: 359461.

An executed copy of the chain of custody, the project quality control data, and the sample receipt form are also included as an addendum to this report. Any QC recoveries outside laboratory control limits are flagged individually with an #. Sample specific comments and quality control statements are included in the Laboratory notes section of the analytical report for each sample report. If you have any questions relating to this analytical report, please contact your Laboratory Project Manager at 1-800-765-0980. Any opinions, if expressed, are outside the scope of the Laboratory's accredidation.

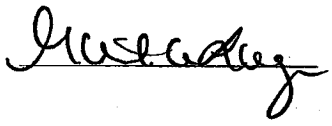
Sample Identification	Lab Number	Collection Date
DMW-3	04-A295	12/30/03

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

Sample Identification	Lab Number	Collection Date

These results relate only to the items tested.
This report shall not be reproduced except in full and with permission of the laboratory. This is a re-issued report.

Report Approved By: 

Report Date: 1/21/04
Revised Report Date

Ashley Morris, Lab Director
Michael H. Dunn, M.S., QA/QC Director
Johnny A. Mitchell, Operations Manager Organics
Eric S. Smith, Assistant Technical Director
Roxanne L. Connor, Technical Services
Gail A. Lage, Technical Serv.
Glenn L. Norton, Technical Serv.
Kelly S. Comstock, Technical Serv.
Pamela A. Langford, Technical Serv.

Laboratory Certification Number: 84009

This material is intended only for the use of the individual(s) or entity to whom it is addressed, it may contain information that is privileged and confidential. If you are not the intended recipient, or the employee or agent responsible for delivering this material to the intended recipient, you are hereby notified that any dissemination, distribution, or copying of this material is strictly prohibited. If you have received this material in error, please notify us immediately at 615-726-0177.

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

'ROJECT QUALITY CONTROL DATA
'roject Number: 07777/07584
'roject Name: CLOUD'S CHEVRON'S/FAST
'age: 1
;aboratory Receipt Date: 10/29/03

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/l	< 0.0005	0.0542	0.0500	108	68 - 136	416	BLANK
Benzene	mg/l	< 0.0005	0.0483	0.0500	97	68 - 136	9103	blank
Toluene	mg/l	< 0.0006	0.0499	0.0500	100	73 - 133	416	BLANK
Toluene	mg/l	< 0.0006	0.0481	0.0500	96	73 - 133	9103	blank
Toluene	mg/l	< 0.0006	0.0566	0.0500	113	73 - 133	9640	03A169455
VOA Surr 1,2-DCA-d4	% Rec				99	70 - 133	416	
VOA Surr 1,2-DCA-d4	% Rec				90	70 - 133	9640	
VOA Surr Toluene-d8	% Rec				96	76 - 123	416	
VOA Surr Toluene-d8	% Rec				102	76 - 123	9640	
VOA Surr, 4-BFB	% Rec				95	71 - 132	416	
VOA Surr, 4-BFB	% Rec				89	71 - 132	9640	
VOA Surr, DBFM	% Rec				102	74 - 128	416	
VOA Surr, DBFM	% Rec				94	74 - 128	9640	
Ethylene Dibromide	mg/l	< 0.00002	0.00029	0.00029	100	40 - 140	5516	03-A166973

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 07777/07584
Project Name: CLOUD'S CHEVRON'S/FAST
Page: 2
Laboratory Receipt Date: 10/29/03

VOA PARAMETERS						
Benzene	mg/l	0.0483	0.0474	1.88	22.	9103
Benzene	mg/l	0.0542	0.0542	0.00	22.	416
Toluene	mg/l	0.0481	0.0457	5.12	22.	9103
Toluene	mg/l	0.0566	0.0558	1.42	22.	9640
Toluene	mg/l	0.0499	0.0504	1.00	22.	416
VOA Surr 1,2-DCA-d4	% Rec		92.			9640
VOA Surr 1,2-DCA-d4	% Rec		98.			416
VOA Surr Toluene-d8	% Rec		101.			9640
VOA Surr Toluene-d8	% Rec		95.			416
VOA Surr, 4-BFB	% Rec		85.			9640
VOA Surr, 4-BFB	% Rec		95.			416
VOA Surr, DBFM	% Rec		95.			9640
VOA Surr, DBFM	% Rec		102.			416
MISC PARAMETERS						
Ethylene Dibromide	mg/l	0.00029	0.00032	9.84	50	5516

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0500	0.0480	96	78 - 125	9103
Benzene	mg/l	0.0500	0.0634	127 #	78 - 125	416
Ethylbenzene	mg/l	0.0500	0.0536	107	79 - 125	9103
Ethylbenzene	mg/l	0.0500	0.0536	107	79 - 125	9115
Ethylbenzene	mg/l	0.0500	0.0601	120	79 - 125	416
Naphthalene	mg/l	0.0500	0.0531	106	62 - 142	8721
Naphthalene	mg/l	0.0500	0.0499	100	62 - 142	9103
Naphthalene	mg/l	0.0500	0.0634	127	62 - 142	416
Toluene	mg/l	0.0500	0.0484	97	79 - 125	9103
Toluene	mg/l	0.0500	0.0484	97	79 - 125	9115
Toluene	mg/l	0.0500	0.0593	119	79 - 125	416

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 07777/07584
Project Name: CLOUD'S CHEVRON'S/FAST
Page: 3
Laboratory Receipt Date: 10/29/03

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Toluene	mg/l	0.0500	0.0550	110	79 - 125	9640
Xylenes (Total)	mg/l	0.150	0.161	107	78 - 127	9103
Xylenes (Total)	mg/l	0.150	0.161	107	78 - 127	9115
Xylenes (Total)	mg/l	0.150	0.181	121	78 - 127	416
Methyl-t-butyl ether	mg/l	0.0500	0.0475	95	71 - 135	8714
Methyl-t-butyl ether	mg/l	0.0500	0.0494	99	71 - 135	8714
Methyl-t-butyl ether	mg/l	0.0500	0.0499	100	71 - 135	8721
Methyl-t-butyl ether	mg/l	0.0500	0.0645	129	71 - 135	416
Methyl-t-butyl ether	mg/l	0.0500	0.0444	89	71 - 135	9640
Ethylene Dibromide	mg/l	0.00029	0.00029	100	81 - 137	5516
VOA Surr 1,2-DCA-d4	% Rec			90	70 - 133	9115
VOA Surr 1,2-DCA-d4	% Rec			96	70 - 133	416
VOA Surr 1,2-DCA-d4	% Rec			91	70 - 133	9640
VOA Surr Toluene-d8	% Rec			100	76 - 123	9115
VOA Surr Toluene-d8	% Rec			96	76 - 123	416
VOA Surr Toluene-d8	% Rec			104	76 - 123	9640
VOA Surr, 4-BFB	% Rec			104	71 - 132	9115
VOA Surr, 4-BFB	% Rec			93	71 - 132	416
VOA Surr, 4-BFB	% Rec			88	71 - 132	9640
VOA Surr, DBFM	% Rec			95	74 - 128	9115
VOA Surr, DBFM	% Rec			101	74 - 128	416
VOA Surr, DBFM	% Rec			98	74 - 128	9640

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 07777/07584
Project Name: CLOUD'S CHEVRON'S/FAST
Page: 4
Laboratory Receipt Date: 10/29/03

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Benzene	< 0.0005	mg/l	9103	11/ 3/03	13:17
Benzene	< 0.0005	mg/l	416	11/ 4/03	14:39
Ethylbenzene	< 0.0003	mg/l	9103	11/ 3/03	13:17
Ethylbenzene	< 0.0003	mg/l	9115	11/ 3/03	13:17
Ethylbenzene	< 0.0003	mg/l	416	11/ 4/03	14:39
Naphthalene	0.00370	mg/l	8721	11/ 1/03	22:36
Naphthalene	0.00350	mg/l	9103	11/ 3/03	13:17
Naphthalene	< 0.00120	mg/l	416	11/ 4/03	14:39
Toluene	< 0.0006	mg/l	9103	11/ 3/03	13:17
Toluene	< 0.0006	mg/l	9115	11/ 3/03	13:17
Toluene	< 0.0006	mg/l	416	11/ 4/03	14:39
Toluene	< 0.0006	mg/l	9640	11/ 4/03	12:05
Xylenes (Total)	< 0.0009	mg/l	9103	11/ 3/03	13:17
Xylenes (Total)	< 0.0009	mg/l	9115	11/ 3/03	13:17
Xylenes (Total)	< 0.0009	mg/l	416	11/ 4/03	14:39
Methyl-t-butyl ether	< 0.0005	mg/l	8714	11/ 1/03	3:09
Methyl-t-butyl ether	< 0.0005	mg/l	8714	11/ 1/03	9:48
Methyl-t-butyl ether	< 0.0005	mg/l	8721	11/ 1/03	22:36
Methyl-t-butyl ether	< 0.0005	mg/l	416	11/ 4/03	14:39
Methyl-t-butyl ether	< 0.0005	mg/l	9640	11/ 4/03	12:05
VOA Surr 1,2-DCA-d4	102.	% Rec	9115	11/ 3/03	13:17
VOA Surr 1,2-DCA-d4	98.	% Rec	416	11/ 4/03	14:39
VOA Surr 1,2-DCA-d4	93.	% Rec	9640	11/ 4/03	12:05
VOA Surr Toluene-d8	95.	% Rec	9115	11/ 3/03	13:17
VOA Surr Toluene-d8	95.	% Rec	416	11/ 4/03	14:39
VOA Surr Toluene-d8	101.	% Rec	9640	11/ 4/03	12:05
VOA Surr, 4-BFB	101.	% Rec	9115	11/ 3/03	13:17

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

'ROJECT QUALITY CONTROL DATA
'roject Number: 07777/07584
'roject Name: CLOUD'S CHEVRON'S/FAST
'age: 5
aboratory Receipt Date: 10/29/03

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
VOA Surr, 4-BFB	99.	% Rec	416	11/ 4/03	14:39
VOA Surr, 4-BFB	90.	% Rec	9640	11/ 4/03	12:05
VOA Surr, DBFM	101.	% Rec	9115	11/ 3/03	13:17
VOA Surr, DBFM	100.	% Rec	416	11/ 4/03	14:39
VOA Surr, DBFM	94.	% Rec	9640	11/ 4/03	12:05
Ethylene Dibromide	< 0.00002	mg/l	5516	10/30/03	13:56

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 352100

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Page: 1
Laboratory Receipt Date: 11/26/03

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/l	< 0.0005	0.0459	0.0500	92	68 - 136	1428	blank
Benzene	mg/l	< 0.0005	0.0624	0.0500	125	68 - 136	1487	blank
Toluene	mg/l	< 0.0006	0.0508	0.0500	102	73 - 133	1428	blank
Toluene	mg/l	< 0.0006	0.0506	0.0500	101	73 - 133	1487	blank
VOA Surr 1,2-DCA-d4	% Rec				113	70 - 133	1457	
VOA Surr 1,2-DCA-d4	% Rec				113	70 - 133	1487	
VOA Surr Toluene-d8	% Rec				97	76 - 123	1457	
VOA Surr Toluene-d8	% Rec				97	76 - 123	1487	
VOA Surr, 4-BFB	% Rec				107	71 - 132	1457	
VOA Surr, 4-BFB	% Rec				107	71 - 132	1487	
VOA Surr, DBFM	% Rec				112	74 - 128	1457	
VOA Surr, DBFM	% Rec				112	74 - 128	1487	
Ethylene Dibromide	mg/l	< 0.00002	0.00030	0.00029	103	40 - 140	950	03-A185592

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ROJECT QUALITY CONTROL DATA
roject Number: 07777/07584
roject Name: CLOUD'S CHEVRON/FAST POI
age: 2
aboratory Receipt Date: 11/26/03

VOA PARAMETERS						
Benzene	mg/l	0.0459	0.0480	4.47	22.	1428
Benzene	mg/l	0.0624	0.0631	1.12	22.	1487
Toluene	mg/l	0.0508	0.0540	6.11	22.	1428
Toluene	mg/l	0.0506	0.0496	2.00	22.	1487
VOA Surr 1,2-DCA-d4	% Rec		113.			1457
VOA Surr 1,2-DCA-d4	% Rec		113.			1487
VOA Surr Toluene-d8	% Rec		94.			1457
VOA Surr Toluene-d8	% Rec		94.			1487
VOA Surr, 4-BFB	% Rec		106.			1457
VOA Surr, 4-BFB	% Rec		106.			1487
VOA Surr, DBFM	% Rec		112.			1457
VOA Surr, DBFM	% Rec		112.			1487
MISC PARAMETERS						
Ethylene Dibromide	mg/l	0.00030	0.00020	40.00	50	950

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0500	0.0615	123	78 - 125	1487
Benzene	mg/l	0.0500	0.0475	95	78 - 125	1428
Ethylbenzene	mg/l	0.0500	0.0480	96	79 - 125	1457
Ethylbenzene	mg/l	0.0500	0.0480	96	79 - 125	1487
Ethylbenzene	mg/l	0.0500	0.0521	104	79 - 125	1428
Naphthalene	mg/l	0.0500	0.0540	108	62 - 142	1457
Naphthalene	mg/l	0.0500	0.0557	111	62 - 142	1428
Toluene	mg/l	0.0500	0.0494	99	79 - 125	1487
Toluene	mg/l	0.0500	0.0533	107	79 - 125	1428
Xylenes (Total)	mg/l	0.150	0.148	99	78 - 127	1457
Xylenes (Total)	mg/l	0.150	0.148	99	78 - 127	1487
Xylenes (Total)	mg/l	0.150	0.162	108	78 - 127	1428

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Page: 3
Laboratory Receipt Date: 11/26/03

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
Methyl-t-butyl ether	mg/l	0.0500	0.0603	121	71 - 135	1457
Methyl-t-butyl ether	mg/l	0.0500	0.0485	97	71 - 135	1428
Ethylene Dibromide	mg/l	0.00029	0.00028	97	81 - 137	950
VOA Surr 1,2-DCA-d4	% Rec			100	70 - 133	1457
VOA Surr 1,2-DCA-d4	% Rec			100	70 - 133	1487
VOA Surr Toluene-d8	% Rec			93	76 - 123	1457
VOA Surr Toluene-d8	% Rec			93	76 - 123	1487
VOA Surr, 4-BFB	% Rec			109	71 - 132	1457
VOA Surr, 4-BFB	% Rec			109	71 - 132	1487
VOA Surr, DBFM	% Rec			108	74 - 128	1457
VOA Surr, DBFM	% Rec			108	74 - 128	1487

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Page: 4
Laboratory Receipt Date: 11/26/03

VOA PARAMETERS					
Benzene	< 0.0005	mg/l	1487	11/29/03	17:02
Benzene	< 0.0005	mg/l	1428	11/30/03	17:27
Ethylbenzene	< 0.0003	mg/l	1457	11/29/03	17:02
Ethylbenzene	< 0.0003	mg/l	1487	11/29/03	17:02
Ethylbenzene	< 0.0003	mg/l	1428	11/30/03	17:27
Naphthalene	< 0.00120	mg/l	1457	11/29/03	17:02
Naphthalene	< 0.00120	mg/l	1428	11/30/03	17:27
Toluene	< 0.0006	mg/l	1487	11/29/03	17:02
Toluene	< 0.0006	mg/l	1428	11/30/03	17:27
Xylenes (Total)	< 0.0009	mg/l	1457	11/29/03	17:02
Xylenes (Total)	< 0.0009	mg/l	1487	11/29/03	17:02
Xylenes (Total)	< 0.0009	mg/l	1428	11/30/03	17:27
Methyl-t-butyl ether	< 0.0005	mg/l	1457	11/29/03	17:02
Methyl-t-butyl ether	< 0.0005	mg/l	1428	11/30/03	17:27
VOA Surr 1,2-DCA-d4	108.	% Rec	1457	11/29/03	17:02
VOA Surr 1,2-DCA-d4	108.	% Rec	1487	11/29/03	17:02
VOA Surr Toluene-d8	94.	% Rec	1457	11/29/03	17:02
VOA Surr Toluene-d8	94.	% Rec	1487	11/29/03	17:02
VOA Surr, 4-BFB	118.	% Rec	1457	11/29/03	17:02
VOA Surr, 4-BFB	118.	% Rec	1487	11/29/03	17:02
VOA Surr, DBFM	111.	% Rec	1457	11/29/03	17:02
VOA Surr, DBFM	111.	% Rec	1487	11/29/03	17:02
Ethylene Dibromide	< 0.00002	mg/l	950	12/ 1/03	11:08

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 355812

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Page: 1
Laboratory Receipt Date: 11/20/03

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/l	< 0.0005	0.0540	0.0500	108	68 - 136	8900	blank
Benzene	mg/l	< 0.0005	0.0572	0.0500	114	68 - 136	234	blank
Benzene	mg/l	< 0.0005	0.0572	0.0500	114	68 - 136	9000	blank
Toluene	mg/l	< 0.0006	0.0481	0.0500	96	73 - 133	8900	blank
Toluene	mg/l	< 0.0006	0.0483	0.0500	97	73 - 133	234	blank
Toluene	mg/l	< 0.0006	0.0483	0.0500	97	73 - 133	9000	blank
VOA Surr 1,2-DCA-d4	% Rec				113	70 - 133	8900	
VOA Surr 1,2-DCA-d4	% Rec				114	70 - 133	234	
VOA Surr 1,2-DCA-d4	% Rec				114	70 - 133	9000	
VOA Surr Toluene-d8	% Rec				102	76 - 123	8900	
VOA Surr Toluene-d8	% Rec				98	76 - 123	234	
VOA Surr Toluene-d8	% Rec				98	76 - 123	9000	
VOA Surr, 4-BFB	% Rec				108	71 - 132	8900	
VOA Surr, 4-BFB	% Rec				106	71 - 132	234	
VOA Surr, 4-BFB	% Rec				106	71 - 132	9000	
VOA Surr, DBFM	% Rec				109	74 - 128	8900	
VOA Surr, DBFM	% Rec				109	74 - 128	234	
VOA Surr, DBFM	% Rec				109	74 - 128	9000	
Ethylene Dibromide	mg/l	< 0.00002	0.00032	0.00029	110	40 - 140	3607	03-A181745

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ROJECT QUALITY CONTROL DATA
roject Number: 07777/07584
roject Name: CLOUD'S CHEVRON/FAST POI
age: 2
aboratory Receipt Date: 11/20/03

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0540	0.0579	6.97	22.	8900
Benzene	mg/l	0.0572	0.0573	0.17	22.	234
Benzene	mg/l	0.0572	0.0573	0.17	22.	9000
Toluene	mg/l	0.0481	0.0510	5.85	22.	8900
Toluene	mg/l	0.0483	0.0479	0.83	22.	234
Toluene	mg/l	0.0483	0.0479	0.83	22.	9000
VOA Surr 1,2-DCA-d4	% Rec		112.			8900
VOA Surr 1,2-DCA-d4	% Rec		114.			234
VOA Surr 1,2-DCA-d4	% Rec		114.			9000
VOA Surr Toluene-d8	% Rec		101.			8900
VOA Surr Toluene-d8	% Rec		97.			234
VOA Surr Toluene-d8	% Rec		97.			9000
VOA Surr, 4-BFB	% Rec		106.			8900
VOA Surr, 4-BFB	% Rec		106.			234
VOA Surr, 4-BFB	% Rec		106.			9000
VOA Surr, DBFM	% Rec		110.			8900
VOA Surr, DBFM	% Rec		110.			234
VOA Surr, DBFM	% Rec		110.			9000
MISC PARAMETERS						
Ethylene Dibromide	mg/l	0.00032	0.00035	8.96	50	3607

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Page: 3
Laboratory Receipt Date: 11/20/03

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0500	0.0551	110	78 - 125	8900
Benzene	mg/l	0.0500	0.0583	117	78 - 125	9000
Benzene	mg/l	0.0500	0.0583	117	78 - 125	9025
Benzene	mg/l	0.0500	0.0545	109	78 - 125	234
Benzene	mg/l	0.0500	0.0615	123	78 - 125	687
Ethylbenzene	mg/l	0.0500	0.0485	97	79 - 125	8900
Ethylbenzene	mg/l	0.0500	0.0502	100	79 - 125	9000
Ethylbenzene	mg/l	0.0500	0.0461	92	79 - 125	234
Naphthalene	mg/l	0.0500	0.0439	88	62 - 142	8900
Naphthalene	mg/l	0.0500	0.0526	105	62 - 142	9000
Naphthalene	mg/l	0.0500	0.0477	95	62 - 142	234
Toluene	mg/l	0.0500	0.0502	100	79 - 125	8900
Toluene	mg/l	0.0500	0.0517	103	79 - 125	9000
Toluene	mg/l	0.0500	0.0473	95	79 - 125	234
Toluene	mg/l	0.0500	0.0501	100	79 - 125	687
Xylenes (Total)	mg/l	0.150	0.150	100	78 - 127	8900
Xylenes (Total)	mg/l	0.150	0.154	103	78 - 127	9000
Xylenes (Total)	mg/l	0.150	0.144	96	78 - 127	234
Methyl-t-butyl ether	mg/l	0.0500	0.0542	108	71 - 135	8900
Methyl-t-butyl ether	mg/l	0.0500	0.0597	119	71 - 135	9000
Methyl-t-butyl ether	mg/l	0.0500	0.0572	114	71 - 135	234
Ethylene Dibromide	mg/l	0.00029	0.00031	107	81 - 137	3607

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Page: 4
Laboratory Receipt Date: 11/20/03

VOA Surr 1,2-DCA-d4	% Rec	108	70 - 133	8900
VOA Surr 1,2-DCA-d4	% Rec	112	70 - 133	9000
VOA Surr 1,2-DCA-d4	% Rec	112	70 - 133	9025
VOA Surr 1,2-DCA-d4	% Rec	110	70 - 133	234
VOA Surr 1,2-DCA-d4	% Rec	115	70 - 133	687
VOA Surr Toluene-d8	% Rec	102	76 - 123	8900
VOA Surr Toluene-d8	% Rec	101	76 - 123	9000
VOA Surr Toluene-d8	% Rec	101	76 - 123	9025
VOA Surr Toluene-d8	% Rec	101	76 - 123	234
VOA Surr Toluene-d8	% Rec	97	76 - 123	687
VOA Surr, 4-BFB	% Rec	107	71 - 132	8900
VOA Surr, 4-BFB	% Rec	106	71 - 132	9000
VOA Surr, 4-BFB	% Rec	106	71 - 132	9025
VOA Surr, 4-BFB	% Rec	106	71 - 132	234
VOA Surr, 4-BFB	% Rec	108	71 - 132	687
VOA Surr, DBFM	% Rec	107	74 - 128	8900
VOA Surr, DBFM	% Rec	108	74 - 128	9000
VOA Surr, DBFM	% Rec	108	74 - 128	9025
VOA Surr, DBFM	% Rec	109	74 - 128	234
VOA Surr, DBFM	% Rec	112	74 - 128	687

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Page: 5
Laboratory Receipt Date: 11/20/03

VOA PARAMETERS					
Benzene	< 0.0005	mg/l	234	11/24/03	21:34
Benzene	< 0.0005	mg/l	8900	11/24/03	9:06
Benzene	< 0.0005	mg/l	9000	11/25/03	9:39
Benzene	< 0.0005	mg/l	9025	11/25/03	9:39
Benzene	< 0.0005	mg/l	234	11/26/03	9:28
Benzene	< 0.0005	mg/l	687	11/28/03	11:45
Ethylbenzene	< 0.0003	mg/l	234	11/24/03	21:34
Ethylbenzene	< 0.0003	mg/l	8900	11/24/03	9:06
Ethylbenzene	< 0.0003	mg/l	9000	11/25/03	9:39
Ethylbenzene	< 0.0003	mg/l	234	11/26/03	9:28
Naphthalene	< 0.00120	mg/l	234	11/24/03	21:34
Naphthalene	< 0.00120	mg/l	8900	11/24/03	9:06
Naphthalene	< 0.00120	mg/l	9000	11/25/03	9:39
Naphthalene	< 0.00120	mg/l	234	11/26/03	9:28
Toluene	< 0.0006	mg/l	234	11/24/03	21:34
Toluene	< 0.0006	mg/l	8900	11/24/03	9:06
Toluene	< 0.0006	mg/l	9000	11/25/03	9:39
Toluene	< 0.0006	mg/l	234	11/26/03	9:28
Toluene	< 0.0006	mg/l	687	11/28/03	11:45
Xylenes (Total)	< 0.0009	mg/l	234	11/24/03	21:34
Xylenes (Total)	< 0.0009	mg/l	8900	11/24/03	9:06
Xylenes (Total)	< 0.0009	mg/l	9000	11/25/03	9:39
Xylenes (Total)	< 0.0009	mg/l	234	11/26/03	9:28
Methyl-t-butyl ether	< 0.0005	mg/l	234	11/24/03	21:34
Methyl-t-butyl ether	< 0.0005	mg/l	8900	11/24/03	9:06
Methyl-t-butyl ether	< 0.0005	mg/l	9000	11/25/03	9:39
Methyl-t-butyl ether	< 0.0005	mg/l	234	11/26/03	9:28
VOA Surr 1,2-DCA-d4	118.	% Rec	234	11/24/03	21:34
VOA Surr 1,2-DCA-d4	115.	% Rec	8900	11/24/03	9:06
VOA Surr 1,2-DCA-d4	117.	% Rec	9000	11/25/03	9:39
VOA Surr 1,2-DCA-d4	117.	% Rec	9025	11/25/03	9:39
VOA Surr 1,2-DCA-d4	117.	% Rec	234	11/26/03	9:28
VOA Surr 1,2-DCA-d4	116.	% Rec	687	11/28/03	11:45
VOA Surr Toluene-d8	99.	% Rec	234	11/24/03	21:34
VOA Surr Toluene-d8	97.	% Rec	8900	11/24/03	9:06

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

'ROJECT QUALITY CONTROL DATA
'roject Number: 07777/07584
'roject Name: CLOUD'S CHEVRON/FAST POI
'age: 6
aboratory Receipt Date: 11/20/03

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
VOA Surr Toluene-d8	98.	% Rec	9000	11/25/03	9:39
VOA Surr Toluene-d8	98.	% Rec	9025	11/25/03	9:39
VOA Surr Toluene-d8	98.	% Rec	234	11/26/03	9:28
VOA Surr Toluene-d8	95.	% Rec	687	11/28/03	11:45
VOA Surr, 4-BFB	113.	% Rec	234	11/24/03	21:34
VOA Surr, 4-BFB	114.	% Rec	8900	11/24/03	9:06
VOA Surr, 4-BFB	114.	% Rec	9000	11/25/03	9:39
VOA Surr, 4-BFB	114.	% Rec	9025	11/25/03	9:39
VOA Surr, 4-BFB	112.	% Rec	234	11/26/03	9:28
VOA Surr, 4-BFB	115.	% Rec	687	11/28/03	11:45
VOA Surr, DBFM	109.	% Rec	234	11/24/03	21:34
VOA Surr, DBFM	108.	% Rec	8900	11/24/03	9:06
VOA Surr, DBFM	109.	% Rec	9000	11/25/03	9:39
VOA Surr, DBFM	109.	% Rec	9025	11/25/03	9:39
VOA Surr, DBFM	109.	% Rec	234	11/26/03	9:28
VOA Surr, DBFM	110.	% Rec	687	11/28/03	11:45
Ethylene Dibromide	< 0.00002	mg/l	3607	11/21/03	10:31

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 354939

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Page: 1
Laboratory Receipt Date: 11/ 1/03

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
VOA PARAMETERS								
Benzene	mg/l	< 0.0005	0.0264	0.0500	53#	68 - 136	1650	blank
Toluene	mg/l	< 0.0006	0.0617	0.0500	123	73 - 133	774	blank
Ethylene Dibromide	mg/l	< 0.00002	0.00026	0.00029	90	40 - 140	8379	03-A170913

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0264	0.0265	0.38	22.	1650
Toluene	mg/l	0.0617	0.0551	11.30	22.	774
MISC PARAMETERS						
Ethylene Dibromide	mg/l	0.00026	0.00029	10.91	50	8379

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

ROJECT QUALITY CONTROL DATA
roject Number: 07777/07584
roject Name: CLOUD'S CHEVRON/FAST POI
age: 2
aboratory Receipt Date: 11/ 1/03

VOA PARAMETERS						
Benzene	mg/l	0.0500	0.0518	104	78 - 125	1650
Benzene	mg/l	0.0500	0.0506	101	78 - 125	2692
Benzene	mg/l	0.0500	0.0525	105	78 - 125	2703
Ethylbenzene	mg/l	0.0500	0.0529	106	79 - 125	1658
Ethylbenzene	mg/l	0.0500	0.0533	107	79 - 125	2657
Ethylbenzene	mg/l	0.0500	0.0444	89	79 - 125	2672
Naphthalene	mg/l	0.0500	0.0485	97	62 - 142	1650
Naphthalene	mg/l	0.0500	0.0386	77	62 - 142	2657
Naphthalene	mg/l	0.0500	0.0630	126	62 - 142	2672
Toluene	mg/l	0.0500	0.0505	101	79 - 125	774
Toluene	mg/l	0.0500	0.0496	99	79 - 125	774
Toluene	mg/l	0.0500	0.0513	103	79 - 125	1658
Toluene	mg/l	0.0500	0.0510	102	79 - 125	2692
Xylenes (Total)	mg/l	0.150	0.157	105	78 - 127	1658
Xylenes (Total)	mg/l	0.150	0.159	106	78 - 127	2657
Xylenes (Total)	mg/l	0.150	0.147	98	78 - 127	2672
Xylenes (Total)	mg/l	0.150	0.147	98	78 - 127	2692
Methyl-t-butyl ether	mg/l	0.0500	0.0530	106	71 - 135	1650
Methyl-t-butyl ether	mg/l	0.0500	0.0501	100	71 - 135	2672
Methyl-t-butyl ether	mg/l	0.0500	0.0501	100	71 - 135	2692
Methyl-t-butyl ether	mg/l	0.0500	0.0526	105	71 - 135	2703
Ethylene Dibromide	mg/l	0.00029	0.00029	100	81 - 137	8379
VOA Surr 1,2-DCA-d4	% Rec			97	70 - 133	1658
VOA Surr 1,2-DCA-d4	% Rec			104	70 - 133	2692
VOA Surr 1,2-DCA-d4	% Rec			112	70 - 133	2703
VOA Surr Toluene-d8	% Rec			99	76 - 123	1658
VOA Surr Toluene-d8	% Rec			101	76 - 123	2692
VOA Surr Toluene-d8	% Rec			97	76 - 123	2703
VOA Surr, 4-BFB	% Rec			100	71 - 132	1658
VOA Surr, 4-BFB	% Rec			96	71 - 132	2692
VOA Surr, 4-BFB	% Rec			100	71 - 132	2703
VOA Surr, DBFM	% Rec			100	74 - 128	1658
VOA Surr, DBFM	% Rec			102	74 - 128	2692
VOA Surr, DBFM	% Rec			108	74 - 128	2703

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Page: 3
Laboratory Receipt Date: 11/ 1/03

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Benzene	< 0.0005	mg/l	1650	11/ 6/03	7:30
Benzene	< 0.0005	mg/l	2692	11/ 6/03	13:40
Benzene	< 0.0005	mg/l	2703	11/ 7/03	9:18
Ethylbenzene	< 0.0003	mg/l	1658	11/ 6/03	7:30
Ethylbenzene	< 0.0003	mg/l	2657	11/ 6/03	18:00
Ethylbenzene	< 0.0003	mg/l	2672	11/ 6/03	13:40
Naphthalene	< 0.00120	mg/l	1650	11/ 6/03	7:30
Naphthalene	0.00350	mg/l	2657	11/ 6/03	18:00
Naphthalene	< 0.00120	mg/l	2672	11/ 6/03	13:40
Toluene	< 0.0006	mg/l	774	11/ 4/03	13:23
Toluene	0.0018	mg/l	774	11/ 5/03	1:11
Toluene	< 0.0006	mg/l	1658	11/ 6/03	7:30
Toluene	< 0.0006	mg/l	2692	11/ 6/03	13:40
Xylenes (Total)	< 0.0009	mg/l	1658	11/ 6/03	7:30
Xylenes (Total)	< 0.0009	mg/l	2657	11/ 6/03	18:00
Xylenes (Total)	< 0.0009	mg/l	2672	11/ 6/03	13:40
Xylenes (Total)	< 0.0009	mg/l	2692	11/ 6/03	13:40
Methyl-t-butyl ether	< 0.0005	mg/l	1650	11/ 6/03	7:30
Methyl-t-butyl ether	< 0.0005	mg/l	2672	11/ 6/03	13:40

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 07777/07584
Project Name: CLOUD'S CHEVRON/FAST POI
Page: 4
Laboratory Receipt Date: 11/ 1/03

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Analysis Date	Analysis Time
Methyl-t-butyl ether	< 0.0005	mg/l	2692	11/ 6/03	13:40
Methyl-t-butyl ether	< 0.0005	mg/l	2703	11/ 7/03	9:18
VOA Surr 1,2-DCA-d4	101.	% Rec	1658	11/ 6/03	7:30
VOA Surr 1,2-DCA-d4	103.	% Rec	2692	11/ 6/03	13:40
VOA Surr 1,2-DCA-d4	113.	% Rec	2703	11/ 7/03	9:18
VOA Surr Toluene-d8	99.	% Rec	1658	11/ 6/03	7:30
VOA Surr Toluene-d8	99.	% Rec	2692	11/ 6/03	13:40
VOA Surr Toluene-d8	97.	% Rec	2703	11/ 7/03	9:18
VOA Surr, 4-BFB	99.	% Rec	1658	11/ 6/03	7:30
VOA Surr, 4-BFB	97.	% Rec	2692	11/ 6/03	13:40
VOA Surr, 4-BFB	99.	% Rec	2703	11/ 7/03	9:18
VOA Surr, DBFM	101.	% Rec	1658	11/ 6/03	7:30
VOA Surr, DBFM	101.	% Rec	2692	11/ 6/03	13:40
VOA Surr, DBFM	107.	% Rec	2703	11/ 7/03	9:18
Ethylene Dibromide	< 0.00002	mg/l	8379	11/ 6/03	0:24

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 352525

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 07777/12352
Project Name: CLOUD'S CHEVRON/FAST POI
Page: 1
Laboratory Receipt Date: 1/ 3/04

Matrix Spike Recovery

Note: If Blank is referenced as the sample spiked, insufficient volume was received for the defined analytical batch for MS/MSD analysis on an true sample matrix. Laboratory reagent water was used for QC purposes.

Analyte	units	Orig. Val.	MS Val	Spike Conc	Recovery	Target Range	Q.C. Batch	Spike Sample
Ethylene Dibromide	mg/l	< 0.00002	0.00030	0.00029	103	40 - 140	89	03-A201952

Matrix Spike Duplicate

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch
MISC PARAMETERS						
Ethylene Dibromide	mg/l	0.00030	0.00030	0.00	50	89

Laboratory Control Data

Analyte	units	Known Val.	Analyzed Val	% Recovery	Target Range	Q.C. Batch
VOA PARAMETERS						
Benzene	mg/l	0.0500	0.0498	100	81 - 121	1213
Ethylbenzene	mg/l	0.0500	0.0504	101	78 - 126	1213
Naphthalene	mg/l	0.0500	0.0489	98	53 - 152	1213
Toluene	mg/l	0.0500	0.0491	98	77 - 125	1216
Xylenes (Total)	mg/l	0.150	0.153	102	78 - 127	1213
Methyl-t-butyl ether	mg/l	0.0500	0.0456	91	68 - 134	1216
Ethylene Dibromide	mg/l	0.00029	0.00027	93	81 - 137	89

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

VOA Surr 1,2-DCA-d4	% Rec	90	71 - 128	1216
VOA Surr Toluene-d8	% Rec	93	77 - 119	1216
VOA Surr, 4-BFB	% Rec	94	79 - 123	1216
VOA Surr, DBFM	% Rec	94	78 - 124	1216

Duplicates

Analyte	units	Orig. Val.	Duplicate	RPD	Limit	Q.C. Batch	Sample Dup'd

Blank Data

Analyte	Blank Value	Units	Q.C. Batch	Date Analyzed	Time Analyzed
VOA PARAMETERS					
Benzene	< 0.0005	mg/l	1213	1/ 5/04	11:54
Ethylbenzene	< 0.0003	mg/l	1213	1/ 5/04	11:54
Naphthalene	< 0.00120	mg/l	1213	1/ 5/04	11:54
Toluene	0.0012	mg/l	1216	1/ 5/04	11:54
Xylenes (Total)	< 0.0009	mg/l	1213	1/ 5/04	11:54
Methyl-t-butyl ether	< 0.0005	mg/l	1216	1/ 5/04	11:54
VOA Surr 1,2-DCA-d4	92.	% Rec	1216	1/ 5/04	11:54
VOA Surr Toluene-d8	92.	% Rec	1216	1/ 5/04	11:54
VOA Surr, 4-BFB	97.	% Rec	1216	1/ 5/04	11:54
VOA Surr, DBFM	91.	% Rec	1216	1/ 5/04	11:54

Project QC continued . . .

TestAmerica
ANALYTICAL TESTING CORPORATION

2960 Foster Creighton Drive • Nashville, Tennessee 37204
800-765-0980 • 615-726-3404 Fax

PROJECT QUALITY CONTROL DATA
Project Number: 07777/12352
Project Name: CLOUD'S CHEVRON/FAST POI
Page: 3
Laboratory Receipt Date: 1/ 3/04

Ethylene Dibromide	< 0.00002	mg/l	89	1/ 5/04	9:52

= Value outside Laboratory historical or method prescribed QC limits.

End of Report for Project 359461

TestAmerica
INCORPORATED

External Nonconformance / Customer Inquiry

Initiated by:	Jhuckaba	**Phone:**	803 865 5500	NC Closed	☑
Client Name:	FORCE & ASSOCI	**Sample Range:**	04a-295	Date Closed	1/21/2004
Client Contact:	GREG FORCE	**SDG:**	#359461		
Client Account:	6883	**Analyst:**			
Date Created:	1/21/2004	**Supervisor:**	Mark Hollingsworth		

Process: Other ANALYTICAL (See Comments)
Action: Corrected action not chosen

Corrected By: John Mitchell
Closed: ☑ Jmitchell

Comments:

Comment added by: Jhuckaba on 1/21/2004 1:49:09 PM
Reprinted report. Will send out by mail and scan to web.

****

Comment added by: Jmitchell on 1/21/2004 1:17:12 PM
forgot to close and send mail. Sorry

****

Comment added by: Jmitchell on 1/21/2004 1:16:10 PM
The U flag has been removed. You may re-issue the reports.

****

Benzene has a U flag with result of 7160 ug/l, dilution of 100x. Please remove U flag (if in error).

APPENDIX C

FIELD DATA SHEETS

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11/18/03
Field Personnel Conte, OA
General Weather Conditions Cloudy
Ambient Air Temperature 20 °C

Facility Name Cloud's Chev Fort Point Site ID# 07777 07584

Quality Assurance:

pH Meter: serial no.
pH=4.0 Standard
pH=7.0 Standard
pH=10.0 Standard

Conductivity Meter serial no.
Standard
Standard
Standard

Chain of Custody

Relinquished by	Date / Time	Received by	Date/Time

Well # MW-2

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 30 ft.
Depth to GW (DGW) 22.47 ft.

Length of Water Column(LWC=TWD-DGW) 7.53 ft.

1 Csg. Volume(LWC * C) = 7.53 X 0.163 = 1.23 gals.
3 Csg. Volumes = 3 X 1.23 = 3.68 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 4 1/2 gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		1 1/4	1 1/4	~~#2~~				
Time (military)	17:10	17:14	17:16	17:18				17:20
pH (s.u.)	5.3	5.0	4.9	5.2				
Specific Cond. (umhos/cm)	108	095	096	095				
Water Temp (°C)	23.4	24.1	24.0	23.8				
Turbidity (*)	almost clear	sl. cloudy	sl. cloudy	sl. cloudy				
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks odor

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11/18/03
Field Personnel Eric, OA
General Weather Conditions Cloudy
Ambient Air Temperature ____ °C

Facility Name Cloud's Chev Fort Point Site ID# 07777 07584

Quality Assurance:

pH Meter:
serial no.____
pH=4.0 ____
pH=7.0 ____
pH=10.0 ____

Conductivity Meter
serial no.____
Standard ____
Standard ____
Standard ____

Chain of Custody

Relinquished by	Date / Time	Received by	Date/Time

Well # MW-1

Well Diameter(D) 2 inch or ____ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 20.84 ft.
Depth to GW (DGW) 21 ft.

Length of Water Column(LWC=TWD-DGW) 6.16 ft.

1 Csg. Volume(LWC * C) = 6.16 x 0.163 = 1 gals.
3 Csg. Volumes = 3 X 1 = 3 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 3 gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		1	1	1				
Time (military)	16:35	16:38	16:40	16:42				16:45
pH (s.u.)	5.4	5.4	5.3	5.7				
Specific Cond. (umhos/cm)	108	112	108	101				
Water Temp (°C)	24.1	23.8	23.7	23.5				
Turbidity (*)	slcloudy	cloudy	v.cloudy	cloudy				
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks odor

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11/18/03
Field Personnel Kane, OA
General Weather Conditions Cloudy sunny
Ambient Air Temperature 22 °C

Facility Name Cloud's Chev Fast Point Site ID# 07777 07584

Quality Assurance:

pH Meter: serial no.
pH=4.0
pH=7.0
pH=10.0

Conductivity Meter serial no.
Standard
Standard
Standard

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # MW-4

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 28 ft.
Depth to GW (DGW) 20.59 ft.

Length of Water Column(LWC=TWD-DGW) 7.41 ft.

1 Csg. Volume(LWC * C) = 7.41 X 0.163 = 1.21 gals.
3 Csg. Volumes = 3 X 1.21 = 3.62 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 4 gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		1	~2	bailed				
Time (military)	16:16	16:20	16:25	dry				16:30
pH (s.u.)	5.4	5.2	5.6	dumb				
Specific Cond. (umhos/cm)	103	141	114	2nd				
Water Temp (°C)	25.4	24.9	24.7	purge				
Turbidity (*)	SL. Cloudy	cloudy						
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 10.27.03
Field Personnel KMK / CR
General Weather Conditions Cool, Sprinkles, breezy, cloudy
Ambient Air Temperature 23 °C

Facility Name Cloud's Chevron Site ID# 07777

Quality Assurance:

pH Meter: serial no.
pH=4.0 Standard
pH=7.0 Standard
pH=10.0 Standard

Conductivity Meter serial no.

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # MW-3

Well Diameter(D) ___ inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 29.2 ft.
Depth to GW (DGW) 21.08 ft.

Length of Water Column(LWC=TWD-DGW) 8.12 ft.

1 Csg. Volume(LWC * C) = 8.12 x 0.163 = 1.32 gals.
3 Csg. Volumes = 3 X 1.32 = 3.97 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 3 1/2 gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		1½	-1½ dry					
Time (military)	14:48	14:52	15:00					15:07
pH (s.u.)	7.8	7.3	7.1					
Specific Cond. (umhos/cm)	183	204	134					
Water Temp (°C)	23.6	22.9	22.6					
Turbidity (*)	cloudy	V. muddy	cleared					
PID Readings			a little					

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks pH odor

South Carolina Department of Health and Environmental Control Page _ of _

Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11/18/03
Field Personnel Kane, OA
General Weather Conditions Cloudy sunny
Ambient Air Temperature 20 °C

Facility Name Cloud's Chev Fast Point Site ID# 07777 07584

Quality Assurance:

pH Meter: serial no.
pH=4.0
pH=7.0
pH=10.0

Conductivity Meter serial no.
Standard
Standard
Standard

Chain of Custody

Relinquished by	Date / Time	Received by	Date/Time

Well # MW-7

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 30 ft.
Depth to GW (DGW) 22.79 ft.

Length of Water Column(LWC=TWD-DGW) 7.3 ft.

1 Csg. Volume(LWC * C) = 7.3 X 0.163 = 1.19 gals.
3 Csg. Volumes = 3 X 1.19 = 3.57 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 3 3/4 gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		1 1/4	1 1/4	~1-1 1/4				
Time (military)	16:53	16:56	16:58	17:00				17:02
pH (s.u.)	5.4	5.3	5.0	4.9				
Specific Cond. (umhos/cm)	112	110	107	105				
Water Temp (°C)	24.1	24.3	24.5	24.3				
Turbidity (*)	sl. cloudy	cloudy	cloudy	less cloudy				
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11/18/03
Field Personnel Eric, OA
General Weather Conditions Cloudy Sunny
Ambient Air Temperature 20 C

Facility Name Cloud's Chev Fast Point Site ID# 07777 07584

Quality Assurance:

pH Meter: serial no.
pH=4.0 Standard
pH=7.0 Standard
pH=10.0 Standard

Conductivity Meter serial no.

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # MW-6

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 30 ft.
Depth to GW (DGW) 22.74 ft.

Length of Water Column(LWC=TWD-DGW) 7.26 ft.

1 Csg. Volume(LWC * C) = 7.26 X .163 = 1.18 gals.
3 Csg. Volumes = 3 X 1.18 = 3.55 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling _____ gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		~1 1/4	~1 1/4					
Time (military)	17:29	17:31	17:33					17:35
pH (s.u.)	5.5	5.1	5.1					
Specific Cond. (umhos/cm)	122	121	124					
Water Temp (°C)	24.3	24.5	24.5					
Turbidity (*)	sl. cloudy	sl. cloudy	sl. cloudy					
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 10-27-03
Field Personnel
General Weather Conditions Rainy
Ambient Air Temperature ___ °C

Facility Name ___ Site ID# ___

Quality Assurance:

pH Meter: serial no. ___
pH=4.0 ___
pH=7.0 ___
pH=10.0 ___

Conductivity Meter serial no. ___
Standard ___
Standard ___
Standard ___

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # MW-3a (on FastPoint to be replaced)

Well Diameter(D) ___ inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 27.4 ft.
Depth to GW (DGW) 20.0 ft.

Length of Water Column(LWC=TWD-DGW) 7.4 ft.

1 Csg. Volume(LWC * C) = 7.4 X 0.163 = 1.21 gals.
3 Csg. Volumes = 3 X 1.21 = 3.6 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling ~4¼ gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		~1½	~1¼	~1½				
Time (military)	15:41	15:46	15:50	15:55				16:00
pH (s.u.)	7.5	7.2	7.1	6.7				
Specific Cond. (umhos/cm)	059	091	087	095				
Water Temp (°C)	22.8	23.0	22.7	22.9				
Turbidity (*)								
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks old PH sock

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 10.27.03
Field Personnel hank / cH
General Weather Conditions cool, sprinkles, cloudy
Ambient Air Temperature 23 °C

Facility Name Cloud's Chevron Site ID# 07777

Quality Assurance:

pH Meter:
serial no.
pH=4.0
pH=7.0
pH=10.0

Conductivity Meter
serial no.
Standard
Standard
Standard

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # MW-5

Well Diameter(D) ___ inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 26 ft.
Depth to GW (DGW) 21.27 ft.

Length of Water Column(LWC=TWD-DGW) 4.73 ft.

1 Csg. Volume(LWC * C) = 4.73 x 0.163 = 0.77 gals.
3 Csg. Volumes = 3 X 0.77 = 2.3 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 3 gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		1	1	1				
Time (military)	14:08	14:12	14:15	14:20				14:25
pH (s.u.)	~~7.6~~ 8.4	8.1	8.2	7.9				
Specific Cond. (umhos/cm)	216	280	259	184				
Water Temp (°C)	22.7	22.8	22.0	21.6				
Turbidity (*)	Sl cloudy	cloudy	V. cloudy	V. cloudy				
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks PC 0.0 ppm

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11/18/03
Field Personnel Lance, OA
General Weather Conditions Cloudy
Ambient Air Temperature 26 °C

Facility Name Cloud's Chev Site ID# 07777
Fort Point 07584

Quality Assurance:

pH Meter: serial no.
pH=4.0 Standard
pH=7.0 Standard
pH=10.0 Standard

Conductivity Meter serial no.

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # MW-13

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 29.6 ft.
Depth to GW (DGW) 11.60 ft.

Length of Water Column(LWC=TWD-DGW) 18.0 ft.

1 Csg. Volume(LWC * C) = 18.0 X .163 = 2.93 gals.
3 Csg. Volumes = 3 X 2.93 = 8.79 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 9.0 gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		2.93	2.93	2.93				
Time (military)	1310	1315	1320	1325				1335
pH (s.u.)	4.7	4.8	4.7	4.6				
Specific Cond. (umhos/cm)	179	179	186	192				
Water Temp (°C)	25.7	24.2	23.9	23.8				
Turbidity (*)	1	3	3	3				
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks NWC of Napa Bldg near Millwood Ave

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11/18/03
Field Personnel Lance, OA
General Weather Conditions Cloudy
Ambient Air Temperature 29 °C

Facility Name Cloud's Chev Site ID# 07777
Fort Mill 07584

Quality Assurance:

pH Meter: serial no.
pH=4.0 Standard
pH=7.0 Standard
pH=10.0 Standard

Conductivity Meter serial no.
Standard
Standard

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # MW-12

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 25 ft.
Depth to GW (DGW) 4.39 ft.

Length of Water Column(LWC=TWD-DGW) 20.61 ft.

1 Csg. Volume(LWC * C) = 20.61 X 0.163 = 3.36 gals.
3 Csg. Volumes = 3 X 3.36 = 10.1 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 10.1 gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		3 2/3	3 1/3	4				13:37
Time (military)	13:15	13:20	13:25	13:33				~~13~~
pH (s.u.)	5.7	5.7	5.5	5.5				
Specific Cond. (umhos/cm)	175	239	232	229				
Water Temp (°C)	25.3	25.6	25.8	25.7				
Turbidity (*)	clear	sl. cloudy	cloudy	cloudy				
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks v. slight odor SEC of site, 3rd parking space in from ontario dr

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11/18/03
Field Personnel KMK, OA
General Weather Conditions Cloudy
Ambient Air Temperature 28 °C

Facility Name Cloud's Chev Site ID# 07777
Fast Point 07584

Quality Assurance:

pH Meter:	Conductivity Meter
serial no.	serial no.
pH=4.0	Standard
pH=7.0	Standard
pH=10.0	Standard

Chain of Custody

Relinquished by _____ Date / Time _____ Received by _____ Date/Time _____

Well # MW-11

Well Diameter(D)____inch or ____ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 30 ft.
Depth to GW (DGW) 19.06 ft.

Length of Water Column(LWC=TWD-DGW) 10.94 ft.

1 Csg. Volume(LWC * C) = 10.94 X .163 = 1.78 gals.
3 Csg. Volumes = 3 X 1.78 = 5.34 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling ~~5.34~~ 5.67 gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		2	2	1 2/3				
Time (military)	14:37	14:42	14:46	14:50				14:55
pH (s.u.)	6.3	5.7	5.3	4.8				
Specific Cond. (umhos/cm)	062	067	065	065				
Water Temp (°C)	23.3	22.8	23.0	22.8				
Turbidity (*)	clear	cloudy	cloudy	cloudy				
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks Gonzales Garden Apts

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11/18/03
Field Personnel Kmc, OA
General Weather Conditions Cloudy
Ambient Air Temperature 6 C

Facility Name Cloud's Chev Fast Point Site ID# 07777 07584

Quality Assurance:

pH Meter: serial no.
pH=4.0
pH=7.0
pH=10.0

Conductivity Meter serial no.
Standard
Standard
Standard

Chain of Custody

Relinquished by	Date / Time	Received by	Date/Time

Well # MW-10

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) ~~28.5~~ ft.
Depth to GW (DGW) 16.99 ft. DTFP = 16.89

Length of Water Column(LWC=TWD-DGW) _____ ft.

1 Csg. Volume(LWC * C) = ___ X ___ = _____ gals.
3 Csg. Volumes = 3 X _____ = _____ gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling _____ gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post Sampling
Volume Purged (gallons)							
Time (military)	14:20						
pH (s.u.)							
Specific Cond. (umhos/cm)							
Water Temp (°C)							
Turbidity (*)							
PID Readings							

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks ~~0.01~~ 0.10 FP

16.89 -

South Carolina Department of Health and Environmental Control Page _ of _

Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11/18/03

Field Personnel Kmc, OA

General Weather Conditions Cloudy

Ambient Air Temperature 6 C

Facility Name Cloud's Chev Fast Point Site ID# 07777 07584

Quality Assurance:

pH Meter: serial no.
pH=4.0
pH=7.0
pH=10.0

Conductivity Meter serial no.
Standard
Standard
Standard

Chain of Custody

Relinquished by	Date / Time	Received by	Date/Time

Well # MW-9

Well Diameter(D) 2 inch or ___ feet

conversion factor(C): 3.143*(D/2)^2

for a 2 inch well C=0.163

4 inch well C=0.652

Total Well Depth(TWD) 28.5 ft.

Depth to GW (DGW) 22.23 ft.

Length of Water Column(LWC=TWD-DGW) 6.27 ft.

1 Csg. Volume(LWC * C) = 6.27 x 0.163 = 1.02 gals.

3 Csg. Volumes = 3 X 1.02 = 3.07 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling ___ gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post Sampling
Volume Purged (gallons)							
Time (military)	1450						
pH (s.u.)							
Specific Cond. (umhos/cm)							
Water Temp (°C)							
Turbidity (*)							
PID Readings							

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks FREE PRODUCT DEVELOPED INTO WELL. AFTER 2.5 gal PURGE, PRODUCT PRESENT IN PURGE WATER & BAILER

LOCKING CAP DOES NOT FIT. 2 OF 3 BOLTS ON LID ARE BROKEN

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11/18/03
Field Personnel Eric, OA
General Weather Conditions Cloudy
Ambient Air Temperature _____ C

Facility Name Cloud's Chev Site ID# 07777
Fort Pierce 07584

Quality Assurance:

pH Meter: serial no. _____
pH=4.0 _____
pH=7.0 _____
pH=10.0 _____

Conductivity Meter serial no. _____
Standard _____
Standard _____
Standard _____

Chain of Custody

Relinquished by	Date / Time	Received by	Date/Time

Well # MW-8

Well Diameter(D) ____ inch or ____ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 28.5 ft.
Depth to GW (DGW) 19.68 ft.

Length of Water Column(LWC=TWD-DGW) 8.82 ft.

1 Csg. Volume(LWC * C) = 8.82 X 0.163 = 1.44 gals.
3 Csg. Volumes = 3 X 1.44 = 4.31 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 3 gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		1½	1½					
Time (military)	0848	1853	1855	bailed				1800
pH (s.u.)	5.3	4.8	4.9	dry				
Specific Cond. (umhos/cm)	096	096	085					
Water Temp (°C)	24.1	25	24.6					
Turbidity (*)	sl.clear	sl.clear						
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks _____

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11/18/03
Field Personnel Lane, OA
General Weather Conditions Cloudy
Ambient Air Temperature _____ °C

Facility Name Cloud's Chev Site ID# 07777
Fort Pierce 07584

Quality Assurance:

pH Meter:
serial no. _____
pH=4.0 _____
pH=7.0 _____
pH=10.0 _____

Conductivity Meter
serial no. _____
Standard _____
Standard _____
Standard _____

Chain of Custody

Relinquished by	Date / Time	Received by	Date/Time

Well # MW-15

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 25 ft.
Depth to GW (DGW) 17.05 ft.

Length of Water Column(LWC=TWD-DGW) 7.95 ft.

1 Csg. Volume(LWC * C) = 7.95 X .163 = 1.29 gals.
3 Csg. Volumes = 3 X 1.3 = 3.9 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling _____ gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)								
Time (military)	1435							
pH (s.u.)								
Specific Cond. (umhos/cm)								
Water Temp (°C)								
Turbidity (*)								
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks: PRODUCT PRESENT IN PURGE WATER AFTER ~1 gal.
0.03' AFTER RECOVERY (ON WELL, MEASURED W/ INTERFACE PROBE)
WELL NOT PROPERLY GROUTED

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11/18/03
Field Personnel Lance, OA
General Weather Conditions Cloudy
Ambient Air Temperature 6 C

Facility Name Cloud's Chev Fort Rest Site ID# 07777 07584

Quality Assurance:

pH Meter: serial no.
pH=4.0 Standard
pH=7.0 Standard
pH=10.0 Standard

Conductivity Meter serial no.

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # MW-16

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 24.0 ft.
Depth to GW (DGW) 18.59 ft.

Length of Water Column(LWC=TWD-DGW) 5.41 ft.

1 Csg. Volume(LWC * C) = 5.41 X .163 = 0.88 gals.
3 Csg. Volumes = 3 X 0.88 = 2.64 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 4 gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		0.88	0.88	0.88				
Time (military)	1520	1525	1530	1535				1540
pH (s.u.)	6.6	7.0	6.9	6.9				
Specific Cond. (umhos/cm)	241	298	313	353				
Water Temp (°C)	22.9	23.3	23.3	23.1				
Turbidity (*)								
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks odor Burdock Kar Kap

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11-18-03
Field Personnel OA, KK
General Weather Conditions cloudy
Ambient Air Temperature 26 °C

Facility Name Cloud's Chevron Site ID# 07777
Fast Point 07584

Quality Assurance:

pH Meter:	Conductivity Meter
serial no.	serial no.
pH=4.0	Standard
pH=7.0	Standard
pH=10.0	Standard

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # MW-17

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) ___ ft.
Depth to GW (DGW) ~~23.23~~ ft.

Length of Water Column(LWC=TWD-DGW) ___ ft.

1 Csg. Volume(LWC * C) = ___ X ___ = ___ gals.
3 Csg. Volumes = 3 X ___ = ___ gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling ___ gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)								
Time (military)								
pH (s.u.)								
Specific Cond. (umhos/cm)								
Water Temp (°C)								
Turbidity (*)								
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks DTP = 22.56 DTW = 23.21 FPT = 0.65

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 10-29-03
Field Personnel KMK, CP
General Weather Conditions Cool, breeze
Ambient Air Temperature 21 °C

Facility Name Fast Point Site ID# 07584

Quality Assurance:

pH Meter: serial no.
pH=4.0
pH=7.0
pH=10.0

Conductivity Meter serial no.
Standard
Standard
Standard

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # MW-18

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 30.2 ft.
Depth to GW (DGW) 25.13 ft.

Length of Water Column(LWC=TWD-DGW) 5.07 ft.

1 Csg. Volume(LWC * C) = 5.07 x .163 = 0.83 gals.
3 Csg. Volumes = 3 X 0.83 = 2.48 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling _____ gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)								
Time (military)	17:39							
pH (s.u.)								
Specific Cond. (umhos/cm)								
Water Temp (°C)								
Turbidity (*)								
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks (K+A) old MW-3a 0.13' FP in Bailer Strong odor
Bank of America

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 10/29/03
Field Personnel KMC, GP
General Weather Conditions Cool, breezy
Ambient Air Temperature _____ °C

Facility Name _____ Site ID# _____

Quality Assurance:

pH Meter: serial no. _____
pH=4.0 _____
pH=7.0 _____
pH=10.0 _____

Conductivity Meter serial no. _____
Standard _____
Standard _____
Standard _____

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # MW-19

Well Diameter(D) ____ inch or ____ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 28.94 ft.
Depth to GW (DGW) 24.08 ft.

FP

Length of Water Column(LWC=TWD-DGW) _____ ft.

1 Csg. Volume(LWC * C) = ____ X ____ = _____ gals.
3 Csg. Volumes = 3 X _____ = _____ gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling _____ gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)								
Time (military)	17:54							
pH (s.u.)								
Specific Cond. (umhos/cm)								
Water Temp (°C)								
Turbidity (*)								
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks K+A old MW-6 / MEC old MW-2A 0.02' in bailer free product

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 10/29/03
Field Personnel KNK, GP
General Weather Conditions
Ambient Air Temperature 21 °C

Facility Name East Point Site ID# 07584

Quality Assurance:

pH Meter:
serial no.
pH=4.0 Standard
pH=7.0 Standard
pH=10.0 Standard

Conductivity Meter
serial no.
Standard
Standard

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-20

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 25.1 ft.
Depth to GW (DGW) 22.29 ft.

Length of Water Column(LWC=TWD-DGW) 2.81 ft.

1 Csg. Volume(LWC * C) = 2.81 X 0.163 = 0.46 gals.
3 Csg. Volumes = 3 X 0.46 = 1.37 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 2¼ gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		3/4	3/4	3/4				
Time (military)	15:24	15:27	15:33	15:36				15:43
pH (s.u.)	5.4	4.9	5.2	4.7				
Specific Cond. (umhos/cm)	564	563	570	568				
Water Temp (°C)	21.4	21.3	21.1	21.1				
Turbidity (*)	Clear	less clear	less clear	sl. cloudy				
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks old MW-5 for MEC

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 10·29·03
Field Personnel KMK, GP
General Weather Conditions Cool, breezy
Ambient Air Temperature ~25 °C

Facility Name Fast Point Site ID# 07584

Quality Assurance:

pH Meter:
serial no. _____
pH=4.0 _____
pH=7.0 _____
pH=10.0 _____

Conductivity Meter
serial no. _____
Standard _____
Standard _____
Standard _____

Chain of Custody

Relinquished by _____ Date /Time _____ Received by _____ Date/Time _____

Well # MW-21

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 25.5 ft.
Depth to GW (DGW) 20.09 ft.

Length of Water Column(LWC=TWD-DGW) 5.41 ft.

1 Csg. Volume(LWC * C) = 5.41 x 0.163 = 0.88 gals.
3 Csg. Volumes = 3 X 0.88 = 2.64 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 5 gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		1	3	1				
Time (military)	16:18	16:20	16:25	16:44				16:50
pH (s.u.)	5.4	5.7	5.6	5.5				
Specific Cond. (umhos/cm)	579	581	582	580				
Water Temp (°C)	21.6	21.2	21.1	20.2				
Turbidity (*)	clear	less clear	same	same				
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks old MW-4a (K+A) / old MW-1A (MEC) Sheen Behind Car Wash

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11-20-03 11/25
Field Personnel ~~CA~~ KMK
General Weather Conditions Cool Sunny breezy
Ambient Air Temperature 13.6 °C

Facility Name Cloud's Chevron Fast Point Site ID# 07777 07584

Quality Assurance:

pH Meter: serial no.
pH=4.0
pH=7.0
pH=10.0

Conductivity Meter serial no.
Standard
Standard
Standard

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-22

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 30 ft.
Depth to GW (DGW) 22.8 ft.

Length of Water Column(LWC=TWD-DGW) 7.2 ft.

1 Csg. Volume(LWC * C) = 7.2 X .163 = 1.17 gals.
3 Csg. Volumes = 3 X 1.17 = 3.52 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 4 gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		1 1/3	1 1/3	1 1/3				
Time (military)	10:15	10:20	10:24	10:27				10:35
pH (s.u.)	9.9	5.0	5.2	5.5				
Specific Cond. (umhos/cm)	221	293	270	255				
Water Temp (°C)	22.2	22.8	21.8	23.1				
Turbidity (*)	sl. cloudy	cloudy	cloudy	cloudy				
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks Strong HC odor on Fast Point. Replacement for MW-5a

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11-20-03 & 11/25
Field Personnel BA Lmc
General Weather Conditions cool breezy sunny
Ambient Air Temperature 14 °C

Facility Name Cloud's Chevron Site ID# 07777
Fast Point 09584

Quality Assurance:

pH Meter: Conductivity Meter
serial no.____ serial no.____
pH=4.0 ____ Standard ____
pH=7.0 ____ Standard ____
pH=10.0 ____ Standard ____

Chain of Custody

Relinquished by	Date/Time	Received by	Date/Time

Well # MW-23

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 30 ft.
Depth to GW (DGW) 24.47 ft.

Length of Water Column(LWC=TWD-DGW) 5.53 ft.

1 Csg. Volume(LWC * C) = 5.53 X .163 = 0.90 gals.
3 Csg. Volumes = 3 X 0.90 = 2.70 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling ____ gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		1	1	1				
Time (military)	12:14	12:19	12:22	12:26				12:38
pH (s.u.)	5.2	5.3	5.4	5.5				
Specific Cond. (umhos/cm)	096	102	096	097				
Water Temp (°C)	23.6	23.6	23.3	23.1				
Turbidity (*)	clear	sl. clear	sl. clear	clear				
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks Strong HC odor Fast Point Replacement for MW-4

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11-~~20~~-03 1125
Field Personnel ~~JA~~ KMK
General Weather Conditions cool brown
Ambient Air Temperature 13 °C

Facility Name Cloud's Chevron Fast Point Site ID# 07777 07584

Quality Assurance:

pH Meter: serial no.
pH=4.0
pH=7.0
pH=10.0

Conductivity Meter serial no.
Standard
Standard
Standard

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # MW-24

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 30 ft.
Depth to GW (DGW) 23.55 ft.

Length of Water Column(LWC=TWD-DGW) 6.45 ft.

1 Csg. Volume(LWC * C) = 6.45 X .163 = 1.05 gals.
3 Csg. Volumes = 3 X 1.05 = 3.15 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 4½ gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		1 1/3	1	1				
Time (military)	11:40	11:46	11:50	11:53				12:00
pH (s.u.)	4.8	5.4	4.8	4.7				
Specific Cond. (umhos/cm)	092	096	097	102				
Water Temp (°C)	22.7	24.1	24.2	24.3				
Turbidity (*)	dc clear	cloudy	less cloudy	same				
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks Strong Odor Fast Point - Replacement for MW-3

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 10-29-03
Field Personnel KMK, CP
General Weather Conditions Cool Breezy
Ambient Air Temperature 23 °C

Facility Name Fast Point Site ID# 07584

Quality Assurance:

pH Meter:
serial no.
pH=4.0
pH=7.0
pH=10.0

Conductivity Meter
serial no.
Standard
Standard
Standard

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # PW-2 (Renamed MW-25)

Well Diameter(D) ____ inch or ____ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 25.2 ft.
Depth to GW (DGW) 20.43 ft.

Length of Water Column(LWC=TWD-DGW) 4.77 ft.

1 Csg. Volume(LWC * C) = 4.77 X 0.163 = 0.78 gals.
3 Csg. Volumes = 3 X 0.78 = 2.33 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 5 gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		2 ~~not~~	2 ~~not~~	1				
Time (military)	17:00	17:10	17:13	17:15				17:20
pH (s.u.)	5.8	6.0	6.1	6.1				
Specific Cond. (umhos/cm)	581	582	585	589				
Water Temp (°C)	18.9	19.2	19.3	19.6				
Turbidity (*)								
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks not on any maps - 6" outer csg / 2" well Strong odor
sheen → globules

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11-~~28~~-03 11/25
Field Personnel ~~OA~~ KMK
General Weather Conditions Cool breezy sunny
Ambient Air Temperature 14-5°C

Facility Name CLOUD'S CHEVRON FAST POINT Site ID# 07777 07584

Quality Assurance:

pH Meter:
serial no._____
pH=4.0 _____
pH=7.0 _____
pH=10.0 _____

Conductivity Meter
serial no._____
Standard _____
Standard _____
Standard _____

Chain of Custody

Relinquished by _____ Date/Time _____ Received by _____ Date/Time _____

Well # MW-26

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 21.95 ft.
Depth to GW (DGW) 29.8 ft.

Length of Water Column(LWC=TWD-DGW) ~~7.7~~ 7.05 ft.

1 Csg. Volume(LWC * C) = ~~7.7~~ 7.05 X .163 = 1.15 gals.
3 Csg. Volumes = 3 X 1.15 = 3.44 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling _____ gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		1 1/3	1 1/3	1 1/3				
Time (military)	13:50	13:55	14:00	14:04				14:07
pH (s.u.)	5.3	4.4	4.6	4.5				
Specific Cond. (umhos/cm)	079	088	088	089				
Water Temp (°C)	23.8	23.3	24.2	24.1				
Turbidity (*)	clear	less clear	same	same				
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks Cloud's Chevron Form MW-10?

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 10/29/03
Field Personnel ~~Greg~~ Kark, GP
General Weather Conditions Cool Breezy
Ambient Air Temperature 26.7 °C

Facility Name East Point Site ID# 07584

Quality Assurance:

pH Meter: serial no.
pH=4.0
pH=7.0
pH=10.0

Conductivity Meter serial no.
Standard
Standard
Standard

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # PW-1 East Point

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 45.65 ft.
Depth to GW (DGW) 28.6 ft.

Length of Water Column(LWC=TWD-DGW) 17.05 ft.

1 Csg. Volume(LWC * C) = 17.05 X 0.163 = 2.78 gals.
3 Csg. Volumes = 3 X 2.78 = 8.34 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 4½ gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		3	4½		redimt			
Time (military)	15:05	15:12	15:30	dry/				15:55
pH (s.u.)	6.4	6.7	5.9					
Specific Cond. (umhos/cm)	567	569	571					
Water Temp (°C)	22.2	21.2	21.2					
Turbidity (*)	sl. cloudy	V. muddy	V. muddy					
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 10/27/03
Field Personnel MK; CK
General Weather Conditions cool cloudy
Ambient Air Temperature 23 °C

Facility Name Cbd's Chevron Site ID# 07777

Quality Assurance:

pH Meter:
serial no.
pH=4.0
pH=7.0
pH=10.0

Conductivity Meter
serial no.
Standard
Standard
Standard

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # DMW-1

Well Diameter(D) 2 inch or 10 feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 69.4 ft.
Depth to GW (DGW) 48.25 ft.

Length of Water Column(LWC=TWD-DGW) 21.15 ft.

1 Csg. Volume(LWC * C) = 21.15 X 0.163 = 3.45 gals.
3 Csg. Volumes = 3 X 3.45 = 10.3 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 8 gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		3.5	~3½	~2	dry			
Time (military)	12:15	12:30	12:48	13:10				13:17
pH (s.u.)	11.2	10.9	10.4	10.9				
Specific Cond. (umhos/cm)	1966	1810	1175	1150				
Water Temp (°C)	22.0	21.6	20.9	21.0				
Turbidity (*)	clear	clear	sl cloudy	sl cloudy				
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks Sampled by CK MEC's PW-1

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 10·27·03
Field Personnel Kevin ; CH
General Weather Conditions Cool, breezy, cloudy
Ambient Air Temperature 23 °C

Facility Name Cloud's Chevron Site ID# 07777

Quality Assurance:

pH Meter:	Conductivity Meter
serial no.	serial no.
pH=4.0	Standard
pH=7.0	Standard
pH=10.0	Standard

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # Dmw-2

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 73.5 ft.
Depth to GW (DGW) 44.73 ft.

Length of Water Column(LWC=TWD-DGW) 28.77 ft.

1 Csg. Volume(LWC * C) = 28.77 X 0.163 = 4.69 gals.
3 Csg. Volumes = 3 X 4.69 = 14.07 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 14.5 gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		5	5	4½				
Time (military)	12:24	12:46	13:12	13:38				13:45
pH (s.u.)	10.5	10.5	10.1	9.7				
Specific Cond. (umhos/cm)	1022	1005	461	147				
Water Temp (°C)	23.1	20.9	20.7	20.7				
Turbidity (*)	clear	Clear	Sl. cloudy	Sl. cloudy				
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks MEC's MW-17D

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 12/30/03
Field Personnel OA
General Weather Conditions Sunny
Ambient Air Temperature 21 °C

Facility Name Cloud's / Fast Point Site ID# 07777/12352

Quality Assurance:

pH Meter: serial no.
pH=4.0 Standard
pH=7.0 Standard
pH=10.0 Standard

Conductivity Meter serial no.
Standard
Standard
Standard

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # DMW-3

Well Diameter(D) 2 inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 24.54 ft.
Depth to GW (DGW) 51 ft.

Length of Water Column(LWC=TWD-DGW) 26.46 ft.

1 Csg. Volume(LWC * C) = 26.46 X .163 = 4.31 gals.
3 Csg. Volumes = 3 X 4.31 = 12.93 gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling 14.0 gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)		4.31	4.31	4.31				
Time (military)	1630	1635	1640	1645				1700
pH (s.u.)	11.5	11.4	11.3	10.8				
Specific Cond. (umhos/cm)	off scale	off scale	1671	1232				
Water Temp (°C)	18.8	22.9	22.7	22.1				
Turbidity (*)	1	2	1	1				
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 10/29/03
Field Personnel Cool, Sunny breeze
General Weather Conditions KMK, Gray
Ambient Air Temperature ____ °C

Facility Name Forst Point Site ID# ____

Quality Assurance:

pH Meter:	Conductivity Meter
serial no. ____	serial no. ____
pH=4.0 ____	Standard ____
pH=7.0 ____	Standard ____
pH=10.0 ____	Standard ____

Chain of Custody

Relinquished by	Date /Time	Received by	Date/Time

Well # RW-1 on Fast Point

Well Diameter(D) 4 inch or ____ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) 29 ft.
Depth to GW (DGW) 22.63 ft.

Length of Water Column(LWC=TWD-DGW) ____ ft.

1 Csg. Volume(LWC * C) = ____ X 0.652 = ____ gals.
3 Csg. Volumes = 3 X ____ = ____ gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling ____ gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)								
Time (military)	14:55							
pH (s.u.)								
Specific Cond. (umhos/cm)								
Water Temp (°C)								
Turbidity (*)								
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks visible product in bailer - measured ~0.01' FP

South Carolina Department of Health and Environmental Control
Bureau of Underground Storage Tank Management

Page _ of _

Field Data Information Sheet for Ground Water Sampling

Date(mm/dd/yy) 11/18/03
Field Personnel Kane, OA
General Weather Conditions Cloudy
Ambient Air Temperature _____ °C

Facility Name Cloud's Chev Fort Point Site ID# 07777 07584

Quality Assurance:

pH Meter: serial no. _____
pH=4.0 _____
pH=7.0 _____
pH=10.0 _____

Conductivity Meter serial no. _____
Standard _____
Standard _____
Standard _____

Chain of Custody

Relinquished by	Date / Time	Received by	Date/Time

Well # ~~Natural~~ Creek

Well Diameter(D) ~~2~~ inch or ___ feet
conversion factor(C): 3.143*(D/2)^2
for a 2 inch well C=0.163
4 inch well C=0.652
Total Well Depth(TWD) _____ ft.
Depth to GW (DGW) _____ ft.

Length of Water Column(LWC=TWD-DGW) _____ ft.

1 Csg. Volume(LWC * C) = ___ X ___ = _____ gals.
3 Csg. Volumes = 3 X _____ = _____ gals. (Std. Purge Volume)

Total Volume of Water Purged Before Sampling _____ gals.

	Initial	1st vol.	2nd vol.	3rd vol.	4th vol.	5th vol.	Post	Sampling
Volume Purged (gallons)								
Time (military)								12:30
pH (s.u.)								
Specific Cond. (umhos/cm)								
Water Temp (°C)								
Turbidity (*)								
PID Readings								

* subjective (1) None (2) Faint (3) Moderate (4) Strong

Remarks Behind NAPA Bldg + Parking lot.

APPENDIX D

DISPOSAL MANIFESTS

WASTE MANAGEMENT

SPECIAL WASTE MANIFEST

WASTE ID # RC 0301002

EXPIRATION DATE: JANUARY 6, 2004

RICHLAND LANDFILL
1047 Highway Church Road
Elgin, SC 29045
(803) 788-3054
(803) 736-0995 Fax

National Environmental Performance

GENERATOR OF WASTE: FORCE & ASSOCIATES

CUSTOMER ACCOUNT: FORCE & ASSOCIATES 820-436

LOCATION OF WASTE : [illegible], Clouds Chevron (17 Drums)

PHONE # 803-359-3200 **CONTACT:** SANDRA SEWARD

FAX # 803-359-6682

GENERATOR'S SIGNATURE Greg Force **DATE:** 10/25/03

TRANSPORTER OF WASTE Force + Associates, Inc.

DATE: 10/25/03 **TRUCK NO.** 1

DRIVER'S SIGNATURE Gary P Phillips

****** TO BE COMPLETED BY RICHLAND LANDFILL ******

DISPOSAL SITE: RICHLAND LANDFILL ELGIN, SC

DESCRIPTION OF WASTE SOIL BORINGS FOR SCDHEC ASSESSMENT PROGRAM (SOIL)

TICKET NO.# 488478 **TONNAGE** 3.97

RECEIVED BY SC

WASTE MANAGEMENT

SPECIAL WASTE MANIFEST

WASTE ID # VA 3630

EXPIRATION DATE: JANUARY 26, 2005

RICHLAND LANDFILL
1047 Highway Church Road
Elgin, SC 29045
(803) 788-3054
(803) 736-0995 Fax

National Environmental Performance

GENERATOR OF WASTE: FORCE AND ASSOCIATES, INC.

CUSTOMER ACCOUNT: FORCE AND ASSOCIATES, INC. 820-436

LOCATION OF WASTE : Casey's Truck Stop (8), Cloud's Chevron (3), Drakes Svc Station (1), Handy Mart (1) Former Phillips 66 (7), McDonald's (4), Ravenwood Svc Center (9), Spinx 149 (6)

PHONE # 803-359-3200 **CONTACT:** GREG FORCE

FAX # 803-359-6682

GENERATOR'S SIGNATURE Greg Force **DATE:**

TRANSPORTER OF WASTE Force + Associates, Inc.

DATE: 1/28/04 + 1/31/04 **TRUCK NO.** 1

DRIVER'S SIGNATURE Gary P Gilleyen

****** TO BE COMPLETED BY RICHLAND LANDFILL ******

DISPOSAL SITE: RICHLAND LANDFILL ELGIN, SC

DESCRIPTION OF WASTE SOIL BORINGS FOR SCDHEC ASSESSMENT PROGRAM (SOL)

TICKET NO.# 509900 **TONNAGE** 5.08

RECEIVED BY JR

WASTE MANAGEMENT

SPECIAL WASTE MANIFEST

WASTE ID # RC 0301002

EXPIRATION DATE: JANUARY 6, 2004

RICHLAND LANDFILL
1047 Highway Church Road
Elgin, SC 29045
(803) 788-3054
(803) 736-0995 Fax

GENERATOR OF WASTE: FORCE & ASSOCIATES

CUSTOMER ACCOUNT: FORCE & ASSOCIATES 820-436

LOCATION OF WASTE : ~~Former Bishopville Cotton Gin,~~ Constan Inc (18), Love Chevrolet (4), Clouds Chevron (8)

PHONE # 803-359-3200 **CONTACT:** SANDRA SEWARD

FAX # 803-359-6682

GENERATOR'S SIGNATURE Greg Force **DATE:** 12/29/03

TRANSPORTER OF WASTE Force + Associates, Inc.

DATE: 12/30/03 **TRUCK NO.** 1

DRIVER'S SIGNATURE Gary P Tillyer

****** TO BE COMPLETED BY RICHLAND LANDFILL ******

DISPOSAL SITE: RICHLAND LANDFILL ELGIN, SC

DESCRIPTION OF WASTE SOIL BORINGS FOR SCDHEC ASSESSMENT PROGRAM (SOIL)

TICKET NO.# 502370 **TONNAGE** 6.13

RECEIVED BY ROS

C 090737

Crandall

NON-HAZARDOUS WASTE MANIFEST	1. Generator's US EPA ID No.	Manifest Document No.	2. Page 1 of 1 1
		GLB0055564N	

3. Generator's Name and Mailing Address
Force & Associates
1447 Pisgah Rd
Lexington, SC 29072

4. Generator's Phone (803) 354 - 3424

5. Transporter 1 Company Name	6. US EPA ID Number	A. Transporter's Phone
Crandall Corporation	SCD981864499	(803)791-4800
7. Transporter 2 Company Name	8. US EPA ID Number	B. Transporter's Phone
9. Designated Facility Name and Site Address	10. US EPA ID Number	C. Facility's Phone
Crandall Corporation 100 Rich-Lex Drive Lexington, SC 29072	SCD981864499	(803)791-4800

11. Waste Shipping Name and Description	12. Containers No.	Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	1	TT	153	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

Adams Amoco - 1 drum
Clouds Chevron - 3 drums
Constan, Inc. - 1 drum
Dixie Waste - 1 drum
Boise Cascade - 1 drum
Loves Chevrolet - 1 drum
Ware Shoals - 1 drum
Drake's Service Station - 1 drum
Loves Amoco - 1 drum free product
Constan, Inc - 1 drum free product

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
Gary Phillips	Gary Phillips	12	30	03

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
Gary Phillips	Gary Phillips	12	30	03

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

Printed/Typed Name	Signature	Month	Day	Year
Chris Boore	Chris Boore	12	30	03

GENERATOR COPY

C 089968

Crandall

NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. GLB0056769N
Manifest Document No.
2. Page 1 of 1 1

3. Generator's Name and Mailing Address
Force & Associates
1447 Pisgah Rd
Lexington, SC 29072
4. Generator's Phone (803) 354 - 3424

5. Transporter 1 Company Name
Crandall Corporation
6. US EPA ID Number
SCD981864499. . .
A. Transporter's Phone
(803)791-4800

7. Transporter 2 Company Name
8. US EPA ID Number
. . . . . .
B. Transporter's Phone

9. Designated Facility Name and Site Address
Crandall Corporation
100 Rich-Lex Drive
Lexington, SC 29072
10. US EPA ID Number
SCD981864499. . .
C. Facility's Phone
(803)791-4800

11. Waste Shipping Name and Description	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt./Vol.
a. Non - Hazardous Waste, Waste Water	1	T	628	G
b.				
c.				
d.				

D. Additional Descriptions for Materials Listed Above

E. Handling Codes for Wastes Listed Above

15. Special Handling Instructions and Additional Information

#Drums
4 1 Clouds Chevron - 42 gallons
1 Jennings Grocery - 35 gallons
1 Former Phillips - 12 gallons
1 Ravenwood - 38 gallons
1 Spinx - 33 gallons
1 Hickory Point - 10 gallons

McDonalds - 450 gallons - 9 Drums
Cloud Chevron - 3 gallons - Free product - 1 Drum
Hardy Pantry - 5 gallons - Free product - 1 Drum

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name	Signature	Month	Day	Year
X Gary Phillips	X Gary Phillips	02	6	04

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
X Gary Phillips	X Gary Phillips	02	6	04

18. Transporter 2 Acknowledgement of Receipt of Materials

Printed/Typed Name	Signature	Month	Day	Year
		.	.	.

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in item 19.

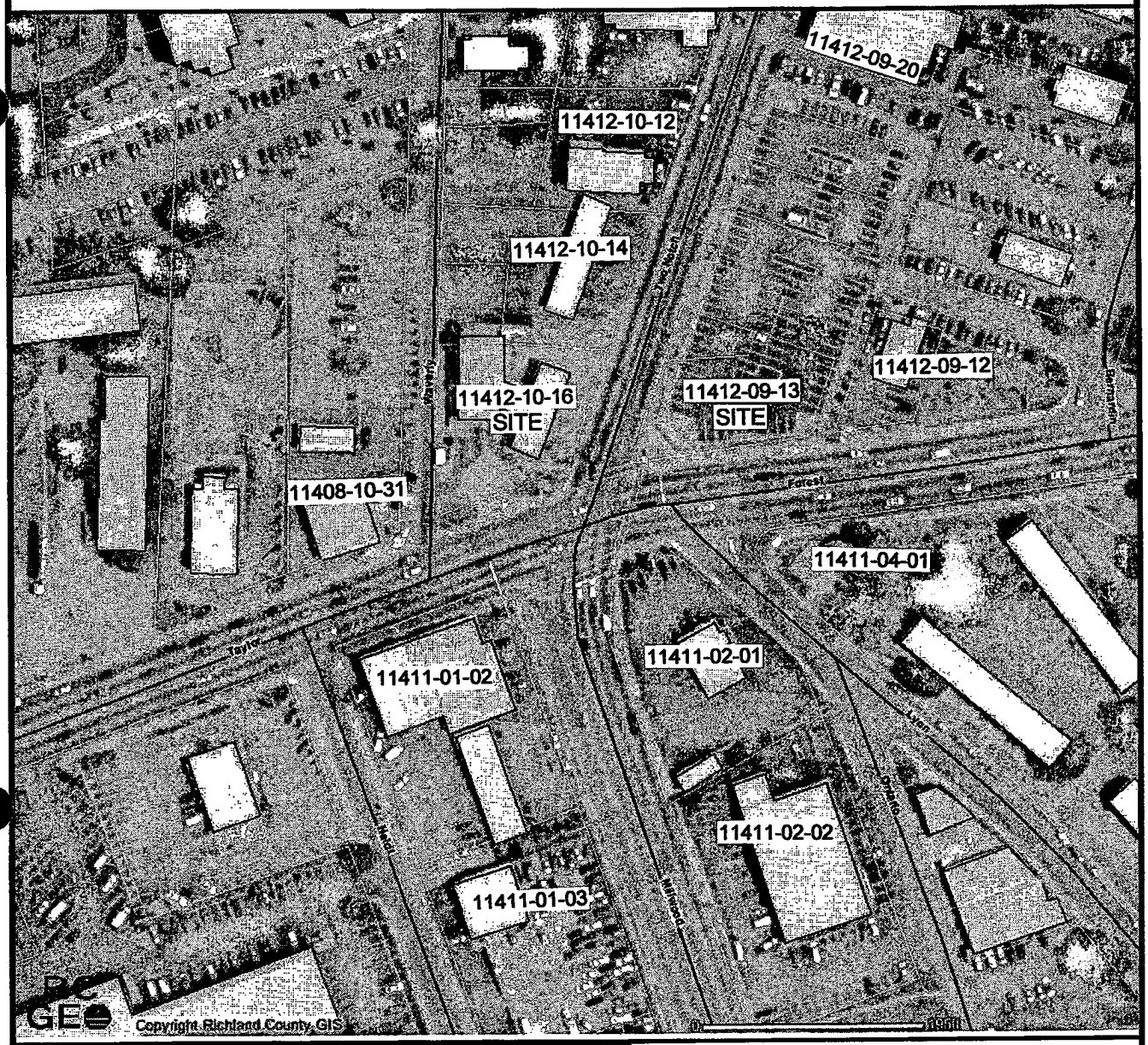
Printed/Typed Name	Signature	Month	Day	Year
Chris Boozer	Chris Boozer	2	6	04

GENERATOR COPY

APPENDIX E

TAX MAP DATA

Clouds Chevron



Copyright 2002
Richland County GIS
2020 Hampton St.
Columbia, SC 29204

DISCLAIMER : This is a product of the Richland County GIS Department. The data depicted here have been developed with extensive cooperation from other county departments, as well as other federal, state and local governments agencies. Richland County expressly disclaims responsibility for damages or liability that may arise from the use of this map.

PROPRIETARY INFORMATION: Any resale of this information is prohibited, except in accordance with a licensing agreement.

Legend

- County Boundary
- Private Schools
- Public Schools
- Police Stations
- Fire Stations
- County Assets
- Daycares
- Streets
- Buildings
- 2 Ft. Contours
- Streams
- Lakes
- Council Districts
- Zip Codes

Richland County Assessor's Web-Based Retrieval System

Return to Search Page

Parcel Number : R11412-10-16

The information provided on this page reflects data as of December 31, 2001 and should be used for reference only. For official assessment information, please contact the Richland County Assessor's Office

Property Information

Street Address : 2367 TAYLOR ST

2002 Asssessment Information

Assessment Yr. : 2002
Total Acres : SEE LEGAL DESCRIPTION FOR LOT SIZE
Land Value : 169900
Building Value : 60600
Improvements Value : 19200
Market Value : 249700
Receiving Legal Residence : NO
Zoning Code : C-3
Zoning Description : GENERAL COMMERCIAL
Tax District Code : 1CC
Tax District Name : CITY OF COLUMBIA

Owner Information

Purchase Date : 19940317
Owner Name : FAST POINT FOOD STORES INC
Owners Mailing Address/Name : 2811 REIDVILLE RD
Owners Mailing Address/Name 2 : SUITE 11
Owners Mailing Address/Name 3 :
Owners Mailing City : SPARTANBURG
Owners Mailing State : SC
Owners Mailing Zip : 29301
Owners Mailing Zip+4 : 0000
Sales Price : 325000
Deed Book : D1188
Deed Page : 309

Purchase Date : 19841200
Owner Name : PACEMAKER LEASING COMPANY
Owners Mailing Address/Name : INC
Owners Mailing Address/Name 2 : AVTAX
Owners Mailing Address/Name 3 : P O BOX 467429
Owners Mailing City : ATLANTA
Owners Mailing State : GA
Owners Mailing Zip : 30346
Owners Mailing Zip+4 : 0000

Richland County Assessor's Web-Based Retrieval System

Return to Search Page

Parcel Number : R11412-10-14

The information provided on this page reflects data as of December 31, 2001 and should be used for reference only. For official assessment information, please contact the Richland County Assessor's Office

Property Information

Street Address : 1603-0 TWO NOTCH RD

2002 Asssessment Information

Assessment Yr. : 2002
Total Acres : SEE LEGAL DESCRIPTION FOR LOT SIZE
Land Value : 99900
Building Value : 35700
Improvements Value : NO IMPROVEMENTS
Market Value : 135600
Receiving Legal Residence : NO
Zoning Code : C-3
Zoning Description : GENERAL COMMERCIAL
Tax District Code : 1CC
Tax District Name : CITY OF COLUMBIA

Owner Information

Purchase Date : 20011121
Owner Name : BENEDICT COLLEGE THE
Owners Mailing Address/Name : 1600 HARDEN ST
Owners Mailing Address/Name 2 :
Owners Mailing Address/Name 3 :
Owners Mailing City : COLUMBIA
Owners Mailing State : SC
Owners Mailing Zip : 29201
Owners Mailing Zip+4 : 0000
Sales Price : 450000
Deed Book : R0592
Deed Page : 1843

Structure Information

Building Number : 1
Building Type : CAR WASH/SELF SRV - WALL GRP 3
Year Built : 1983
Number of Baths : 0
Number of Bedrooms : 0
Number of Stories : 1

Richland County Assessor's Web-Based Retrieval System

Return to Search Page

Parcel Number : R11412-10-12

The information provided on this page reflects data as of December 31, 2001 and should be used for reference only. For official assessment information, please contact the Richland County Assessor's Office

Property Information

Street Address : 1611 TWO NOTCH RD

2002 Asssessment Information

Assessment Yr. : 2002
Total Acres : SEE LEGAL DESCRIPTION FOR LOT SIZE
Land Value : 29900
Building Value : 44300
Improvements Value : NO IMPROVEMENTS
Market Value : 74200
Receiving Legal Residence : NO
Zoning Code : C-3
Zoning Description : GENERAL COMMERCIAL
Tax District Code : 1CC
Tax District Name : CITY OF COLUMBIA

Owner Information

NONE

Structure Information

Building Number : 1
Building Type : AUTO REPAIR /WHSE CONSTRUCTION
Year Built : 1972
Number of Baths : 0.5
Number of Bedrooms : 0
Number of Stories : 1.5
Heated Square Footage : 2816

Land Information

Land Type : COMMERCIAL LAND

Area Information

Area Description 1 : E COLA, ROSEWOOD, MILLWOOD,
Area Description 2 : DEVINE, 5 PTS, RICH MALL, COMM

Legal Descriptions

Richland County Assessor's Web-Based Retrieval System

Return to Search Page

Parcel Number : R11412-09-20

The information provided on this page reflects data as of December 31, 2002 and should be used for reference only. For official assessment information, please contact the Richland County Assessor's Office

Property Information

Street Address : 1616 TWO NOTCH RD

2003 Asssessment Information

Assessment Yr. : 2003
Total Acres : SEE LEGAL DESCRIPTION FOR LOT SIZE
Land Value : 60000
Building Value : 62600
Improvements Value : NO IMPROVEMENTS
Market Value : 122600
Receiving Legal Residence : NO
Zoning Code : C-3
Zoning Description : GENERAL COMMERCIAL
Tax District Code : 1CC
Tax District Name : CITY OF COLUMBIA

Owner Information

Purchase Date : 19970704
Owner Name : LUCAS JESSE WILLIAM TRUSTEE
Owners Mailing Address/Name : /EVA GLAWSON LUCAS TRUSTEE
Owners Mailing Address/Name 2 : 345 NEWBERG RD
Owners Mailing Address/Name 3 :
Owners Mailing City : CHAPIN
Owners Mailing State : SC
Owners Mailing Zip : 29036
Owners Mailing Zip+4 : 0000
Sales Price : 5
Deed Book : D1392
Deed Page : 706

Purchase Date : 19970703
Owner Name : LUCAS JESSE W &
Owners Mailing Address/Name : /EVA GLAWSON LUCAS TRUSTEE
Owners Mailing Address/Name 2 : 345 NEWBERG RD
Owners Mailing Address/Name 3 :
Owners Mailing City : CHAPIN
Owners Mailing State : SC
Owners Mailing Zip : 29036
Owners Mailing Zip+4 : 0000

Richland County Assessor's Web-Based Retrieval System

Return to Search Page

Parcel Number : R11412-09-13

The information provided on this page reflects data as of December 31, 2002 and should be used for reference only. For official assessment information, please contact the Richland County Assessor's Office

Property Information

Street Address : 2409 FOREST DR

2003 Asssessment Information

Assessment Yr. : 2003
Total Acres : SEE LEGAL DESCRIPTION FOR LOT SIZE
Land Value : 28200
Building Value : 0
Improvements Value : NO IMPROVEMENTS
Market Value : 28200
Receiving Legal Residence : NO
Zoning Code : C-3
Zoning Description : GENERAL COMMERCIAL
Tax District Code : 1CC
Tax District Name : CITY OF COLUMBIA

Owner Information

Purchase Date : 20010802
Owner Name : SISTERS OF CHARITY PROVIDENCE
Owners Mailing Address/Name : /HOSPITALS
Owners Mailing Address/Name 2 : % ACCOUNTING OFFICE
Owners Mailing Address/Name 3 : 2753 LAUREL ST
Owners Mailing City : COLUMBIA
Owners Mailing State : SC
Owners Mailing Zip : 29204
Owners Mailing Zip+4 : 0000
Sales Price : 0
Deed Book : R0549
Deed Page : 2880

Purchase Date : 19961024
Owner Name : COLUMBIA /HCA HEALTH
Owners Mailing Address/Name : CORPORATION
Owners Mailing Address/Name 2 : ONE PARK PLAZA
Owners Mailing Address/Name 3 : BUILDING I, 4TH FLOOR
Owners Mailing City : NASHVILLE
Owners Mailing State : TN
Owners Mailing Zip : 37203
Owners Mailing Zip+4 : 0000

Richland County Assessor's Web-Based Retrieval System

Return to Search Page

Parcel Number : R11412-09-12

The information provided on this page reflects data as of December 31, 2002 and should be used for reference only. For official assessment information, please contact the Richland County Assessor's Office

Property Information

Street Address : 2419 FOREST DR

2003 Asssessment Information

Assessment Yr. : 2003
Total Acres : SEE LEGAL DESCRIPTION FOR LOT SIZE
Land Value : 45600
Building Value : 62400
Improvements Value : NO IMPROVEMENTS
Market Value : 108000
Receiving Legal Residence : NO
Zoning Code : C-3
Zoning Description : GENERAL COMMERCIAL
Tax District Code : 1CC
Tax District Name : CITY OF COLUMBIA

Owner Information

Purchase Date : 19980825
Owner Name : CHEUNG FAMILY CORPORATION
Owners Mailing Address/Name : 7700 LOCH LN
Owners Mailing Address/Name 2 :
Owners Mailing Address/Name 3 :
Owners Mailing City : COLUMBIA
Owners Mailing State : SC
Owners Mailing Zip : 29223
Owners Mailing Zip+4 : 0000
Sales Price : 5
Deed Book : R0159
Deed Page : 327

Purchase Date : 19840100
Owner Name : CHEUNG LUN & SIU N
Owners Mailing Address/Name : 7700 LOCH LN
Owners Mailing Address/Name 2 :
Owners Mailing Address/Name 3 :
Owners Mailing City : COLUMBIA
Owners Mailing State : SC
Owners Mailing Zip : 29223
Owners Mailing Zip+4 : 2528

Richland County Assessor's Web-Based Retrieval System

Return to Search Page

Parcel Number : R11411-04-01

The information provided on this page reflects data as of December 31, 2001 and should be used for reference only. For official assessment information, please contact the Richland County Assessor's Office

Property Information

Street Address : 1505 GARDEN PLAZA

2002 Asssessment Information

Assessment Yr. : 2002
Total Acres : SEE LEGAL DESCRIPTION FOR LOT SIZE
Land Value : 999900
Building Value : 8433500
Improvements Value : NO IMPROVEMENTS
Market Value : 9433400
Receiving Legal Residence : NO
Zoning Code : RG-2
Zoning Description : RESIDENTIAL-GENERAL
Tax District Code : 1CC
Tax District Name : CITY OF COLUMBIA

Owner Information

NONE

Structure Information

Building Number : 1
Building Type : OFFICE/SGL STY - WALL GRP 3
Year Built :
Number of Baths : 0
Number of Bedrooms : 0
Number of Stories : 0
Heated Square Footage : 0

Land Information

Land Type : COMMERCIAL LAND

Area Information

Area Description 1 : BETWEEN GERVAIS ST & TAYLOR ST
Area Description 2 :

Legal Descriptions

Richland County Assessor's Web-Based Retrieval System

Return to Search Page

Parcel Number : R11411-02-01

The information provided on this page reflects data as of December 31, 2001 and should be used for reference only. For official assessment information, please contact the Richland County Assessor's Office

Property Information

Street Address : 2436 TAYLOR ST

2002 Asssessment Information

Assessment Yr. : 2002
Total Acres : SEE LEGAL DESCRIPTION FOR LOT SIZE
Land Value : 200100
Building Value : 76300
Improvements Value : 5000
Market Value : 281400
Receiving Legal Residence : NO
Zoning Code : C-3
Zoning Description : GENERAL COMMERCIAL
Tax District Code : 1CC
Tax District Name : CITY OF COLUMBIA

Owner Information

Purchase Date : 19900412
Owner Name : BATEMAN BETTY GORDON
Owners Mailing Address/Name : % JESSE T REESE
Owners Mailing Address/Name 2 : P O BOX 1026
Owners Mailing Address/Name 3 :
Owners Mailing City : COLUMBIA
Owners Mailing State : SC
Owners Mailing Zip : 29202
Owners Mailing Zip+4 : 0000
Sales Price : 0
Deed Book : D0975
Deed Page : 746

Structure Information

Building Number : 1
Building Type : RESTRT, FAST FOOD - WALL GRP 3
Year Built : 1979
Number of Baths : 2
Number of Bedrooms : 0
Number of Stories : 1

Richland County Assessor's Web-Based Retrieval System

Return to Search Page

Parcel Number : R11411-02-02

The information provided on this page reflects data as of December 31, 2001 and should be used for reference only. For official assessment information, please contact the Richland County Assessor's Office

Property Information

Street Address : 1527 ONTARIO ST

2002 Asssessment Information

Assessment Yr. : 2002
Total Acres : SEE LEGAL DESCRIPTION FOR LOT SIZE
Land Value : 139400
Building Value : 219000
Improvements Value : NO IMPROVEMENTS
Market Value : 358400
Receiving Legal Residence : NO
Zoning Code : C-3
Zoning Description : GENERAL COMMERCIAL
Tax District Code : 1CC
Tax District Name : CITY OF COLUMBIA

Owner Information

Purchase Date : 20000822
Owner Name : BOYD W L III TRUSTEE
Owners Mailing Address/Name : 455 ALEXANDER CIRCLE
Owners Mailing Address/Name 2 :
Owners Mailing Address/Name 3 :
Owners Mailing City : COLUMBIA
Owners Mailing State : SC
Owners Mailing Zip : 29206
Owners Mailing Zip+4 : 0000
Sales Price : 5
Deed Book : R0436
Deed Page : 1370

Purchase Date : 19800617
Owner Name : BOYD WILLIAM L III
Owners Mailing Address/Name : 455 ALEXANDER CR
Owners Mailing Address/Name 2 :
Owners Mailing Address/Name 3 :
Owners Mailing City : COLUMBIA
Owners Mailing State : SC
Owners Mailing Zip : 29206
Owners Mailing Zip+4 : 4974

Richland County Assessor's Web-Based Retrieval System

Return to Search Page

Parcel Number : R11411-01-03

The information provided on this page reflects data as of December 31, 2002 and should be used for reference only. For official assessment information, please contact the Richland County Assessor's Office

Property Information

Street Address : 1512 HEIDT ST

2003 Asssessment Information

Assessment Yr. : 2003
Total Acres : SEE LEGAL DESCRIPTION FOR LOT SIZE
Land Value : 105200
Building Value : 54900
Improvements Value : NO IMPROVEMENTS
Market Value : 160100
Receiving Legal Residence : NO
Zoning Code : C-3
Zoning Description : GENERAL COMMERCIAL
Tax District Code : 1CC
Tax District Name : CITY OF COLUMBIA

Owner Information

Purchase Date : 19870800
Owner Name : SUDDETH JOE T
Owners Mailing Address/Name : 302 BIDDLE RD
Owners Mailing Address/Name 2 :
Owners Mailing Address/Name 3 :
Owners Mailing City : COLUMBIA
Owners Mailing State : SC
Owners Mailing Zip : 29212
Owners Mailing Zip+4 : 3377
Sales Price : 0
Deed Book : D856
Deed Page : 125

Purchase Date : 19111111
Owner Name : NEWMAN LENA O
Owners Mailing Address/Name :
Owners Mailing Address/Name 2 :
Owners Mailing Address/Name 3 :
Owners Mailing City :
Owners Mailing State :
Owners Mailing Zip : 00000
Owners Mailing Zip+4 : 0000

Richland County Assessor's Web-Based Retrieval System

Return to Search Page

Parcel Number : R11411-01-02

The information provided on this page reflects data as of December 31, 2001 and should be used for reference only. For official assessment information, please contact the Richland County Assessor's Office

Property Information

Street Address : 2368 TAYLOR ST

2002 Asssessment Information

Assessment Yr. : 2002
Total Acres : SEE LEGAL DESCRIPTION FOR LOT SIZE
Land Value : 108600
Building Value : 31800
Improvements Value : 14400
Market Value : 154800
Receiving Legal Residence : NO
Zoning Code : C-3
Zoning Description : GENERAL COMMERCIAL
Tax District Code : 1CC
Tax District Name : CITY OF COLUMBIA

Owner Information

Purchase Date : 19800000
Owner Name : BUNDRICK JAMES A &
Owners Mailing Address/Name : /MARILYN L
Owners Mailing Address/Name 2 : 217 PALMER DR
Owners Mailing Address/Name 3 :
Owners Mailing City : LEXINGTON
Owners Mailing State : SC
Owners Mailing Zip : 29072
Owners Mailing Zip+4 : 8952
Sales Price : 0
Deed Book : D547
Deed Page : 507

Purchase Date : 19650000
Owner Name : LYBRAND DEWEY E
Owners Mailing Address/Name :
Owners Mailing Address/Name 2 :
Owners Mailing Address/Name 3 :
Owners Mailing City :
Owners Mailing State :
Owners Mailing Zip : 00000
Owners Mailing Zip+4 : 0000

Richland County Assessor's Web-Based Retrieval System

Return to Search Page

Parcel Number : R11408-10-31

The information provided on this page reflects data as of December 31, 2002 and should be used for reference only. For official assessment information, please contact the Richland County Assessor's Office

Property Information

Street Address : 2361 TAYLOR ST

2003 Asssessment Information

Assessment Yr. : 2003
Total Acres : SEE LEGAL DESCRIPTION FOR LOT SIZE
Land Value : 140800
Building Value : 108900
Improvements Value : NO IMPROVEMENTS
Market Value : 249700
Receiving Legal Residence : NO
Zoning Code : C-3
Zoning Description : GENERAL COMMERCIAL
Tax District Code : 1CC
Tax District Name : CITY OF COLUMBIA

Owner Information

NONE

Structure Information

Building Number : 1
Building Type : BANK/BRANCH,1 STY-WALL GRP 3
Year Built : 1957
Number of Baths : 2
Number of Bedrooms : 0
Number of Stories : 1
Heated Square Footage : 2254

Land Information

Land Type : COMMERCIAL LAND

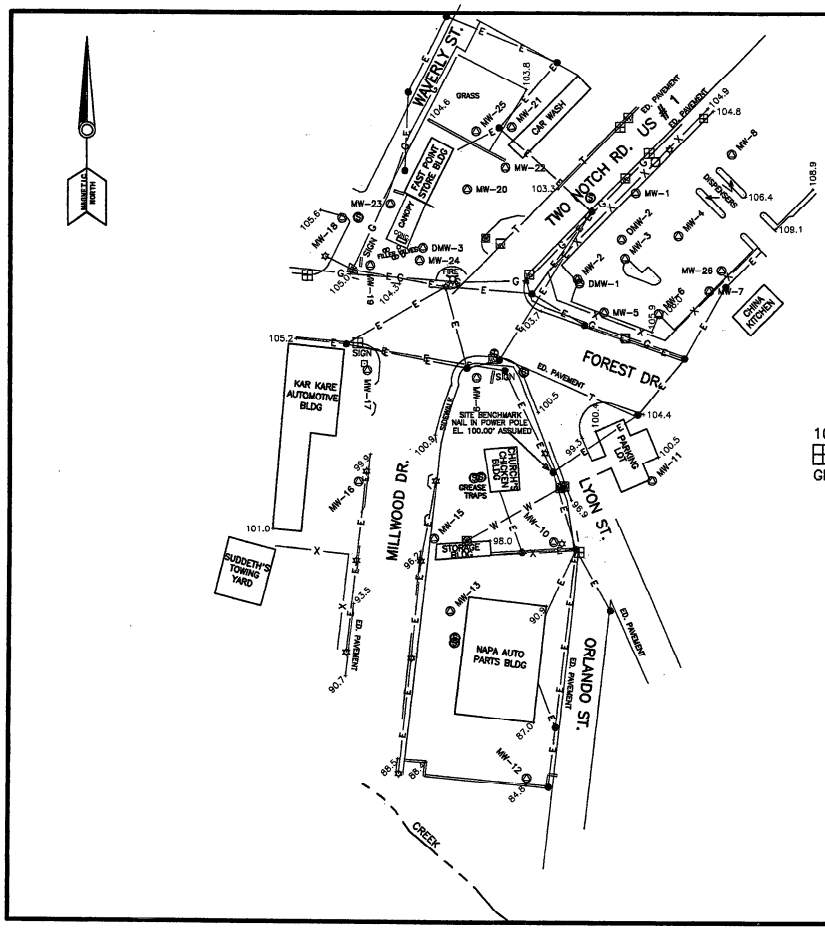
Area Information

Area Description 1 : E COLA, ROSEWOOD, MILLWOOD,
Area Description 2 : DEVINE, 5 PTS, RICH MALL, COMM

Legal Descriptions

APPENDIX F

SITE SURVEY MAP



WELL #	CASING EL.
MW-1	104.67
MW-2	105.49
MW-3	105.22
MW-4	105.64
MW-5	105.59
MW-6	105.77
MW-7	106.76
MW-8	105.57
MW-9	103.76
MW-10	97.38
MW-11	99.81
MW-12	84.16
MW-13	92.24
MW-15	97.85
MW-16	99.57
MW-17	103.95
MW-18	106.05
MW-19	105.45
MW-20	106.04
MW-21	103.87
MW-22	105.61
MW-23	105.52
MW-24	105.34
MW-25	103.68
MW-26	106.56
DMW-1	105.43
DMW-2	104.82
DMW-3	105.10

100 0 100 200 300

GRAPHIC SCALE – FEET 1" = 100'

SITE PLAN OF:
CLOUD'S CHEVRON
1600 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA
RICHLAND COUNTY
SCDHEC SITE ID # 07777

ALL DATA SHOWN HEREON IS THE RESULT OF FIELD DATA OBTAINED ON THIS DATE

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION
CAROLINA SURVEYING SERVICES, INC. NO. C01054

CAROLINA SURVEYING SERVICES, INC.
200 NORTH LAKE DRIVE
LEXINGTON, S.C. 29072
TELEPHONE (803) 951-9191

DENNIS G. JOHNS, PLS REG. NO. 8102

DATE: DECEMBER 22, 2003 PROJECT: 2003334

SPATCO

Report of Hydrogeologic Assessment

Handy Pantry Facility
Intersection of Two Notch & Taylor Streets
Columbia, South Carolina
GWPD ID #07584
W.O.# 9-2798

Prepared for:

Mr. Mark Roberts
Acme Petroleum Inc.
P.O. Box 2359
Gastonia, North Carolina 28053

RECEIVED
NOV 12 1993
Groundwater Division Section

Prepared by:

SPATCO Environmental
400 Arbor Lake Drive, Suite A-600
Columbia, South Carolina 29223

UST PROGRAM
DOCKETING # 225 Tech

November 12, 1993

SPATCO

TABLE OF CONTENTS

Page

INTRODUCTION 1
METHODOLOGIES 1
Assessment Activities 1
Monitor Well Installation 1
Recovery Well Installation 2
Vertical Extent Well Installation 3
SAMPLING AND ANALYSIS 4
Soil Organic Vapor Measurements 4
Ground-Water Sampling and Analyses 4
HYDROGEOLOGY 5
Ground-Water Occurrence and Movement 5
Site Geology 5
AQUIFER ANALYSIS 6
Pumping Test 6
Soil Vapor Extraction Test 6
LABORATORY ANALYTICAL RESULTS 7
Air Sample Laboratory Analytical Results 7
Ground-Water Sample Laboratory Analytical Results 7
SUMMARY AND CONCLUSIONS 8
RECOMMENDATIONS 9
Monitoring/Corrective Action 9
IMPLEMENTATION SCHEDULE 9
CAP/ER Preparation 9
Quarterly Monitoring 10
REPORT LIMITATIONS 10
REFERENCES 11

SPATCO

TABLES

Table 1. Water Level Data, Handy Pantry Facility, Taylor Street, Columbia, South Carolina.

Table 2. Soil Vapor Extraction Data, Handy Pantry Facility, Taylor Street, Columbia, South Carolina.

Table 3. Air Sample Laboratory Analytical Results, Handy Pantry Facility, Taylor Street, Columbia, South Carolina.

Table 4. Ground-Water Laboratory Analytical Results, Handy Pantry Facility, Taylor Street, Columbia, South Carolina.

FIGURES

Figure 1. Topographic Map Illustrating Site Location. Handy Pantry Facility, Taylor Street, Columbia, South Carolina.

Figure 2. Site Plan Showing Monitor Well Locations. Handy Pantry Facility, Taylor Street, Columbia, South Carolina.

Figure 3. Potentiometric Surface of the Shallow Aquifer, 8/5/93. Handy Pantry Facility, Taylor Street, Columbia, South Carolina.

Figure 4. Potentiometric Surface of the Shallow Aquifer, 8/26/93. Handy Pantry Facility, Taylor Street, Columbia, South Carolina.

Figure 5. Benzene Concentrations in the Shallow Aquifer, 2/7/92, & 8/5/93. Handy Pantry Facility, Taylor Street, Columbia, South Carolina.

Figure 6. Total BTEX Concentrations in the Shallow Aquifer, 2/7/92 & 8/5/93. Handy Pantry Facility, Taylor Street, Columbia, South Carolina.

SPATCO

APPENDICES

A. SCDHEC Approval
B. S.C. Certified Survey Results
C. Lithologic/Well Construction Logs
D. Pumping Test Graphic Analysis
E. Soil Vapor Extraction Graphic Analysis
F. Air Laboratory Analytical Report
G. Ground-Water Laboratory Analytical Report

Report of Hydrogeologic Assessment
Handy Pantry Facility, Taylor Street, Columbia, South Carolina.

November 10, 1993

SPATCO Environmental appreciates the opportunity to provide Acme Petroleum Inc with environmental services. If you have any questions or comments concerning this report, please contact one of the individuals listed below.

SPATCO Environmental

Bramley Stafford
Project Manager

Alan C. "Chris" Leggett
Branch Manager

Fred Lyke, P.G.
Project Manager

INTRODUCTION

SPATCO

SPATCO Environmental submitted an Expanded Assessment Proposal and associated Cost Proposal for the Handy Pantry facility located at the intersection of Two Notch and Taylor Streets in Columbia, South Carolina (Figure 1) to the South Carolina Department of Health and Environmental Control (SCDHEC) on March 16, 1992. On May 22, 1992 the SCDHEC approved the plan and cost proposal and provided Monitor Well Approval (Appendix A). Expanded Assessment activities were initiated per the conditions and adjustments stated in the approval letter. Assessment activities included the installation of ground-water monitoring wells, a potential ground-water/vapor recovery well, a vertical extent well, ground-water sampling, and aquifer testing.

METHODOLOGIES

Assessment Activities

A total of six 2-inch diameter monitor wells, one 4-inch diameter recovery well, and one telescoping vertical extent well were installed at the facility July 28, 1993 through August 4, 1993 (Figure 2). A detailed site survey was performed by a South Carolina Registered Land Surveyor. Scaled site maps were prepared in accordance with the February 6, 1992 SCDHEC Underground Storage Tank Program Expanded Assessment Guidance Document. The South Carolina Registered Land Surveyors survey results are presented in Appendix B.

Monitor Well Installation

Borehole installation was advanced to an estimated 6 feet below water table depth at each of the monitoring well locations utilizing hollow stem auger drilling techniques. Soil samples were collected at five-foot vertical intervals for lithologic description and soil organic vapor

measurement. Two inch-diameter monitor wells were constructed in each borehole. Monitoring wells MW-5 and MW-10 were installed to approximately 25 and 28 feet below land surface (ft bls) respectively. Monitoring wells MW-6 through MW-9 were installed to approximately 30 ft bls. Monitoring wells were constructed of 2-inch diameter, Schedule 40, flush threaded PVC well casing with ten feet of factory slotted (0.01-inch opening) Schedule 40 PVC well screen attached. Monitoring wells were constructed with the top of the well screen above the water table to allow for detection of potential free-phase liquid hydrocarbon. A uniformly graded silica filter pack was installed in the annular space from total depth to approximately two feet above the top of the screen and followed by approximately 2 feet of bentonite pellets. The bentonite was hydrated and the well completed with neat cement grout containing 5% bentonite to near land surface. Each well was completed with a water tight, locking PVC cap and was finished flush with land surface and protected by an 8-inch diameter steel, traffic rated manhole with a bolt-down cover. Monitor Well locations are presented in Figure 2 Monitoring well construction details and lithologic descriptions are presented in Appendix C.

Recovery Well Installation

One potential vapor/ground-water recovery well (RW-1) was installed to a depth of 30 ft bls at the facility on August 3, 1993 (Figure 2). The recovery well was constructed of 4-inch diameter, flush threaded, schedule 40 PVC with a 15-foot length of wire wound construction PVC (0.01-inch opening) well screen attached. A uniformly graded silica filter pack was installed in the annular space from total depth to approximately two feet above the top of the screen and followed by approximately 2 feet of bentonite pellets. The bentonite was hydrated and the well completed with neat cement grout containing 5% bentonite to near land surface. The recovery well was completed with a water tight, locking PVC cap and was finished flush with land surface and protected by an 8-inch diameter steel, traffic rated manhole with a bolt-down cover. The recovery well location is presented in Figure 2. Recovery well construction

details and lithologic descriptions are presented in Appendix C.

Vertical Extent Well Installation

A vertical extent well (DW-1) was placed adjacent to the recovery well on July 27 through 29, 1993. Borehole installation was advanced to 40 ft bls utilizing hollow stem auger drilling techniques. A 6-inch diameter PVC well casing was then installed from total depth to land surface and sealed in place with neat cement grout. Once the grout had cured, monitor well installation was continued (on April 16) utilizing mud rotary drilling techniques. A 4-inch diameter mud rotary drill bit was advanced through the outer casing to a total depth of 50 ft bls. A 2-inch diameter Schedule 40 PVC well casing with a five-foot length of factory slotted (0.01-inch opening) schedule 40 well screen attached was then installed from total depth to land surface. A uniformly graded silica sand pack was then installed in the annular space from total depth to approximately three feet above the top of the screen. Approximately two feet of bentonite pellets was then installed above the filter pack and hydrated. Well construction was completed with neat cement grout containing 5% bentonite to near land surface. The well was completed with a water tight, locking PVC cap and was finished flush with land surface and protected by an 8-inch diameter steel, traffic rated manhole with a bolt-down cover. The vertical extent well location is presented in Figure 2. Vertical extent well construction details and lithologic descriptions are presented in Appendix C.

SAMPLING AND ANALYSIS

Soil Organic Vapor Measurements

Soil organic vapor concentration measurements were performed on all split spoon soil samples collected utilizing a Foxboro Century Model 128 Organic Vapor Analyzer - Flame Ionization Detector (OVA-FID). Soil samples were placed in plastic bags, sealed and allowed to equilibrate at ambient temperature for approximately 10 minutes. The OVA-FID probe was then introduced to the headspace of the bag and the highest organic vapor reading observed was recorded. Organic vapor concentrations are included on the lithologic logs.

Ground-Water Sampling and Analysis

Ground-water samples were obtained from all new wells on August 5, 1993. The wells were properly purged prior to sample collection. Purge water was transferred to 55-gallon drums and stored on-site. All samples were collected utilizing dedicated, disposable equipment. Ground-water samples were placed in laboratory supplied containers, placed on ice, and delivered to a South Carolina certified laboratory for analysis. Proper preservation methods and chain of custody procedures were followed throughout the sampling/analysis procedures. Ground-water samples were submitted for analysis for benzene, toluene, ethylbenzene, and total xylenes (BTEX) and methyl-tert-butyl-ether (MTBE) utilizing EPA Analytical Method 602.

HYDROGEOLOGY

Ground-Water Occurrence & Movement

Static fluid level measurements were obtained utilizing an Oil Recovery Systems hydrocarbon interface probe on July 28, August 5, and August 26, 1993. The probe is designed to detect free phase floating hydrocarbon 1/16-inch or greater in thickness with an accuracy of 0.01 feet from a marked measuring point. Depths to ground water ranged from 20.70 to 25.45 ft bls in the shallow monitor wells over the course of this investigation. Ground water surface elevations were calculated utilizing data collected during the registered land surveyors survey. A summary of water level measurements is presented in Table 1. Data collected on August 5, and August 26, 1993 have been converted to potentiometric data and are presented in Figures 3, and 4 respectively. Ground-water flow direction on August 5, 1993 trends toward the south-southwest with an approximate gradient of 0.01344.

Site Geology

Visual analysis of subsurface soils collected from split spoon samples and drill cuttings indicated the presence of silty clayey fine sands, sandy clays, medium sands, clayey medium sands, clayey fine sands, silty fine sands, dense clays, silty sand with alternating clay layers, and silty sands. The maximum depth of the investigation was 50 ft bls. Lithologies are described in detail in Appendix C.

AQUIFER ANALYSIS

Pumping Test

A pumping test was performed at the facility on August 26, 1993. Well RW-1 was used as the pumping well, and wells MW-2 and MW-3 were monitored with an In-Situ Model SE 1000-C Hermit Data Logger. All wells were monitored by hand throughout the test. The average stabilized flow rate was 1/2 gallons per minute. Drawdown in the pumping well stabilized between 2 and 2.2 feet.

Computer generated graphic analysis via the Cooper/Jacob, Neuman, and Theis methods was used to determine transmissivity and storage coefficient for the two wells monitored with the data logger. Calculated values for transmissivity and storage coefficient are 0.1707 ft^2/min and $1.789x10^{-2}$ (Cooper-Jacob) and $8.345x10^{-2}$ ft^2/min and $2.01x10^{-2}$ (Theis) respectively for monitor well MW-2 and $3.49x10^{-2}$ ft^2/min and $1.048x10^{-2}$ (Cooper-Jacob) and $2.748x10^{-2}$ ft^2/min and $1.269x10^{-2}$ (Neuman) respectively for monitor well MW-3. Graphic analyses of the drawdown in these wells are presented in Appendix D.

Soil Vapor Extraction Test

Soil Vapor Extraction testing was performed at the site on August 26, 1993. Graphic analysis of this test is presented in Appendix E. A vacuum was placed on the potential recovery well, and wells MW-2, MW-3, MW-5 and MW-4 were monitored utilizing Magnehelic vacuum pressure gauges. Air velocity ranged from 205 to 1,300 feet per minute. Results of the test are summarized in Table 3. The vacuum was increased throughout the test and air samples taken at differing increments of vacuum from the extraction blower. Air samples were submitted for

analysis for BTEX and TPH.

LABORATORY ANALYTICAL RESULTS

Air Sample Laboratory Analytical Results

Laboratory analytical results for air sample #1 taken at T+15 mins indicate total BTEX and TPH concentrations to be below quantifiable limits and 71.64 ppm respectively. Laboratory analytical results for air sample #2 taken at T+45 mins indicate total BTEX and TPH concentrations to be below quantifiable limits and 773.11 ppm respectively. Laboratory analytical results for air sample #3 taken at T+60 mins indicate total BTEX and TPH concentrations to be below quantifiable limits and 705.72 ppm respectively. Laboratory analytical results for air sample #4 taken at T+75 mins indicate total BTEX and TPH concentrations to be 28.07 and 2,564 ppm respectively. Laboratory analytical results for air sample #5 taken at T+95 mins indicate total BTEX and TPH concentrations to be 49.94 and 3,582 ppm respectively. Laboratory analytical results are summarized in Table 3. The Laboratory analytical report is presented in Appendix F.

Ground-Water Laboratory Analytical Results

Ground-water laboratory analytical results for the sampling event conducted on August 5, 1993 indicate total BTEX concentrations ranging from 72 μg/l at MW-9 to 68,000μg/l at MW-8. Monitor wells RW-1, DW-1, MW-5, MW-6, and MW-7 were reported to contain total BTEX concentrations of 13,300μg/l, 508μg/l, 33,250μg/l, 43,400μg/l and 8,300μg/l respectively. MTBE was reported to be present in wells MW-5, RW-1, and DW-1 in concentrations of

350μg/l, 6,100μg/l, and 6μg/l. Laboratory analytical results are summarized in Table 4. The laboratory analytical report for the comprehensive sampling event is included as Appendix G. Figures 9, 10, and 11 show BTEX, MTBE, and PAH distribution at the facility during the August 5, 1993 sampling event.

SUMMARY AND CONCLUSIONS

- A total of six monitor wells, one potential recovery well, and one telescoping well were installed at the facility.

- Ground-water samples collected from facility wells indicate high concentrations of EPA 602 constituent compounds along the southern property boundary. Relatively high concentrations of EPA 602 constituents were reported to be present immediately downgradient of the northern tank farm area and the dispenser islands. Highest EPA 602 constituent concentrations were reported for the MW-8 monitor well location. Monitor well MW-8 is located on the southeastern side of the intersection almost perpendicular to the direction of ground-water flow at the Handy Pantry facility.

- Visual analysis of subsurface soils collected from split spoon samples and drill cuttings indicated the presence of silty clayey fine sands, sandy clays, medium sands, clayey medium sands, clayey fine sands, silty fine sands, dense clays, silty sand with alternating clay layers, and silty sands. The maximum depth of the investigation was 50 ft bls.

- Depths to ground water ranged from 20.70 to 25.45 ft bls in the shallow monitor wells over the coarse of this investigation. Ground-water flow direction on August 5, 1993 trends toward the south-southwest with an approximate gradient of 0.01344.

- Computer generated graphic analysis via the Cooper/Jacob, Neuman, and Theis methods was used to determine transmissivity and storage coefficient for the two wells monitored with the data logger. Calculated values for transmissivity and storage coefficient are 0.1707 ft^2/min and $1.789x10^{-2}$ (Cooper-Jacob) and $8.345x10^{-2}$ ft^2/min and $2.01x10^{-2}$ (Theis) respectively for monitor well MW-2 and $3.49x10^{-2}$ ft^2/min and $1.048x10^{-2}$ (Cooper-Jacob) and $2.748x10^{-2}$ ft^2/min and $1.269x10^{-2}$ (Neuman) respectively for monitor well MW-3.

- Soil Vapor Extraction test results indicate the presence of volatile organics near the potential recovery well. The maximum estimated hydrocarbon vapor removal rate for

this location ranges between 0.01 lb/day and 1.24 lb/day. The estimated radius of influence for hydrocarbon vapor extraction is inconclusive.

RECOMMENDATIONS

Monitoring/Corrective Action

SPATCO Environmental recommends implementation of a quarterly monitoring program/weekly free-phase liquid hydrocarbon recovery, and the initiation of Corrective Action proceedings. A Corrective Action Plan will be prepared upon approval from the SCDHEC. Samples should be collected quarterly for BTEX, MTBE and PAH analysis. Water level data should be collected on a monthly basis. A report of findings summarizing all relevant data should be prepared on a quarterly basis.

A cost estimate for the preparation of the Corrective Action Plan and for Quarterly Monitoring/Weekly Free-Phase Recovery are being prepared and will be submitted under separate cover.

IMPLEMENTATION SCHEDULE

CAP/ER Preparation

Approximately 120 days will be necessary for preparation of a Corrective Action Plan. CAP preparation can be initiated immediately upon SCDHEC approval to proceed. Approximately

60 days will be necessary for preparation of an Engineering report. ER preparation can be initiated immediately upon SCDHEC approval of the CAP.

Quarterly Monitoring/Free-Phase Recovery

SPATCO Environmental is prepared to initiate quarterly monitoring/weekly free-phase recovery immediately upon SCDHEC approval.

REPORT LIMITATIONS

This investigation is intended to be a non-biased assessment of on-site environmental conditions proximate to the underground storage tank system. Subsurface investigative methodologies are in accordance with all applicable state and federal regulatory requirements. The information presented in this report is based upon site specific observations, generally accepted geological practices, and analytical results for environmental samples collected at the time of field investigation. All data is believed to be representative of subsurface conditions at the facility, however, data may not be completely representative of all subsurface conditions. Though we cannot be responsible for the accuracy of information provided to us by others, we have no reason to believe any such information is inaccurate.

REFERENCES

SPATCO

Cooper, H.H. and C.E. Jacob, 1946. A generalized graphical method for evaluating formation constants and summarizing well field history, Am. Geophys. Union Trans., vol. 27, pp. 526-534.

Neuman, S.P., 1975, Analysis of Pumping Test Data from Anisotropic Unconfined Aquifers Considering Delayed Gravity Response, Water Resources Research., vol. 2, pp. 329-342.

Theis, C.V., 1935. The Relation Between the Lowering of the Piezometric Surface and the Rate and Duration of Discharge of a Well Using Groundwater Storage, Am. Geophys. Union Trans., vol. 16, pp. 519-524.

Table 1. Water Level Data, Handy Pantry – Taylor St.
Columbia, South Carolina.

Well Number	Measured Total Depth	Measuring Point Elevation	Date Measured 2/7/92		Date Measured 7/28/93		Date Measured 8/5/93		Date Measured 8/26/93	
			DTW	WTE	DTW	WTE	DTW	WTE	DTW	WTE
MW–1	36.0	295.12	22.03	273.09	20.70	274.42	20.85	274.27	21.18	273.94
MW–2	33.0	295.41	22.70	272.71	21.50	273.91	21.64	273.77	21.96	273.45
MW–3	30.0	296.24	24.58	271.66	23.40	272.84	23.58	272.66	23.92	272.32
MW–4	34.0	296.98	25.45	271.53	24.30	272.68	24.56	272.42	24.88	272.10
MW–5	23.0	296.40	--	--	--	--	22.64	273.76	23.00	273.40
MW–6	29.0	296.22	--	--	--	--	23.77	272.45	24.14	272.08
MW–7	29.2	294.77	--	--	--	--	22.43	272.34	22.79	271.98
MW–8	29.4	294.50	--	--	--	--	22.13	272.37	22.45	272.05
MW–9	30.0	296.69	--	--	--	--	24.24	272.45	24.64	272.05
MW–10	28.0	294.90	--	--	--	--	20.38	274.52	20.73	274.17
RW–1	29.0	295.22	--	--	--	--	22.24	272.98	22.62	272.60
DW–1	50.0	295.30	--	--	--	--	24.79	270.51	--	--

Notes: Measuring Point Elevations Estimated from USGS Topographic Map
Fluid Levels Measured with Hydrocarbon Interface Probe
Measuring Point Elevation is Top of Well Casing
DTW – Depth to Water
WTE – Water Table Elevation

Table 2. Soil Vapor Extraction Test Data

Site: Handy Pantry Facility – Taylor St., Columbia

Extraction Well: RW–1 Date: 8/27/93

				Distance to Extraction Well (ft) :			51'	29'	80'	73'
Time	E. Time (min)	Vacuum ("H20)	Flow (FPM)	Explos (%LEL)	OVA (PPM)	Sample ID	MW–2 ("H20)	MW–3 ("H20)	MW–4 ("H20)	MW–5 ("H20)
04:00	0		205				0	0	0	0
04:15	15		500			AS–1	0	0	0	0
04:45	45		700			AS–2	0	0	0.15	0.10
05:00	60		900			AS–3	0	0	0.15	0.15
05:15	75		1100			AS–4	0	0	0.15	0.10
05:35	95		1300			AS–5	0	0	0.15	0.10

Table 3.

Air Sample Laboratory Analytical Results.

Handy Pantry Facility, Two Notch & Taylor Streets, Columbia S.C

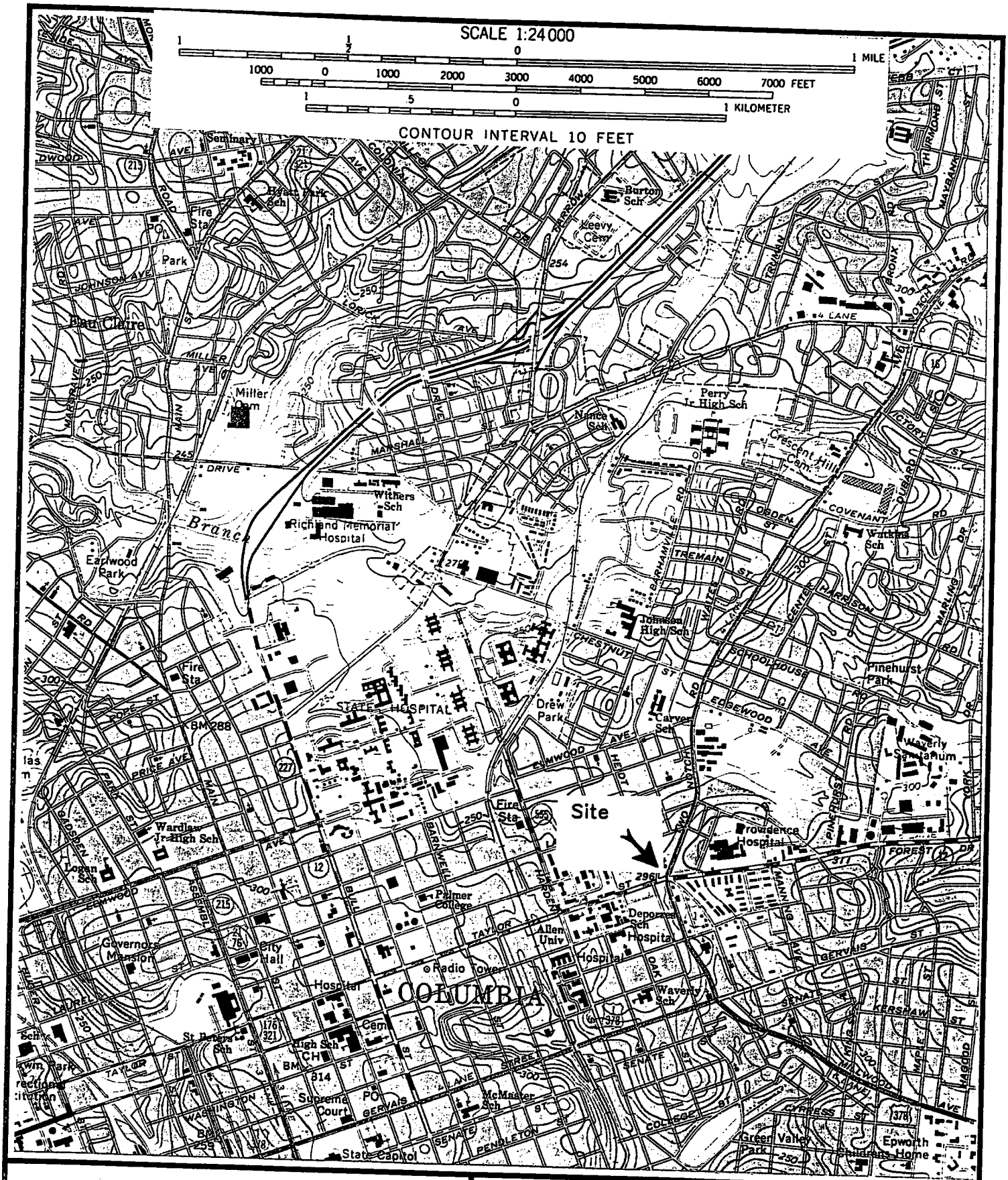
	Sample Identification				
	AS-1	AS-2	AS-3	AS-4	AS-5
(parts per million)					
Benzene	BQL	BQL	BQL	16.04	25.04
Toluene	BQL	BQL	BQL	4.64	11.94
Ethylbenzene	BQL	BQL	BQL	3.17	5.76
Xylenes	BQL	BQL	BQL	4.32	7.20
Total Petroleum Hydrocarbon	71.64	773.11	705.72	2,564.02	3,581.82

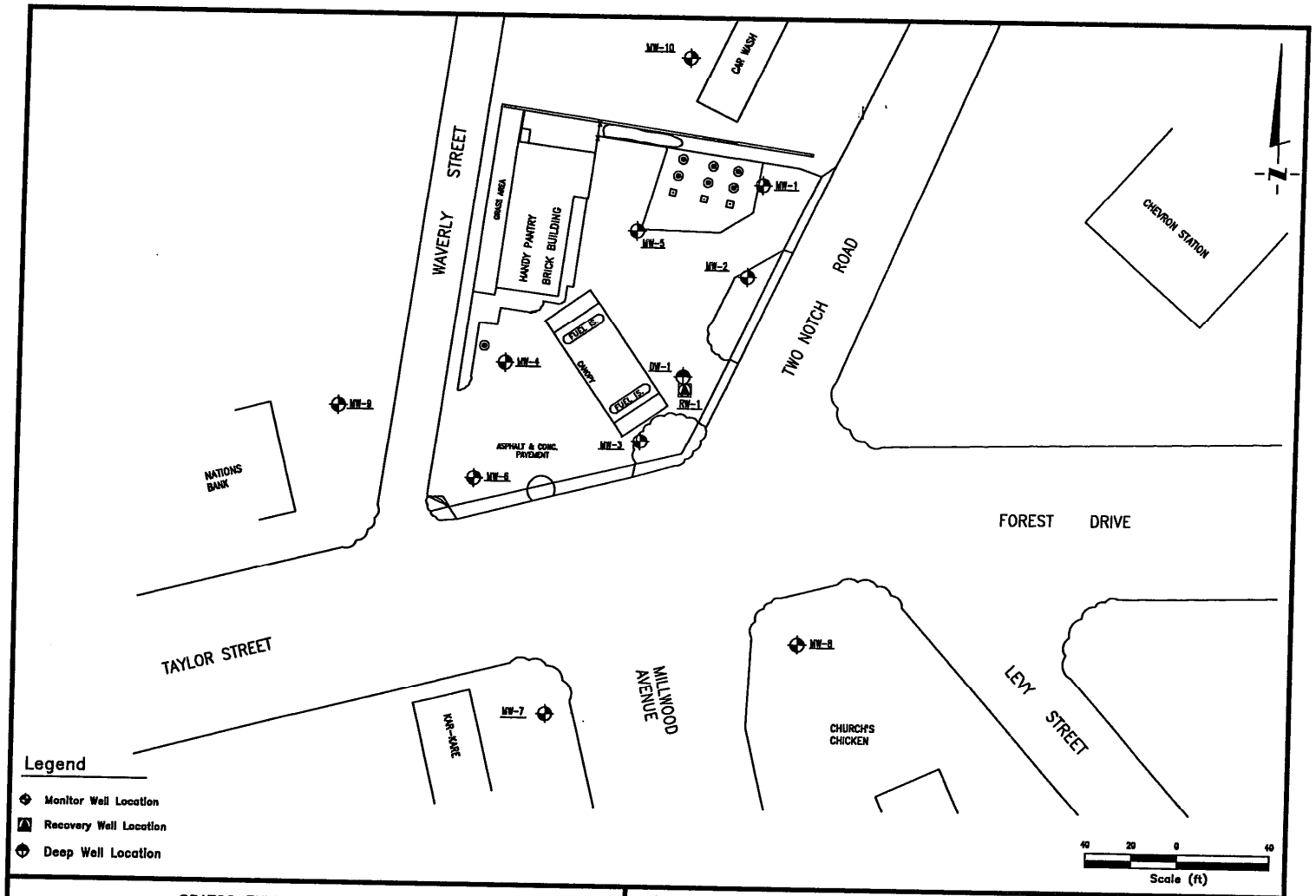
Notes: BQL – Below Quatifiable Limits of Analytical Laboratory
TPH Results Calculated Assuming Molecular Wieght of 86.18

Table 4. Ground–Water Sample Laboratory Analytical Results. Handy Pantry Site, Taylor St., Columbia, S.C.

	Ground–Water Sample Identification										
	2/7/92 MW–1	2/7/92 MW–2	2/7/92 MW–3	2/7/92 MW–4	8/5/93 MW–5	8/5/93 MW–6	8/5/93 MW–7	8/5/93 MW–8	8/5/93 MW–9	8/5/93 RW–1	8/5/93 DW–1
EPA Method 602	(parts per billion – ug/l)										
Benzene	300	2,600	8,900	860	150	4,400	BDL	14,000	BDL	1,000	450
Toluene	2,100	2,800	19,000	4,500	9,500	17,000	200	32,000	BDL	1,600	BDL
Ethylbenzene	450	1,100	1,300	1,600	4,600	4,000	1,600	4,000	18	2,400	BDL
Xylenes	2,800	7,500	14,000	14,000	19,000	18,000	6,500	18,000	54	8,300	58
Total BTEX	5,650	14,000	43,200	20,960	33,250	43,400	8,300	68,000	72	13,300	508
MTBE	NA	NA	NA	NA	350	BDL	BDL	BDL	BDL	6,100	6

Notes: BDL – Below Detectible Limits of the Analytical Laboratory
NA – Not Analyzed


SCALE 1:24000
1 MILE
7000 FEET
1 KILOMETER
CONTOUR INTERVAL 10 FEET
Site
COLUMBIA
Seminary Ave
Fire Sta
Hyatt Park Sch
Burton Sch
Keevy Cem
Park
Elmwood Cem
Miller Dam
Perry Jr High Sch
Crescent Hill Cem
Richland Memorial Hospital
Withers Sch
Earlwood Park
Watkins Sch
Johnson High Sch
Pinehurst Park
STATE HOSPITAL
Drew Park
Carver Sch
Waverly Sanatorium
Providence Hospital
Wardlaw Jr High Sch
Logan Sch
Palmer College
Governors Mansion
City Hall
Radio Tower
Allen Univ
Deposses Sch
Hospital
Waverly Sch
St Peters Sch
High Sch
Supreme Court
McMaster Sch
State Capitol
Green Valley Park
Epworth Children's Home
Main St
Assembly St
Pickens St
Harden St
Bull St
Barnwell St
Senate St
Gervais St
Taylor St
Elmwood Ave
Millwood Ave
Forest Dr
Two Notch Rd
Colonial Dr
Trenholm Rd
Devine St
Huger St
Wayne St
Kershaw St
Cypress St
College St
Pendleton St
Washington St
Marshall St
Chestnut St
Treman St
Covenant Rd
Glenwood Rd
Pineburr Rd
Harrison Rd
Marling Rd
Bratton St
Bellevue St
Ogden St
Victory Gardens
Bronx Rd
Millwood Ave
Heidt
Barhamville Rd
Schoolhouse Rd
Forest Dr
Wayne St
Senate



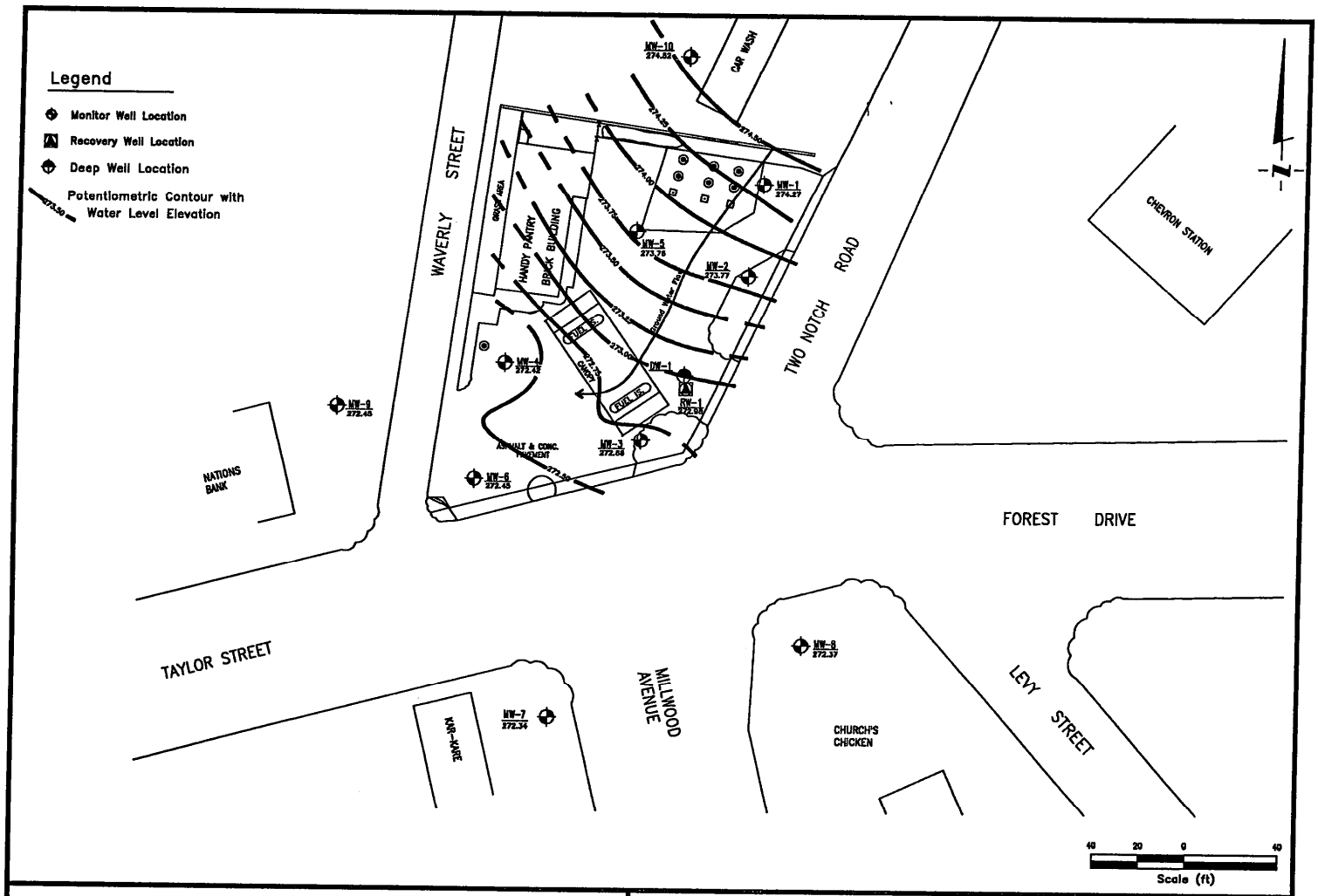
SPATCO ENVIRONMENTAL
400 ARBOR LAKE DRIVE
SUITE A-800
COLUMBIA, SOUTH CAROLINA

Figure 2. Site Plan Showing Monitor Well Locations

Handy Pantry Facility
Two Notch & Taylor Streets
Columbia, S.C.

GWPD SITE ID# 07584

W.O. # 9-2798



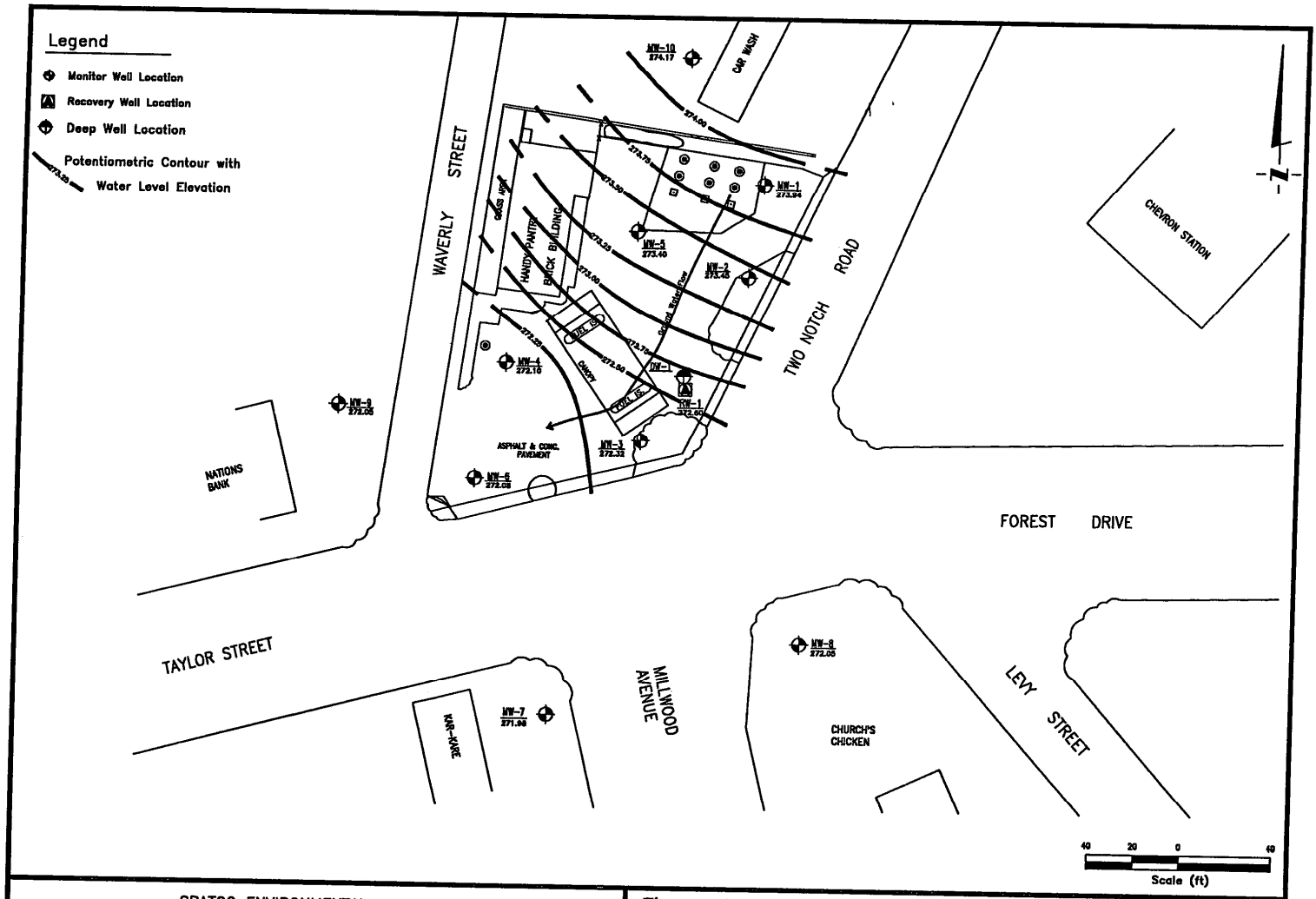
SPATCO ENVIRONMENTAL
400 ARBOR LAKE DRIVE
SUITE A-800
COLUMBIA, SOUTH CAROLINA

Figure 3. Potentiometric Surface of the Shallow Aquifer, 8/5/93

Handy Pantry Facility
Two Notch & Taylor Streets
Columbia, S.C.

GWPD SITE ID# 07584

W.O. # 9-2798



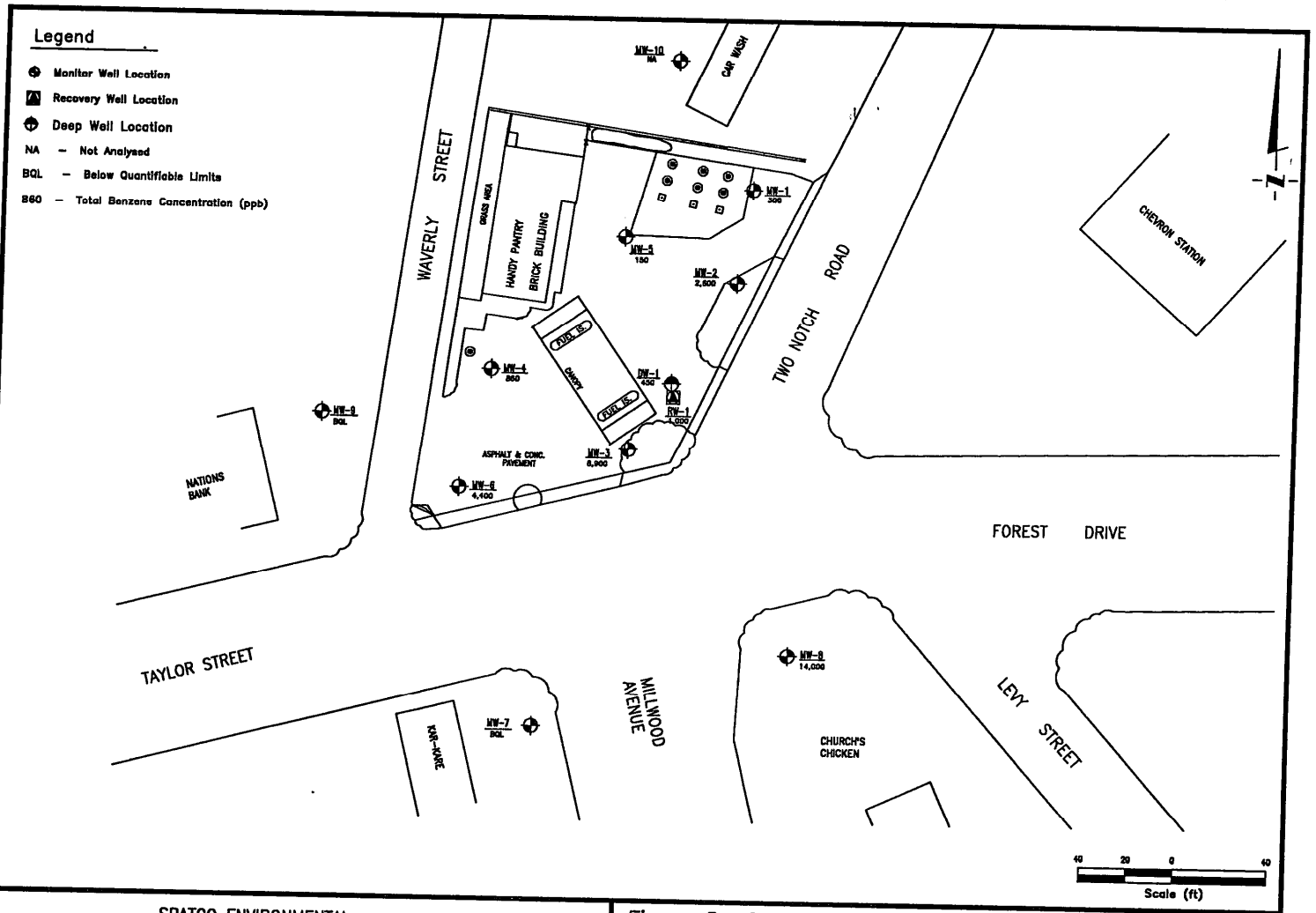
SPATCO ENVIRONMENTAL
400 ARBOR LAKE DRIVE
SUITE A-800
COLUMBIA, SOUTH CAROLINA

Figure 4. Potentiometric Surface of the Shallow Aquifer, 8/26/93

Handy Pantry Facility
Two Notch & Taylor Streets
Columbia, S.C.

GWPD SITE ID# 07584

W.O. # 9-2798



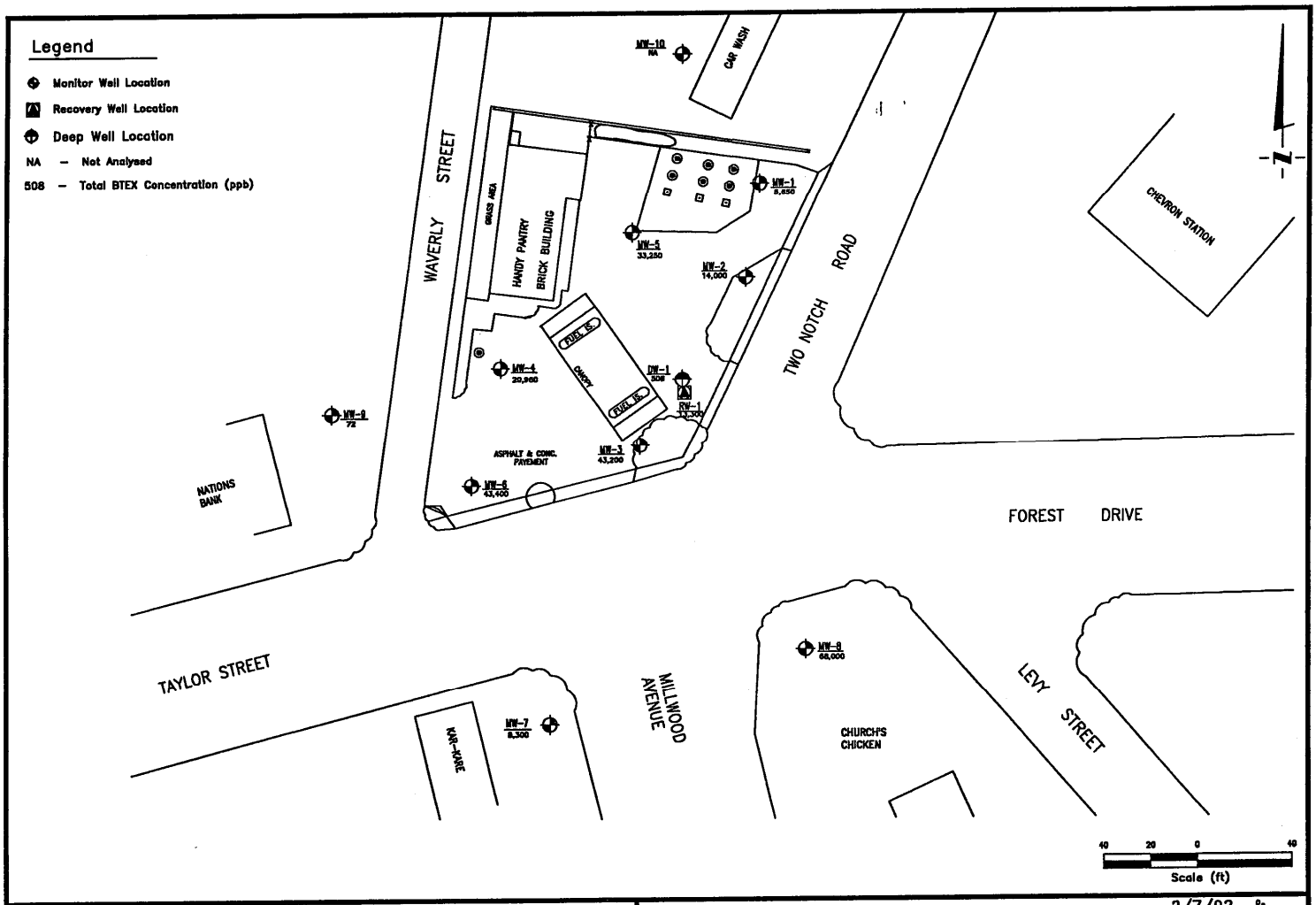
SPATCO ENVIRONMENTAL
400 ARBOR LAKE DRIVE
SUITE A-800
COLUMBIA, SOUTH CAROLINA

Figure 5. Benzene Concentrations in the Shallow Aquifer, 2/7/92 & 8/5/93

Handy Pantry Facility
Two Notch & Taylor Streets
Columbia, S.C.

GWPD SITE ID# 07584

W.O. # 9-2798



SPATCO ENVIRONMENTAL
400 ARBOR LAKE DRIVE
SUITE A-800
COLUMBIA, SOUTH CAROLINA

Figure 6. Total BTEX Concentrations in the Shallow Aquifer, 2/7/92 & 8/5/93

Handy Pantry Facility
Two Notch & Taylor Streets
Columbia, S.C.

GWPD SITE ID# 07584

W.O. # 9-2798

APPENDIX A
SCDHEC Approval

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

Commissioner: Michael D. Jarrett

Board: William E. Applegate, III, Chairman
John H. Burriss, Vice Chairman
Richard E. Jabbour, DDS, Secretary
Toney Graham, Jr., MD
Sandra J. Molander
John B. Pate, MD
Robert J. Stripling, Jr.

Promoting Health, Protecting the Environment

May 29, 1992

Mr. Mark Roberts
Acme Petroleum, Inc.
P.O. Box 2359
Gastonia, NC 28053

Re: Handy Pantry
GWPD SITE ID: #07584
submittal of Expanded Assessment Plan on 3\27\92
Richland County

Dear Mr. Roberts:

The Ground-Water Protection Division (GWPD) of the South Carolina Department of Health and Environmental Control (SCDHEC) has reviewed the above referenced Expanded Assessment Plan. The monitoring well approval for up to 9 wells which includes one recovery well and one telescoping well is enclosed. The plan is approved with the following conditions:

- This office suggests if possible that MW-11 be moved farther up gradient behind the car wash.
- This office along with the Wastewater Division does not approve of sampling from the effluent of the pumping test for a worst case well analysis. The remediation system should be designed based on the actual worst case well.

The following adjustments have been made to the Cost estimate:

- Less $172.50 for two analyses for MTBE. The initial analyses can be incorporated as part of the worst case well analysis.
- Less $207.00 for two analyses for 602. EPA Method 602 is not needed as part of the worst case well analysis if EPA Method 624/625 is utilized.
- Less $16.00 for one Fe analysis.
- Less $16.00 for one Mn analysis.
- Less $103.50 for one xylenes analysis.
- Less $230.00 for one EPA Method 624.
- Less $500.00 for one EPA Method 625.
- Less $40.00 for one BOD analysis.
- Less $23.00 for one PB analysis.
- Less $277.00 for a utility locator. Utility locator companies will locate utilities in the right-of-way for no cost. The station is an operating station, therefore,

recycled paper

the station owner/operator should know where all tanks, product lines, and utility lines are located.

- Less $435.00 for exceeding 15% markup on the rate per gallon. The rate has been adjusted to $.48 per gallon.

- Less $1000 under miscellaneous on AP Implementation for Invoice/Update Prep. This has been adjusted to $500.00 and moved to the summary sheets under invoice preparation. The only tasks which are considered at $200.00 for Invoice/Update Preparation are Assessment Plan implementation and Assessment Report Preparation.

- Less $546.00 for senior review. This office will allow a maximum of two hours senior review on expanded assessment reports.

This office believes that the submittal of the Cost Proposal for Correction Action Plan Preparation is premature and can not be reviewed at this time. This cost proposal will be reviewed upon submittal of the Assessment Report.

The referenced Cost estimate has been approved for **$59,554.23**. A Cost Proposal number (CP# 0113) has been assigned to the above referenced work. Please reference this number for all billing matters related to the referenced work. When submitting Invoices for the referenced Cost Proposal, please include all applicable supporting documentation (i.e. receipts for polyethylene plastic, pressure transducer, data logger).

This Department reserves the authority to pay only for work properly performed and/or technically justified. Also, this Department will seek cost recovery where appropriate. Approval of this work plan does not, in any way, acknowledge Department concurrence that all the elements included therein will be necessary at this site.

A site status update form has been enclosed. An update form should accompany all invoices submitted to this office. If you have any question, please call me at (803)734-5431.

Sincerely,

Marchell Zogiman, Hydrogeologist
UST State Corrective Action Section
Ground-Water Protection Division
Bureau of Drinking Water Protection

mz\07584.cp\PCAS8027

Enclosure - MWAF
Site Status Update Sheet

cc: Kim Caulk, SPATCO - Columbia (MWA & EAU)
Paul Bristol, Central Midlands District EQC
Robertha Dorsey, GWPD
Consultant's File

South Carolina
DHEC
Department of Health and Environmental Control

To: Janet Sheridan, Financial Manager

From: Marchell Schuman, Project Manager

Date: July 13, 1992

Re: Addendum to CP **#0113** (GWPD SITE ID# 07584, PCAS 8027)

Please adjust the above referenced cost proposal as follows:

- addition of one analysis (14) for MTBE at $86.25 for a subtotal of $1207.50.
- addition of one (14) EPA Method 602 at 103.50 for a subtotal of $1449.00.
- addition of utility locator (Travel) at 4 hours @ 17.25 per hour for a subtotal of $69.00.

  addition of utility locator (Mileage) at 200 miles @ .35 per mile for a subtotal of $70.00.
- addition of utility locator (Site Work) at 3 hours @ 46.00 per hour for a subtotal of $ 0.
- addition under senior review (assessment report preparation) of 6 hours @ $91.00 per hour for a total of 8 hours and $728.00.
- Less $100.00 for Expanded Assessment-Office under AR Preparation. It was previously invoiced on page 16 of the cost proposal under AP Implementation. The fee covers both AP implementation and AR Preparation per SUPERB Guidance Miscellaneous rate sheet.

Final total of the Cost Proposal is **$60,566.98**

THANK YOU!

printed on recycled paper

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

Commissioner: Michael D. Jarrett

Board: William E. Applegate, III, Chairman
John H. Burriss, Vice Chairman
Richard E. Jabbour, DDS, Secretary
Toney Graham, Jr., MD
Sandra J. Molander
John B. Pate, MD
Robert J. Stripling, Jr.

Promoting Health, Protecting the Environment

Monitoring Well Approval

Approval is hereby granted to: SPATCO Environmental
400 Arbor Lake Drive, Suite A-600
Columbia, SC 29223

Re: Handy Pantry
GWPD ID# 07584
Richland County

for the construction of monitoring wells designated MW-5 through MW-11, RW-1, and MW-3A in accordance with the construction plans and specification submitted on 4/27/92.

MW-5 through MW-11 will be constructed to the approximate depth of 35 feet below the surface and screened in the uppermost portion of the aquifer for the purpose of monitoring hydrocarbon contamination. RW-1 will be constructed to a depth of 40 feet and a width of 4". MW-3A will be constructed to a total depth of 60 feet.

Conditions:

That the latitude and longitude and actual construction details for each well be submitted with the report of findings.

That Paul Bristol of the Central Midlands District EQC office (803-935-7015) should be notified at least 72 hours prior to well installation.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and the South Carolina Department of Health and Environmental Control Well Standards and Regulations R. 61-71.

Date of Issue: May 22, 1992

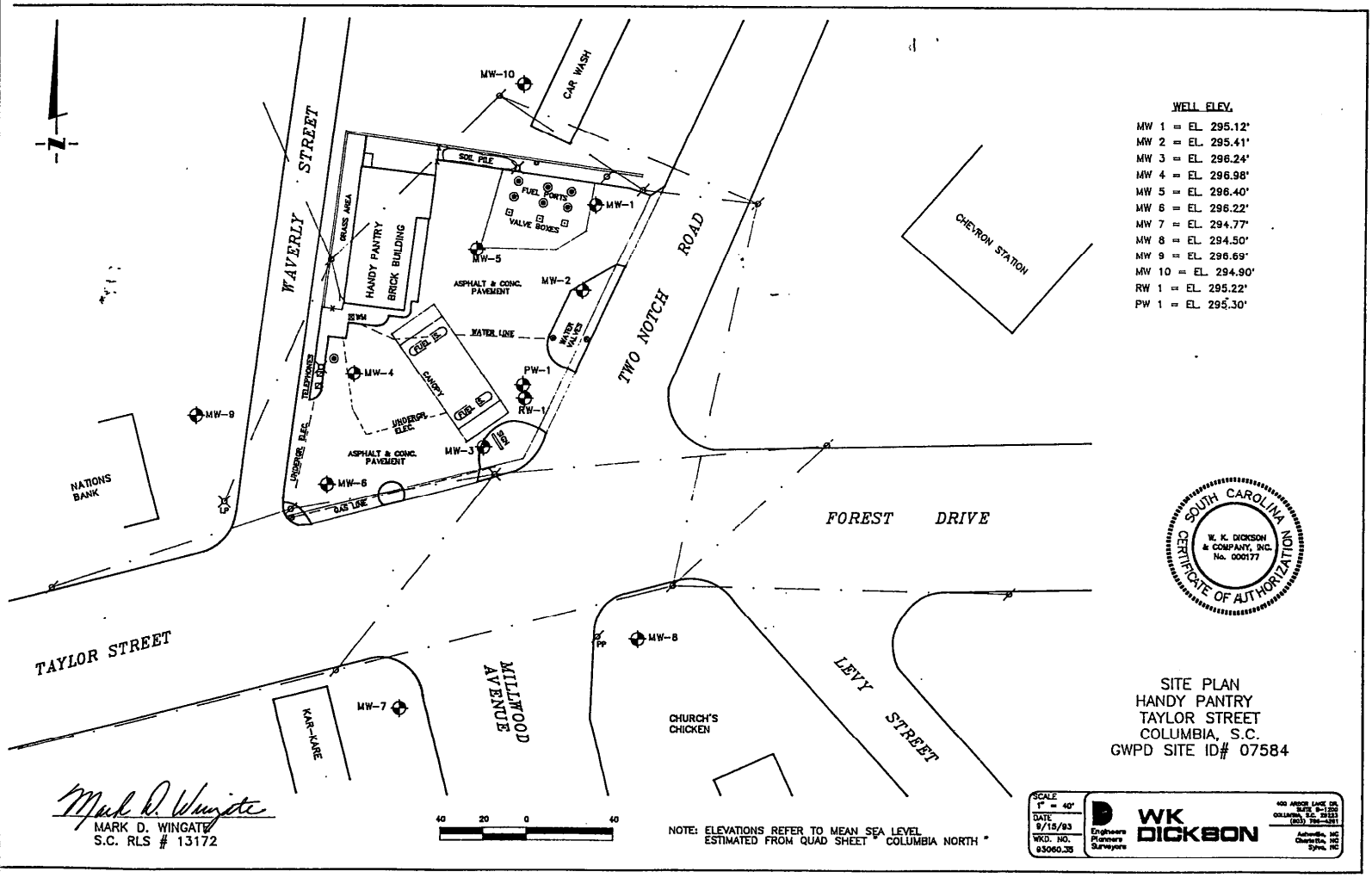
James R. Hess, P.G., Manager
UST State Corrective Action Section
Ground-Water Protection Division
Bureau of Drinking Water Protection

MWA4190
cc: Paul Bristol, Central Midlands District EQC
Mark Roberts, ACME Petroleum, Inc.

recycled paper

APPENDIX B

S.C. Certified Survey Results



WELL ELEV.

MW 1 = EL. 295.12'
MW 2 = EL. 295.41'
MW 3 = EL. 296.24'
MW 4 = EL. 296.98'
MW 5 = EL. 296.40'
MW 6 = EL. 296.22'
MW 7 = EL. 294.77'
MW 8 = EL. 294.50'
MW 9 = EL. 296.69'
MW 10 = EL. 294.90'
RW 1 = EL. 295.22'
PW 1 = EL. 295.30'

SOUTH CAROLINA CERTIFICATE OF AUTHORIZATION
W. K. DICKSON & COMPANY, INC. No. 000177

SITE PLAN
HANDY PANTRY
TAYLOR STREET
COLUMBIA, S.C.
GWPD SITE ID# 07584

Mark D. Wingate
MARK D. WINGATE
S.C. RLS # 13172

NOTE: ELEVATIONS REFER TO MEAN SEA LEVEL ESTIMATED FROM QUAD SHEET " COLUMBIA NORTH "

SCALE: 1" = 40'
DATE: 9/15/93
WKD. NO. 93060.3B

Engineers Planners Surveyors
WK DICKSON
400 ARBOR LAKE DR. SUITE B-1200 COLUMBIA, S.C. 29223 (803) 736-4691
Asheville, N.C. Charlotte, N.C. Rock Hill, S.C.

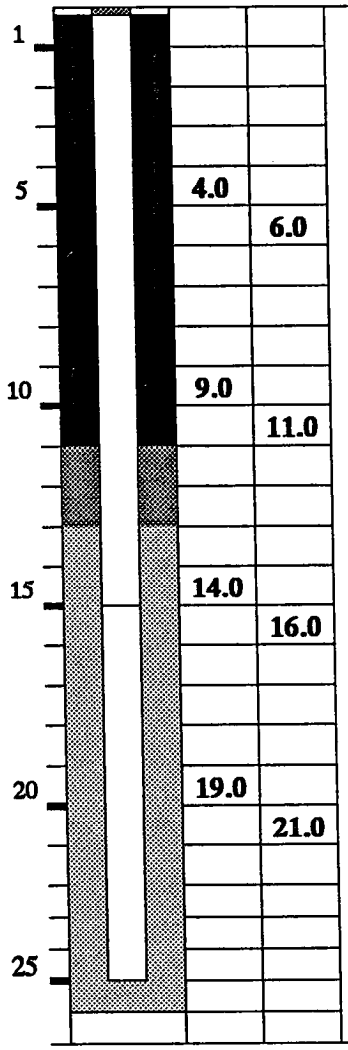
APPENDIX C

Lithologic/Well Construction Logs

Lithologic/Well Construction Log

Boring/Well #	MW–5	Project/No	Handy Pantry 9–2798	Location:	Columbia S.C.
Borehole Total Depth:	25'	Drilled by:	Jim Dudley	Drilling Started:	7/28/93
		Logged by:	Eric Cathcart	Drilling Completed:	7/28/93
Borehole Diameter:	8.5"	Drilling Method:	Hollow Stem Auger	Sampling Method:	Split Spoon

Casing Type:	PVC	Diameter:	2"	Depth:	0	to	15
Screen Type:	Factory Slotted	Opening:	10 Slot	Depth:	15	to	25
Grout:	Neat Cement	Additives:	5% Bentonite	Depth:	0	to	11
Seal:	Bentonite	Type:	Pellets	Depth:	11	to	13
Filter Pack:	Sand	Type:	FX–80	Depth:	13	to	25

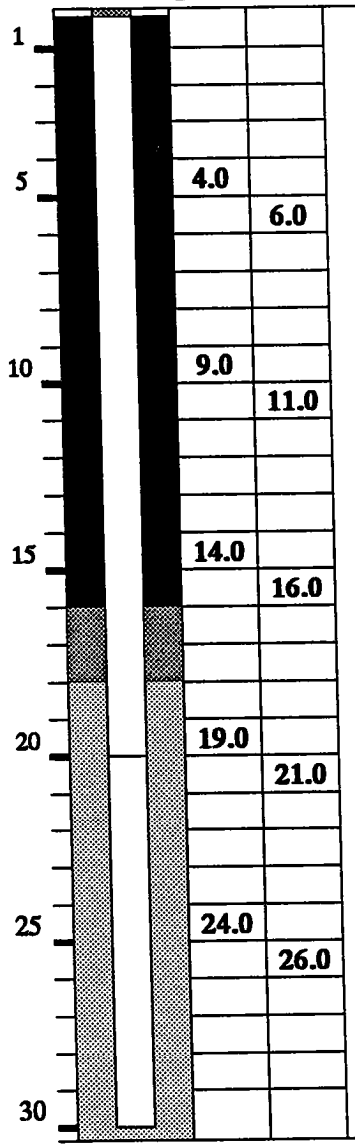


(Feet bls) From	To	LITHOLOGIC DESCRIPTION	Blow Count	Net OVA (ppm)
		Red / Orange, Sandy, Clay.		
4.0			N.A.	1.0
	6.0	Red / Orange, Sandy, Clay.		
9.0		Orange / Tan, Silty, Clayey, Fine Sand.	N.A.	1.0
	11.0			
		Orange / Tan, Silty, Clayey, Fine Sand.		
14.0			N.A.	4.6
	16.0	Orange, Well sorted Medium Sand.		
19.0		Orange, Well sorted Medium Sand.	N.A.	32
	21.0			
		Orange, Well sorted Medium Sand.		

Lithologic/Well Construction Log

Boring/Well # MW-6
Project/No Handy Pantry 9-2798
Location: Columbia S.C.
Borehole Total Depth: 30'
Drilled by: Jim Dudley
Drilling Started: 7/29/93
Logged by: Eric Cathcart
Drilling Completed: 7/29/93
Borehole Diameter: 8.5"
Drilling Method: Hollow Stem Auger
Sampling Method: Split Spoon

Casing Type:	PVC	Diameter:	2"	Depth:	0	to 20
Screen Type:	Factory Slotted	Opening:	10 Slot	Depth:	20	to 30
Grout:	Neat Cement	Additives:	5% Bentonite	Depth:	0	to 16
Seal:	Bentonite	Type:	Pellets	Depth:	16	to 18
Filter Pack:	Sand	Type:	FX-80	Depth:	18	to 30

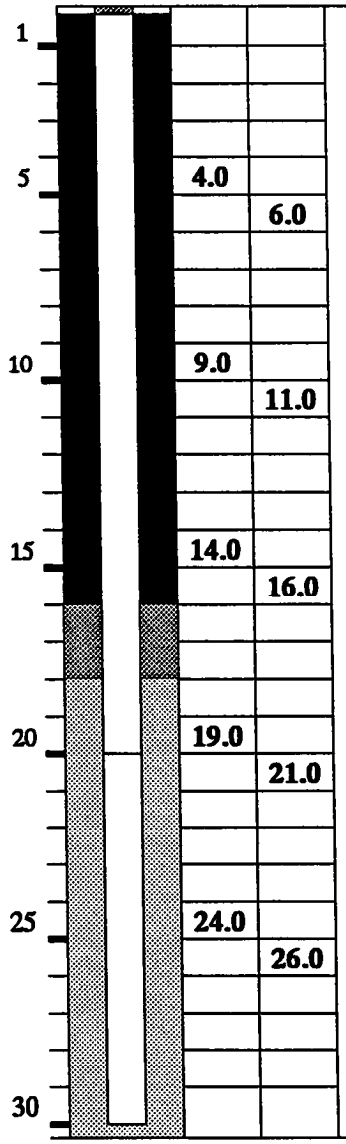


(Feet bls) From	To	LITHOLOGIC DESCRIPTION	Blow Count	Net OVA (ppm)
		Orange, Clayey, Fine / Medium grained Sand.		
4.0	6.0	Brick Red, Clayey, Fine Sand.	N.A.	20
9.0	11.0	Brick Red, Clayey, Fine Sand.	N.A.	0
		Red, Clayey, Fine Sand.		
14.0	16.0	Tan, Silty, Fine Sand.	N.A.	0
19.0	21.0	Tan / Orange, Clayey, Fine / Medium grained Sand.	N.A.	2.0
24.0	26.0	White, Silty, Medium grained Sand.	N.A.	+1K
		White, Silty, Medium grained Sand.		

Lithologic/Well Construction Log

Boring/Well #	MW–7	Project/No	Handy Pantry 9–2798	Location:	Columbia S.C.
Borehole Total Depth:	30'	Drilled by:	Bobby Mullen	Drilling Started:	8/4/93
		Logged by:	Eric Cathcart	Drilling Completed:	8/4/93
Borehole Diameter:	8.5"	Drilling Method:	Hollow Stem Auger	Sampling Method:	Split Spoon

Casing Type:	PVC	Diameter:	2"	Depth:	0	to	20
Screen Type:	Factory Slotted	Opening:	10 Slot	Depth:	20	to	30
Grout:	Neat Cement	Additives:	5% Bentonite	Depth:	0	to	16
Seal:	Bentonite	Type:	Pellets	Depth:	16	to	18
Filter Pack:	Sand	Type:	FX–80	Depth:	18	to	30

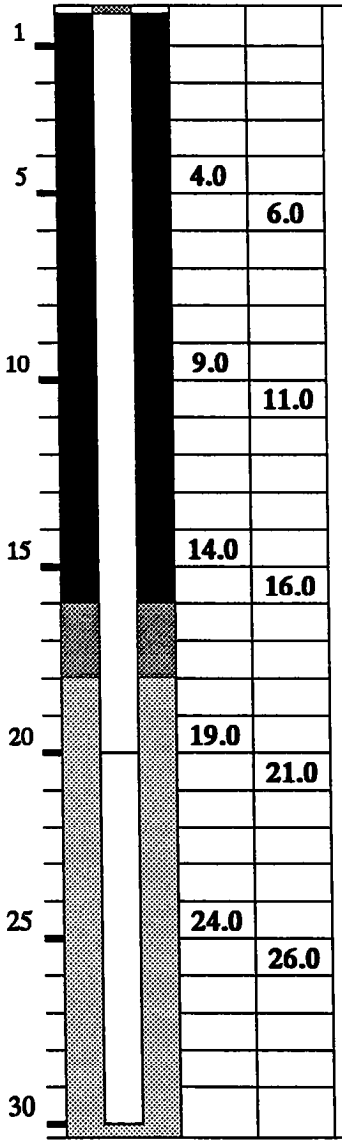


(Feet bls) From	To	LITHOLOGIC DESCRIPTION	Blow Count	Net OVA (ppm)
		Light Brown, Fine / Medium grained Sand.		
4.0	6.0	Light Brown, Fine / Medium grained Sand.	N.A.	0
		Brick Red, Clayey, Fine Sand.		
9.0	11.0	Brick Red, Clayey, Fine Sand.	N.A.	14.0
		Orange, Clayey, Fine / Medium grained Sand.		
14.0	16.0		N.A.	3.0
		Orange, Clayey, Fine / Medium grained Sand.		
19.0	21.0	White / Tan, Medium grained Sand	5,5,6,8	0
24.0	26.0	Pink / Orange, Clayey, Sand grading to a Dense Clay.	6,7,9,6	120
		Grey, Dense Clay.		

Lithologic/Well Construction Log

Boring/Well #	MW–8	Project/No	Handy Pantry 9–2798	Location:	Columbia S.C.
Borehole Total Depth:	30'	Drilled by:	Bobby Mullen	Drilling Started:	8/4/93
		Logged by:	Eric Cathcart	Drilling Completed:	8/4/93
Borehole Diameter:	8.5"	Drilling Method:	Hollow Stem Auger	Sampling Method:	Split Spoon

Casing Type:	PVC	Diameter:	2"	Depth:	0	to	20
Screen Type:	Factory Slotted	Opening:	10 Slot	Depth:	20	to	30
Grout:	Neat Cement	Additives:	5% Bentonite	Depth:	0	to	16
Seal:	Bentonite	Type:	Pellets	Depth:	16	to	18
Filter Pack:	Sand	Type:	FX–80	Depth:	18	to	30

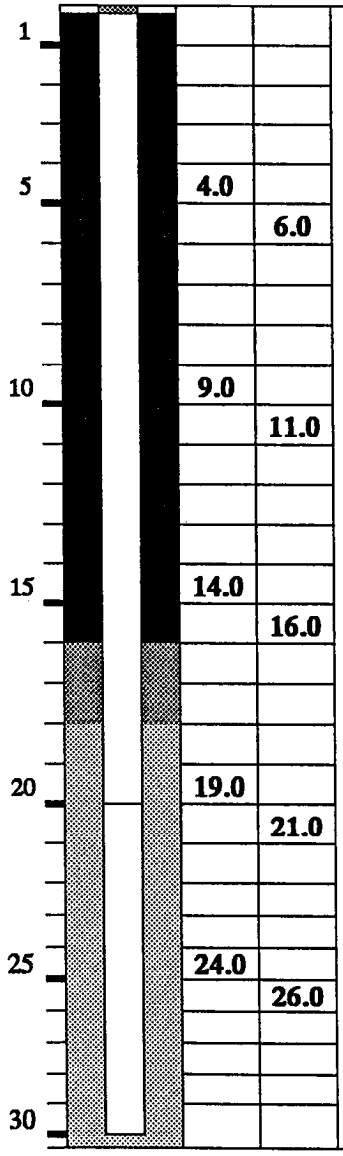


(Feet bls) From	To	LITHOLOGIC DESCRIPTION	Blow Count	Net OVA (ppm)
		Light Brown, Fine / Medium grained Sand.		
4.0		Light Brown, Fine / Medium grained Sand.	N.A.	0
	6.0			
		Brick Red, Clayey, Fine Sand.		
9.0		Brick Red, Clayey, Fine Sand.	N.A.	2.0
	11.0			
		Orange, Clayey, Fine / Medium grained Sand.		
14.0			N.A.	3.0
	16.0			
		Orange, Clayey, Fine / Medium grained Sand.		
19.0			6,8,9,11	20
	21.0	White / Tan, Medium grain		
24.0		Grey, Dense Clay.	N.A.	+1K
	26.0			
		Grey, Dense Clay.		

Lithologic/Well Construction Log

Boring/Well #	MW–9	Project/No	Handy Pantry 9–2798	Location:	Columbia S.C.
Borehole Total Depth:	30'	Drilled by:	Bobby Mullen	Drilling Started:	8/4/93
		Logged by:	Eric Cathcart	Drilling Completed:	8/4/93
Borehole Diameter:	8.5"	Drilling Method:	Hollow Stem Auger	Sampling Method:	Split Spoon

Casing Type:	PVC	Diameter:	2"	Depth:	0	to	20
Screen Type:	Factory Slotted	Opening:	10 Slot	Depth:	20	to	30
Grout:	Neat Cement	Additives:	5% Bentonite	Depth:	0	to	16
Seal:	Bentonite	Type:	Pellets	Depth:	16	to	18
Filter Pack:	Sand	Type:	FX–80	Depth:	18	to	30

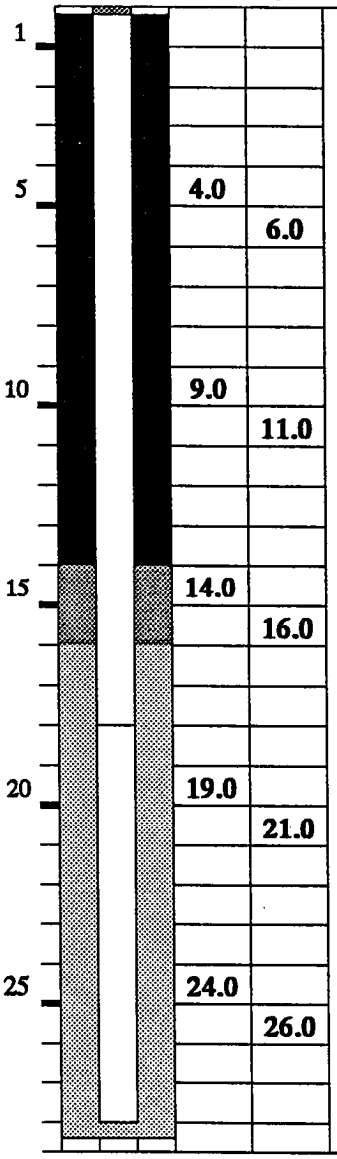


(Feet bls) From	To	LITHOLOGIC DESCRIPTION	Blow Count	Net OVA (ppm)
4.0	6.0	Brick Red, Clayey, Fine Sand.	N.A.	0
9.0	11.0	Brick Red, Clayey, Fine Sand.	N.A.	10
14.0	16.0	Orange, Clayey, Fine Sand.	N.A.	25
19.0	21.0	White, Medium grained Sand.	4,5,7,12	1.4
24.0	26.0	Pink / Orange, Silty, Sand with alternating Clay layers.	N.A.	2.6
		Pink / Orange, Silty, Sand with alternating Clay layers.		

Lithologic/Well Construction Log

Boring/Well #	MW−10	Project/No	Handy Pantry 9−2798	Location:	Columbia S.C.
Borehole Total Depth:	28'	Drilled by:	Bobby Mullen	Drilling Started:	8/3/93
		Logged by:	Eric Cathcart	Drilling Completed:	8/3/93
Borehole Diameter:	8.5"	Drilling Method:	Hollow Stem Auger	Sampling Method:	Split Spoon

Casing Type:	PVC	Diameter:	2"	Depth:	0	to	18
Screen Type:	Factory Slotted	Opening:	10 Slot	Depth:	18	to	28
Grout:	Neat Cement	Additives:	5% Bentonite	Depth:	0	to	14
Seal:	Bentonite	Type:	Pellets	Depth:	14	to	16
Filter Pack:	Sand	Type:	FX−80	Depth:	16	to	28



(Feet bls) From	To	LITHOLOGIC DESCRIPTION	Blow Count	Net OVA (ppm)
4.0	6.0	Orange, Clayey, Fine / Medium grained Sand.		0
9.0	11.0	Light brown, Clayey, Fine / Medium grained Sand.		50
14.0	16.0	Light brown, Clayey, Fine / Medium grained Sand.		
19.0	21.0	Pinkish − Orange, Silty, Sand.	8,12,11,13	+1K
24.0	26.0	Tan, Silty, Sand.		
		Tan, Silty, Sand.		

#07584

Lithologic/Well Construction Log

(PW-1)

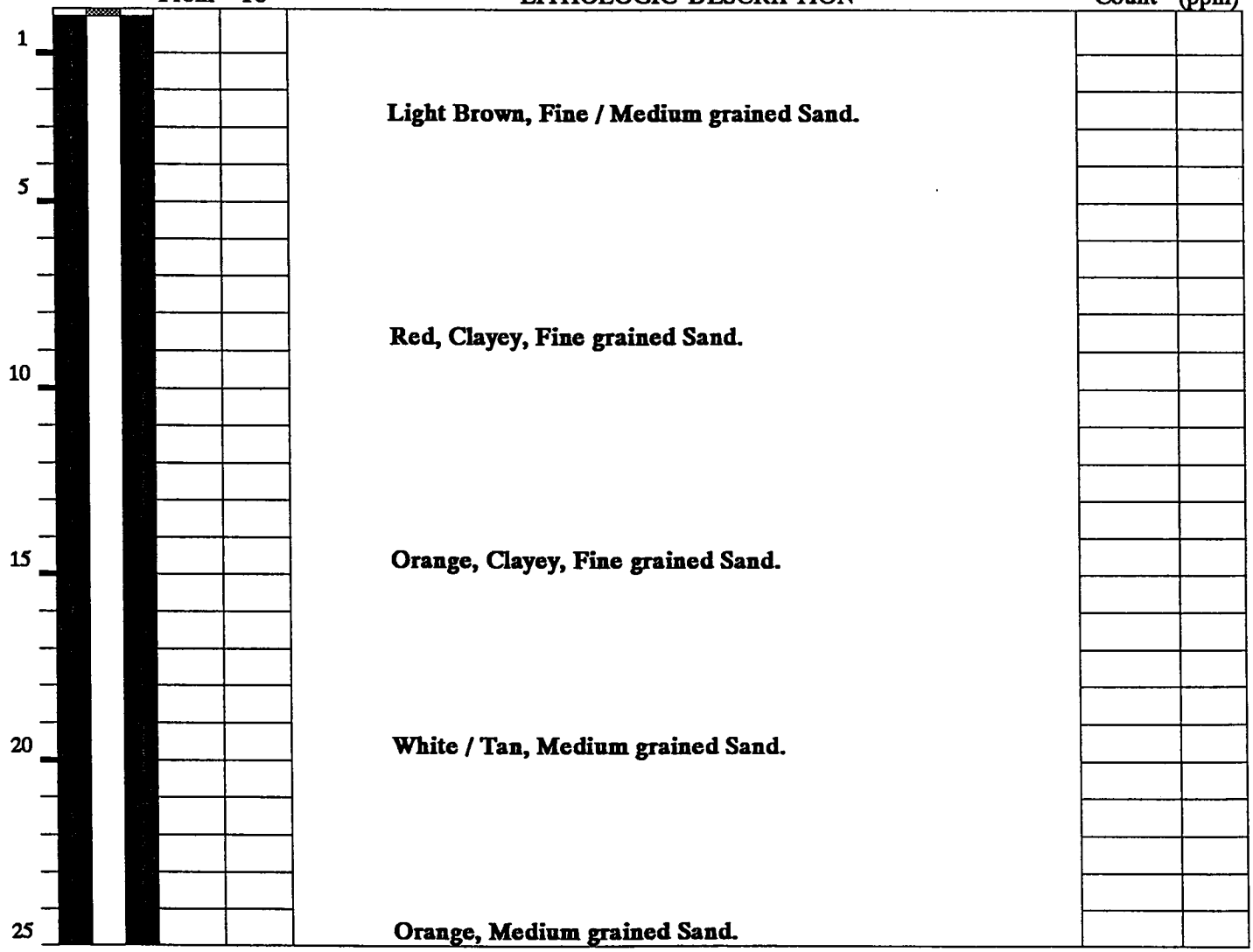
Boring/Well # DW-1 | Project/No Handy Pantry 9-2798 | Location: Columbia, SC

Borehole Total Depth: 50' | Drilled by: Jim Dudley | Drilling Started: 7/28/93

Logged by: Eric Cathcart | Drilling Completed: 7/29/93

Borehole Diameter: 12" | Drilling Method: Hollow Stem Auger | Sampling Method: Grab

Casing Type:	PVC	Diameter:	6"	Depth:	0	to 40
Casing Type:	PVC	Diameter:	2"	Depth:	0	to 45
Screen Type:	Factory Slotted	Opening:	10 Slot	Depth:	45	to 50
Grout:	Neat Cement	Additives:	5% Bentonite	Depth:	0	to 40
Seal:	Bentonite	Type:	Pellet	Depth:	40	to 42
Filter Pack:	Sand	Type:	FX-80	Depth:	42	to 50



(Feet bls) From	To	LITHOLOGIC DESCRIPTION	Blow Count	Net OVA (ppm)
		Light Brown, Fine / Medium grained Sand.		
		Red, Clayey, Fine grained Sand.		
		Orange, Clayey, Fine grained Sand.		
		White / Tan, Medium grained Sand.		
		Orange, Medium grained Sand.		

Lithologic/Well Construction Log

Boring/Well # DW-1

Borehole Total Depth: 50'

Borehole Diameter: 12"

Project/No Handy Pantry 9-2798

Drilled by: Jim Dudley

Logged by: Eric Cathcart

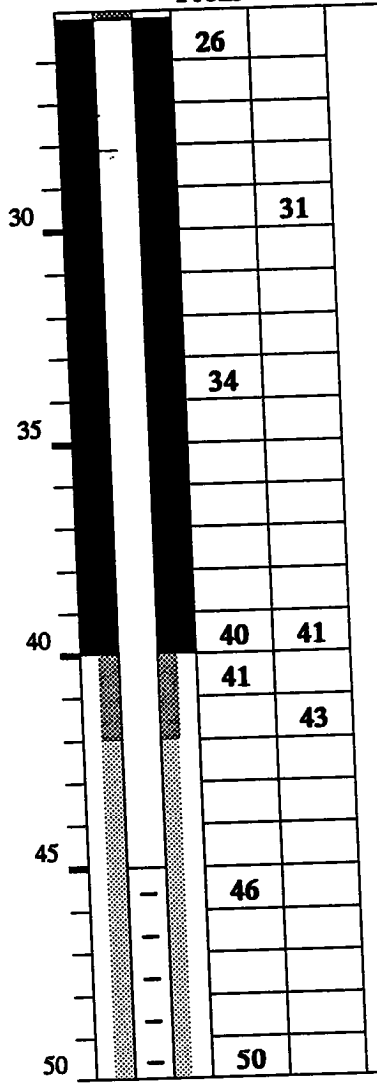
Drilling Method: Hollow Stem Auger

Location: Columbia, SC

Drilling Started: 7/28/93

Drilling Completed: 7/29/93

Sampling Method: Grab



(Feet bls) From	To	LITHOLOGIC DESCRIPTION	Blow Count	Net OVA (ppm)
	26			
		Orange, Medium grained Sand.		
	31			
		Orange, Medium grained Sand.		
	34			
		Grey, dense Clay.		
		Grey, dense Clay.		
40	41			
41		Tan / Light Orange, Fine / Medium grained Sand.		
	43			
45				
	46	Tan / Light Orange, Fine / Medium grained Sand.		
50	50	Orange, Medium grained Sand.		

Lithologic/Well Construction Log

Boring/Well #	RW−1	Project/No	Handy Pantry 9−2798	Location:	Columbia S.C.
Borehole Total Depth:	30'	Drilled by:	Bobby Mullen	Drilling Started:	8/3/93
		Logged by:	Eric Cathcart	Drilling Completed:	8/3/93
Borehole Diameter:	8.5"	Drilling Method:	Hollow Stem Auger	Sampling Method:	Split Spoon

Casing Type:	PVC	Diameter:	4"	Depth:	0	to	9
Screen Type:	Factory Slotted	Opening:	Factory Slotted	Depth:	9	to	29
Grout:	Neat Cement	Additives:	5% Bentonite	Depth:	0	to	5
Seal:	Bentonite	Type:	Pellets	Depth:	5	to	7
Filter Pack:	Sand	Type:	FX−80	Depth:	7	to	30

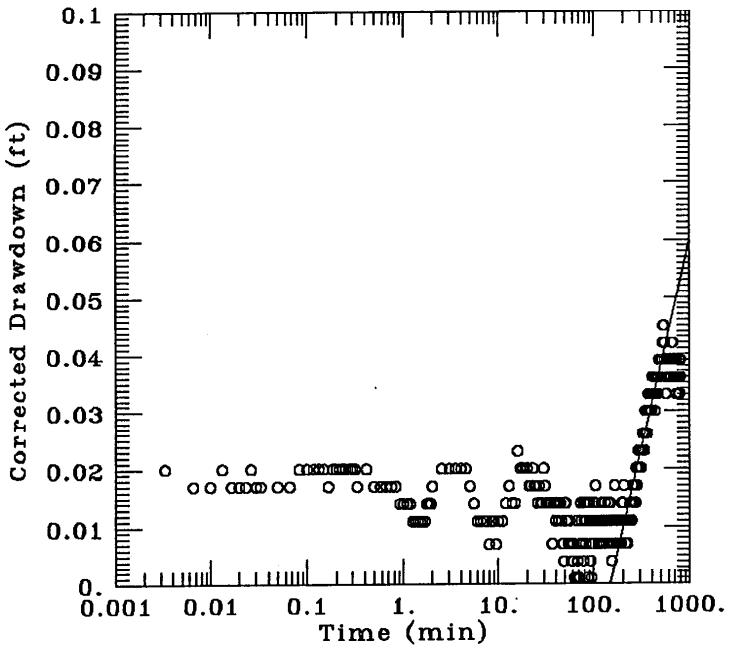
(Feet bls) From	To	LITHOLOGIC DESCRIPTION	Blow Count	Net OVA (ppm)
		Orange, Clayey, Fine grained Sand.		
4.0			N.A.	0
	6.0	Red, Clayey, Fine / Medium grained Sand.		
9.0		Light Brown / Orange, Fine / Medium grained Sand.	N.A.	12
	11.0			
14.0		Brown, Fine / Medium grained, Clayey, Sand.	N.A.	100
	16.0			
19.0		Brown, Fine / Medium grained, Clayey, Sand.	N.A.	320
	21.0	Light Grey, Clayey, Fine / Medium grained Sand. *Strong Petroleum odor.		
24.0			4,6,11,12	+1K
	26.0	Red, Silty, Fine grained Sand. *Strong Petroleum odor.		
	30.0			

APPENDIX D

Pumping Test Graphic Analysis

SPATCO Environmental	Client: Handy Pantry
Project No.: 9-2798	Location: Taylor St, Columbia S.C.

Handy Pantry, Pumping Test Data, MW-2



DATA SET:
hptntmw2.dat
11/11/93

AQUIFER TYPE:
Unconfined
SOLUTION METHOD:
Cooper-Jacob
TEST DATE:
8/26/93

ESTIMATED PARAMETERS:
T = 0.1707 ft^2/min
S = 0.01789

TEST DATA:
Q = 0.06684 ft^3/min
r = 56. ft
b = 17.38 ft

<<

<<

Time	Observed	Calculated	Residual	Weight
0.0033	0.02	-0.00924	0.02924	1
0.0066	0.017	-0.0070108	0.024011	1
0.01	0.017	-0.0056743	0.022674	1
0.0133	0.02	-0.004757	0.024757	1
0.0166	0.017	-0.004044	0.021044	1
0.02	0.017	-0.0034446	0.020445	1
0.0233	0.017	-0.0029533	0.019953	1
0.0266	0.02	-0.0025272	0.022527	1
0.03	0.017	-0.0021402	0.01914	1
0.0333	0.017	-0.0018045	0.018804	1
0.05	0.017	-0.00049672	0.017497	1
0.0666	0.017	0.00042571	0.016574	1
0.0833	0.02	0.0011457	0.018854	1
0.1	0.02	0.0017336	0.018266	1
0.1166	0.02	0.0022278	0.017772	1
0.1333	0.02	0.0026586	0.017341	1
0.15	0.02	0.0030384	0.016962	1
0.1666	0.017	0.0033762	0.013624	1
0.1833	0.02	0.0036837	0.016316	1
0.2	0.02	0.0039643	0.016036	1
0.2166	0.02	0.0042209	0.015779	1
0.2333	0.02	0.0044599	0.01554	1
0.25	0.02	0.0046824	0.015318	1
0.2666	0.02	0.0048894	0.015111	1
0.2833	0.02	0.0050849	0.014915	1
0.3	0.02	0.0052692	0.014731	1
0.3166	0.02	0.0054426	0.014557	1
0.3333	0.017	0.005608	0.011392	1
0.4166	0.02	0.0063261	0.013674	1
0.5	0.017	0.0069135	0.010087	1
0.5833	0.017	0.0074095	0.0095905	1
0.6666	0.017	0.0078392	0.0091608	1
0.75	0.017	0.0082187	0.0087813	1
0.8333	0.017	0.0085577	0.0084423	1
0.9166	0.014	0.0088644	0.0051356	1
1	0.014	0.0091448	0.0048552	1
1.0833	0.014	0.0094023	0.0045977	1
1.1666	0.014	0.0096408	0.0043592	1
1.25	0.011	0.0098631	0.0011369	1
1.3333	0.011	0.010071	0.00092916	1
1.4166	0.011	0.010266	0.00073405	1
1.5	0.011	0.01045	0.00054988	1
1.5833	0.011	0.010624	0.00037587	1
1.6666	0.011	0.010789	0.00021079	1
1.75	0.014	0.010946	0.0030536	1
1.8333	0.014	0.011096	0.0029039	1
1.9166	0.014	0.011239	0.0027608	1
2	0.017	0.011376	0.0056236	1
2.5	0.02	0.012095	0.0079052	1
3	0.02	0.012682	0.0073181	1
3.5	0.02	0.013178	0.0068218	1
4	0.02	0.013608	0.0063918	1
4.5	0.02	0.013988	0.0060125	1
5	0.017	0.014327	0.0026732	1
5.5	0.014	0.014634	-0.00063372	1
6	0.011	0.014914	-0.0039139	1
6.5	0.011	0.015172	-0.0041717	1
7	0.011	0.01541	-0.0044104	1

7.5	0.011	0.015633	-0.0046325	1
8	0.007	0.01584	-0.0088404	1
8.5	0.011	0.016036	-0.0050356	1
9	0.011	0.01622	-0.0052197	1
9.5	0.007	0.016394	-0.0093939	1
10	0.011	0.016559	-0.005559	1
11	0.011	0.016866	-0.005866	1
12	0.014	0.017146	-0.0031463	1
13	0.017	0.017404	-0.00040406	1
14	0.014	0.017643	-0.0036428	1
15	0.014	0.017865	-0.003865	1
16	0.023	0.018073	0.0049272	1
17	0.02	0.018268	0.0017319	1
18	0.02	0.018452	0.0015478	1
19	0.02	0.018626	0.0013736	1
20	0.02	0.018792	0.0012084	1
21	0.017	0.018949	-0.0019488	1
22	0.017	0.019099	-0.0020986	1
23	0.02	0.019242	0.00075822	1
24	0.017	0.019379	-0.0023789	1
25	0.017	0.01951	-0.0025104	1
26	0.014	0.019637	-0.0056367	1
27	0.017	0.019758	-0.0027583	1
28	0.014	0.019875	-0.0058754	1
29	0.014	0.019988	-0.0059885	1
30	0.02	0.020098	-9.768E-005	1
31	0.017	0.020203	-0.0032033	1
32	0.014	0.020306	-0.0063056	1
33	0.014	0.020405	-0.0064047	1
34	0.014	0.020501	-0.0065009	1
35	0.014	0.020594	-0.0065943	1
36	0.014	0.020685	-0.006685	1
37	0.007	0.020773	-0.013773	1
38	0.014	0.020859	-0.0068592	1
39	0.014	0.020943	-0.0069429	1
40	0.011	0.021024	-0.010024	1
41	0.014	0.021104	-0.007104	1
42	0.014	0.021182	-0.0071816	1
43	0.011	0.021257	-0.010257	1
44	0.014	0.021331	-0.0073315	1
45	0.014	0.021404	-0.0074039	1
46	0.011	0.021475	-0.010475	1
47	0.007	0.021544	-0.014544	1
48	0.007	0.021612	-0.014612	1
49	0.004	0.021678	-0.017678	1
50	0.014	0.021743	-0.0077433	1
51	0.014	0.021807	-0.0078071	1
52	0.011	0.02187	-0.01087	1
53	0.011	0.021931	-0.010931	1
54	0.007	0.021991	-0.014991	1
55	0.007	0.02205	-0.01505	1
56	0.011	0.022108	-0.011108	1
57	0.007	0.022165	-0.015165	1
58	0.007	0.022221	-0.015221	1
59	0.004	0.022277	-0.018277	1
60	0.007	0.022331	-0.015331	1
61	0.004	0.022384	-0.018384	1
62	0.007	0.022436	-0.015436	1
63	0.001	0.022488	-0.021488	1
64	0.001	0.022539	-0.021539	1

65	0.001	0.022589	-0.021589	1
66	0.001	0.022638	-0.021638	1
67	0.011	0.022686	-0.011686	1
68	0.004	0.022734	-0.018734	1
69	0.001	0.022781	-0.021781	1
70	0.001	0.022827	-0.021827	1
71	0.001	0.022873	-0.021873	1
72	0.007	0.022918	-0.015918	1
73	0.014	0.022963	-0.0089625	1
74	0.011	0.023006	-0.012006	1
75	0.007	0.02305	-0.01605	1
76	0.007	0.023092	-0.016092	1
77	0.007	0.023134	-0.016134	1
78	0.004	0.023176	-0.019176	1
79	0.014	0.023217	-0.009217	1
80	0.011	0.023258	-0.012258	1
81	0.014	0.023298	-0.0092976	1
82	0.007	0.023337	-0.016337	1
83	0.011	0.023376	-0.012376	1
84	0.014	0.023415	-0.0094147	1
85	0.014	0.023453	-0.0094529	1
86	0.014	0.023491	-0.0094906	1
87	0.001	0.023528	-0.022528	1
88	0.014	0.023565	-0.0095646	1
89	0.014	0.023601	-0.009601	1
90	0.011	0.023637	-0.012637	1
91	0.014	0.023673	-0.0096726	1
92	0.004	0.023708	-0.019708	1
93	0.011	0.023743	-0.012743	1
94	0.007	0.023777	-0.016777	1
95	0.001	0.023811	-0.022811	1
96	0.007	0.023845	-0.016845	1
97	0.011	0.023878	-0.012878	1
98	0.014	0.023911	-0.0099114	1
99	0.007	0.023944	-0.016944	1
100	0.011	0.023977	-0.012977	1
101	0.011	0.024009	-0.013009	1
102	0.014	0.02404	-0.01004	1
103	0.011	0.024072	-0.013072	1
104	0.017	0.024103	-0.0071029	1
105	0.014	0.024134	-0.010134	1
106	0.011	0.024164	-0.013164	1
107	0.011	0.024195	-0.013195	1
108	0.011	0.024224	-0.013224	1
109	0.011	0.024254	-0.013254	1
110	0.011	0.024284	-0.013284	1
111	0.007	0.024313	-0.017313	1
112	0.011	0.024342	-0.013342	1
113	0.011	0.02437	-0.01337	1
114	0.011	0.024399	-0.013399	1
115	0.011	0.024427	-0.013427	1
116	0.011	0.024455	-0.013455	1
117	0.007	0.024482	-0.017482	1
118	0.011	0.02451	-0.01351	1
119	0.011	0.024537	-0.013537	1
120	0.011	0.024564	-0.013564	1
121	0.014	0.024591	-0.010591	1
122	0.011	0.024617	-0.013617	1
123	0.011	0.024644	-0.013644	1
124	0.007	0.02467	-0.01767	1

125	0.007	0.024695	-0.017695	1
126	0.007	0.024721	-0.017721	1
127	0.011	0.024747	-0.013747	1
128	0.007	0.024772	-0.017772	1
129	0.011	0.024797	-0.013797	1
130	0.011	0.024822	-0.013822	1
131	0.014	0.024847	-0.010847	1
132	0.011	0.024871	-0.013871	1
133	0.011	0.024895	-0.013895	1
134	0.011	0.02492	-0.01392	1
135	0.007	0.024943	-0.017943	1
136	0.011	0.024967	-0.013967	1
137	0.011	0.024991	-0.013991	1
138	0.011	0.025014	-0.014014	1
139	0.011	0.025038	-0.014038	1
140	0.011	0.025061	-0.014061	1
141	0.014	0.025084	-0.011084	1
142	0.011	0.025106	-0.014106	1
143	0.014	0.025129	-0.011129	1
144	0.011	0.025151	-0.014151	1
145	0.007	0.025174	-0.018174	1
146	0.007	0.025196	-0.018196	1
147	0.011	0.025218	-0.014218	1
148	0.014	0.02524	-0.01124	1
149	0.011	0.025261	-0.014261	1
150	0.011	0.025283	-0.014283	1
151	0.007	0.025304	-0.018304	1
152	0.011	0.025326	-0.014326	1
153	0.011	0.025347	-0.014347	1
154	0.004	0.025368	-0.021368	1
155	0.011	0.025389	-0.014389	1
156	0.007	0.025409	-0.018409	1
157	0.007	0.02543	-0.01843	1
158	0.007	0.02545	-0.01845	1
159	0.011	0.025471	-0.014471	1
160	0.011	0.025491	-0.014491	1
161	0.011	0.025511	-0.014511	1
162	0.011	0.025531	-0.014531	1
163	0.007	0.025551	-0.018551	1
164	0.011	0.025571	-0.014571	1
165	0.017	0.02559	-0.0085901	1
166	0.011	0.02561	-0.01461	1
167	0.011	0.025629	-0.014629	1
168	0.011	0.025648	-0.014648	1
169	0.007	0.025667	-0.018667	1
170	0.007	0.025686	-0.018686	1
171	0.007	0.025705	-0.018705	1
172	0.007	0.025724	-0.018724	1
173	0.011	0.025743	-0.014743	1
174	0.011	0.025761	-0.014761	1
175	0.007	0.02578	-0.01878	1
176	0.007	0.025798	-0.018798	1
177	0.007	0.025816	-0.018816	1
178	0.007	0.025834	-0.018834	1
179	0.011	0.025853	-0.014853	1
180	0.007	0.02587	-0.01887	1
181	0.011	0.025888	-0.014888	1
182	0.007	0.025906	-0.018906	1
183	0.007	0.025924	-0.018924	1
184	0.011	0.025941	-0.014941	1

185	0.011	0.025959	-0.014959	1
186	0.011	0.025976	-0.014976	1
187	0.011	0.025993	-0.014993	1
188	0.011	0.026011	-0.015011	1
189	0.011	0.026028	-0.015028	1
190	0.007	0.026045	-0.019045	1
191	0.011	0.026062	-0.015062	1
192	0.011	0.026078	-0.015078	1
193	0.007	0.026095	-0.019095	1
194	0.007	0.026112	-0.019112	1
195	0.011	0.026128	-0.015128	1
196	0.014	0.026145	-0.012145	1
197	0.011	0.026161	-0.015161	1
198	0.011	0.026178	-0.015178	1
199	0.011	0.026194	-0.015194	1
200	0.014	0.02621	-0.01221	1
201	0.011	0.026226	-0.015226	1
202	0.014	0.026242	-0.012242	1
203	0.014	0.026258	-0.012258	1
204	0.014	0.026274	-0.012274	1
205	0.017	0.02629	-0.0092896	1
206	0.017	0.026305	-0.0093053	1
207	0.011	0.026321	-0.015321	1
208	0.011	0.026336	-0.015336	1
209	0.011	0.026352	-0.015352	1
210	0.011	0.026367	-0.015367	1
211	0.011	0.026383	-0.015383	1
212	0.011	0.026398	-0.015398	1
213	0.007	0.026413	-0.019413	1
214	0.007	0.026428	-0.019428	1
215	0.007	0.026443	-0.019443	1
216	0.007	0.026458	-0.019458	1
217	0.011	0.026473	-0.015473	1
218	0.011	0.026488	-0.015488	1
219	0.011	0.026502	-0.015502	1
220	0.011	0.026517	-0.015517	1
221	0.011	0.026532	-0.015532	1
222	0.011	0.026546	-0.015546	1
223	0.011	0.026561	-0.015561	1
224	0.007	0.026575	-0.019575	1
225	0.007	0.02659	-0.01959	1
226	0.011	0.026604	-0.015604	1
227	0.011	0.026618	-0.015618	1
228	0.011	0.026632	-0.015632	1
229	0.011	0.026646	-0.015646	1
230	0.011	0.02666	-0.01566	1
231	0.011	0.026674	-0.015674	1
232	0.011	0.026688	-0.015688	1
233	0.011	0.026702	-0.015702	1
234	0.011	0.026716	-0.015716	1
235	0.011	0.02673	-0.01573	1
236	0.014	0.026743	-0.012743	1
237	0.011	0.026757	-0.015757	1
238	0.011	0.026771	-0.015771	1
239	0.011	0.026784	-0.015784	1
240	0.011	0.026798	-0.015798	1
241	0.011	0.026811	-0.015811	1
242	0.011	0.026824	-0.015824	1
243	0.014	0.026838	-0.012838	1
244	0.011	0.026851	-0.015851	1

245	0.014	0.026864	-0.012864	1
246	0.014	0.026877	-0.012877	1
247	0.011	0.02689	-0.01589	1
248	0.014	0.026903	-0.012903	1
249	0.014	0.026916	-0.012916	1
250	0.014	0.026929	-0.012929	1
251	0.014	0.026942	-0.012942	1
252	0.014	0.026955	-0.012955	1
253	0.017	0.026968	-0.0099675	1
254	0.014	0.02698	-0.01298	1
255	0.014	0.026993	-0.012993	1
256	0.014	0.027006	-0.013006	1
257	0.014	0.027018	-0.013018	1
258	0.014	0.027031	-0.013031	1
259	0.014	0.027043	-0.013043	1
260	0.017	0.027055	-0.010055	1
261	0.014	0.027068	-0.013068	1
262	0.014	0.02708	-0.01308	1
263	0.014	0.027092	-0.013092	1
264	0.017	0.027105	-0.010105	1
265	0.014	0.027117	-0.013117	1
266	0.014	0.027129	-0.013129	1
267	0.017	0.027141	-0.010141	1
268	0.017	0.027153	-0.010153	1
269	0.017	0.027165	-0.010165	1
270	0.017	0.027177	-0.010177	1
271	0.017	0.027189	-0.010189	1
272	0.017	0.027201	-0.010201	1
273	0.014	0.027213	-0.013213	1
274	0.017	0.027224	-0.010224	1
275	0.017	0.027236	-0.010236	1
276	0.017	0.027248	-0.010248	1
277	0.02	0.02726	-0.0072596	1
278	0.017	0.027271	-0.010271	1
279	0.017	0.027283	-0.010283	1
280	0.017	0.027294	-0.010294	1
281	0.02	0.027306	-0.0073058	1
282	0.02	0.027317	-0.0073172	1
283	0.02	0.027329	-0.0073287	1
284	0.02	0.02734	-0.00734	1
285	0.02	0.027351	-0.0073513	1
286	0.02	0.027363	-0.0073626	1
287	0.02	0.027374	-0.0073739	1
288	0.02	0.027385	-0.0073851	1
289	0.023	0.027396	-0.0043963	1
290	0.02	0.027407	-0.0074074	1
291	0.02	0.027418	-0.0074185	1
292	0.02	0.02743	-0.0074295	1
293	0.02	0.027441	-0.0074406	1
294	0.023	0.027452	-0.0044515	1
295	0.02	0.027462	-0.0074625	1
296	0.023	0.027473	-0.0044734	1
297	0.023	0.027484	-0.0044843	1
298	0.023	0.027495	-0.0044951	1
299	0.023	0.027506	-0.0045059	1
300	0.023	0.027517	-0.0045166	1
301	0.023	0.027527	-0.0045274	1
302	0.023	0.027538	-0.0045381	1
303	0.023	0.027549	-0.0045487	1
304	0.023	0.027559	-0.0045593	1

305	0.023	0.02757	-0.0045699	1
306	0.023	0.02758	-0.0045805	1
307	0.02	0.027591	-0.007591	1
308	0.023	0.027601	-0.0046015	1
309	0.02	0.027612	-0.0076119	1
310	0.02	0.027622	-0.0076223	1
311	0.023	0.027633	-0.0046327	1
312	0.023	0.027643	-0.004643	1
313	0.023	0.027653	-0.0046534	1
314	0.023	0.027664	-0.0046636	1
315	0.023	0.027674	-0.0046739	1
316	0.023	0.027684	-0.0046841	1
317	0.023	0.027694	-0.0046943	1
318	0.023	0.027704	-0.0047044	1
319	0.023	0.027715	-0.0047146	1
320	0.023	0.027725	-0.0047246	1
321	0.023	0.027735	-0.0047347	1
322	0.026	0.027745	-0.0017447	1
323	0.023	0.027755	-0.0047547	1
324	0.026	0.027765	-0.0017647	1
325	0.026	0.027775	-0.0017746	1
326	0.026	0.027785	-0.0017845	1
327	0.026	0.027794	-0.0017944	1
328	0.026	0.027804	-0.0018042	1
329	0.026	0.027814	-0.001814	1
330	0.026	0.027824	-0.0018238	1
331	0.026	0.027834	-0.0018336	1
332	0.026	0.027843	-0.0018433	1
333	0.026	0.027853	-0.001853	1
334	0.023	0.027863	-0.0048626	1
335	0.026	0.027872	-0.0018723	1
336	0.026	0.027882	-0.0018819	1
337	0.026	0.027891	-0.0018915	1
338	0.026	0.027901	-0.001901	1
339	0.026	0.027911	-0.0019105	1
340	0.026	0.02792	-0.00192	1
341	0.026	0.027929	-0.0019295	1
342	0.026	0.027939	-0.0019389	1
343	0.03	0.027948	0.0020517	1
344	0.026	0.027958	-0.0019577	1
345	0.03	0.027967	0.0020329	1
346	0.026	0.027976	-0.0019764	1
347	0.026	0.027986	-0.0019857	1
348	0.026	0.027995	-0.001995	1
349	0.026	0.028004	-0.0020042	1
350	0.026	0.028013	-0.0020134	1
351	0.03	0.028023	0.0019774	1
352	0.026	0.028032	-0.0020318	1
353	0.03	0.028041	0.0019591	1
354	0.03	0.02805	0.0019499	1
355	0.03	0.028059	0.0019408	1
356	0.03	0.028068	0.0019318	1
357	0.03	0.028077	0.0019227	1
358	0.03	0.028086	0.0019137	1
359	0.026	0.028095	-0.0020953	1
360	0.03	0.028104	0.0018958	1
361	0.03	0.028113	0.0018868	1
362	0.03	0.028122	0.0018779	1
363	0.03	0.028131	0.001869	1
364	0.03	0.02814	0.0018602	1

365	0.03	0.028149	0.0018513	1
366	0.03	0.028157	0.0018425	1
367	0.03	0.028166	0.0018337	1
368	0.033	0.028175	0.0048249	1
369	0.03	0.028184	0.0018162	1
370	0.03	0.028193	0.0018075	1
371	0.03	0.028201	0.0017988	1
372	0.03	0.02821	0.0017901	1
373	0.03	0.028219	0.0017814	1
374	0.03	0.028227	0.0017728	1
375	0.03	0.028236	0.0017642	1
376	0.033	0.028244	0.0047556	1
377	0.03	0.028253	0.0017471	1
378	0.03	0.028261	0.0017385	1
379	0.033	0.02827	0.00473	1
380	0.033	0.028278	0.0047215	1
381	0.033	0.028287	0.0047131	1
382	0.033	0.028295	0.0047046	1
383	0.033	0.028304	0.0046962	1
384	0.03	0.028312	0.0016878	1
385	0.03	0.028321	0.0016794	1
386	0.033	0.028329	0.004671	1
387	0.03	0.028337	0.0016627	1
388	0.033	0.028346	0.0046544	1
389	0.03	0.028354	0.0016461	1
390	0.03	0.028362	0.0016378	1
391	0.03	0.02837	0.0016296	1
392	0.033	0.028379	0.0046213	1
393	0.03	0.028387	0.0016131	1
394	0.03	0.028395	0.0016049	1
395	0.03	0.028403	0.0015968	1
396	0.03	0.028411	0.0015886	1
397	0.03	0.02842	0.0015805	1
398	0.033	0.028428	0.0045724	1
399	0.033	0.028436	0.0045643	1
400	0.033	0.028444	0.0045562	1
401	0.03	0.028452	0.0015482	1
402	0.033	0.02846	0.0045401	1
403	0.033	0.028468	0.0045321	1
404	0.033	0.028476	0.0045241	1
405	0.033	0.028484	0.0045162	1
406	0.036	0.028492	0.0075082	1
407	0.033	0.0285	0.0045003	1
408	0.036	0.028508	0.0074924	1
409	0.036	0.028515	0.0074845	1
410	0.036	0.028523	0.0074766	1
411	0.036	0.028531	0.0074688	1
412	0.033	0.028539	0.0044609	1
413	0.036	0.028547	0.0074531	1
414	0.036	0.028555	0.0074453	1
415	0.036	0.028562	0.0074376	1
416	0.036	0.02857	0.0074298	1
417	0.033	0.028578	0.0044221	1
418	0.036	0.028586	0.0074144	1
419	0.036	0.028593	0.0074066	1
420	0.036	0.028601	0.007399	1
421	0.036	0.028609	0.0073913	1
422	0.036	0.028616	0.0073837	1
423	0.036	0.028624	0.007376	1
424	0.036	0.028632	0.0073684	1

425	0.036	0.028639	0.0073608	1
426	0.033	0.028647	0.0043533	1
427	0.036	0.028654	0.0073457	1
428	0.036	0.028662	0.0073382	1
429	0.036	0.028669	0.0073306	1
430	0.033	0.028677	0.0043231	1
431	0.03	0.028684	0.0013156	1
432	0.033	0.028692	0.0043082	1
433	0.03	0.028699	0.0013007	1
434	0.036	0.028707	0.0072933	1
435	0.033	0.028714	0.0042859	1
436	0.036	0.028722	0.0072785	1
437	0.036	0.028729	0.0072711	1
438	0.036	0.028736	0.0072637	1
439	0.033	0.028744	0.0042564	1
440	0.036	0.028751	0.007249	1
441	0.036	0.028758	0.0072417	1
442	0.036	0.028766	0.0072344	1
443	0.036	0.028773	0.0072271	1
444	0.033	0.02878	0.0042199	1
445	0.036	0.028787	0.0072126	1
446	0.036	0.028795	0.0072054	1
447	0.033	0.028802	0.0041982	1
448	0.036	0.028809	0.007191	1
449	0.036	0.028816	0.0071838	1
450	0.033	0.028823	0.0041766	1
451	0.036	0.028831	0.0071695	1
452	0.036	0.028838	0.0071623	1
453	0.036	0.028845	0.0071552	1
454	0.036	0.028852	0.0071481	1
455	0.033	0.028859	0.004141	1
456	0.033	0.028866	0.0041339	1
457	0.033	0.028873	0.0041269	1
458	0.033	0.02888	0.0041198	1
459	0.033	0.028887	0.0041128	1
460	0.033	0.028894	0.0041058	1
461	0.033	0.028901	0.0040988	1
462	0.033	0.028908	0.0040918	1
463	0.033	0.028915	0.0040848	1
464	0.033	0.028922	0.0040779	1
465	0.033	0.028929	0.0040709	1
466	0.033	0.028936	0.004064	1
467	0.033	0.028943	0.0040571	1
468	0.036	0.02895	0.0070502	1
469	0.036	0.028957	0.0070433	1
470	0.036	0.028964	0.0070365	1
471	0.036	0.02897	0.0070296	1
472	0.036	0.028977	0.0070228	1
473	0.039	0.028984	0.010016	1
474	0.036	0.028991	0.0070091	1
475	0.036	0.028998	0.0070024	1
476	0.039	0.029004	0.0099956	1
477	0.036	0.029011	0.0069888	1
478	0.036	0.029018	0.0069821	1
479	0.039	0.029025	0.0099753	1
480	0.039	0.029031	0.0099686	1
481	0.039	0.029038	0.0099619	1
482	0.039	0.029045	0.0099552	1
483	0.039	0.029051	0.0099485	1
484	0.039	0.029058	0.0099419	1

485	0.039	0.029065	0.0099352	1
486	0.039	0.029071	0.0099286	1
487	0.039	0.029078	0.0099219	1
488	0.039	0.029085	0.0099153	1
489	0.039	0.029091	0.0099087	1
490	0.039	0.029098	0.0099021	1
491	0.039	0.029104	0.0098956	1
492	0.039	0.029111	0.009889	1
493	0.036	0.029118	0.0068825	1
494	0.039	0.029124	0.0098759	1
495	0.039	0.029131	0.0098694	1
496	0.039	0.029137	0.0098629	1
497	0.039	0.029144	0.0098564	1
498	0.039	0.02915	0.00985	1
499	0.039	0.029157	0.0098435	1
500	0.039	0.029163	0.009837	1
501	0.039	0.029169	0.0098306	1
502	0.039	0.029176	0.0098242	1
503	0.039	0.029182	0.0098178	1
504	0.039	0.029189	0.0098114	1
505	0.039	0.029195	0.009805	1
506	0.039	0.029201	0.0097986	1
507	0.039	0.029208	0.0097922	1
508	0.039	0.029214	0.0097859	1
509	0.039	0.02922	0.0097795	1
510	0.039	0.029227	0.0097732	1
511	0.039	0.029233	0.0097669	1
512	0.039	0.029239	0.0097606	1
513	0.039	0.029246	0.0097543	1
514	0.039	0.029252	0.009748	1
515	0.039	0.029258	0.0097418	1
516	0.042	0.029264	0.012736	1
517	0.039	0.029271	0.0097293	1
518	0.042	0.029277	0.012723	1
519	0.042	0.029283	0.012717	1
520	0.042	0.029289	0.012711	1
521	0.042	0.029296	0.012704	1
522	0.042	0.029302	0.012698	1
523	0.042	0.029308	0.012692	1
524	0.045	0.029314	0.015686	1
525	0.042	0.02932	0.01268	1
526	0.042	0.029326	0.012674	1
527	0.045	0.029332	0.015668	1
528	0.042	0.029339	0.012661	1
529	0.042	0.029345	0.012655	1
530	0.045	0.029351	0.015649	1
531	0.045	0.029357	0.015643	1
532	0.045	0.029363	0.015637	1
533	0.042	0.029369	0.012631	1
534	0.042	0.029375	0.012625	1
535	0.045	0.029381	0.015619	1
536	0.045	0.029387	0.015613	1
537	0.045	0.029393	0.015607	1
538	0.042	0.029399	0.012601	1
539	0.042	0.029405	0.012595	1
540	0.042	0.029411	0.012589	1
541	0.042	0.029417	0.012583	1
542	0.042	0.029423	0.012577	1
543	0.042	0.029429	0.012571	1
544	0.042	0.029435	0.012565	1

545	0.042	0.029441	0.012559	1
546	0.042	0.029447	0.012553	1
547	0.042	0.029453	0.012547	1
548	0.039	0.029458	0.0095416	1
549	0.039	0.029464	0.0095357	1
550	0.039	0.02947	0.0095298	1
551	0.039	0.029476	0.009524	1
552	0.036	0.029482	0.0065181	1
553	0.036	0.029488	0.0065123	1
554	0.036	0.029494	0.0065065	1
555	0.036	0.029499	0.0065007	1
556	0.036	0.029505	0.0064949	1
557	0.033	0.029511	0.0034891	1
558	0.036	0.029517	0.0064833	1
559	0.036	0.029522	0.0064775	1
560	0.033	0.029528	0.0034718	1
561	0.033	0.029534	0.003466	1
562	0.036	0.02954	0.0064603	1
563	0.036	0.029545	0.0064545	1
564	0.033	0.029551	0.0034488	1
565	0.036	0.029557	0.0064431	1
566	0.033	0.029563	0.0034374	1
567	0.036	0.029568	0.0064317	1
568	0.039	0.029574	0.0094261	1
569	0.036	0.02958	0.0064204	1
570	0.036	0.029585	0.0064147	1
571	0.039	0.029591	0.0094091	1
572	0.036	0.029597	0.0064034	1
573	0.036	0.029602	0.0063978	1
574	0.039	0.029608	0.0093922	1
575	0.036	0.029613	0.0063866	1
576	0.039	0.029619	0.009381	1
577	0.039	0.029625	0.0093754	1
578	0.036	0.02963	0.0063698	1
579	0.039	0.029636	0.0093642	1
580	0.039	0.029641	0.0093587	1
581	0.036	0.029647	0.0063531	1
582	0.039	0.029652	0.0093476	1
583	0.039	0.029658	0.009342	1
584	0.039	0.029663	0.0093365	1
585	0.039	0.029669	0.009331	1
586	0.039	0.029675	0.0093255	1
587	0.039	0.02968	0.00932	1
588	0.039	0.029685	0.0093145	1
589	0.039	0.029691	0.009309	1
590	0.039	0.029696	0.0093036	1
591	0.039	0.029702	0.0092981	1
592	0.039	0.029707	0.0092927	1
593	0.036	0.029713	0.0062872	1
594	0.036	0.029718	0.0062818	1
595	0.036	0.029724	0.0062764	1
596	0.036	0.029729	0.006271	1
597	0.039	0.029734	0.0092656	1
598	0.036	0.02974	0.0062602	1
599	0.036	0.029745	0.0062548	1
600	0.036	0.029751	0.0062494	1
601	0.036	0.029756	0.006244	1
602	0.039	0.029761	0.0092387	1
603	0.036	0.029767	0.0062333	1
604	0.036	0.029772	0.006228	1

605	0.039	0.029777	0.0092227	1
606	0.036	0.029783	0.0062173	1
607	0.036	0.029788	0.006212	1
608	0.036	0.029793	0.0062067	1
609	0.039	0.029799	0.0092014	1
610	0.039	0.029804	0.0091961	1
611	0.039	0.029809	0.0091908	1
612	0.036	0.029814	0.0061856	1
613	0.039	0.02982	0.0091803	1
614	0.039	0.029825	0.0091751	1
615	0.039	0.02983	0.0091698	1
616	0.039	0.029835	0.0091646	1
617	0.039	0.029841	0.0091593	1
618	0.039	0.029846	0.0091541	1
619	0.039	0.029851	0.0091489	1
620	0.039	0.029856	0.0091437	1
621	0.039	0.029861	0.0091385	1
622	0.039	0.029867	0.0091333	1
623	0.039	0.029872	0.0091282	1
624	0.039	0.029877	0.009123	1
625	0.036	0.029882	0.0061178	1
626	0.036	0.029887	0.0061127	1
627	0.036	0.029892	0.0061075	1
628	0.036	0.029898	0.0061024	1
629	0.036	0.029903	0.0060973	1
630	0.036	0.029908	0.0060921	1
631	0.039	0.029913	0.009087	1
632	0.036	0.029918	0.0060819	1
633	0.036	0.029923	0.0060768	1
634	0.039	0.029928	0.0090717	1
635	0.039	0.029933	0.0090667	1
636	0.039	0.029938	0.0090616	1
637	0.039	0.029943	0.0090565	1
638	0.039	0.029949	0.0090515	1
639	0.039	0.029954	0.0090464	1
640	0.039	0.029959	0.0090414	1
641	0.039	0.029964	0.0090363	1
642	0.039	0.029969	0.0090313	1
643	0.036	0.029974	0.0060263	1
644	0.039	0.029979	0.0090213	1
645	0.039	0.029984	0.0090163	1
646	0.039	0.029989	0.0090113	1
647	0.042	0.029994	0.012006	1
648	0.039	0.029999	0.0090013	1
649	0.042	0.030004	0.011996	1
650	0.039	0.030009	0.0089914	1
651	0.042	0.030014	0.011986	1
652	0.042	0.030018	0.011982	1
653	0.039	0.030023	0.0089766	1
654	0.042	0.030028	0.011972	1
655	0.042	0.030033	0.011967	1
656	0.042	0.030038	0.011962	1
657	0.039	0.030043	0.0089569	1
658	0.042	0.030048	0.011952	1
659	0.042	0.030053	0.011947	1
660	0.042	0.030058	0.011942	1
661	0.042	0.030063	0.011937	1
662	0.042	0.030068	0.011932	1
663	0.042	0.030072	0.011928	1
664	0.042	0.030077	0.011923	1

665	0.042	0.030082	0.011918	1
666	0.039	0.030087	0.008913	1
667	0.039	0.030092	0.0089082	1
668	0.039	0.030097	0.0089034	1
669	0.039	0.030101	0.0088985	1
670	0.039	0.030106	0.0088937	1
671	0.039	0.030111	0.0088889	1
672	0.036	0.030116	0.0058841	1
673	0.039	0.030121	0.0088793	1
674	0.039	0.030125	0.0088745	1
675	0.036	0.03013	0.0058698	1
676	0.036	0.030135	0.005865	1
677	0.036	0.03014	0.0058602	1
678	0.039	0.030145	0.0088555	1
679	0.039	0.030149	0.0088507	1
680	0.036	0.030154	0.005846	1
681	0.036	0.030159	0.0058412	1
682	0.039	0.030163	0.0088365	1
683	0.036	0.030168	0.0058318	1
684	0.039	0.030173	0.0088271	1
685	0.036	0.030178	0.0058224	1
686	0.036	0.030182	0.0058177	1
687	0.039	0.030187	0.008813	1
688	0.036	0.030192	0.0058083	1
689	0.039	0.030196	0.0088036	1
690	0.039	0.030201	0.0087989	1
691	0.036	0.030206	0.0057943	1
692	0.039	0.03021	0.0087896	1
693	0.039	0.030215	0.0087849	1
694	0.039	0.03022	0.0087803	1
695	0.039	0.030224	0.0087757	1
696	0.039	0.030229	0.008771	1
697	0.039	0.030234	0.0087664	1
698	0.039	0.030238	0.0087618	1
699	0.039	0.030243	0.0087572	1
700	0.039	0.030247	0.0087525	1
701	0.039	0.030252	0.0087479	1
702	0.039	0.030257	0.0087433	1
703	0.039	0.030261	0.0087388	1
704	0.039	0.030266	0.0087342	1
705	0.039	0.03027	0.0087296	1
706	0.039	0.030275	0.008725	1
707	0.039	0.03028	0.0087205	1
708	0.039	0.030284	0.0087159	1
709	0.039	0.030289	0.0087114	1
710	0.039	0.030293	0.0087068	1
711	0.039	0.030298	0.0087023	1
712	0.036	0.030302	0.0056978	1
713	0.039	0.030307	0.0086932	1
714	0.036	0.030311	0.0056887	1
715	0.036	0.030316	0.0056842	1
716	0.036	0.03032	0.0056797	1
717	0.036	0.030325	0.0056752	1
718	0.039	0.030329	0.0086707	1
719	0.033	0.030334	0.0026662	1
720	0.036	0.030338	0.0056617	1
721	0.033	0.030343	0.0026573	1
722	0.033	0.030347	0.0026528	1
723	0.036	0.030352	0.0056483	1
724	0.036	0.030356	0.0056439	1

725	0.036	0.030361	0.0056394	1
726	0.036	0.030365	0.005635	1
727	0.036	0.030369	0.0056306	1
728	0.039	0.030374	0.0086261	1
729	0.039	0.030378	0.0086217	1
730	0.039	0.030383	0.0086173	1
731	0.039	0.030387	0.0086129	1
732	0.039	0.030392	0.0086085	1
733	0.039	0.030396	0.0086041	1
734	0.039	0.0304	0.0085997	1
735	0.039	0.030405	0.0085953	1
736	0.039	0.030409	0.0085909	1
737	0.039	0.030413	0.0085865	1
738	0.036	0.030418	0.0055822	1
739	0.036	0.030422	0.0055778	1
740	0.036	0.030427	0.0055734	1
741	0.036	0.030431	0.0055691	1
742	0.036	0.030435	0.0055647	1
743	0.036	0.03044	0.0055604	1
744	0.036	0.030444	0.0055561	1
745	0.036	0.030448	0.0055517	1
746	0.036	0.030453	0.0055474	1
747	0.036	0.030457	0.0055431	1
748	0.036	0.030461	0.0055388	1
749	0.036	0.030466	0.0055345	1
750	0.036	0.03047	0.0055302	1
751	0.036	0.030474	0.0055259	1
752	0.036	0.030478	0.0055216	1
753	0.033	0.030483	0.0025173	1
754	0.036	0.030487	0.005513	1
755	0.036	0.030491	0.0055087	1
756	0.036	0.030496	0.0055045	1
757	0.036	0.0305	0.0055002	1
758	0.036	0.030504	0.005496	1
759	0.036	0.030508	0.0054917	1
760	0.036	0.030513	0.0054875	1
761	0.036	0.030517	0.0054832	1
762	0.036	0.030521	0.005479	1
763	0.036	0.030525	0.0054748	1
764	0.036	0.030529	0.0054706	1
765	0.036	0.030534	0.0054663	1
766	0.036	0.030538	0.0054621	1
767	0.036	0.030542	0.0054579	1
768	0.036	0.030546	0.0054537	1
769	0.036	0.03055	0.0054495	1
770	0.036	0.030555	0.0054453	1
771	0.033	0.030559	0.0024412	1
772	0.036	0.030563	0.005437	1
773	0.039	0.030567	0.0084328	1
774	0.036	0.030571	0.0054286	1
775	0.036	0.030576	0.0054245	1
776	0.036	0.03058	0.0054203	1
777	0.036	0.030584	0.0054162	1
778	0.036	0.030588	0.005412	1
779	0.036	0.030592	0.0054079	1
780	0.036	0.030596	0.0054037	1
781	0.036	0.0306	0.0053996	1
782	0.036	0.030605	0.0053955	1
783	0.036	0.030609	0.0053914	1
784	0.036	0.030613	0.0053873	1

785	0.036	0.030617	0.0053831	1
786	0.033	0.030621	0.002379	1
787	0.036	0.030625	0.0053749	1
788	0.036	0.030629	0.0053709	1
789	0.036	0.030633	0.0053668	1
790	0.036	0.030637	0.0053627	1
791	0.036	0.030641	0.0053586	1
792	0.039	0.030645	0.0083545	1
793	0.039	0.03065	0.0083505	1
794	0.039	0.030654	0.0083464	1
795	0.036	0.030658	0.0053423	1
796	0.039	0.030662	0.0083383	1
797	0.036	0.030666	0.0053342	1
798	0.039	0.03067	0.0083302	1
799	0.036	0.030674	0.0053262	1
800	0.036	0.030678	0.0053221	1
801	0.039	0.030682	0.0083181	1

==========

RESULTS FROM VISUAL CURVE MATCHING

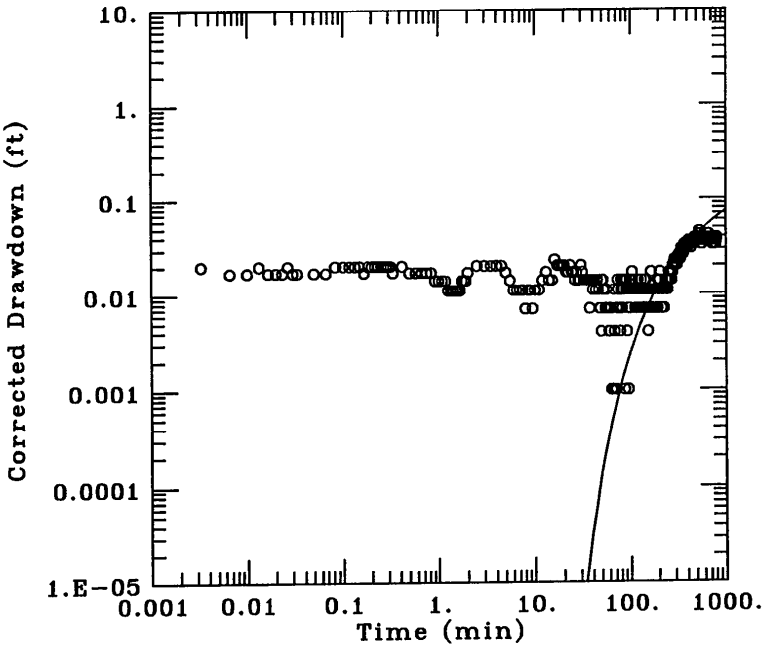
VISUAL MATCH PARAMETER ESTIMATES

		Estimate
T	=	1.7069E-001
S	=	1.7888E-002

<<

SPATCO Environmental	Client: Handy Pantry
Project No.: 9-2798	Location: Taylor St, Columbia S.C.

Handy Pantry, Pumping Test Data, MW-2



DATA SET:
hptntmw2.dat
10/25/93

AQUIFER TYPE:
Unconfined
SOLUTION METHOD:
Theis
TEST DATE:
8/26/93

ESTIMATED PARAMETERS:
T = 0.08345 ft^2/min
S = 0.0201

TEST DATA:
Q = 0.06684 ft^3/min
r = 56. ft
b = 17.38 ft

A Q T E S O L V

A Program for

Automatic Estimation of Aquifer Coefficients

From Aquifer Test Data

By:

Glenn M. Duffield
and
James O. Rumbaugh, III

Geraghty & Miller Modeling Group
1895 Preston White Drive, Suite 301
Reston, VA 22091

(703) 476 - 0335

A Q T E S O L V is a user-friendly program designed to analyze data from aquifer tests automatically. Aquifer coefficients for a variety of aquifer test conditions can be estimated by A Q T E S O L V , including the following:

- confined aquifers, unconfined aquifers, and leaky aquifers
- pumping tests, injection tests, recovery tests, and slug tests

Features:

- Interactive, menu-driven program design
- Nonlinear least-squares estimation of aquifer coefficients
- Statistical analysis of results
- Complete graphical display of results

<<

Time	Observed	Calculated	Residual	Weight
0.0033	0.02	0	0.02	1
0.0066	0.017	0	0.017	1
0.01	0.017	0	0.017	1
0.0133	0.02	0	0.02	1
0.0166	0.017	0	0.017	1
0.02	0.017	0	0.017	1
0.0233	0.017	0	0.017	1
0.0266	0.02	0	0.02	1
0.03	0.017	0	0.017	1
0.0333	0.017	0	0.017	1
0.05	0.017	0	0.017	1
0.0666	0.017	0	0.017	1
0.0833	0.02	0	0.02	1
0.1	0.02	0	0.02	1
0.1166	0.02	0	0.02	1
0.1333	0.02	0	0.02	1
0.15	0.02	0	0.02	1
0.1666	0.017	0	0.017	1
0.1833	0.02	0	0.02	1
0.2	0.02	0	0.02	1
0.2166	0.02	0	0.02	1
0.2333	0.02	0	0.02	1
0.25	0.02	0	0.02	1
0.2666	0.02	0	0.02	1
0.2833	0.02	0	0.02	1
0.3	0.02	0	0.02	1
0.3166	0.02	0	0.02	1
0.3333	0.017	0	0.017	1
0.4166	0.02	0	0.02	1
0.5	0.017	0	0.017	1
0.5833	0.017	0	0.017	1
0.6666	0.017	0	0.017	1
0.75	0.017	0	0.017	1
0.8333	0.017	0	0.017	1
0.9166	0.014	0	0.014	1
1	0.014	0	0.014	1
1.0833	0.014	0	0.014	1
1.1666	0.014	7.7233E-034	0.014	1
1.25	0.011	7.8527E-032	0.011	1
1.3333	0.011	4.4764E-030	0.011	1
1.4166	0.011	1.5918E-028	0.011	1
1.5	0.011	3.8327E-027	0.011	1
1.5833	0.011	6.5978E-026	0.011	1
1.6666	0.011	8.5674E-025	0.011	1
1.75	0.014	8.7587E-024	0.014	1
1.8333	0.014	7.245E-023	0.014	1
1.9166	0.014	4.9968E-022	0.014	1
2	0.017	2.9452E-021	0.017	1
2.5	0.02	1.0506E-017	0.02	1
3	0.02	2.5319E-015	0.02	1
3.5	0.02	1.302E-013	0.02	1
4	0.02	2.5419E-012	0.02	1
4.5	0.02	2.5971E-011	0.02	1
5	0.017	1.684E-010	0.017	1
5.5	0.014	7.837E-010	0.014	1
6	0.011	2.8418E-009	0.011	1
6.5	0.011	8.5006E-009	0.011	1
7	0.011	2.1848E-008	0.011	1

7.5	0.011	4.9719E-008	0.011	1
8	0.007	1.0246E-007	0.0069999	1
8.5	0.011	1.9455E-007	0.011	1
9	0.011	3.4495E-007	0.011	1
9.5	0.007	5.7727E-007	0.0069994	1
10	0.011	9.1959E-007	0.010999	1
11	0.011	2.0669E-006	0.010998	1
12	0.014	4.0843E-006	0.013996	1
13	0.017	7.306E-006	0.016993	1
14	0.014	1.208E-005	0.013988	1
15	0.014	1.875E-005	0.013981	1
16	0.023	2.7636E-005	0.022972	1
17	0.02	3.9027E-005	0.019961	1
18	0.02	5.3173E-005	0.019947	1
19	0.02	7.0282E-005	0.01993	1
20	0.02	9.0519E-005	0.019909	1
21	0.017	0.00011401	0.016886	1
22	0.017	0.00014084	0.016859	1
23	0.02	0.00017106	0.019829	1
24	0.017	0.0002047	0.016795	1
25	0.017	0.00024175	0.016758	1
26	0.014	0.00028219	0.013718	1
27	0.017	0.00032597	0.016674	1
28	0.014	0.00037302	0.013627	1
29	0.014	0.00042328	0.013577	1
30	0.02	0.00047665	0.019523	1
31	0.017	0.00053306	0.016467	1
32	0.014	0.00059239	0.013408	1
33	0.014	0.00065455	0.013345	1
34	0.014	0.00071942	0.013281	1
35	0.014	0.00078691	0.013213	1
36	0.014	0.00085691	0.013143	1
37	0.007	0.0009293	0.0060707	1
38	0.014	0.001004	0.012996	1
39	0.014	0.0010809	0.012919	1
40	0.011	0.0011598	0.0098402	1
41	0.014	0.0012407	0.012759	1
42	0.014	0.0013236	0.012676	1
43	0.011	0.0014082	0.0095918	1
44	0.014	0.0014944	0.012506	1
45	0.014	0.0015823	0.012418	1
46	0.011	0.0016718	0.0093282	1
47	0.007	0.0017626	0.0052374	1
48	0.007	0.0018548	0.0051452	1
49	0.004	0.0019483	0.0020517	1
50	0.014	0.0020429	0.011957	1
51	0.014	0.0021388	0.011861	1
52	0.011	0.0022356	0.0087644	1
53	0.011	0.0023335	0.0086665	1
54	0.007	0.0024323	0.0045677	1
55	0.007	0.0025319	0.0044681	1
56	0.011	0.0026324	0.0083676	1
57	0.007	0.0027337	0.0042663	1
58	0.007	0.0028356	0.0041644	1
59	0.004	0.0029382	0.0010618	1
60	0.007	0.0030414	0.0039586	1
61	0.004	0.0031452	0.00085477	1
62	0.007	0.0032495	0.0037505	1
63	0.001	0.0033543	-0.0023543	1
64	0.001	0.0034595	-0.0024595	1

65	0.001	0.0035652	-0.0025652	1
66	0.001	0.0036712	-0.0026712	1
67	0.011	0.0037775	0.0072225	1
68	0.004	0.0038841	0.00011587	1
69	0.001	0.003991	-0.002991	1
70	0.001	0.0040982	-0.0030982	1
71	0.001	0.0042055	-0.0032055	1
72	0.007	0.004313	0.002687	1
73	0.014	0.0044207	0.0095793	1
74	0.011	0.0045286	0.0064714	1
75	0.007	0.0046365	0.0023635	1
76	0.007	0.0047445	0.0022555	1
77	0.007	0.0048526	0.0021474	1
78	0.004	0.0049608	-0.00096078	1
79	0.014	0.005069	0.008931	1
80	0.011	0.0051771	0.0058229	1
81	0.014	0.0052853	0.0087147	1
82	0.007	0.0053935	0.0016065	1
83	0.011	0.0055016	0.0054984	1
84	0.014	0.0056097	0.0083903	1
85	0.014	0.0057177	0.0082823	1
86	0.014	0.0058256	0.0081744	1
87	0.001	0.0059334	-0.0049334	1
88	0.014	0.0060412	0.0079588	1
89	0.014	0.0061488	0.0078512	1
90	0.011	0.0062563	0.0047437	1
91	0.014	0.0063636	0.0076364	1
92	0.004	0.0064708	-0.0024708	1
93	0.011	0.0065778	0.0044222	1
94	0.007	0.0066847	0.00031527	1
95	0.001	0.0067914	-0.0057914	1
96	0.007	0.006898	0.00010204	1
97	0.011	0.0070043	0.0039957	1
98	0.014	0.0071104	0.0068896	1
99	0.007	0.0072164	-0.00021638	1
100	0.011	0.0073221	0.0036779	1
101	0.011	0.0074276	0.0035724	1
102	0.014	0.0075329	0.0064671	1
103	0.011	0.007638	0.003362	1
104	0.017	0.0077428	0.0092572	1
105	0.014	0.0078474	0.0061526	1
106	0.011	0.0079518	0.0030482	1
107	0.011	0.0080559	0.0029441	1
108	0.011	0.0081598	0.0028402	1
109	0.011	0.0082634	0.0027366	1
110	0.011	0.0083668	0.0026332	1
111	0.007	0.0084699	-0.0014699	1
112	0.011	0.0085727	0.0024273	1
113	0.011	0.0086753	0.0023247	1
114	0.011	0.0087776	0.0022224	1
115	0.011	0.0088797	0.0021203	1
116	0.011	0.0089814	0.0020186	1
117	0.007	0.0090829	-0.0020829	1
118	0.011	0.0091842	0.0018158	1
119	0.011	0.0092851	0.0017149	1
120	0.011	0.0093858	0.0016142	1
121	0.014	0.0094862	0.0045138	1
122	0.011	0.0095863	0.0014137	1
123	0.011	0.0096861	0.0013139	1
124	0.007	0.0097856	-0.0027856	1

125	0.007	0.0098849	-0.0028849	1
126	0.007	0.0099838	-0.0029838	1
127	0.011	0.010082	0.00091752	1
128	0.007	0.010181	-0.0031809	1
129	0.011	0.010279	0.00072105	1
130	0.011	0.010377	0.00062325	1
131	0.014	0.010474	0.0035257	1
132	0.011	0.010571	0.00042852	1
133	0.011	0.010668	0.00033159	1
134	0.011	0.010765	0.00023495	1
135	0.007	0.010861	-0.0038614	1
136	0.011	0.010957	4.2555E-005	1
137	0.011	0.011053	-5.3207E-005	1
138	0.011	0.011149	-0.00014868	1
139	0.011	0.011244	-0.00024385	1
140	0.011	0.011339	-0.00033874	1
141	0.014	0.011433	0.0025667	1
142	0.011	0.011528	-0.00052764	1
143	0.014	0.011622	0.0023783	1
144	0.011	0.011715	-0.00071538	1
145	0.007	0.011809	-0.0048088	1
146	0.007	0.011902	-0.004902	1
147	0.011	0.011995	-0.00099481	1
148	0.014	0.012087	0.0019126	1
149	0.011	0.01218	-0.0011797	1
150	0.011	0.012272	-0.0012716	1
151	0.007	0.012363	-0.0053633	1
152	0.011	0.012455	-0.0014548	1
153	0.011	0.012546	-0.0015459	1
154	0.004	0.012637	-0.0086367	1
155	0.011	0.012727	-0.0017273	1
156	0.007	0.012818	-0.0058176	1
157	0.007	0.012908	-0.0059076	1
158	0.007	0.012997	-0.0059973	1
159	0.011	0.013087	-0.0020867	1
160	0.011	0.013176	-0.0021759	1
161	0.011	0.013265	-0.0022648	1
162	0.011	0.013353	-0.0023534	1
163	0.007	0.013442	-0.0064417	1
164	0.011	0.01353	-0.0025297	1
165	0.017	0.013617	0.0033825	1
166	0.011	0.013705	-0.002705	1
167	0.011	0.013792	-0.0027922	1
168	0.011	0.013879	-0.0028792	1
169	0.007	0.013966	-0.0069658	1
170	0.007	0.014052	-0.0070522	1
171	0.007	0.014138	-0.0071384	1
172	0.007	0.014224	-0.0072243	1
173	0.011	0.01431	-0.0033099	1
174	0.011	0.014395	-0.0033952	1
175	0.007	0.01448	-0.0074803	1
176	0.007	0.014565	-0.0075651	1
177	0.007	0.01465	-0.0076496	1
178	0.007	0.014734	-0.0077339	1
179	0.011	0.014818	-0.0038179	1
180	0.007	0.014902	-0.0079017	1
181	0.011	0.014985	-0.0039852	1
182	0.007	0.015068	-0.0080684	1
183	0.007	0.015151	-0.0081514	1
184	0.011	0.015234	-0.0042341	1

185	0.011	0.015317	-0.0043166	1
186	0.011	0.015399	-0.0043989	1
187	0.011	0.015481	-0.0044808	1
188	0.011	0.015563	-0.0045625	1
189	0.011	0.015644	-0.004644	1
190	0.007	0.015725	-0.0087252	1
191	0.011	0.015806	-0.0048062	1
192	0.011	0.015887	-0.004887	1
193	0.007	0.015967	-0.0089674	1
194	0.007	0.016048	-0.0090477	1
195	0.011	0.016128	-0.0051277	1
196	0.014	0.016207	-0.0022074	1
197	0.011	0.016287	-0.0052869	1
198	0.011	0.016366	-0.0053662	1
199	0.011	0.016445	-0.0054453	1
200	0.014	0.016524	-0.0025241	1
201	0.011	0.016603	-0.0056026	1
202	0.014	0.016681	-0.0026809	1
203	0.014	0.016759	-0.002759	1
204	0.014	0.016837	-0.0028369	1
205	0.017	0.016915	8.5481E-005	1
206	0.017	0.016992	8.085E-006	1
207	0.011	0.017069	-0.0060691	1
208	0.011	0.017146	-0.006146	1
209	0.011	0.017223	-0.0062227	1
210	0.011	0.017299	-0.0062992	1
211	0.011	0.017375	-0.0063755	1
212	0.011	0.017452	-0.0064515	1
213	0.007	0.017527	-0.010527	1
214	0.007	0.017603	-0.010603	1
215	0.007	0.017678	-0.010678	1
216	0.007	0.017753	-0.010753	1
217	0.011	0.017828	-0.0068283	1
218	0.011	0.017903	-0.0069031	1
219	0.011	0.017978	-0.0069776	1
220	0.011	0.018052	-0.0070518	1
221	0.011	0.018126	-0.0071259	1
222	0.011	0.0182	-0.0071997	1
223	0.011	0.018273	-0.0072734	1
224	0.007	0.018347	-0.011347	1
225	0.007	0.01842	-0.01142	1
226	0.011	0.018493	-0.007493	1
227	0.011	0.018566	-0.0075658	1
228	0.011	0.018638	-0.0076384	1
229	0.011	0.018711	-0.0077108	1
230	0.011	0.018783	-0.007783	1
231	0.011	0.018855	-0.0078549	1
232	0.011	0.018927	-0.0079267	1
233	0.011	0.018998	-0.0079983	1
234	0.011	0.01907	-0.0080696	1
235	0.011	0.019141	-0.0081408	1
236	0.014	0.019212	-0.0052118	1
237	0.011	0.019283	-0.0082825	1
238	0.011	0.019353	-0.0083531	1
239	0.011	0.019423	-0.0084235	1
240	0.011	0.019494	-0.0084936	1
241	0.011	0.019564	-0.0085636	1
242	0.011	0.019633	-0.0086334	1
243	0.014	0.019703	-0.005703	1
244	0.011	0.019772	-0.0087724	1

245	0.014	0.019842	-0.0058416	1
246	0.014	0.019911	-0.0059106	1
247	0.011	0.019979	-0.0089794	1
248	0.014	0.020048	-0.0060481	1
249	0.014	0.020117	-0.0061165	1
250	0.014	0.020185	-0.0061848	1
251	0.014	0.020253	-0.0062529	1
252	0.014	0.020321	-0.0063208	1
253	0.017	0.020389	-0.0033885	1
254	0.014	0.020456	-0.006456	1
255	0.014	0.020523	-0.0065234	1
256	0.014	0.020591	-0.0065906	1
257	0.014	0.020658	-0.0066575	1
258	0.014	0.020724	-0.0067243	1
259	0.014	0.020791	-0.006791	1
260	0.017	0.020857	-0.0038574	1
261	0.014	0.020924	-0.0069237	1
262	0.014	0.02099	-0.0069898	1
263	0.014	0.021056	-0.0070557	1
264	0.017	0.021121	-0.0041215	1
265	0.014	0.021187	-0.0071871	1
266	0.014	0.021252	-0.0072525	1
267	0.017	0.021318	-0.0043177	1
268	0.017	0.021383	-0.0043827	1
269	0.017	0.021448	-0.0044476	1
270	0.017	0.021512	-0.0045124	1
271	0.017	0.021577	-0.0045769	1
272	0.017	0.021641	-0.0046413	1
273	0.014	0.021706	-0.0077055	1
274	0.017	0.02177	-0.0047696	1
275	0.017	0.021833	-0.0048335	1
276	0.017	0.021897	-0.0048972	1
277	0.02	0.021961	-0.0019607	1
278	0.017	0.022024	-0.0050241	1
279	0.017	0.022087	-0.0050874	1
280	0.017	0.02215	-0.0051504	1
281	0.02	0.022213	-0.0022133	1
282	0.02	0.022276	-0.0022761	1
283	0.02	0.022339	-0.0023387	1
284	0.02	0.022401	-0.0024011	1
285	0.02	0.022463	-0.0024634	1
286	0.02	0.022526	-0.0025255	1
287	0.02	0.022587	-0.0025875	1
288	0.02	0.022649	-0.0026493	1
289	0.023	0.022711	0.00028907	1
290	0.02	0.022772	-0.0027724	1
291	0.02	0.022834	-0.0028338	1
292	0.02	0.022895	-0.002895	1
293	0.02	0.022956	-0.002956	1
294	0.023	0.023017	-1.6885E-005	1
295	0.02	0.023078	-0.0030776	1
296	0.023	0.023138	-0.00013821	1
297	0.023	0.023199	-0.00019865	1
298	0.023	0.023259	-0.00025894	1
299	0.023	0.023319	-0.00031908	1
300	0.023	0.023379	-0.00037907	1
301	0.023	0.023439	-0.00043892	1
302	0.023	0.023499	-0.00049862	1
303	0.023	0.023558	-0.00055818	1
304	0.023	0.023618	-0.00061759	1

305	0.023	0.023677	-0.00067686	1
306	0.023	0.023736	-0.00073598	1
307	0.02	0.023795	-0.003795	1
308	0.023	0.023854	-0.0008538	1
309	0.02	0.023913	-0.0039125	1
310	0.02	0.023971	-0.0039711	1
311	0.023	0.024029	-0.0010295	1
312	0.023	0.024088	-0.0010878	1
313	0.023	0.024146	-0.0011459	1
314	0.023	0.024204	-0.0012039	1
315	0.023	0.024262	-0.0012618	1
316	0.023	0.024319	-0.0013195	1
317	0.023	0.024377	-0.0013771	1
318	0.023	0.024435	-0.0014345	1
319	0.023	0.024492	-0.0014919	1
320	0.023	0.024549	-0.001549	1
321	0.023	0.024606	-0.0016061	1
322	0.026	0.024663	0.001337	1
323	0.023	0.02472	-0.0017198	1
324	0.026	0.024776	0.0012235	1
325	0.026	0.024833	0.001167	1
326	0.026	0.024889	0.0011106	1
327	0.026	0.024946	0.0010544	1
328	0.026	0.025002	0.00099824	1
329	0.026	0.025058	0.00094223	1
330	0.026	0.025114	0.00088636	1
331	0.026	0.025169	0.00083061	1
332	0.026	0.025225	0.000775	1
333	0.026	0.02528	0.00071951	1
334	0.023	0.025336	-0.0023359	1
335	0.026	0.025391	0.0006089	1
336	0.026	0.025446	0.00055379	1
337	0.026	0.025501	0.0004988	1
338	0.026	0.025556	0.00044394	1
339	0.026	0.025611	0.0003892	1
340	0.026	0.025665	0.00033458	1
341	0.026	0.02572	0.00028009	1
342	0.026	0.025774	0.00022572	1
343	0.03	0.025829	0.0041715	1
344	0.026	0.025883	0.00011734	1
345	0.03	0.025937	0.0040633	1
346	0.026	0.025991	9.441E-006	1
347	0.026	0.026044	-4.4328E-005	1
348	0.026	0.026098	-9.7977E-005	1
349	0.026	0.026152	-0.00015151	1
350	0.026	0.026205	-0.00020492	1
351	0.03	0.026258	0.0037418	1
352	0.026	0.026311	-0.00031139	1
353	0.03	0.026364	0.0036355	1
354	0.03	0.026417	0.0035826	1
355	0.03	0.02647	0.0035298	1
356	0.03	0.026523	0.0034771	1
357	0.03	0.026576	0.0034245	1
358	0.03	0.026628	0.003372	1
359	0.026	0.02668	-0.0006804	1
360	0.03	0.026733	0.0032673	1
361	0.03	0.026785	0.0032152	1
362	0.03	0.026837	0.0031632	1
363	0.03	0.026889	0.0031112	1
364	0.03	0.026941	0.0030594	1

365	0.03	0.026992	0.0030077	1
366	0.03	0.027044	0.0029561	1
367	0.03	0.027095	0.0029047	1
368	0.033	0.027147	0.0058533	1
369	0.03	0.027198	0.002802	1
370	0.03	0.027249	0.0027509	1
371	0.03	0.0273	0.0026998	1
372	0.03	0.027351	0.0026489	1
373	0.03	0.027402	0.0025981	1
374	0.03	0.027453	0.0025473	1
375	0.03	0.027503	0.0024967	1
376	0.033	0.027554	0.0054462	1
377	0.03	0.027604	0.0023958	1
378	0.03	0.027654	0.0023455	1
379	0.033	0.027705	0.0052953	1
380	0.033	0.027755	0.0052452	1
381	0.033	0.027805	0.0051953	1
382	0.033	0.027855	0.0051454	1
383	0.033	0.027904	0.0050956	1
384	0.03	0.027954	0.0020459	1
385	0.03	0.028004	0.0019963	1
386	0.033	0.028053	0.0049469	1
387	0.03	0.028102	0.0018975	1
388	0.033	0.028152	0.0048482	1
389	0.03	0.028201	0.0017991	1
390	0.03	0.02825	0.00175	1
391	0.03	0.028299	0.001701	1
392	0.033	0.028348	0.0046522	1
393	0.03	0.028397	0.0016034	1
394	0.03	0.028445	0.0015547	1
395	0.03	0.028494	0.0015062	1
396	0.03	0.028542	0.0014577	1
397	0.03	0.028591	0.0014093	1
398	0.033	0.028639	0.004361	1
399	0.033	0.028687	0.0043128	1
400	0.033	0.028735	0.0042648	1
401	0.03	0.028783	0.0012168	1
402	0.033	0.028831	0.0041689	1
403	0.033	0.028879	0.0041211	1
404	0.033	0.028927	0.0040734	1
405	0.033	0.028974	0.0040258	1
406	0.036	0.029022	0.0069782	1
407	0.033	0.029069	0.0039308	1
408	0.036	0.029117	0.0068835	1
409	0.036	0.029164	0.0068363	1
410	0.036	0.029211	0.0067891	1
411	0.036	0.029258	0.0067421	1
412	0.033	0.029305	0.0036951	1
413	0.036	0.029352	0.0066482	1
414	0.036	0.029399	0.0066015	1
415	0.036	0.029445	0.0065548	1
416	0.036	0.029492	0.0065082	1
417	0.033	0.029538	0.0034617	1
418	0.036	0.029585	0.0064153	1
419	0.036	0.029631	0.0063689	1
420	0.036	0.029677	0.0063227	1
421	0.036	0.029723	0.0062766	1
422	0.036	0.029769	0.0062305	1
423	0.036	0.029815	0.0061845	1
424	0.036	0.029861	0.0061387	1

425	0.036	0.029907	0.0060929	1
426	0.033	0.029953	0.0030472	1
427	0.036	0.029998	0.0060016	1
428	0.036	0.030044	0.005956	1
429	0.036	0.030089	0.0059106	1
430	0.033	0.030135	0.0028652	1
431	0.03	0.03018	-0.00018006	1
432	0.033	0.030225	0.0027748	1
433	0.03	0.03027	-0.00027034	1
434	0.036	0.030315	0.0056846	1
435	0.033	0.03036	0.0026397	1
436	0.036	0.030405	0.0055949	1
437	0.036	0.03045	0.0055501	1
438	0.036	0.030495	0.0055054	1
439	0.033	0.030539	0.0024608	1
440	0.036	0.030584	0.0054163	1
441	0.036	0.030628	0.0053719	1
442	0.036	0.030672	0.0053275	1
443	0.036	0.030717	0.0052832	1
444	0.033	0.030761	0.0022391	1
445	0.036	0.030805	0.005195	1
446	0.036	0.030849	0.0051509	1
447	0.033	0.030893	0.002107	1
448	0.036	0.030937	0.0050631	1
449	0.036	0.030981	0.0050194	1
450	0.033	0.031024	0.0019756	1
451	0.036	0.031068	0.004932	1
452	0.036	0.031112	0.0048885	1
453	0.036	0.031155	0.004845	1
454	0.036	0.031198	0.0048016	1
455	0.033	0.031242	0.0017583	1
456	0.033	0.031285	0.0017151	1
457	0.033	0.031328	0.001672	1
458	0.033	0.031371	0.0016289	1
459	0.033	0.031414	0.0015859	1
460	0.033	0.031457	0.001543	1
461	0.033	0.0315	0.0015001	1
462	0.033	0.031543	0.0014574	1
463	0.033	0.031585	0.0014147	1
464	0.033	0.031628	0.0013721	1
465	0.033	0.03167	0.0013295	1
466	0.033	0.031713	0.0012871	1
467	0.033	0.031755	0.0012447	1
468	0.036	0.031798	0.0042024	1
469	0.036	0.03184	0.0041602	1
470	0.036	0.031882	0.004118	1
471	0.036	0.031924	0.0040759	1
472	0.036	0.031966	0.0040339	1
473	0.039	0.032008	0.006992	1
474	0.036	0.03205	0.0039501	1
475	0.036	0.032092	0.0039083	1
476	0.039	0.032133	0.0068666	1
477	0.036	0.032175	0.003825	1
478	0.036	0.032217	0.0037834	1
479	0.039	0.032258	0.0067419	1
480	0.039	0.0323	0.0067005	1
481	0.039	0.032341	0.0066591	1
482	0.039	0.032382	0.0066178	1
483	0.039	0.032423	0.0065766	1
484	0.039	0.032465	0.0065355	1

485	0.039	0.032506	0.0064944	1
486	0.039	0.032547	0.0064534	1
487	0.039	0.032588	0.0064125	1
488	0.039	0.032628	0.0063716	1
489	0.039	0.032669	0.0063308	1
490	0.039	0.03271	0.0062901	1
491	0.039	0.032751	0.0062495	1
492	0.039	0.032791	0.0062089	1
493	0.036	0.032832	0.0031684	1
494	0.039	0.032872	0.0061279	1
495	0.039	0.032912	0.0060875	1
496	0.039	0.032953	0.0060472	1
497	0.039	0.032993	0.006007	1
498	0.039	0.033033	0.0059668	1
499	0.039	0.033073	0.0059267	1
500	0.039	0.033113	0.0058867	1
501	0.039	0.033153	0.0058467	1
502	0.039	0.033193	0.0058068	1
503	0.039	0.033233	0.005767	1
504	0.039	0.033273	0.0057272	1
505	0.039	0.033312	0.0056875	1
506	0.039	0.033352	0.0056479	1
507	0.039	0.033392	0.0056083	1
508	0.039	0.033431	0.0055688	1
509	0.039	0.033471	0.0055294	1
510	0.039	0.03351	0.00549	1
511	0.039	0.033549	0.0054507	1
512	0.039	0.033589	0.0054114	1
513	0.039	0.033628	0.0053723	1
514	0.039	0.033667	0.0053332	1
515	0.039	0.033706	0.0052941	1
516	0.042	0.033745	0.0082551	1
517	0.039	0.033784	0.0052162	1
518	0.042	0.033823	0.0081773	1
519	0.042	0.033861	0.0081385	1
520	0.042	0.0339	0.0080998	1
521	0.042	0.033939	0.0080611	1
522	0.042	0.033977	0.0080225	1
523	0.042	0.034016	0.007984	1
524	0.045	0.034054	0.010946	1
525	0.042	0.034093	0.0079071	1
526	0.042	0.034131	0.0078687	1
527	0.045	0.03417	0.01083	1
528	0.042	0.034208	0.0077922	1
529	0.042	0.034246	0.007754	1
530	0.045	0.034284	0.010716	1
531	0.045	0.034322	0.010678	1
532	0.045	0.03436	0.01064	1
533	0.042	0.034398	0.0076019	1
534	0.042	0.034436	0.0075641	1
535	0.045	0.034474	0.010526	1
536	0.045	0.034511	0.010489	1
537	0.045	0.034549	0.010451	1
538	0.042	0.034587	0.0074132	1
539	0.042	0.034624	0.0073756	1
540	0.042	0.034662	0.0073381	1
541	0.042	0.034699	0.0073007	1
542	0.042	0.034737	0.0072633	1
543	0.042	0.034774	0.0072259	1
544	0.042	0.034811	0.0071887	1

545	0.042	0.034849	0.0071514	1
546	0.042	0.034886	0.0071143	1
547	0.042	0.034923	0.0070772	1
548	0.039	0.03496	0.0040401	1
549	0.039	0.034997	0.0040031	1
550	0.039	0.035034	0.0039662	1
551	0.039	0.035071	0.0039293	1
552	0.036	0.035107	0.00089253	1
553	0.036	0.035144	0.00085578	1
554	0.036	0.035181	0.00081908	1
555	0.036	0.035218	0.00078243	1
556	0.036	0.035254	0.00074585	1
557	0.033	0.035291	-0.0022907	1
558	0.036	0.035327	0.00067284	1
559	0.036	0.035364	0.00063642	1
560	0.033	0.0354	-0.0023999	1
561	0.033	0.035436	-0.0024362	1
562	0.036	0.035472	0.0005275	1
563	0.036	0.035509	0.0004913	1
564	0.033	0.035545	-0.0025448	1
565	0.036	0.035581	0.00041908	1
566	0.033	0.035617	-0.002617	1
567	0.036	0.035653	0.00034707	1
568	0.039	0.035689	0.0033111	1
569	0.036	0.035725	0.00027527	1
570	0.036	0.035761	0.00023946	1
571	0.039	0.035796	0.0032037	1
572	0.036	0.035832	0.00016799	1
573	0.036	0.035868	0.00013234	1
574	0.039	0.035903	0.0030967	1
575	0.036	0.035939	6.1193E-005	1
576	0.039	0.035974	0.0030257	1
577	0.039	0.03601	0.0029903	1
578	0.036	0.036045	-4.5128E-005	1
579	0.039	0.03608	0.0029195	1
580	0.039	0.036116	0.0028843	1
581	0.036	0.036151	-0.00015097	1
582	0.039	0.036186	0.0028138	1
583	0.039	0.036221	0.0027787	1
584	0.039	0.036256	0.0027436	1
585	0.039	0.036291	0.0027086	1
586	0.039	0.036326	0.0026737	1
587	0.039	0.036361	0.0026387	1
588	0.039	0.036396	0.0026039	1
589	0.039	0.036431	0.0025691	1
590	0.039	0.036466	0.0025343	1
591	0.039	0.0365	0.0024996	1
592	0.039	0.036535	0.0024649	1
593	0.036	0.03657	-0.0005697	1
594	0.036	0.036604	-0.00060427	1
595	0.036	0.036639	-0.00063878	1
596	0.036	0.036673	-0.00067324	1
597	0.039	0.036708	0.0022923	1
598	0.036	0.036742	-0.00074202	1
599	0.036	0.036776	-0.00077633	1
600	0.036	0.036811	-0.00081059	1
601	0.036	0.036845	-0.00084481	1
602	0.039	0.036879	0.002121	1
603	0.036	0.036913	-0.00091309	1
604	0.036	0.036947	-0.00094715	1

605	0.039	0.036981	0.0020188	1
606	0.036	0.037015	-0.0010151	1
607	0.036	0.037049	-0.0010491	1
608	0.036	0.037083	-0.0010829	1
609	0.039	0.037117	0.0018832	1
610	0.039	0.037151	0.0018495	1
611	0.039	0.037184	0.0018157	1
612	0.036	0.037218	-0.0012179	1
613	0.039	0.037252	0.0017484	1
614	0.039	0.037285	0.0017148	1
615	0.039	0.037319	0.0016813	1
616	0.039	0.037352	0.0016478	1
617	0.039	0.037386	0.0016144	1
618	0.039	0.037419	0.001581	1
619	0.039	0.037452	0.0015476	1
620	0.039	0.037486	0.0015143	1
621	0.039	0.037519	0.0014811	1
622	0.039	0.037552	0.0014479	1
623	0.039	0.037585	0.0014147	1
624	0.039	0.037618	0.0013816	1
625	0.036	0.037651	-0.0016515	1
626	0.036	0.037684	-0.0016845	1
627	0.036	0.037717	-0.0017175	1
628	0.036	0.03775	-0.0017504	1
629	0.036	0.037783	-0.0017833	1
630	0.036	0.037816	-0.0018161	1
631	0.039	0.037849	0.0011511	1
632	0.036	0.037882	-0.0018817	1
633	0.036	0.037914	-0.0019144	1
634	0.039	0.037947	0.001053	1
635	0.039	0.03798	0.0010204	1
636	0.039	0.038012	0.00098779	1
637	0.039	0.038045	0.00095527	1
638	0.039	0.038077	0.00092279	1
639	0.039	0.03811	0.00089035	1
640	0.039	0.038142	0.00085796	1
641	0.039	0.038174	0.00082561	1
642	0.039	0.038207	0.00079331	1
643	0.036	0.038239	-0.0022389	1
644	0.039	0.038271	0.00072884	1
645	0.039	0.038303	0.00069667	1
646	0.039	0.038335	0.00066454	1
647	0.042	0.038368	0.0036325	1
648	0.039	0.0384	0.00060042	1
649	0.042	0.038432	0.0035684	1
650	0.039	0.038464	0.00053647	1
651	0.042	0.038495	0.0035046	1
652	0.042	0.038527	0.0034727	1
653	0.039	0.038559	0.00044086	1
654	0.042	0.038591	0.0034091	1
655	0.042	0.038623	0.0033773	1
656	0.042	0.038654	0.0033456	1
657	0.039	0.038686	0.00031399	1
658	0.042	0.038718	0.0032824	1
659	0.042	0.038749	0.0032508	1
660	0.042	0.038781	0.0032193	1
661	0.042	0.038812	0.0031878	1
662	0.042	0.038844	0.0031563	1
663	0.042	0.038875	0.0031249	1
664	0.042	0.038906	0.0030936	1

665	0.042	0.038938	0.0030623	1
666	0.039	0.038969	3.0987E-005	1
667	0.039	0.039	-2.4979E-007	1
668	0.039	0.039031	-3.1446E-005	1
669	0.039	0.039063	-6.2601E-005	1
670	0.039	0.039094	-9.3715E-005	1
671	0.039	0.039125	-0.00012479	1
672	0.036	0.039156	-0.0031558	1
673	0.039	0.039187	-0.00018681	1
674	0.039	0.039218	-0.00021776	1
675	0.036	0.039249	-0.0032487	1
676	0.036	0.03928	-0.0032795	1
677	0.036	0.03931	-0.0033104	1
678	0.039	0.039341	-0.00034117	1
679	0.039	0.039372	-0.00037192	1
680	0.036	0.039403	-0.0034026	1
681	0.036	0.039433	-0.0034333	1
682	0.039	0.039464	-0.00046393	1
683	0.036	0.039495	-0.0034945	1
684	0.039	0.039525	-0.00052507	1
685	0.036	0.039556	-0.0035556	1
686	0.036	0.039586	-0.0035861	1
687	0.039	0.039616	-0.00061649	1
688	0.036	0.039647	-0.0036469	1
689	0.039	0.039677	-0.00067724	1
690	0.039	0.039708	-0.00070756	1
691	0.036	0.039738	-0.0037378	1
692	0.039	0.039768	-0.00076807	1
693	0.039	0.039798	-0.00079828	1
694	0.039	0.039828	-0.00082844	1
695	0.039	0.039859	-0.00085856	1
696	0.039	0.039889	-0.00088865	1
697	0.039	0.039919	-0.00091869	1
698	0.039	0.039949	-0.0009487	1
699	0.039	0.039979	-0.00097868	1
700	0.039	0.040009	-0.0010086	1
701	0.039	0.040039	-0.0010385	1
702	0.039	0.040068	-0.0010684	1
703	0.039	0.040098	-0.0010982	1
704	0.039	0.040128	-0.001128	1
705	0.039	0.040158	-0.0011577	1
706	0.039	0.040187	-0.0011874	1
707	0.039	0.040217	-0.0012171	1
708	0.039	0.040247	-0.0012467	1
709	0.039	0.040276	-0.0012763	1
710	0.039	0.040306	-0.0013059	1
711	0.039	0.040335	-0.0013354	1
712	0.036	0.040365	-0.0043649	1
713	0.039	0.040394	-0.0013943	1
714	0.036	0.040424	-0.0044237	1
715	0.036	0.040453	-0.0044531	1
716	0.036	0.040482	-0.0044825	1
717	0.036	0.040512	-0.0045118	1
718	0.039	0.040541	-0.001541	1
719	0.033	0.04057	-0.0075703	1
720	0.036	0.040599	-0.0045995	1
721	0.033	0.040629	-0.0076286	1
722	0.033	0.040658	-0.0076577	1
723	0.036	0.040687	-0.0046868	1
724	0.036	0.040716	-0.0047159	1

725	0.036	0.040745	-0.0047449	1
726	0.036	0.040774	-0.0047739	1
727	0.036	0.040803	-0.0048028	1
728	0.039	0.040832	-0.0018317	1
729	0.039	0.040861	-0.0018606	1
730	0.039	0.040889	-0.0018894	1
731	0.039	0.040918	-0.0019182	1
732	0.039	0.040947	-0.001947	1
733	0.039	0.040976	-0.0019757	1
734	0.039	0.041004	-0.0020044	1
735	0.039	0.041033	-0.0020331	1
736	0.039	0.041062	-0.0020617	1
737	0.039	0.04109	-0.0020903	1
738	0.036	0.041119	-0.0051189	1
739	0.036	0.041147	-0.0051474	1
740	0.036	0.041176	-0.0051759	1
741	0.036	0.041204	-0.0052044	1
742	0.036	0.041233	-0.0052328	1
743	0.036	0.041261	-0.0052612	1
744	0.036	0.04129	-0.0052895	1
745	0.036	0.041318	-0.0053178	1
746	0.036	0.041346	-0.0053461	1
747	0.036	0.041374	-0.0053744	1
748	0.036	0.041403	-0.0054026	1
749	0.036	0.041431	-0.0054308	1
750	0.036	0.041459	-0.0054589	1
751	0.036	0.041487	-0.0054871	1
752	0.036	0.041515	-0.0055151	1
753	0.033	0.041543	-0.0085432	1
754	0.036	0.041571	-0.0055712	1
755	0.036	0.041599	-0.0055992	1
756	0.036	0.041627	-0.0056272	1
757	0.036	0.041655	-0.0056551	1
758	0.036	0.041683	-0.005683	1
759	0.036	0.041711	-0.0057108	1
760	0.036	0.041739	-0.0057386	1
761	0.036	0.041766	-0.0057664	1
762	0.036	0.041794	-0.0057942	1
763	0.036	0.041822	-0.0058219	1
764	0.036	0.04185	-0.0058496	1
765	0.036	0.041877	-0.0058772	1
766	0.036	0.041905	-0.0059049	1
767	0.036	0.041932	-0.0059325	1
768	0.036	0.04196	-0.00596	1
769	0.036	0.041988	-0.0059876	1
770	0.036	0.042015	-0.0060151	1
771	0.033	0.042043	-0.0090425	1
772	0.036	0.04207	-0.00607	1
773	0.039	0.042097	-0.0030974	1
774	0.036	0.042125	-0.0061247	1
775	0.036	0.042152	-0.0061521	1
776	0.036	0.042179	-0.0061794	1
777	0.036	0.042207	-0.0062066	1
778	0.036	0.042234	-0.0062339	1
779	0.036	0.042261	-0.0062611	1
780	0.036	0.042288	-0.0062883	1
781	0.036	0.042315	-0.0063154	1
782	0.036	0.042343	-0.0063425	1
783	0.036	0.04237	-0.0063696	1
784	0.036	0.042397	-0.0063967	1

785	0.036	0.042424	-0.0064237	1
786	0.033	0.042451	-0.0094507	1
787	0.036	0.042478	-0.0064777	1
788	0.036	0.042505	-0.0065046	1
789	0.036	0.042532	-0.0065315	1
790	0.036	0.042558	-0.0065584	1
791	0.036	0.042585	-0.0065852	1
792	0.039	0.042612	-0.003612	1
793	0.039	0.042639	-0.0036388	1
794	0.039	0.042666	-0.0036656	1
795	0.036	0.042692	-0.0066923	1
796	0.039	0.042719	-0.003719	1
797	0.036	0.042746	-0.0067456	1
798	0.039	0.042772	-0.0037723	1
799	0.036	0.042799	-0.0067989	1
800	0.036	0.042825	-0.0068254	1
801	0.039	0.042852	-0.003852	1

==========

RESULTS FROM VISUAL CURVE MATCHING

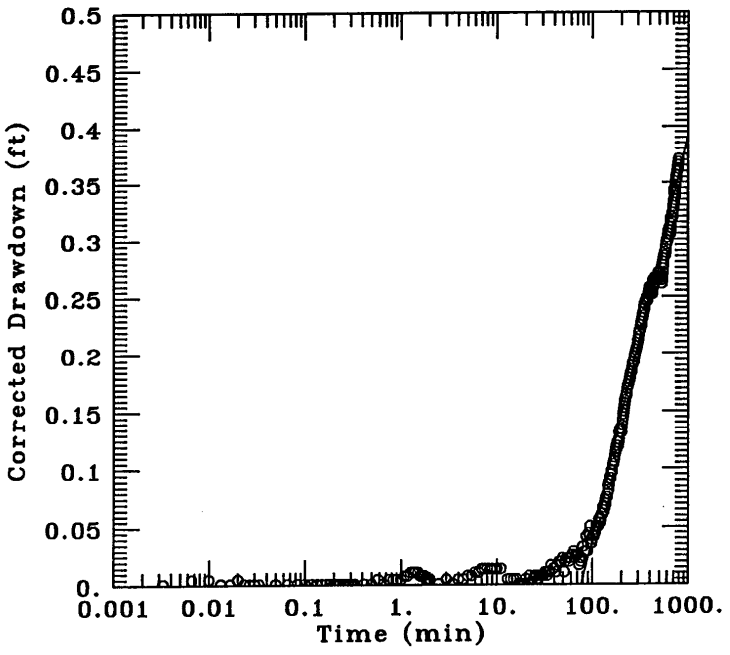
VISUAL MATCH PARAMETER ESTIMATES

		Estimate
T	=	8.3454E-002
S	=	2.0099E-002

<<

SPATCO Environmental	Client: Handy Pantry
Project No.: 9-2798	Location: Taylor St, Columbia S.C.

Handy Pantry, Pumping Test Data, MW-3



DATA SET:
hptntmw3.dat
10/08/93

AQUIFER TYPE:
Unconfined
SOLUTION METHOD:
Cooper-Jacob
TEST DATE:
8/26/93

ESTIMATED PARAMETERS:
T = 0.0349 ft^2/min
S = 0.01048

TEST DATA:
Q = 0.06684 ft^3/min
r = 24. ft
b = 17.38 ft

<<

<<

Time	Observed	Calculated	Residual	Weight
0.0033	0.001	-0.3003	0.3013	1
0.0066	0.005	-0.26892	0.27392	1
0.01	0.005	-0.25008	0.25508	1
0.0133	0.001	-0.23714	0.23814	1
0.0166	0.001	-0.22707	0.22807	1
0.02	0.005	-0.21861	0.22361	1
0.0233	0.001	-0.21166	0.21266	1
0.0266	0.001	-0.20564	0.20664	1
0.03	0.001	-0.20017	0.20117	1
0.0333	0.001	-0.19542	0.19642	1
0.05	0.001	-0.17692	0.17792	1
0.0666	0.001	-0.16385	0.16485	1
0.0833	0.001	-0.15365	0.15465	1
0.1	0.001	-0.14531	0.14631	1
0.1166	0.001	-0.1383	0.1393	1
0.1333	0.001	-0.13219	0.13319	1
0.15	0.001	-0.1268	0.1278	1
0.1666	0.001	-0.122	0.123	1
0.1833	0.001	-0.11764	0.11864	1
0.2	0.001	-0.11365	0.11465	1
0.2166	0.001	-0.11001	0.11101	1
0.2333	0.001	-0.10661	0.10761	1
0.25	0.001	-0.10345	0.10445	1
0.2666	0.001	-0.10051	0.10151	1
0.2833	0.001	-0.097728	0.098728	1
0.3	0.001	-0.095107	0.096107	1
0.3166	0.001	-0.092642	0.093642	1
0.3333	0.001	-0.090289	0.091289	1
0.4166	0.001	-0.080073	0.081073	1
0.5	0.001	-0.071712	0.072712	1
0.5833	0.005	-0.064649	0.069649	1
0.6666	0.001	-0.058528	0.059528	1
0.75	0.005	-0.053121	0.058121	1
0.8333	0.005	-0.048289	0.053289	1
0.9166	0.005	-0.043916	0.048916	1
1	0.005	-0.039919	0.044919	1
1.0833	0.008	-0.036245	0.044245	1
1.1666	0.008	-0.032843	0.040843	1
1.25	0.011	-0.029671	0.040671	1
1.3333	0.011	-0.026707	0.037707	1
1.4166	0.011	-0.023922	0.034922	1
1.5	0.011	-0.021293	0.032293	1
1.5833	0.008	-0.018809	0.026809	1
1.6666	0.008	-0.016452	0.024452	1
1.75	0.008	-0.014207	0.022207	1
1.8333	0.005	-0.012069	0.017069	1
1.9166	0.005	-0.010025	0.015025	1
2	0.005	-0.0080665	0.013066	1
2.5	0.001	0.0022	-0.0012	1
3	0.005	0.010593	-0.0055929	1
3.5	0.001	0.017692	-0.016692	1
4	0.005	0.023844	-0.018844	1
4.5	0.005	0.029272	-0.024272	1
5	0.008	0.034129	-0.026129	1
5.5	0.008	0.038524	-0.030524	1
6	0.011	0.042538	-0.031538	1
6.5	0.011	0.04623	-0.03523	1
7	0.014	0.04965	-0.03565	1

7.5	0.014	0.052834	-0.038834	1
8	0.014	0.055813	-0.041813	1
8.5	0.014	0.058612	-0.044612	1
9	0.014	0.061252	-0.047252	1
9.5	0.014	0.063749	-0.049749	1
10	0.014	0.066118	-0.052118	1
11	0.014	0.070521	-0.056521	1
12	0.008	0.074542	-0.066542	1
13	0.005	0.078241	-0.073241	1
14	0.005	0.081667	-0.076667	1
15	0.005	0.084857	-0.079857	1
16	0.005	0.087842	-0.082842	1
17	0.001	0.090646	-0.089646	1
18	0.001	0.09329	-0.09229	1
19	0.001	0.095792	-0.094792	1
20	0.005	0.098165	-0.093165	1
21	0.001	0.10042	-0.099423	1
22	0.008	0.10258	-0.094577	1
23	0.001	0.10463	-0.10363	1
24	0.005	0.1066	-0.1016	1
25	0.008	0.10849	-0.10049	1
26	0.008	0.11031	-0.10231	1
27	0.005	0.11206	-0.10706	1
28	0.008	0.11374	-0.10574	1
29	0.008	0.11537	-0.10737	1
30	0.008	0.11694	-0.10894	1
31	0.008	0.11846	-0.11046	1
32	0.011	0.11993	-0.10893	1
33	0.011	0.12136	-0.11036	1
34	0.008	0.12274	-0.11474	1
35	0.011	0.12408	-0.11308	1
36	0.011	0.12539	-0.11439	1
37	0.017	0.12666	-0.10966	1
38	0.011	0.12789	-0.11689	1
39	0.014	0.1291	-0.1151	1
40	0.014	0.13027	-0.11627	1
41	0.008	0.13142	-0.12342	1
42	0.011	0.13253	-0.12153	1
43	0.017	0.13363	-0.11663	1
44	0.014	0.13469	-0.12069	1
45	0.02	0.13573	-0.11573	1
46	0.017	0.13675	-0.11975	1
47	0.02	0.13775	-0.11775	1
48	0.02	0.13873	-0.11873	1
49	0.023	0.13968	-0.11668	1
50	0.011	0.14062	-0.12962	1
51	0.011	0.14154	-0.13054	1
52	0.02	0.14244	-0.12244	1
53	0.017	0.14332	-0.12632	1
54	0.023	0.14419	-0.12119	1
55	0.023	0.14504	-0.12204	1
56	0.02	0.14588	-0.12588	1
57	0.02	0.1467	-0.1267	1
58	0.023	0.14751	-0.12451	1
59	0.023	0.1483	-0.1253	1
60	0.02	0.14908	-0.12908	1
61	0.026	0.14985	-0.12385	1
62	0.02	0.1506	-0.1306	1
63	0.026	0.15135	-0.12535	1
64	0.029	0.15208	-0.12308	1

65	0.026	0.1528	-0.1268	1
66	0.023	0.15351	-0.13051	1
67	0.017	0.1542	-0.1372	1
68	0.026	0.15489	-0.12889	1
69	0.026	0.15557	-0.12957	1
70	0.023	0.15624	-0.13324	1
71	0.026	0.1569	-0.1309	1
72	0.017	0.15755	-0.14055	1
73	0.017	0.15819	-0.14119	1
74	0.023	0.15882	-0.13582	1
75	0.02	0.15944	-0.13944	1
76	0.02	0.16006	-0.14006	1
77	0.023	0.16066	-0.13766	1
78	0.023	0.16126	-0.13826	1
79	0.033	0.16186	-0.12886	1
80	0.029	0.16244	-0.13344	1
81	0.033	0.16302	-0.13002	1
82	0.026	0.16359	-0.13759	1
83	0.029	0.16415	-0.13515	1
84	0.029	0.16471	-0.13571	1
85	0.029	0.16526	-0.13626	1
86	0.029	0.1658	-0.1368	1
87	0.042	0.16634	-0.12434	1
88	0.029	0.16687	-0.13787	1
89	0.029	0.16739	-0.13839	1
90	0.036	0.16791	-0.13191	1
91	0.033	0.16842	-0.13542	1
92	0.045	0.16893	-0.12393	1
93	0.039	0.16943	-0.13043	1
94	0.042	0.16993	-0.12793	1
95	0.051	0.17042	-0.11942	1
96	0.042	0.17091	-0.12891	1
97	0.036	0.17139	-0.13539	1
98	0.036	0.17187	-0.13587	1
99	0.039	0.17234	-0.13334	1
100	0.042	0.17281	-0.13081	1
101	0.042	0.17327	-0.13127	1
102	0.042	0.17373	-0.13173	1
103	0.042	0.17418	-0.13218	1
104	0.042	0.17463	-0.13263	1
105	0.045	0.17508	-0.13008	1
106	0.045	0.17552	-0.13052	1
107	0.045	0.17595	-0.13095	1
108	0.048	0.17638	-0.12838	1
109	0.051	0.17681	-0.12581	1
110	0.048	0.17724	-0.12924	1
111	0.051	0.17766	-0.12666	1
112	0.051	0.17808	-0.12708	1
113	0.051	0.17849	-0.12749	1
114	0.051	0.1789	-0.1279	1
115	0.051	0.1793	-0.1283	1
116	0.051	0.17971	-0.12871	1
117	0.057	0.18011	-0.12311	1
118	0.054	0.1805	-0.1265	1
119	0.054	0.18089	-0.12689	1
120	0.054	0.18128	-0.12728	1
121	0.054	0.18167	-0.12767	1
122	0.057	0.18205	-0.12505	1
123	0.057	0.18243	-0.12543	1
124	0.061	0.18281	-0.12181	1

125	0.061	0.18318	-0.12218	1
126	0.057	0.18355	-0.12655	1
127	0.061	0.18392	-0.12292	1
128	0.067	0.18429	-0.11729	1
129	0.064	0.18465	-0.12065	1
130	0.064	0.18501	-0.12101	1
131	0.061	0.18536	-0.12436	1
132	0.064	0.18572	-0.12172	1
133	0.067	0.18607	-0.11907	1
134	0.067	0.18642	-0.11942	1
135	0.07	0.18676	-0.11676	1
136	0.073	0.1871	-0.1141	1
137	0.07	0.18745	-0.11745	1
138	0.07	0.18778	-0.11778	1
139	0.076	0.18812	-0.11212	1
140	0.076	0.18845	-0.11245	1
141	0.076	0.18878	-0.11278	1
142	0.076	0.18911	-0.11311	1
143	0.076	0.18944	-0.11344	1
144	0.079	0.18976	-0.11076	1
145	0.086	0.19009	-0.10409	1
146	0.086	0.19041	-0.10441	1
147	0.082	0.19072	-0.10872	1
148	0.082	0.19104	-0.10904	1
149	0.086	0.19135	-0.10535	1
150	0.089	0.19166	-0.10266	1
151	0.092	0.19197	-0.099972	1
152	0.092	0.19228	-0.10028	1
153	0.092	0.19258	-0.10058	1
154	0.092	0.19289	-0.10089	1
155	0.092	0.19319	-0.10119	1
156	0.095	0.19349	-0.098488	1
157	0.098	0.19379	-0.095786	1
158	0.098	0.19408	-0.096081	1
159	0.095	0.19437	-0.099375	1
160	0.098	0.19467	-0.096666	1
161	0.098	0.19496	-0.096956	1
162	0.098	0.19524	-0.097245	1
163	0.104	0.19553	-0.091531	1
164	0.101	0.19582	-0.094816	1
165	0.104	0.1961	-0.092099	1
166	0.104	0.19638	-0.09238	1
167	0.107	0.19666	-0.089659	1
168	0.107	0.19694	-0.089937	1
169	0.11	0.19721	-0.087213	1
170	0.11	0.19749	-0.087488	1
171	0.11	0.19776	-0.087761	1
172	0.114	0.19803	-0.084032	1
173	0.11	0.1983	-0.088302	1
174	0.114	0.19857	-0.08457	1
175	0.117	0.19884	-0.081837	1
176	0.117	0.1991	-0.082102	1
177	0.12	0.19937	-0.079366	1
178	0.117	0.19963	-0.082628	1
179	0.117	0.19989	-0.082889	1
180	0.12	0.20015	-0.080149	1
181	0.12	0.20041	-0.080407	1
182	0.123	0.20066	-0.077663	1
183	0.123	0.20092	-0.077918	1
184	0.12	0.20117	-0.081172	1

185	0.12	0.20142	-0.081424	1
186	0.123	0.20168	-0.078675	1
187	0.123	0.20192	-0.078925	1
188	0.123	0.20217	-0.079173	1
189	0.126	0.20242	-0.07642	1
190	0.132	0.20267	-0.070666	1
191	0.129	0.20291	-0.07391	1
192	0.132	0.20315	-0.071153	1
193	0.135	0.2034	-0.068395	1
194	0.135	0.20364	-0.068636	1
195	0.132	0.20388	-0.071875	1
196	0.132	0.20411	-0.072113	1
197	0.132	0.20435	-0.07235	1
198	0.132	0.20459	-0.072586	1
199	0.135	0.20482	-0.069821	1
200	0.132	0.20505	-0.073054	1
201	0.132	0.20529	-0.073286	1
202	0.135	0.20552	-0.070517	1
203	0.138	0.20575	-0.067747	1
204	0.135	0.20598	-0.070976	1
205	0.138	0.2062	-0.068204	1
206	0.142	0.20643	-0.064431	1
207	0.142	0.20666	-0.064656	1
208	0.145	0.20688	-0.061881	1
209	0.148	0.2071	-0.059104	1
210	0.148	0.20733	-0.059326	1
211	0.148	0.20755	-0.059547	1
212	0.151	0.20777	-0.056768	1
213	0.151	0.20799	-0.056987	1
214	0.154	0.2082	-0.054205	1
215	0.157	0.20842	-0.051422	1
216	0.157	0.20864	-0.051638	1
217	0.16	0.20885	-0.048853	1
218	0.157	0.20907	-0.052067	1
219	0.157	0.20928	-0.052281	1
220	0.16	0.20949	-0.049493	1
221	0.163	0.2097	-0.046704	1
222	0.16	0.20991	-0.049914	1
223	0.163	0.21012	-0.047124	1
224	0.163	0.21033	-0.047332	1
225	0.166	0.21054	-0.04454	1
226	0.166	0.21075	-0.044746	1
227	0.166	0.21095	-0.044952	1
228	0.166	0.21116	-0.045157	1
229	0.166	0.21136	-0.04536	1
230	0.17	0.21156	-0.041563	1
231	0.17	0.21177	-0.041766	1
232	0.173	0.21197	-0.038967	1
233	0.17	0.21217	-0.042167	1
234	0.173	0.21237	-0.039367	1
235	0.173	0.21257	-0.039565	1
236	0.17	0.21276	-0.042763	1
237	0.173	0.21296	-0.03996	1
238	0.176	0.21316	-0.037156	1
239	0.176	0.21335	-0.037352	1
240	0.176	0.21355	-0.037546	1
241	0.176	0.21374	-0.03774	1
242	0.179	0.21393	-0.034933	1
243	0.176	0.21412	-0.038125	1
244	0.179	0.21432	-0.035316	1

245	0.179	0.21451	-0.035507	1
246	0.179	0.2147	-0.035697	1
247	0.182	0.21489	-0.032886	1
248	0.182	0.21507	-0.033074	1
249	0.182	0.21526	-0.033261	1
250	0.182	0.21545	-0.033448	1
251	0.185	0.21563	-0.030634	1
252	0.185	0.21582	-0.030819	1
253	0.185	0.216	-0.031004	1
254	0.185	0.21619	-0.031188	1
255	0.185	0.21637	-0.031371	1
256	0.185	0.21655	-0.031553	1
257	0.185	0.21673	-0.031735	1
258	0.188	0.21692	-0.028916	1
259	0.188	0.2171	-0.029096	1
260	0.188	0.21728	-0.029276	1
261	0.191	0.21745	-0.026455	1
262	0.191	0.21763	-0.026633	1
263	0.191	0.21781	-0.02681	1
264	0.191	0.21799	-0.026987	1
265	0.194	0.21816	-0.024163	1
266	0.194	0.21834	-0.024339	1
267	0.194	0.21851	-0.024514	1
268	0.194	0.21869	-0.024688	1
269	0.194	0.21886	-0.024861	1
270	0.194	0.21903	-0.025034	1
271	0.194	0.21921	-0.025207	1
272	0.194	0.21938	-0.025378	1
273	0.198	0.21955	-0.021549	1
274	0.198	0.21972	-0.02172	1
275	0.198	0.21989	-0.02189	1
276	0.198	0.22006	-0.022059	1
277	0.198	0.22023	-0.022227	1
278	0.201	0.2204	-0.019395	1
279	0.201	0.22056	-0.019563	1
280	0.201	0.22073	-0.019729	1
281	0.201	0.2209	-0.019895	1
282	0.201	0.22106	-0.020061	1
283	0.204	0.22123	-0.017226	1
284	0.204	0.22139	-0.01739	1
285	0.204	0.22155	-0.017554	1
286	0.204	0.22172	-0.017718	1
287	0.204	0.22188	-0.01788	1
288	0.204	0.22204	-0.018042	1
289	0.204	0.2222	-0.018204	1
290	0.207	0.22236	-0.015365	1
291	0.207	0.22253	-0.015525	1
292	0.207	0.22269	-0.015685	1
293	0.207	0.22284	-0.015845	1
294	0.207	0.223	-0.016003	1
295	0.21	0.22316	-0.013162	1
296	0.21	0.22332	-0.01332	1
297	0.21	0.22348	-0.013477	1
298	0.213	0.22363	-0.010633	1
299	0.213	0.22379	-0.01079	1
300	0.213	0.22395	-0.010945	1
301	0.213	0.2241	-0.0111	1
302	0.213	0.22426	-0.011255	1
303	0.213	0.22441	-0.011409	1
304	0.213	0.22456	-0.011563	1

305	0.216	0.22472	-0.0087158	1
306	0.216	0.22487	-0.0088684	1
307	0.216	0.22502	-0.0090205	1
308	0.219	0.22517	-0.0061721	1
309	0.219	0.22532	-0.0063232	1
310	0.219	0.22547	-0.0064739	1
311	0.222	0.22562	-0.003624	1
312	0.222	0.22577	-0.0037737	1
313	0.222	0.22592	-0.0039229	1
314	0.222	0.22607	-0.0040716	1
315	0.222	0.22622	-0.0042199	1
316	0.222	0.22637	-0.0043676	1
317	0.222	0.22651	-0.0045149	1
318	0.226	0.22666	-0.00066179	1
319	0.222	0.22681	-0.0048082	1
320	0.226	0.22695	-0.0009541	1
321	0.226	0.2271	-0.0010996	1
322	0.226	0.22724	-0.0012446	1
323	0.226	0.22739	-0.0013892	1
324	0.229	0.22753	0.0014667	1
325	0.226	0.22768	-0.001677	1
326	0.226	0.22782	-0.0018203	1
327	0.226	0.22796	-0.0019631	1
328	0.229	0.22811	0.00089456	1
329	0.229	0.22825	0.00075262	1
330	0.229	0.22839	0.0006111	1
331	0.232	0.22853	0.00347	1
332	0.232	0.22867	0.0033294	1
333	0.232	0.22881	0.0031891	1
334	0.235	0.22895	0.0060493	1
335	0.235	0.22909	0.0059099	1
336	0.232	0.22923	0.0027709	1
337	0.235	0.22937	0.0056323	1
338	0.235	0.22951	0.0054942	1
339	0.235	0.22964	0.0053564	1
340	0.235	0.22978	0.005219	1
341	0.238	0.22992	0.0080821	1
342	0.235	0.23005	0.0049455	1
343	0.238	0.23019	0.0078094	1
344	0.241	0.23033	0.010674	1
345	0.241	0.23046	0.010538	1
346	0.241	0.2306	0.010403	1
347	0.241	0.23073	0.010269	1
348	0.241	0.23087	0.010134	1
349	0.241	0.231	0.010001	1
350	0.245	0.23113	0.013867	1
351	0.245	0.23127	0.013734	1
352	0.245	0.2314	0.013601	1
353	0.241	0.23153	0.0094692	1
354	0.241	0.23166	0.0093372	1
355	0.241	0.23179	0.0092057	1
356	0.245	0.23193	0.013074	1
357	0.245	0.23206	0.012944	1
358	0.245	0.23219	0.012813	1
359	0.245	0.23232	0.012683	1
360	0.248	0.23245	0.015553	1
361	0.245	0.23258	0.012424	1
362	0.248	0.23271	0.015295	1
363	0.248	0.23283	0.015166	1
364	0.245	0.23296	0.012038	1

365	0.248	0.23309	0.01491	1
366	0.248	0.23322	0.014782	1
367	0.248	0.23334	0.014655	1
368	0.248	0.23347	0.014528	1
369	0.248	0.2336	0.014402	1
370	0.248	0.23372	0.014275	1
371	0.248	0.23385	0.01415	1
372	0.251	0.23398	0.017024	1
373	0.248	0.2341	0.013899	1
374	0.251	0.23423	0.016774	1
375	0.251	0.23435	0.016649	1
376	0.251	0.23447	0.016525	1
377	0.248	0.2346	0.013401	1
378	0.248	0.23472	0.013278	1
379	0.251	0.23485	0.016154	1
380	0.248	0.23497	0.013031	1
381	0.251	0.23509	0.015909	1
382	0.251	0.23521	0.015787	1
383	0.251	0.23534	0.015665	1
384	0.254	0.23546	0.018543	1
385	0.254	0.23558	0.018422	1
386	0.254	0.2357	0.018301	1
387	0.254	0.23582	0.01818	1
388	0.254	0.23594	0.01806	1
389	0.254	0.23606	0.01794	1
390	0.257	0.23618	0.02082	1
391	0.254	0.2363	0.0177	1
392	0.257	0.23642	0.020581	1
393	0.257	0.23654	0.020462	1
394	0.26	0.23666	0.023344	1
395	0.257	0.23677	0.020225	1
396	0.257	0.23689	0.020108	1
397	0.257	0.23701	0.01999	1
398	0.257	0.23713	0.019872	1
399	0.257	0.23724	0.019755	1
400	0.257	0.23736	0.019639	1
401	0.257	0.23748	0.019522	1
402	0.26	0.23759	0.022406	1
403	0.257	0.23771	0.01929	1
404	0.257	0.23783	0.019174	1
405	0.257	0.23794	0.019059	1
406	0.254	0.23806	0.015944	1
407	0.254	0.23817	0.015829	1
408	0.254	0.23829	0.015715	1
409	0.254	0.2384	0.015601	1
410	0.254	0.23851	0.015487	1
411	0.254	0.23863	0.015373	1
412	0.257	0.23874	0.01826	1
413	0.257	0.23885	0.018146	1
414	0.254	0.23897	0.015034	1
415	0.254	0.23908	0.014921	1
416	0.257	0.23919	0.017809	1
417	0.254	0.2393	0.014697	1
418	0.254	0.23942	0.014585	1
419	0.254	0.23953	0.014473	1
420	0.254	0.23964	0.014362	1
421	0.254	0.23975	0.014251	1
422	0.254	0.23986	0.014141	1
423	0.254	0.23997	0.01403	1
424	0.254	0.24008	0.01392	1

425	0.254	0.24019	0.01381	1
426	0.257	0.2403	0.0167	1
427	0.257	0.24041	0.016591	1
428	0.26	0.24052	0.019482	1
429	0.26	0.24063	0.019373	1
430	0.266	0.24074	0.025264	1
431	0.266	0.24084	0.025156	1
432	0.266	0.24095	0.025048	1
433	0.266	0.24106	0.02494	1
434	0.26	0.24117	0.018832	1
435	0.26	0.24128	0.018725	1
436	0.26	0.24138	0.018618	1
437	0.26	0.24149	0.018511	1
438	0.26	0.2416	0.018404	1
439	0.263	0.2417	0.021298	1
440	0.263	0.24181	0.021192	1
441	0.263	0.24191	0.021086	1
442	0.263	0.24202	0.02098	1
443	0.263	0.24213	0.020874	1
444	0.263	0.24223	0.020769	1
445	0.263	0.24234	0.020664	1
446	0.263	0.24244	0.020559	1
447	0.263	0.24255	0.020455	1
448	0.263	0.24265	0.020351	1
449	0.263	0.24275	0.020247	1
450	0.263	0.24286	0.020143	1
451	0.266	0.24296	0.023039	1
452	0.266	0.24306	0.022936	1
453	0.266	0.24317	0.022833	1
454	0.269	0.24327	0.02573	1
455	0.269	0.24337	0.025627	1
456	0.269	0.24348	0.025525	1
457	0.269	0.24358	0.025422	1
458	0.269	0.24368	0.02532	1
459	0.269	0.24378	0.025219	1
460	0.269	0.24388	0.025117	1
461	0.269	0.24398	0.025016	1
462	0.269	0.24409	0.024915	1
463	0.269	0.24419	0.024814	1
464	0.269	0.24429	0.024713	1
465	0.269	0.24439	0.024612	1
466	0.269	0.24449	0.024512	1
467	0.269	0.24459	0.024412	1
468	0.269	0.24469	0.024312	1
469	0.269	0.24479	0.024213	1
470	0.266	0.24489	0.021113	1
471	0.266	0.24499	0.021014	1
472	0.266	0.24508	0.020915	1
473	0.266	0.24518	0.020816	1
474	0.269	0.24528	0.023718	1
475	0.269	0.24538	0.023619	1
476	0.269	0.24548	0.023521	1
477	0.269	0.24558	0.023423	1
478	0.269	0.24567	0.023325	1
479	0.266	0.24577	0.020228	1
480	0.266	0.24587	0.020131	1
481	0.266	0.24597	0.020033	1
482	0.266	0.24606	0.019937	1
483	0.266	0.24616	0.01984	1
484	0.266	0.24626	0.019743	1

485	0.266	0.24635	0.019647	1
486	0.266	0.24645	0.019551	1
487	0.266	0.24655	0.019455	1
488	0.269	0.24664	0.022359	1
489	0.269	0.24674	0.022264	1
490	0.273	0.24683	0.026168	1
491	0.273	0.24693	0.026073	1
492	0.269	0.24702	0.021978	1
493	0.273	0.24712	0.025883	1
494	0.269	0.24721	0.021789	1
495	0.269	0.24731	0.021694	1
496	0.269	0.2474	0.0216	1
497	0.269	0.24749	0.021506	1
498	0.273	0.24759	0.025412	1
499	0.269	0.24768	0.021319	1
500	0.273	0.24777	0.025225	1
501	0.273	0.24787	0.025132	1
502	0.273	0.24796	0.025039	1
503	0.273	0.24805	0.024946	1
504	0.273	0.24815	0.024853	1
505	0.273	0.24824	0.024761	1
506	0.273	0.24833	0.024668	1
507	0.273	0.24842	0.024576	1
508	0.273	0.24852	0.024484	1
509	0.273	0.24861	0.024392	1
510	0.273	0.2487	0.024301	1
511	0.273	0.24879	0.024209	1
512	0.273	0.24888	0.024118	1
513	0.273	0.24897	0.024027	1
514	0.273	0.24906	0.023936	1
515	0.273	0.24915	0.023845	1
516	0.269	0.24925	0.019755	1
517	0.273	0.24934	0.023664	1
518	0.269	0.24943	0.019574	1
519	0.269	0.24952	0.019484	1
520	0.269	0.24961	0.019394	1
521	0.269	0.2497	0.019304	1
522	0.266	0.24979	0.016215	1
523	0.266	0.24987	0.016126	1
524	0.266	0.24996	0.016036	1
525	0.266	0.25005	0.015947	1
526	0.266	0.25014	0.015858	1
527	0.266	0.25023	0.01577	1
528	0.266	0.25032	0.015681	1
529	0.266	0.25041	0.015593	1
530	0.266	0.2505	0.015505	1
531	0.266	0.25058	0.015417	1
532	0.263	0.25067	0.012329	1
533	0.266	0.25076	0.015241	1
534	0.266	0.25085	0.015154	1
535	0.266	0.25093	0.015066	1
536	0.266	0.25102	0.014979	1
537	0.269	0.25111	0.017892	1
538	0.266	0.25119	0.014805	1
539	0.266	0.25128	0.014719	1
540	0.266	0.25137	0.014632	1
541	0.269	0.25145	0.017546	1
542	0.269	0.25154	0.017459	1
543	0.269	0.25163	0.017373	1
544	0.269	0.25171	0.017287	1

545	0.273	0.2518	0.021202	1
546	0.273	0.25188	0.021116	1
547	0.273	0.25197	0.021031	1
548	0.273	0.25205	0.020945	1
549	0.276	0.25214	0.02386	1
550	0.276	0.25222	0.023775	1
551	0.279	0.25231	0.02669	1
552	0.279	0.25239	0.026606	1
553	0.282	0.25248	0.029521	1
554	0.285	0.25256	0.032437	1
555	0.285	0.25265	0.032353	1
556	0.285	0.25273	0.032269	1
557	0.285	0.25282	0.032185	1
558	0.285	0.2529	0.032101	1
559	0.288	0.25298	0.035017	1
560	0.288	0.25307	0.034934	1
561	0.288	0.25315	0.034851	1
562	0.288	0.25323	0.034767	1
563	0.288	0.25332	0.034684	1
564	0.288	0.2534	0.034602	1
565	0.288	0.25348	0.034519	1
566	0.288	0.25356	0.034436	1
567	0.288	0.25365	0.034354	1
568	0.288	0.25373	0.034271	1
569	0.288	0.25381	0.034189	1
570	0.288	0.25389	0.034107	1
571	0.288	0.25397	0.034025	1
572	0.288	0.25406	0.033944	1
573	0.291	0.25414	0.036862	1
574	0.291	0.25422	0.036781	1
575	0.291	0.2543	0.036699	1
576	0.291	0.25438	0.036618	1
577	0.291	0.25446	0.036537	1
578	0.288	0.25454	0.033456	1
579	0.291	0.25462	0.036376	1
580	0.291	0.2547	0.036295	1
581	0.291	0.25479	0.036215	1
582	0.291	0.25487	0.036134	1
583	0.288	0.25495	0.033054	1
584	0.291	0.25503	0.035974	1
585	0.291	0.25511	0.035894	1
586	0.291	0.25519	0.035815	1
587	0.291	0.25527	0.035735	1
588	0.291	0.25534	0.035655	1
589	0.294	0.25542	0.038576	1
590	0.294	0.2555	0.038497	1
591	0.294	0.25558	0.038418	1
592	0.298	0.25566	0.042339	1
593	0.298	0.25574	0.04226	1
594	0.298	0.25582	0.042181	1
595	0.298	0.2559	0.042103	1
596	0.298	0.25598	0.042024	1
597	0.301	0.25605	0.044946	1
598	0.298	0.25613	0.041868	1
599	0.298	0.25621	0.04179	1
600	0.298	0.25629	0.041712	1
601	0.301	0.25637	0.044634	1
602	0.301	0.25644	0.044556	1
603	0.301	0.25652	0.044479	1
604	0.301	0.2566	0.044402	1

605	0.301	0.25668	0.044324	1
606	0.301	0.25675	0.044247	1
607	0.301	0.25683	0.04417	1
608	0.301	0.25691	0.044093	1
609	0.301	0.25698	0.044016	1
610	0.301	0.25706	0.04394	1
611	0.301	0.25714	0.043863	1
612	0.301	0.25721	0.043787	1
613	0.304	0.25729	0.046711	1
614	0.304	0.25737	0.046635	1
615	0.301	0.25744	0.043559	1
616	0.301	0.25752	0.043483	1
617	0.304	0.25759	0.046407	1
618	0.304	0.25767	0.046331	1
619	0.304	0.25774	0.046256	1
620	0.304	0.25782	0.04618	1
621	0.304	0.25789	0.046105	1
622	0.307	0.25797	0.04903	1
623	0.307	0.25805	0.048955	1
624	0.307	0.25812	0.04888	1
625	0.307	0.25819	0.048805	1
626	0.31	0.25827	0.05173	1
627	0.307	0.25834	0.048656	1
628	0.307	0.25842	0.048581	1
629	0.307	0.25849	0.048507	1
630	0.31	0.25857	0.051433	1
631	0.307	0.25864	0.048359	1
632	0.31	0.25872	0.051285	1
633	0.31	0.25879	0.051211	1
634	0.31	0.25886	0.051137	1
635	0.31	0.25894	0.051064	1
636	0.31	0.25901	0.05099	1
637	0.307	0.25908	0.047917	1
638	0.31	0.25916	0.050844	1
639	0.31	0.25923	0.05077	1
640	0.31	0.2593	0.050697	1
641	0.31	0.25938	0.050624	1
642	0.313	0.25945	0.053552	1
643	0.313	0.25952	0.053479	1
644	0.31	0.25959	0.050406	1
645	0.31	0.25967	0.050334	1
646	0.31	0.25974	0.050261	1
647	0.31	0.25981	0.050189	1
648	0.31	0.25988	0.050117	1
649	0.31	0.25996	0.050045	1
650	0.31	0.26003	0.049973	1
651	0.31	0.2601	0.049901	1
652	0.31	0.26017	0.04983	1
653	0.307	0.26024	0.046758	1
654	0.307	0.26031	0.046686	1
655	0.31	0.26038	0.049615	1
656	0.31	0.26046	0.049544	1
657	0.31	0.26053	0.049473	1
658	0.307	0.2606	0.046402	1
659	0.31	0.26067	0.049331	1
660	0.31	0.26074	0.04926	1
661	0.31	0.26081	0.049189	1
662	0.31	0.26088	0.049118	1
663	0.313	0.26095	0.052048	1
664	0.313	0.26102	0.051978	1

665	0.313	0.26109	0.051907	1
666	0.313	0.26116	0.051837	1
667	0.316	0.26123	0.054767	1
668	0.319	0.2613	0.057697	1
669	0.319	0.26137	0.057627	1
670	0.322	0.26144	0.060557	1
671	0.319	0.26151	0.057488	1
672	0.322	0.26158	0.060418	1
673	0.319	0.26165	0.057349	1
674	0.319	0.26172	0.057279	1
675	0.319	0.26179	0.05721	1
676	0.319	0.26186	0.057141	1
677	0.322	0.26193	0.060072	1
678	0.322	0.262	0.060003	1
679	0.322	0.26207	0.059934	1
680	0.322	0.26213	0.059865	1
681	0.322	0.2622	0.059796	1
682	0.322	0.26227	0.059728	1
683	0.322	0.26234	0.059659	1
684	0.322	0.26241	0.059591	1
685	0.322	0.26248	0.059523	1
686	0.326	0.26255	0.063455	1
687	0.326	0.26261	0.063387	1
688	0.326	0.26268	0.063319	1
689	0.326	0.26275	0.063251	1
690	0.326	0.26282	0.063183	1
691	0.326	0.26288	0.063115	1
692	0.326	0.26295	0.063048	1
693	0.322	0.26302	0.05898	1
694	0.322	0.26309	0.058913	1
695	0.326	0.26315	0.062846	1
696	0.326	0.26322	0.062778	1
697	0.326	0.26329	0.062711	1
698	0.326	0.26336	0.062644	1
699	0.329	0.26342	0.065578	1
700	0.332	0.26349	0.068511	1
701	0.329	0.26356	0.065444	1
702	0.329	0.26362	0.065377	1
703	0.332	0.26369	0.068311	1
704	0.329	0.26376	0.065244	1
705	0.332	0.26382	0.068178	1
706	0.332	0.26389	0.068112	1
707	0.332	0.26395	0.068046	1
708	0.332	0.26402	0.06798	1
709	0.332	0.26409	0.067914	1
710	0.335	0.26415	0.070848	1
711	0.335	0.26422	0.070782	1
712	0.335	0.26428	0.070717	1
713	0.335	0.26435	0.070651	1
714	0.338	0.26441	0.073585	1
715	0.338	0.26448	0.07352	1
716	0.338	0.26455	0.073455	1
717	0.338	0.26461	0.07339	1
718	0.335	0.26468	0.070324	1
719	0.347	0.26474	0.082259	1
720	0.344	0.26481	0.079194	1
721	0.344	0.26487	0.07913	1
722	0.344	0.26494	0.079065	1
723	0.347	0.265	0.082	1
724	0.341	0.26506	0.075936	1

725	0.341	0.26513	0.075871	1
726	0.341	0.26519	0.075807	1
727	0.341	0.26526	0.075742	1
728	0.341	0.26532	0.075678	1
729	0.341	0.26539	0.075614	1
730	0.341	0.26545	0.07555	1
731	0.344	0.26551	0.078486	1
732	0.341	0.26558	0.075422	1
733	0.344	0.26564	0.078358	1
734	0.344	0.26571	0.078295	1
735	0.341	0.26577	0.075231	1
736	0.344	0.26583	0.078167	1
737	0.344	0.2659	0.078104	1
738	0.347	0.26596	0.081041	1
739	0.347	0.26602	0.080977	1
740	0.347	0.26609	0.080914	1
741	0.35	0.26615	0.083851	1
742	0.35	0.26621	0.083788	1
743	0.35	0.26628	0.083725	1
744	0.354	0.26634	0.087662	1
745	0.35	0.2664	0.083599	1
746	0.354	0.26646	0.087537	1
747	0.35	0.26653	0.083474	1
748	0.354	0.26659	0.087412	1
749	0.354	0.26665	0.087349	1
750	0.354	0.26671	0.087287	1
751	0.354	0.26678	0.087224	1
752	0.357	0.26684	0.090162	1
753	0.354	0.2669	0.0871	1
754	0.354	0.26696	0.087038	1
755	0.354	0.26702	0.086976	1
756	0.357	0.26709	0.089914	1
757	0.357	0.26715	0.089853	1
758	0.36	0.26721	0.092791	1
759	0.357	0.26727	0.089729	1
760	0.357	0.26733	0.089668	1
761	0.36	0.26739	0.092606	1
762	0.36	0.26746	0.092545	1
763	0.36	0.26752	0.092484	1
764	0.36	0.26758	0.092422	1
765	0.36	0.26764	0.092361	1
766	0.36	0.2677	0.0923	1
767	0.36	0.26776	0.092239	1
768	0.363	0.26782	0.095178	1
769	0.363	0.26788	0.095118	1
770	0.363	0.26794	0.095057	1
771	0.363	0.268	0.094996	1
772	0.363	0.26806	0.094936	1
773	0.363	0.26812	0.094875	1
774	0.363	0.26819	0.094815	1
775	0.363	0.26825	0.094754	1
776	0.363	0.26831	0.094694	1
777	0.366	0.26837	0.097634	1
778	0.366	0.26843	0.097574	1
779	0.366	0.26849	0.097514	1
780	0.366	0.26855	0.097454	1
781	0.366	0.26861	0.097394	1
782	0.369	0.26867	0.10033	1
783	0.369	0.26873	0.10027	1
784	0.369	0.26879	0.10021	1

785	0.369	0.26884	0.10016	1
786	0.369	0.2689	0.1001	1
787	0.369	0.26896	0.10004	1
788	0.369	0.26902	0.099977	1
789	0.366	0.26908	0.096918	1
790	0.372	0.26914	0.10286	1
791	0.369	0.2692	0.099799	1
792	0.372	0.26926	0.10274	1
793	0.369	0.26932	0.099681	1
794	0.369	0.26938	0.099622	1
795	0.369	0.26944	0.099563	1
796	0.369	0.2695	0.099505	1
797	0.372	0.26955	0.10245	1
798	0.372	0.26961	0.10239	1
799	0.372	0.26967	0.10233	1
800	0.375	0.26973	0.10527	1
801	0.372	0.26979	0.10221	1

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

		Estimate
T	=	3.4905E-002
S	=	1.0482E-002

<<

<<

<<

Model Residuals:

Time	Observed	Calculated	Residual	Weight
0.0033	0.001	0	0.001	1
0.0066	0.005	0	0.005	1
0.01	0.005	0	0.005	1
0.0133	0.001	0	0.001	1
0.0166	0.001	0	0.001	1
0.02	0.005	0	0.005	1
0.0233	0.001	0	0.001	1
0.0266	0.001	0	0.001	1
0.03	0.001	0	0.001	1
0.0333	0.001	0	0.001	1
0.05	0.001	0	0.001	1
0.0666	0.001	0	0.001	1
0.0833	0.001	0	0.001	1
0.1	0.001	0	0.001	1
0.1166	0.001	0	0.001	1
0.1333	0.001	0	0.001	1
0.15	0.001	0	0.001	1
0.1666	0.001	0	0.001	1
0.1833	0.001	0	0.001	1
0.2	0.001	0	0.001	1
0.2166	0.001	0	0.001	1
0.2333	0.001	0	0.001	1
0.25	0.001	0	0.001	1
0.2666	0.001	0	0.001	1
0.2833	0.001	0	0.001	1
0.3	0.001	0	0.001	1
0.3166	0.001	0	0.001	1
0.3333	0.001	0	0.001	1
0.4166	0.001	0	0.001	1
0.5	0.001	0	0.001	1
0.5833	0.005	0	0.005	1
0.6666	0.001	0	0.001	1
0.75	0.005	0	0.005	1
0.8333	0.005	0	0.005	1
0.9166	0.005	0	0.005	1
1	0.005	0	0.005	1
1.0833	0.008	0	0.008	1
1.1666	0.008	0	0.008	1
1.25	0.011	0	0.011	1
1.3333	0.011	0	0.011	1
1.4166	0.011	0	0.011	1
1.5	0.011	0	0.011	1
1.5833	0.008	0	0.008	1
1.6666	0.008	0	0.008	1
1.75	0.008	0	0.008	1
1.8333	0.005	0	0.005	1
1.9166	0.005	0	0.005	1
2	0.005	0	0.005	1
2.5	0.001	0	0.001	1
3	0.005	0.00035658	0.0046434	1
3.5	0.001	0.00063198	0.00036802	1
4	0.005	0.00094861	0.0040514	1
4.5	0.005	0.0013069	0.0036931	1
5	0.008	0.001682	0.006318	1
5.5	0.008	0.0020601	0.0059399	1
6	0.011	0.0024335	0.0085665	1

6.5	0.011	0.0027957	0.0082043	1
7	0.014	0.0031476	0.010852	1
7.5	0.014	0.0034867	0.010513	1
8	0.014	0.0038254	0.010175	1
8.5	0.014	0.0041412	0.0098588	1
9	0.014	0.0044444	0.0095556	1
9.5	0.014	0.0047415	0.0092585	1
10	0.014	0.0050343	0.0089657	1
11	0.014	0.005595	0.008405	1
12	0.008	0.0061446	0.0018554	1
13	0.005	0.0066914	-0.0016914	1
14	0.005	0.0072274	-0.0022274	1
15	0.005	0.0077701	-0.0027701	1
16	0.005	0.0083174	-0.0033174	1
17	0.001	0.0088772	-0.0078772	1
18	0.001	0.0094386	-0.0084386	1
19	0.001	0.010001	-0.0090005	1
20	0.005	0.010578	-0.0055783	1
21	0.001	0.011165	-0.010165	1
22	0.008	0.01176	-0.0037603	1
23	0.001	0.012374	-0.011374	1
24	0.005	0.012987	-0.0079866	1
25	0.008	0.013608	-0.0056077	1
26	0.008	0.014237	-0.0062372	1
27	0.005	0.014862	-0.0098623	1
28	0.008	0.015508	-0.0075078	1
29	0.008	0.016161	-0.008161	1
30	0.008	0.016822	-0.0088216	1
31	0.008	0.017489	-0.0094893	1
32	0.011	0.01818	-0.0071804	1
33	0.011	0.018862	-0.007862	1
34	0.008	0.01955	-0.01155	1
35	0.011	0.020245	-0.0092448	1
36	0.011	0.020945	-0.0099454	1
37	0.017	0.021652	-0.0046521	1
38	0.011	0.022342	-0.011342	1
39	0.014	0.02306	-0.0090604	1
40	0.014	0.023784	-0.0097839	1
41	0.008	0.024512	-0.016512	1
42	0.011	0.025246	-0.014246	1
43	0.017	0.025984	-0.0089838	1
44	0.014	0.026727	-0.012727	1
45	0.02	0.027474	-0.0074737	1
46	0.017	0.028225	-0.011225	1
47	0.02	0.029011	-0.0090112	1
48	0.02	0.029771	-0.0097707	1
49	0.023	0.030534	-0.0075337	1
50	0.011	0.0313	-0.0203	1
51	0.011	0.03207	-0.02107	1
52	0.02	0.032843	-0.012843	1
53	0.017	0.03362	-0.01662	1
54	0.023	0.034399	-0.011399	1
55	0.023	0.035181	-0.012181	1
56	0.02	0.035965	-0.015965	1
57	0.02	0.036752	-0.016752	1
58	0.023	0.037497	-0.014497	1
59	0.023	0.038289	-0.015289	1
60	0.02	0.039082	-0.019082	1
61	0.026	0.039878	-0.013878	1
62	0.02	0.040675	-0.020675	1

63	0.026	0.041474	-0.015474	1
64	0.029	0.042275	-0.013275	1
65	0.026	0.043077	-0.017077	1
66	0.023	0.04388	-0.02088	1
67	0.017	0.044685	-0.027685	1
68	0.026	0.045491	-0.019491	1
69	0.026	0.046297	-0.020297	1
70	0.023	0.047105	-0.024105	1
71	0.026	0.047914	-0.021914	1
72	0.017	0.048723	-0.031723	1
73	0.017	0.049533	-0.032533	1
74	0.023	0.050409	-0.027409	1
75	0.02	0.05122	-0.03122	1
76	0.02	0.052032	-0.032032	1
77	0.023	0.052843	-0.029843	1
78	0.023	0.053655	-0.030655	1
79	0.033	0.054467	-0.021467	1
80	0.029	0.055279	-0.026279	1
81	0.033	0.056091	-0.023091	1
82	0.026	0.056903	-0.030903	1
83	0.029	0.057715	-0.028715	1
84	0.029	0.058526	-0.029526	1
85	0.029	0.059337	-0.030337	1
86	0.029	0.060148	-0.031148	1
87	0.042	0.060959	-0.018959	1
88	0.029	0.061769	-0.032769	1
89	0.029	0.062578	-0.033578	1
90	0.036	0.063387	-0.027387	1
91	0.033	0.064195	-0.031195	1
92	0.045	0.065003	-0.020003	1
93	0.039	0.065809	-0.026809	1
94	0.042	0.066615	-0.024615	1
95	0.051	0.06742	-0.01642	1
96	0.042	0.068225	-0.026225	1
97	0.036	0.069028	-0.033028	1
98	0.036	0.069831	-0.033831	1
99	0.039	0.070632	-0.031632	1
100	0.042	0.071328	-0.029328	1
101	0.042	0.072127	-0.030127	1
102	0.042	0.072925	-0.030925	1
103	0.042	0.073722	-0.031722	1
104	0.042	0.074518	-0.032518	1
105	0.045	0.075312	-0.030312	1
106	0.045	0.076105	-0.031105	1
107	0.045	0.076897	-0.031897	1
108	0.048	0.077687	-0.029687	1
109	0.051	0.078476	-0.027476	1
110	0.048	0.079264	-0.031264	1
111	0.051	0.080051	-0.029051	1
112	0.051	0.080836	-0.029836	1
113	0.051	0.081619	-0.030619	1
114	0.051	0.082401	-0.031401	1
115	0.051	0.083181	-0.032181	1
116	0.051	0.08396	-0.03296	1
117	0.057	0.084738	-0.027738	1
118	0.054	0.085514	-0.031514	1
119	0.054	0.086288	-0.032288	1
120	0.054	0.087061	-0.033061	1
121	0.054	0.087832	-0.033832	1
122	0.057	0.088601	-0.031601	1

123	0.057	0.089369	-0.032369	1
124	0.061	0.090135	-0.029135	1
125	0.061	0.090899	-0.029899	1
126	0.057	0.091662	-0.034662	1
127	0.061	0.092423	-0.031423	1
128	0.067	0.093182	-0.026182	1
129	0.064	0.09394	-0.02994	1
130	0.064	0.094696	-0.030696	1
131	0.061	0.09545	-0.03445	1
132	0.064	0.096202	-0.032202	1
133	0.067	0.096953	-0.029953	1
134	0.067	0.097701	-0.030701	1
135	0.07	0.098448	-0.028448	1
136	0.073	0.099194	-0.026194	1
137	0.07	0.099937	-0.029937	1
138	0.07	0.10068	-0.030679	1
139	0.076	0.10142	-0.025418	1
140	0.076	0.10216	-0.026156	1
141	0.076	0.10289	-0.026892	1
142	0.076	0.10363	-0.027627	1
143	0.076	0.10436	-0.028359	1
144	0.079	0.10509	-0.02609	1
145	0.086	0.10582	-0.019819	1
146	0.086	0.10655	-0.020546	1
147	0.082	0.10745	-0.025448	1
148	0.082	0.10817	-0.026171	1
149	0.086	0.10889	-0.022893	1
150	0.089	0.10961	-0.020612	1
151	0.092	0.11033	-0.01833	1
152	0.092	0.11105	-0.019046	1
153	0.092	0.11176	-0.01976	1
154	0.092	0.11247	-0.020472	1
155	0.092	0.11318	-0.021182	1
156	0.095	0.11389	-0.018891	1
157	0.098	0.1146	-0.016597	1
158	0.098	0.1153	-0.017302	1
159	0.095	0.116	-0.021005	1
160	0.098	0.11671	-0.018706	1
161	0.098	0.11741	-0.019405	1
162	0.098	0.1181	-0.020102	1
163	0.104	0.1188	-0.014798	1
164	0.101	0.11949	-0.018491	1
165	0.104	0.12018	-0.016183	1
166	0.104	0.12087	-0.016873	1
167	0.107	0.12156	-0.014561	1
168	0.107	0.12225	-0.015247	1
169	0.11	0.12293	-0.012932	1
170	0.11	0.12361	-0.013614	1
171	0.11	0.12429	-0.014295	1
172	0.114	0.12497	-0.010974	1
173	0.11	0.12565	-0.015651	1
174	0.114	0.12633	-0.012326	1
175	0.117	0.127	-0.0099995	1
176	0.117	0.12767	-0.010671	1
177	0.12	0.12834	-0.0083406	1
178	0.117	0.12901	-0.012009	1
179	0.117	0.12967	-0.012675	1
180	0.12	0.13034	-0.010339	1
181	0.12	0.131	-0.011002	1
182	0.123	0.13166	-0.0086624	1

183	0.123	0.13232	-0.0093214	1
184	0.12	0.13298	-0.012979	1
185	0.12	0.13363	-0.013634	1
186	0.123	0.13429	-0.011288	1
187	0.123	0.13494	-0.01194	1
188	0.123	0.13559	-0.01259	1
189	0.126	0.13624	-0.010238	1
190	0.132	0.13688	-0.0048846	1
191	0.129	0.13753	-0.0085295	1
192	0.132	0.13817	-0.0061726	1
193	0.135	0.13881	-0.003814	1
194	0.135	0.13945	-0.0044536	1
195	0.132	0.14009	-0.0080915	1
196	0.132	0.14073	-0.0087277	1
197	0.132	0.14136	-0.0093621	1
198	0.132	0.14199	-0.0099949	1
199	0.135	0.14263	-0.0076259	1
200	0.132	0.14326	-0.011255	1
201	0.132	0.14388	-0.011883	1
202	0.135	0.14451	-0.0095088	1
203	0.138	0.14513	-0.0071331	1
204	0.135	0.14576	-0.010756	1
205	0.138	0.14638	-0.0083766	1
206	0.142	0.147	-0.0049958	1
207	0.142	0.14761	-0.0056134	1
208	0.145	0.14823	-0.0032293	1
209	0.148	0.14884	-0.00084354	1
210	0.148	0.14946	-0.0014562	1
211	0.148	0.15007	-0.0020671	1
212	0.151	0.15068	0.00032353	1
213	0.151	0.15128	-0.00028419	1
214	0.154	0.15189	0.0021097	1
215	0.157	0.15249	0.0045052	1
216	0.157	0.1531	0.0039024	1
217	0.16	0.1537	0.0063011	1
218	0.157	0.1543	0.0027015	1
219	0.157	0.1549	0.0021034	1
220	0.16	0.15549	0.0045069	1
221	0.163	0.15609	0.006912	1
222	0.16	0.15668	0.0033187	1
223	0.163	0.15727	0.0057269	1
224	0.163	0.15786	0.0051367	1
225	0.166	0.15845	0.0075481	1
226	0.166	0.15904	0.006961	1
227	0.166	0.15962	0.0063754	1
228	0.166	0.16021	0.0057914	1
229	0.166	0.16079	0.005209	1
230	0.17	0.16137	0.008628	1
231	0.17	0.16195	0.0080486	1
232	0.173	0.16253	0.010471	1
233	0.17	0.16311	0.0068943	1
234	0.173	0.16368	0.0093194	1
235	0.173	0.16425	0.008746	1
236	0.17	0.16483	0.0051741	1
237	0.173	0.1654	0.0076037	1
238	0.176	0.16597	0.010035	1
239	0.176	0.16653	0.0094673	1
240	0.176	0.1671	0.0089013	1
241	0.176	0.16766	0.0083367	1
242	0.179	0.16823	0.010774	1

243	0.176	0.16879	0.007212	1
244	0.179	0.16935	0.0096518	1
245	0.179	0.16991	0.0090931	1
246	0.179	0.17046	0.0085358	1
247	0.182	0.17102	0.01098	1
248	0.182	0.17157	0.010425	1
249	0.182	0.17213	0.0098724	1
250	0.182	0.17235	0.0096527	1
251	0.185	0.1729	0.012102	1
252	0.185	0.17345	0.011554	1
253	0.185	0.17399	0.011006	1
254	0.185	0.17454	0.01046	1
255	0.185	0.17508	0.0099154	1
256	0.185	0.17563	0.0093721	1
257	0.185	0.17617	0.0088302	1
258	0.188	0.17671	0.01129	1
259	0.188	0.17725	0.01075	1
260	0.188	0.17779	0.010213	1
261	0.191	0.17832	0.012676	1
262	0.191	0.17886	0.012141	1
263	0.191	0.17939	0.011607	1
264	0.191	0.17993	0.011075	1
265	0.194	0.18046	0.013544	1
266	0.194	0.18099	0.013014	1
267	0.194	0.18151	0.012485	1
268	0.194	0.18204	0.011958	1
269	0.194	0.18257	0.011432	1
270	0.194	0.18309	0.010908	1
271	0.194	0.18362	0.010384	1
272	0.194	0.18414	0.0098623	1
273	0.198	0.18466	0.013341	1
274	0.198	0.18518	0.012822	1
275	0.198	0.1857	0.012304	1
276	0.198	0.18621	0.011787	1
277	0.198	0.18673	0.011271	1
278	0.201	0.18724	0.013757	1
279	0.201	0.18776	0.013243	1
280	0.201	0.18827	0.012731	1
281	0.201	0.18878	0.012221	1
282	0.201	0.18929	0.011711	1
283	0.204	0.1898	0.014203	1
284	0.204	0.1903	0.013697	1
285	0.204	0.19081	0.013191	1
286	0.204	0.19131	0.012686	1
287	0.204	0.19182	0.012183	1
288	0.204	0.19232	0.011681	1
289	0.204	0.19282	0.01118	1
290	0.207	0.19332	0.01368	1
291	0.207	0.19382	0.013181	1
292	0.207	0.19432	0.012684	1
293	0.207	0.19481	0.012188	1
294	0.207	0.19531	0.011692	1
295	0.21	0.1958	0.014199	1
296	0.21	0.19629	0.013706	1
297	0.21	0.19679	0.013214	1
298	0.213	0.19728	0.015724	1
299	0.213	0.19777	0.015235	1
300	0.213	0.19825	0.014747	1
301	0.213	0.19874	0.01426	1
302	0.213	0.19923	0.013774	1

303	0.213	0.19971	0.013289	1
304	0.213	0.20019	0.012805	1
305	0.216	0.20068	0.015323	1
306	0.216	0.20116	0.014842	1
307	0.216	0.20164	0.014361	1
308	0.219	0.20212	0.016882	1
309	0.219	0.2026	0.016404	1
310	0.219	0.20307	0.015927	1
311	0.222	0.20355	0.018452	1
312	0.222	0.20402	0.017978	1
313	0.222	0.2045	0.017504	1
314	0.222	0.20497	0.017031	1
315	0.222	0.20544	0.01656	1
316	0.222	0.20591	0.016089	1
317	0.222	0.20638	0.01562	1
318	0.226	0.20685	0.019152	1
319	0.222	0.20732	0.014685	1
320	0.226	0.20778	0.018218	1
321	0.226	0.20825	0.017753	1
322	0.226	0.20871	0.017289	1
323	0.226	0.20917	0.016826	1
324	0.229	0.20964	0.019364	1
325	0.226	0.2101	0.015903	1
326	0.226	0.21056	0.015443	1
327	0.226	0.21102	0.014985	1
328	0.229	0.21147	0.017527	1
329	0.229	0.21193	0.01707	1
330	0.229	0.21239	0.016614	1
331	0.232	0.21284	0.019159	1
332	0.232	0.21329	0.018705	1
333	0.232	0.21375	0.018252	1
334	0.235	0.2142	0.020801	1
335	0.235	0.21465	0.02035	1
336	0.232	0.2151	0.0169	1
337	0.235	0.21555	0.019451	1
338	0.235	0.216	0.019003	1
339	0.235	0.21644	0.018556	1
340	0.235	0.21689	0.01811	1
341	0.238	0.21733	0.020665	1
342	0.235	0.21778	0.017221	1
343	0.238	0.21822	0.019778	1
344	0.241	0.21866	0.022336	1
345	0.241	0.2191	0.021895	1
346	0.241	0.21954	0.021455	1
347	0.241	0.21998	0.021016	1
348	0.241	0.22042	0.020578	1
349	0.241	0.22086	0.02014	1
350	0.245	0.2213	0.023704	1
351	0.245	0.22173	0.023268	1
352	0.245	0.22217	0.022834	1
353	0.241	0.2226	0.0184	1
354	0.241	0.22303	0.017967	1
355	0.241	0.22346	0.017536	1
356	0.245	0.2239	0.021105	1
357	0.245	0.22433	0.020675	1
358	0.245	0.22475	0.020246	1
359	0.245	0.22518	0.019818	1
360	0.248	0.22561	0.02239	1
361	0.245	0.22604	0.018964	1
362	0.248	0.22646	0.021539	1

363	0.248	0.22689	0.021114	1
364	0.245	0.22731	0.01769	1
365	0.248	0.22773	0.020268	1
366	0.248	0.22815	0.019847	1
367	0.248	0.22857	0.019425	1
368	0.248	0.22899	0.019005	1
369	0.248	0.22941	0.018586	1
370	0.248	0.22983	0.018168	1
371	0.248	0.23025	0.01775	1
372	0.251	0.23067	0.020333	1
373	0.248	0.23108	0.016917	1
374	0.251	0.2315	0.019502	1
375	0.251	0.23191	0.019088	1
376	0.251	0.23233	0.018675	1
377	0.248	0.23274	0.015262	1
378	0.248	0.23315	0.014851	1
379	0.251	0.23356	0.01744	1
380	0.248	0.23397	0.01403	1
381	0.251	0.23438	0.016621	1
382	0.251	0.23479	0.016212	1
383	0.251	0.23519	0.015805	1
384	0.254	0.2356	0.018398	1
385	0.254	0.23601	0.017992	1
386	0.254	0.23641	0.017587	1
387	0.254	0.23682	0.017183	1
388	0.254	0.23722	0.01678	1
389	0.254	0.23762	0.016377	1
390	0.257	0.23802	0.018975	1
391	0.254	0.23843	0.015574	1
392	0.257	0.23883	0.018174	1
393	0.257	0.23923	0.017775	1
394	0.26	0.23962	0.020376	1
395	0.257	0.24002	0.016978	1
396	0.257	0.24042	0.016581	1
397	0.257	0.24082	0.016185	1
398	0.257	0.24121	0.015789	1
399	0.257	0.24161	0.015395	1
400	0.257	0.242	0.015001	1
401	0.257	0.24239	0.014608	1
402	0.26	0.24278	0.017215	1
403	0.257	0.24318	0.013824	1
404	0.257	0.24357	0.013433	1
405	0.257	0.24396	0.013042	1
406	0.254	0.24435	0.0096531	1
407	0.254	0.24474	0.0092645	1
408	0.254	0.24512	0.0088766	1
409	0.254	0.24551	0.0084894	1
410	0.254	0.2459	0.008103	1
411	0.254	0.24628	0.0077174	1
412	0.257	0.24667	0.010332	1
413	0.257	0.24705	0.0099483	1
414	0.254	0.24744	0.0065649	1
415	0.254	0.24782	0.0061822	1
416	0.257	0.2482	0.0088002	1
417	0.254	0.24858	0.005419	1
418	0.254	0.24896	0.0050384	1
419	0.254	0.24934	0.0046586	1
420	0.254	0.24972	0.0042795	1
421	0.254	0.2501	0.0039012	1
422	0.254	0.25048	0.0035235	1

423	0.254	0.25085	0.0031465	1
424	0.254	0.25123	0.0027703	1
425	0.254	0.25161	0.0023948	1
426	0.257	0.25198	0.0050199	1
427	0.257	0.25235	0.0046458	1
428	0.26	0.25273	0.0072724	1
429	0.26	0.2531	0.0068996	1
430	0.266	0.25347	0.012528	1
431	0.266	0.25384	0.012156	1
432	0.266	0.25421	0.011786	1
433	0.266	0.25458	0.011416	1
434	0.26	0.25495	0.0050463	1
435	0.26	0.25532	0.0046776	1
436	0.26	0.25569	0.0043097	1
437	0.26	0.25606	0.0039424	1
438	0.26	0.25642	0.0035758	1
439	0.263	0.25679	0.0062099	1
440	0.263	0.25716	0.0058447	1
441	0.263	0.25752	0.0054801	1
442	0.263	0.25788	0.0051162	1
443	0.263	0.25825	0.0047529	1
444	0.263	0.25861	0.0043903	1
445	0.263	0.25897	0.0040284	1
446	0.263	0.25933	0.0036671	1
447	0.263	0.25969	0.0033064	1
448	0.263	0.26005	0.0029464	1
449	0.263	0.26041	0.0025871	1
450	0.263	0.26077	0.0022284	1
451	0.266	0.26113	0.0048704	1
452	0.266	0.26149	0.004513	1
453	0.266	0.26184	0.0041562	1
454	0.269	0.2622	0.0068001	1
455	0.269	0.26256	0.0064446	1
456	0.269	0.26291	0.0060897	1
457	0.269	0.26326	0.0057355	1
458	0.269	0.26362	0.0053819	1
459	0.269	0.26397	0.0050289	1
460	0.269	0.26432	0.0046766	1
461	0.269	0.26468	0.0043248	1
462	0.269	0.26503	0.0039737	1
463	0.269	0.26538	0.0036232	1
464	0.269	0.26573	0.0032734	1
465	0.269	0.26608	0.0029241	1
466	0.269	0.26642	0.0025755	1
467	0.269	0.26677	0.0022274	1
468	0.269	0.26712	0.00188	1
469	0.269	0.26747	0.0015332	1
470	0.266	0.26781	-0.0018131	1
471	0.266	0.26816	-0.0021587	1
472	0.266	0.2685	-0.0025037	1
473	0.266	0.26885	-0.0028481	1
474	0.269	0.26919	-0.00019196	1
475	0.269	0.26954	-0.00053519	1
476	0.269	0.26988	-0.00087783	1
477	0.269	0.27022	-0.0012199	1
478	0.269	0.27056	-0.0015614	1
479	0.266	0.2709	-0.0049022	1
480	0.266	0.27124	-0.0052425	1
481	0.266	0.27158	-0.0055822	1
482	0.266	0.27192	-0.0059214	1

483	0.266	0.27226	-0.0062599	1
484	0.266	0.2726	-0.0065979	1
485	0.266	0.27294	-0.0069353	1
486	0.266	0.27327	-0.0072722	1
487	0.266	0.27361	-0.0076084	1
488	0.269	0.27394	-0.0049441	1
489	0.269	0.27428	-0.0052793	1
490	0.273	0.27461	-0.0016138	1
491	0.273	0.27495	-0.0019478	1
492	0.269	0.27528	-0.0062813	1
493	0.273	0.27561	-0.0026141	1
494	0.269	0.27595	-0.0069465	1
495	0.269	0.27628	-0.0072771	1
496	0.269	0.27661	-0.0076083	1
497	0.269	0.27694	-0.0079389	1
498	0.273	0.27727	-0.0042691	1
499	0.269	0.2776	-0.0085986	1
500	0.273	0.27793	-0.0049276	1
501	0.273	0.27826	-0.0052561	1
502	0.273	0.27858	-0.005584	1
503	0.273	0.27891	-0.0059114	1
504	0.273	0.27924	-0.0062383	1
505	0.273	0.27956	-0.0065646	1
506	0.273	0.27989	-0.0068903	1
507	0.273	0.28022	-0.0072156	1
508	0.273	0.28054	-0.0075403	1
509	0.273	0.28086	-0.0078645	1
510	0.273	0.28119	-0.0081881	1
511	0.273	0.28151	-0.0085112	1
512	0.273	0.28183	-0.0088338	1
513	0.273	0.28216	-0.0091559	1
514	0.273	0.28248	-0.0094774	1
515	0.273	0.2828	-0.0097984	1
516	0.269	0.28312	-0.014119	1
517	0.273	0.28344	-0.010439	1
518	0.269	0.28376	-0.014758	1
519	0.269	0.28408	-0.015077	1
520	0.269	0.2844	-0.015396	1
521	0.269	0.28471	-0.015714	1
522	0.266	0.28503	-0.019031	1
523	0.266	0.28535	-0.019348	1
524	0.266	0.28566	-0.019664	1
525	0.266	0.28598	-0.01998	1
526	0.266	0.2863	-0.020296	1
527	0.266	0.28661	-0.020611	1
528	0.266	0.28692	-0.020925	1
529	0.266	0.28724	-0.021239	1
530	0.266	0.28755	-0.021552	1
531	0.266	0.28787	-0.021865	1
532	0.263	0.28818	-0.025178	1
533	0.266	0.28849	-0.022489	1
534	0.266	0.2888	-0.022801	1
535	0.266	0.28911	-0.023112	1
536	0.266	0.28942	-0.023422	1
537	0.269	0.28973	-0.020732	1
538	0.266	0.29004	-0.024042	1
539	0.266	0.29035	-0.024351	1
540	0.266	0.29066	-0.024659	1
541	0.269	0.29097	-0.021967	1
542	0.269	0.29127	-0.022275	1

543	0.269	0.29158	-0.022582	1
544	0.269	0.29189	-0.022888	1
545	0.273	0.29219	-0.019194	1
546	0.273	0.2925	-0.0195	1
547	0.273	0.29281	-0.019805	1
548	0.273	0.29311	-0.02011	1
549	0.276	0.29341	-0.017414	1
550	0.276	0.29372	-0.017718	1
551	0.279	0.29402	-0.015021	1
552	0.279	0.29432	-0.015324	1
553	0.282	0.29463	-0.012626	1
554	0.285	0.29493	-0.0099283	1
555	0.285	0.29523	-0.01023	1
556	0.285	0.29553	-0.010531	1
557	0.285	0.29583	-0.010831	1
558	0.285	0.29613	-0.011131	1
559	0.288	0.29643	-0.0084308	1
560	0.288	0.29673	-0.00873	1
561	0.288	0.29703	-0.0090287	1
562	0.288	0.29733	-0.0093269	1
563	0.288	0.29762	-0.0096247	1
564	0.288	0.29792	-0.0099221	1
565	0.288	0.29822	-0.010219	1
566	0.288	0.29852	-0.010515	1
567	0.288	0.29881	-0.010811	1
568	0.288	0.29911	-0.011107	1
569	0.288	0.2994	-0.011402	1
570	0.288	0.2997	-0.011697	1
571	0.288	0.29999	-0.011991	1
572	0.288	0.30028	-0.012285	1
573	0.291	0.30058	-0.0095782	1
574	0.291	0.30087	-0.0098711	1
575	0.291	0.30116	-0.010164	1
576	0.291	0.30146	-0.010456	1
577	0.291	0.30175	-0.010747	1
578	0.288	0.30204	-0.014038	1
579	0.291	0.30233	-0.011329	1
580	0.291	0.30262	-0.01162	1
581	0.291	0.30291	-0.011909	1
582	0.291	0.3032	-0.012199	1
583	0.288	0.30349	-0.015488	1
584	0.291	0.30378	-0.012777	1
585	0.291	0.30406	-0.013065	1
586	0.291	0.30435	-0.013353	1
587	0.291	0.30464	-0.01364	1
588	0.291	0.30493	-0.013927	1
589	0.294	0.30521	-0.011214	1
590	0.294	0.3055	-0.0115	1
591	0.294	0.30579	-0.011785	1
592	0.298	0.30607	-0.0080706	1
593	0.298	0.30636	-0.0083555	1
594	0.298	0.30664	-0.00864	1
595	0.298	0.30692	-0.008924	1
596	0.298	0.30721	-0.0092077	1
597	0.301	0.30749	-0.0064909	1
598	0.298	0.30777	-0.0097737	1
599	0.298	0.30806	-0.010056	1
600	0.298	0.30834	-0.010338	1
601	0.301	0.30862	-0.0076198	1
602	0.301	0.3089	-0.007901	1

603	0.301	0.30918	-0.0081818	1
604	0.301	0.30946	-0.0084622	1
605	0.301	0.30974	-0.0087422	1
606	0.301	0.31002	-0.0090218	1
607	0.301	0.3103	-0.009301	1
608	0.301	0.31058	-0.0095798	1
609	0.301	0.31086	-0.0098583	1
610	0.301	0.31114	-0.010136	1
611	0.301	0.31141	-0.010414	1
612	0.301	0.31169	-0.010691	1
613	0.304	0.31197	-0.007968	1
614	0.304	0.31224	-0.0082445	1
615	0.301	0.31252	-0.011521	1
616	0.301	0.3128	-0.011796	1
617	0.304	0.31307	-0.0090716	1
618	0.304	0.31335	-0.0093465	1
619	0.304	0.31362	-0.009621	1
620	0.304	0.3139	-0.0098952	1
621	0.304	0.31417	-0.010169	1
622	0.307	0.31444	-0.0074423	1
623	0.307	0.31472	-0.0077154	1
624	0.307	0.31499	-0.007988	1
625	0.307	0.31526	-0.0082602	1
626	0.31	0.31553	-0.0055321	1
627	0.307	0.3158	-0.0088036	1
628	0.307	0.31607	-0.0090747	1
629	0.307	0.31635	-0.0093455	1
630	0.31	0.31662	-0.0066159	1
631	0.307	0.31689	-0.0098859	1
632	0.31	0.31716	-0.0071555	1
633	0.31	0.31814	-0.0081424	1
634	0.31	0.31841	-0.0084113	1
635	0.31	0.31868	-0.0086798	1
636	0.31	0.31895	-0.008948	1
637	0.307	0.31922	-0.012216	1
638	0.31	0.31948	-0.0094832	1
639	0.31	0.31975	-0.0097503	1
640	0.31	0.32002	-0.010017	1
641	0.31	0.32028	-0.010283	1
642	0.313	0.32055	-0.0075493	1
643	0.313	0.32081	-0.0078149	1
644	0.31	0.32108	-0.01108	1
645	0.31	0.32135	-0.011345	1
646	0.31	0.32161	-0.01161	1
647	0.31	0.32187	-0.011874	1
648	0.31	0.32214	-0.012138	1
649	0.31	0.3224	-0.012401	1
650	0.31	0.32266	-0.012664	1
651	0.31	0.32293	-0.012927	1
652	0.31	0.32319	-0.013189	1
653	0.307	0.32345	-0.016452	1
654	0.307	0.32371	-0.016713	1
655	0.31	0.32397	-0.013975	1
656	0.31	0.32424	-0.014236	1
657	0.31	0.3245	-0.014496	1
658	0.307	0.32476	-0.017757	1
659	0.31	0.32502	-0.015017	1
660	0.31	0.32528	-0.015276	1
661	0.31	0.32554	-0.015536	1
662	0.31	0.32579	-0.015795	1

663	0.313	0.32605	-0.013053	1
664	0.313	0.32631	-0.013312	1
665	0.313	0.32657	-0.013569	1
666	0.313	0.32683	-0.013827	1
667	0.316	0.32708	-0.011084	1
668	0.319	0.32734	-0.0083413	1
669	0.319	0.3276	-0.0085979	1
670	0.322	0.32785	-0.0058541	1
671	0.319	0.32811	-0.0091101	1
672	0.322	0.32837	-0.0063656	1
673	0.319	0.32862	-0.0096209	1
674	0.319	0.32888	-0.0098758	1
675	0.319	0.32913	-0.01013	1
676	0.319	0.32938	-0.010385	1
677	0.322	0.32964	-0.0076386	1
678	0.322	0.32989	-0.0078922	1
679	0.322	0.33015	-0.0081455	1
680	0.322	0.3304	-0.0083984	1
681	0.322	0.33065	-0.0086511	1
682	0.322	0.3309	-0.0089034	1
683	0.322	0.33116	-0.0091553	1
684	0.322	0.33141	-0.009407	1
685	0.322	0.33166	-0.0096583	1
686	0.326	0.33191	-0.0059093	1
687	0.326	0.33216	-0.00616	1
688	0.326	0.33241	-0.0064104	1
689	0.326	0.33266	-0.0066604	1
690	0.326	0.33291	-0.0069101	1
691	0.326	0.33316	-0.0071595	1
692	0.326	0.33341	-0.0074086	1
693	0.322	0.33366	-0.011657	1
694	0.322	0.33391	-0.011906	1
695	0.326	0.33415	-0.008154	1
696	0.326	0.3344	-0.0084018	1
697	0.326	0.33465	-0.0086494	1
698	0.326	0.3349	-0.0088966	1
699	0.329	0.33514	-0.0061435	1
700	0.332	0.33539	-0.00339	1
701	0.329	0.33564	-0.0066363	1
702	0.329	0.33588	-0.0068823	1
703	0.332	0.33613	-0.0041279	1
704	0.329	0.33637	-0.0073733	1
705	0.332	0.33662	-0.0046183	1
706	0.332	0.33686	-0.004863	1
707	0.332	0.33711	-0.0051075	1
708	0.332	0.33735	-0.0053516	1
709	0.332	0.3376	-0.0055954	1
710	0.335	0.33784	-0.0028389	1
711	0.335	0.33808	-0.0030821	1
712	0.335	0.33833	-0.0033251	1
713	0.335	0.33857	-0.0035677	1
714	0.338	0.33881	-0.00080998	1
715	0.338	0.33905	-0.001052	1
716	0.338	0.33929	-0.0012937	1
717	0.338	0.33954	-0.0015351	1
718	0.335	0.33978	-0.0047762	1
719	0.347	0.34002	0.006983	1
720	0.344	0.34026	0.0037424	1
721	0.344	0.3405	0.0035022	1
722	0.344	0.34074	0.0032623	1

723	0.347	0.34098	0.0060226	1
724	0.341	0.34122	-0.00021672	1
725	0.341	0.34146	-0.00045577	1
726	0.341	0.34169	-0.00069454	1
727	0.341	0.34193	-0.00093301	1
728	0.341	0.34217	-0.0011712	1
729	0.341	0.34241	-0.0014091	1
730	0.341	0.34265	-0.0016467	1
731	0.344	0.34288	0.001116	1
732	0.341	0.34312	-0.002121	1
733	0.344	0.34336	0.00064224	1
734	0.344	0.34359	0.00040578	1
735	0.341	0.34383	-0.0028304	1
736	0.344	0.34407	-6.6269E-005	1
737	0.344	0.3443	-0.00030187	1
738	0.347	0.34454	0.0024628	1
739	0.347	0.34477	0.0022278	1
740	0.347	0.34501	0.001993	1
741	0.35	0.34524	0.0047586	1
742	0.35	0.34548	0.0045244	1
743	0.35	0.34571	0.0042905	1
744	0.354	0.34594	0.0080568	1
745	0.35	0.34618	0.0038235	1
746	0.354	0.34641	0.0075904	1
747	0.35	0.34664	0.0033576	1
748	0.354	0.34687	0.0071251	1
749	0.354	0.34711	0.0068929	1
750	0.354	0.34734	0.0066609	1
751	0.354	0.34757	0.0064292	1
752	0.357	0.3478	0.0091978	1
753	0.354	0.34803	0.0059666	1
754	0.354	0.34826	0.0057358	1
755	0.354	0.34849	0.0055052	1
756	0.357	0.34873	0.0082748	1
757	0.357	0.34896	0.0080448	1
758	0.36	0.34919	0.010815	1
759	0.357	0.34941	0.0075855	1
760	0.357	0.34964	0.0073562	1
761	0.36	0.34987	0.010127	1
762	0.36	0.3501	0.0098985	1
763	0.36	0.35033	0.0096701	1
764	0.36	0.35056	0.0094419	1
765	0.36	0.35079	0.009214	1
766	0.36	0.35101	0.0089864	1
767	0.36	0.35124	0.008759	1
768	0.363	0.35147	0.011532	1
769	0.363	0.35169	0.011305	1
770	0.363	0.35192	0.011078	1
771	0.363	0.35215	0.010852	1
772	0.363	0.35237	0.010626	1
773	0.363	0.3526	0.0104	1
774	0.363	0.35283	0.010175	1
775	0.363	0.35305	0.0099494	1
776	0.363	0.35328	0.0097244	1
777	0.366	0.3535	0.0125	1
778	0.366	0.35372	0.012275	1
779	0.366	0.35395	0.012051	1
780	0.366	0.35417	0.011827	1
781	0.366	0.3544	0.011603	1
782	0.369	0.35462	0.01438	1

783	0.369	0.35484	0.014156	1
784	0.369	0.35507	0.013933	1
785	0.369	0.35529	0.013711	1
786	0.369	0.35551	0.013488	1
787	0.369	0.35573	0.013266	1
788	0.369	0.35596	0.013044	1
789	0.366	0.35618	0.0098224	1
790	0.372	0.3564	0.015601	1
791	0.369	0.35662	0.01238	1
792	0.372	0.35684	0.015159	1
793	0.369	0.35706	0.011938	1
794	0.369	0.35728	0.011718	1
795	0.369	0.3575	0.011497	1
796	0.369	0.35772	0.011278	1
797	0.372	0.35794	0.014058	1
798	0.372	0.35816	0.013838	1
799	0.372	0.35838	0.013619	1
800	0.375	0.3586	0.0164	1
801	0.372	0.35882	0.013181	1

==========

RESULTS FROM VISUAL CURVE MATCHING

VISUAL MATCH PARAMETER ESTIMATES

	Estimate
T =	2.7480E-002
S =	2.1524E-003
Sy =	1.2687E-002
Ã =	6.0000E+000

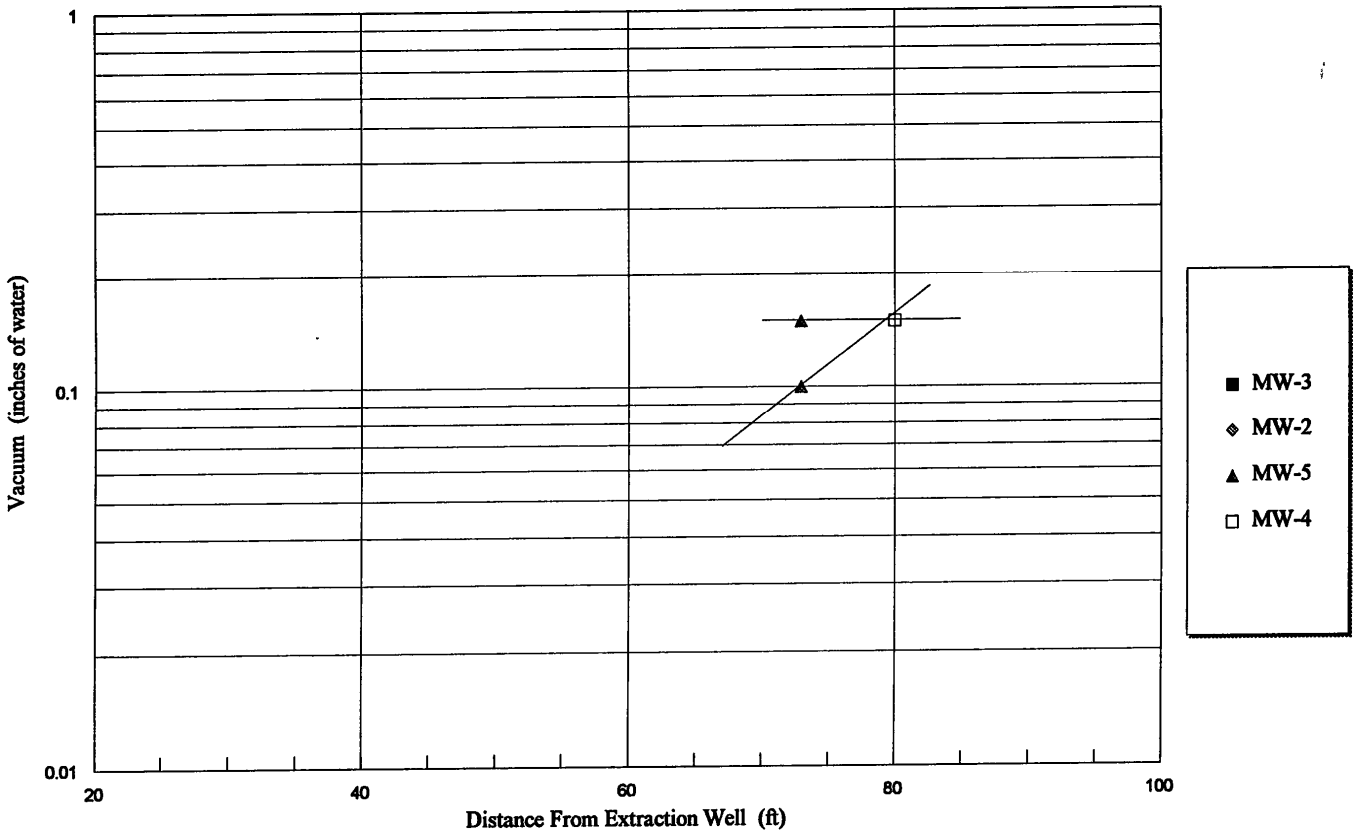
<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<<>>>

APPENDIX E

Soil Vapor Extraction Graphic Analysis

Soil Vapor Extraction Data

Handy Pantry Facility, Two Notch, Columbia, S.C.



Estimate of Hydrocarbon Vapor Removal Rate
Handy Pantry Facility, Two Notch & Taylor Streets
Columbia, South Carolina

{adjusted from API Pub. No. 4410, Sept 1985}

$$Vr\ \{lb/hr\} = (Vc\ \{mg/m^3\})\ (2.2 \times 10^{-6}\ lb/mg)\ (Q\{cfm\})\ (28.3 \times 10^{-3}\ m^3/cfm)\ (60\ m/hr)$$

Where: Vr = Volatile Organics Removal Rate in pounds per hour
Vc = Total Volatile Petroleum Hydrocarbons in mg per cubic meter
Q = Air Flow Rate in cubic feet per min

$$Q = ((F\{ft/min\})\ (r\{ft\})(r\{ft\})(3.1416))\ (60\{min\})$$

Where: F = Air Velocity in feet per minute
R = Radius of Vacuum Extraction Equipment Pipe

Air Velocity = F = **500**
Diameter of SVE Pipe = 0.17 R = 0.08333
Q = **654.50**

Vc = **0.2**

Calculated Removal Rate

Vr = 0.0005 lb/hr

Vr = 0.01 lb/day

Estimate of Hydrocarbon Vapor Removal Rate
Handy Pantry Facility, Two Notch & Taylor Streets
Columbia, South Carolina

{adjusted from API Pub. No. 4410, Sept 1985}

$$Vr\ \{lb/hr\} = (Vc\ \{mg/m^3\})\ (2.2x10^{-6}\ lb/mg)\ (Q\{cfm\})\ (28.3x10^{-3}\ m^3/cfm)\ (60\ m/hr)$$

Where: Vr = Volatile Organics Removal Rate in pounds per hour
Vc = Total Volatile Petroleum Hydrocarbons in mg per cubic meter
Q = Air Flow Rate in cubic feet per min

$$Q = ((F\{ft/min\})\ (r\{ft\})(r\{ft\})(3.1416))\ (60\{min\})$$

Where: F = Air Velocity in feet per minute
R = Radius of Vacuum Extraction Equipment Pipe

Air Velocity = F = 700
Diameter of SVE Pipe = 0.17
R = 0.08333
Q = 916.30

Vc = 1.7

Calculated Removal Rate

Vr =	0.0058	lb/hr
Vr =	0.14	lb/day

Estimate of Hydrocarbon Vapor Removal Rate
Handy Pantry Facility, Two Notch & Taylor Streets
Columbia, South Carolina

{adjusted from API Pub. No. 4410, Sept 1985}

$$Vr\ \{lb/hr\} = (Vc\ \{mg/m^3\})\ (2.2 \times 10^{-6}\ lb/mg)\ (Q\{cfm\})\ (28.3 \times 10^{-3}\ m^3/cfm)\ (60\ m/hr)$$

Where: Vr = Volatile Organics Removal Rate in pounds per hour
Vc = Total Volatile Petroleum Hydrocarbons in mg per cubic meter
Q = Air Flow Rate in cubic feet per min

$$Q = ((F\{ft/min\})\ (r\{ft\})(r\{ft\})(3.1416))\ (60\{min\})$$

Where: F = Air Velocity in feet per minute
R = Radius of Vacuum Extraction Equipment Pipe

Air Velocity = F = 900
Diameter of SVE Pipe = 0.17
R = 0.08333
Q = 1178.10

Vc = 1.6

Calculated Removal Rate

Vr =	0.007	lb/hr
Vr =	0.17	lb/day

Estimate of Hydrocarbon Vapor Removal Rate
Handy Pantry Facility, Two Notch & Taylor Streets
Columbia, South Carolina

{adjusted from API Pub. No. 4410, Sept 1985}

$$Vr\ \{lb/hr\} = (Vc\ \{mg/m^3\})\ (2.2 \times 10^{-6}\ lb/mg)\ (Q\{cfm\})\ (28.3 \times 10^{-3}\ m^3/cfm)\ (60\ m/hr)$$

Where: Vr = Volatile Organics Removal Rate in pounds per hour
Vc = Total Volatile Petroleum Hydrocarbons in mg per cubic meter
Q = Air Flow Rate in cubic feet per min

$$Q = ((F\{ft/min\})\ (r\{ft\})(r\{ft\})(3.1416))\ (60\{min\})$$

Where: F = Air Velocity in feet per minute
R = Radius of Vacuum Extraction Equipment Pipe

Air Velocity = F = **1300**
Diameter of SVE Pipe = 0.17 R = 0.08333
Q = **1701.70**

Vc = **8.1**

Calculated Removal Rate

Vr =	**0.0515 lb/hr**
Vr =	**1.24 lb/day**

Chain of Custody Record

send results and invoices and return coolers, ice packs and completed chain of custody records to:

SPATCO environmental
400 ARBOR LAKE DRIVE
SUITE A-600
COLUMBIA, S.C. 29223
ATTN: Bramley S.
803-735-8595
803-735-8663 (FAX)

PROJECT: Handy Pantry (2-mile & Taylor)	LABORATORY UTILIZED: Arizona Ph.
SITE OF SAMPLE COLLECTION: Columbia, SC	
COLLECTED BY (signature): Eric Caldwell	SHIPPED VIA: Fed ex
CONTAINERS SEALED BY (signature): Eric Caldwell	CONTAINERS OBTAINED FROM: Lab
COOLER SEALED BY (signature)	PRESERVATIVE USED: ~~Ice~~ Carbon
	STORAGE TEMPERATURE ☐ AMBIENT ☐ 4°C ☒ OTHER C
WORK ORDER #: 9-2798	
PURCHASE ORDER #	

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	NO. OF CONTAINERS	ANALYSES: BTEX	ANALYSES: TPH	REMARKS
AS-1	Air	8/27/93	2	X	X	15 min elapsed time
AS-2	↓	8/27/93	2	X	X	30 min " "
AS-3		8/27/93	2	X	X	15 min " "
AS-4		8/27/93	2	X	X	15 min " "
AS-5		8/27/93	2	X	X	20 min " "

SPECIAL INSTRUCTIONS TO LABORATORY OR REMARKS
+ all samples collected for 4 minutes.
(SUPERB TURNAROUND)

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
Caldwell	9/24/93	12:00						

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP°C	SEAL
Walters	9-27-93	1300	193653118	Walters	9/27/93	1300		OK

REMARKS
no flow rates provided

1 of 1

#44647

SPATCO environmental

Chain of Custody Record

send results and invoices and return coolers, ice packs and completed chain of custody records to:

400 ARBOR LAKE DRIVE
SUITE A-600
COLUMBIA, S.C. 29223
ATTN: CHRIS LEGGET
803-735-8595
803-735-8663 (FAX)

PROJECT: HANDY PANTRY	LABORATORY UTILIZED: ASI
SITE OF SAMPLE COLLECTION: SAME Columbia S.C. per pastrepoint	
COLLECTED BY (signature): [signature]	SHIPPED VIA: LAB
CONTAINERS SEALED BY (signature): [signature]	CONTAINERS OBTAINED FROM:
COOLER SEALED BY (signature):	PRESERVATIVE USED: HCL
	STORAGE TEMPERATURE: ☑ AMBIENT ☐ 4°C ☐ OTHER
WORK ORDER #: 9-2798	
PURCHASE ORDER #:	

ANALYSES

FIELD SAMPLE I.D.	SAMPLE MATRIX	DATE/TIME	NO. OF CONTAINERS	BTEX 602	MTBE							REMARKS
MW-5	WATER	10:20 AM 5 AUG 93	2	↓	↓							
MW-6	↓	10:25 AM 5 AUG 93	↓	↓	↓							
MW-7	↓	10:30 AM 5 AUG 93	↓	↓	↓							
MW-8	↓	10:40 AM 5 AUG 93	↓	↓	↓							
MW-9 *	↓	10:51 AM 5 AUG 93	↓	↓	↓							
RW-1	↓	11:07 AM 5 AUG 93	↓	↓	↓							
DW-1	↓	11:03 AM 5 AUG 93	↓	↓	↓							

SPECIAL INSTRUCTIONS TO LABORATORY OR REMARKS

SUPERB TURNAROUND

* Samples labelled MW-10 MZ

RELINQUISHED BY:	DATE	TIME	RECEIVED BY:	DATE	TIME	RELINQUISHED BY:	DATE	TIME
James A. Anglin	5 AUG 93	4:00 pm						

LAB USE ONLY

RECEIVED FOR LABORATORY BY:	DATE	TIME	AIRBILL NO.	OPENED BY:	DATE	TIME	TEMP°C	SEAL
H Coat	8/6/93	930						

REMARKS

Received by: M Jenkins ASI/LAB Temp = 7.8°C
8/6/93 1:15 pm
14 Containers

Proposal for Site Assessment

Handy Pantry
Two Notch Road and Taylor Street
Columbia, South Carolina

Prepared for:

Mr. Mark Roberts
Acme Petroleum and Fuel Company, Inc.
Post Office Box 2359
Gastonia, North Carolina 28053

Prepared by:

Kim Caulk, Hydrogeologist
SPATCO Environmental
400 Arbor Lake Drive, Suite A-600
Columbia, South Carolina 29223

January 29, 1991

UST PROGRAM
DOCKETING # 226 Tech

~~UST PROGRAM~~
~~DOCKETING #~~ _____

Proposal for Site Assessment

Handy Pantry

Two Notch Road and Taylor Street

Columbia, South Carolina

Background

In November 1989, a Phase I Environmental/Prebuy Assessment was conducted by Earth Management Systems at the Handy Pantry Station on the corner of Two Notch Road and Taylor Street, Columbia, SC. Based on review of available documents and laboratory data from two shallow soil borings, Earth Management Systems concluded that the property had not been significantly impacted by any on-site or off-site contamination. On October 25, 1990 SPATCO Environmental was contacted by Mr. Charlie Rose of C.M. Rose & Associates to prepare a proposal for a site assessment of the ground-water quality in the vicinity of the underground storage tanks (USTs) and an inspection of the fuel dispensing equipment at the Handy Pantry. A proposal was prepared and submitted to Mr. Rose on October 26, 1990. On November 27, 1990 the proposal was approved. A monitoring well approval request for a temporary well at the location shown in Figure 1 was submitted to the South Carolina Department of Health and Environmental Control (SCDHEC) on November 30, 1990. On December 3, 1990, the monitoring well approval was received and the field investigation implemented. Analytical results of a ground-water sample taken from the well indicated that the ground-water beneath the site had been impacted by petroleum constituents. Mr. Mark Roberts requested that SPATCO

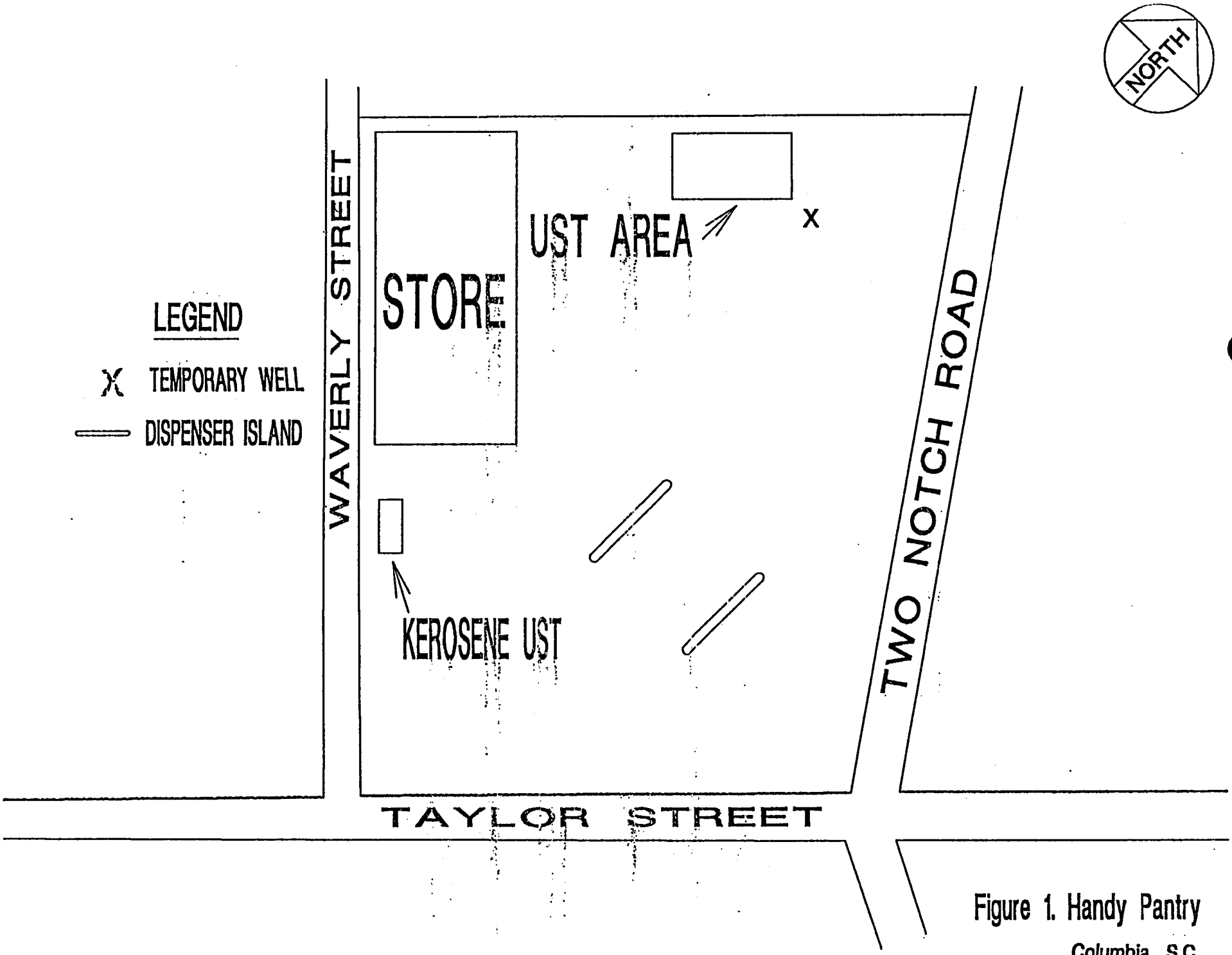


Figure 1. Handy Pantry

Columbia, S.C.

(NTS)

SPATCO

Environmental prepare a proposal for additional assessment at the site. The following scope of services has been prepared to fulfill this request.

Assessment Objectives

SPATCO Environmental will conduct a hydrogeologic assessment at the site. The assessment will consist of the following general objectives:

1) Install permanent ground-water quality monitoring wells;

2) Obtain liquid level measurements from the wells to determine the horizontal hydraulic gradients of the surficial aquifer beneath the site;

3) Obtain ground-water samples from the monitoring wells to estimate the horizontal extent of the ground-water contamination; and

4) Conduct aquifer tests to determine the hydraulic characteristics of the aquifer material beneath the site.

Additional details on the methods used to fulfill these objectives are provided below.

Monitoring Well Installation

Four (4) permanent shallow ground-water quality monitoring wells (MW-1 through MW-4) will be installed at the locations shown in Figure 2. The wells will be installed by first drilling a soil boring using a truck mounted drill rig with hollow stem augers. Split-spoon samples will be taken, at the minimum, every five feet and at changes in lithology. The samples will be described by a geologist and screened for organic vapors using a Foxboro Model 128 Organic Vapor Analyzer (OVA). Prior to quantification with the OVA, the sample will be placed in a zip-lock baggie and allowed to volatilize for at least five minutes. The probe of the OVA will then be inserted into the headspace within the baggie, and the highest reading observed on the OVA meter will be recorded. All split-spoons will be disassembled and decontaminated after each use by washing with organic-free detergent and rinsing with tap water. All drilling equipment will be thoroughly cleaned between borings with pressurized steam.

Formation cuttings will be transported away from the site. If elevated organic vapor concentrations from the split-spoon samples are encountered, the formation returns at that corresponding depth will be placed on a polyethylene plastic liner, and if weather conditions warrant, covered with a liner. The cuttings will then be transferred into a metal drum. The contaminated soil will be properly disposed in accordance with local and SCDHEC guidelines. A separate scope of services will be prepared to handle proper disposal of any contaminated soils encountered.

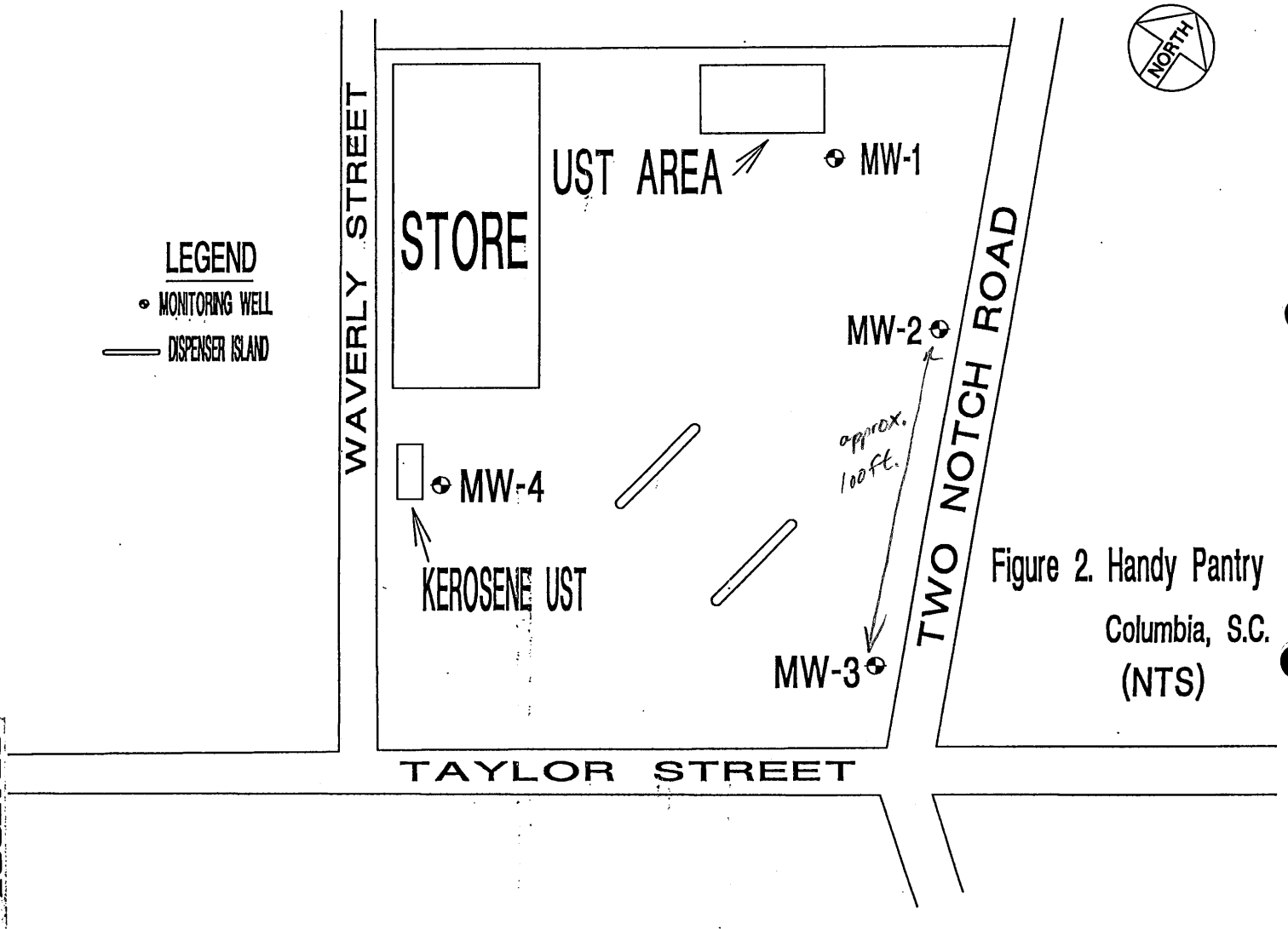


Figure 2. Handy Pantry
Columbia, S.C.
(NTS)

SPATCO

A well will be constructed inside each boring using two-inch inside diameter (ID) threaded schedule 40 PVC casing and 0.01-inch slotted well screen. No PVC glue or o-rings will be used. The well screen for the shallow wells will be set in the borehole so that it brackets the water table. The anticipated depths for the shallow wells are expected to be approximately 35 feet below land surface (BLS). A well graded clean sand pack will be placed around the well screen using the tremie method. A minimum one-foot thick bentonite seal will be placed in the well annulus above the sand pack. The remaining well annulus will then be grounted to the surface with a neat cement/bentonite mixture. The casing stick-up length (within the manhole) will be such that it can prevent water entry into the well if the manhole seal were to fail. All wells will be terminated at grade. The wells will be equipped with manhole covers, locking well caps, and keyed alike locks. A monitoring well schematic showing the proposed construction details for the wells is shown in Figure 3.

Well Development

All wells, including any well that has evidence of free product, will be developed. All development waters from the wells that contain free product or evidence of a sheen will be containerized. Disposal of the wastewaters will be in accordance with local and SCDHEC guidelines and will be handled under a separate scope of services.

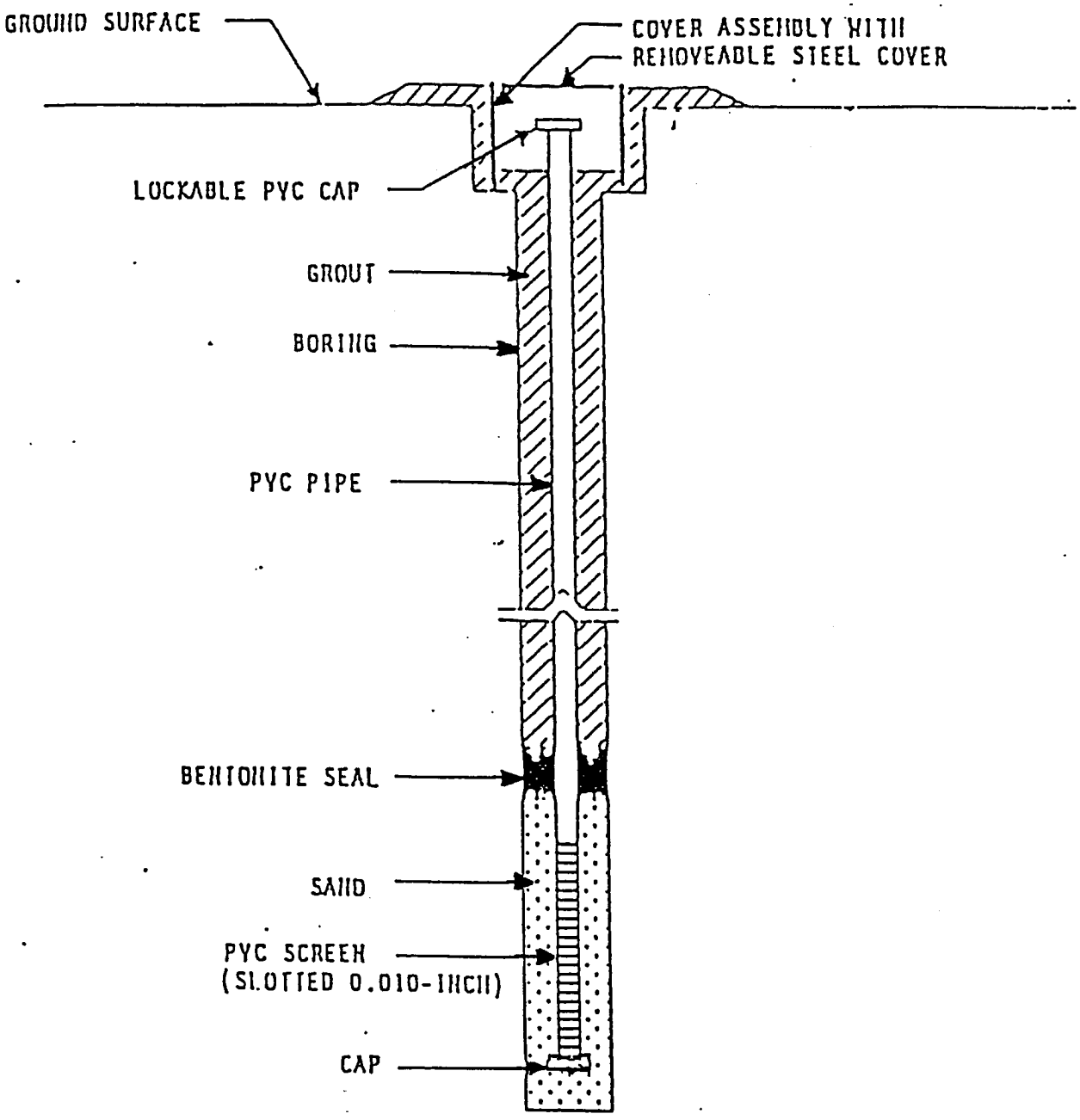


FIGURE 3	SPATCO ENVIRONMENTAL SERVICES	MONITORING WELL

Sampling Methods and Analytical Protocol

Liquid level measurements will be obtained from each well using an oil/water interface probe prior to well purging and sampling. If free-product is present, the thickness will be recorded. The water level measurements, total well depths, and weather conditions at the time of the measurements will be recorded. The oil/water interface probe will be decontaminated between wells using cleaning materials in the following order:

1) detergent wash;
2) tap water rinse;
3) distilled water rinse;
4) isopropanol rinse; and
5) distilled water rinse.

All monitoring wells (except any well(s) containing free-product) will be purged prior to sample collection. All purge waters that evidence a sheen will be containerized and properly disposed as previously discussed. The wells will be purged a minimum of three well volumes. Temperature, specific conductance, and pH measurements will be recorded during the purging process to ensure that fresh formational water has entered the well. Purging will continue until these measurements have stabilized.

Ground-water samples will be obtained from each well using disposable bailers and sampling equipment. Latex disposable gloves will be worn during the sampling to maintain the integrity of each sample. At each location, the sample will be split. One sample split will be placed in a sample bottle (provided by the laboratory), properly labeled, placed on ice, and transported with chain of custody documentation to a qualified laboratory for analysis. The second sample split from each well will be screened on site using a Photovac portable gas chromatograph (GC). The well sample identified by the GC to be most contaminated (worst case well) will be submitted to the laboratory and analyzed for an expanded list of parameters using Environmental Protection Agency (EPA) Methods 624 and 625. The sample will also be analyzed for xylenes, total lead, pH, and biological oxygen (BOD). The remaining samples will be submitted to the laboratory and analyzed using EPA method 602 plus xylenes and methyl tert butyl ether (MTBE).

Aquifer Evaluation

Variable head tests (without the injection of liquids) will be performed on two of the four wells. The tests will consist of displacing a volume of water inside the well causing an instantaneous increase or decrease in water level. Water levels within the well will be measured at timed intervals as the water level returns to the original static water level. The data obtained will then be interpreted to evaluate the hydraulic properties of the surficial aquifer immediately surrounding the well.

Well and Site Survey

The relative location and vertical elevation with respect to an assumed datum will be determined for each well. This information along with the liquid level measurements will be used to develop a potentiometric surface map of the surficial aquifer beneath the site.

Contamination Assessment Report

A final report on the investigation will be prepared upon completion of the field activities. The final report will include a background review, information pertaining to the drilling, well installation, and sampling methodology, results of the liquid level measurements and water quality analysis, interpretation of the aquifer testing, and a discussion of the local and regional geology/hydrogeology. Detailed site maps, potentiometric surface maps (based on the ground-water levels), isocontour maps (of contamination distribution), and topographic maps will be included. The report will also include conclusions/recommendations.

Schedule of Implementation

SPATCO Environmental can initiate the field activities within 10 days of your authorization and SCDHEC approval for the monitoring wells as required by section 61-71.11E of the South Carolina Well Standards and Regulations. The field work and laboratory analysis should be completed within three weeks. Once the laboratory analysis has been received, interpretation of the water quality data and the aquifer tests and preparation of the final report should be completed within

two weeks. The final report should be completed within six to eight weeks following your authorization to proceed.

Cost Estimate

January 29, 1991 Assessment Proposal

Handy Pantry

Columbia, SC

A. Monitoring Well Installation

1. Mobilization (includes drill rig and steam cleaner)	$350.00
2. Drilling (includes drill crew, decon, split-spoon sampling, grouting, materials, etc.)	
4 wells X 35 feet (estimated) X $ 30/foot	$4,200.00
3. Manhole covers, locking well caps, and locks	
4 wells X $ 150/well	$600.00
4. 1 Geologist X 20 hours X $ 45/hour	$900.00
5. 1 OVA rental X 2 days X $ 100/day	$200.00
6. Surveying (includes equipment, survey crew)	$550.00
Subtotal	$6,800.00

B. Ground-water Sampling

1. Sampling Materials (includes gloves, disposable bailers, rope, etc.)	$75.00
2. Equipment	
1 Portable GC X 1 day X $ 200/day	$200.00
Field Instrumentation (specific conductance, temperature, and pH meter, oil/water interface probe)	$25.00

3. 2 Geologist X 11 hours X $ 45/hour		$990.00
	Subtotal	$1,290.00

C. Laboratory Analysis (includes shipping and handling)

1. 3 EPA Method 602 plus MTBE X $ 250/sample		$750.00
2. 1 EPA Method 624/625 X $ 660/sample		$660.00
3. 1 BOD X $ 42/sample		$42.00
4. 1 total lead X $ 25/sample		$25.00
5. 1 PH X $ 10/sample		$10.00
	Subtotal	$1,487.00

D. Aquifer Tests

1. Equipment (includes water level meter, pressure transducer, etc.)		$660.00
2. 2 Geologist X 11 hours X $ 45/hour		$990.00
	Subtotal	$1,650.00

E. Report Preparation

1. 1 Geologist X 32 hours X $ 45/hour		$1,440.00
2. 1 Senior Geologist X 8 hours X $ 70/hour		$560.00
3. 1 Secretary X 4 hours X $ 20/hour		$80.00
	Subtotal	$2,080.00
	Total Cost Estimate	$13,307.00

Report of Site Assessment
Handy Pantry
Two Notch Road and Taylor Street
Columbia, SC
WO# 10216

Prepared for:

Mark Roberts
Acme Petroleum and Fuel Company, Inc.
Post Office Box 2359
Gastonia, NC 28053

Prepared by:

Kim Caulk, Hydrogeologist
SPATCO Environmental
400 Arbor Lake Drive, Suite A-600
Columbia, South Carolina 29223

January 29, 1991

Report of Site Assessment

Handy Pantry

Two Notch Road and Taylor Street

Columbia, South Carolina

Background

In November 1989, a Phase I Environmental/Prebuy Assessment was conducted by Earth Management Systems at the Handy Pantry Station on the corner of Two Notch Road and Taylor Street, Columbia, SC. Based on review of available documents and laboratory data from two shallow soil borings, Earth Management Systems concluded the property had not been significantly impacted by any on-site or off-site contamination. On October 25, 1990 SPATCO Environmental was contacted by Mr. Charlie Rose, of C.M. Rose & Associates to prepare a proposal for a site assessment of the ground-water quality in the vicinity of the underground storage tanks (USTs) and an inspection of the fuel dispensing equipment at the Handy Pantry. A proposal was prepared and submitted to Mr. Rose on October 26, 1990. On November 27, 1990 the proposal was approved. A monitoring well approval request was submitted to the South Carolina Department of Health and Environmental Control (SCDHEC) on November 30, 1990. On December 3, 1990, the monitoring well approval was received (photocopy in the appendix) and the field investigation implemented. The following report includes the results of the investigation.

Temporary Monitoring Well Installation

One temporary monitoring wells (TW-1) was installed at the site on December 3, 1990 at the location shown in Figure 1. The well was installed using the procedures outlined in the October

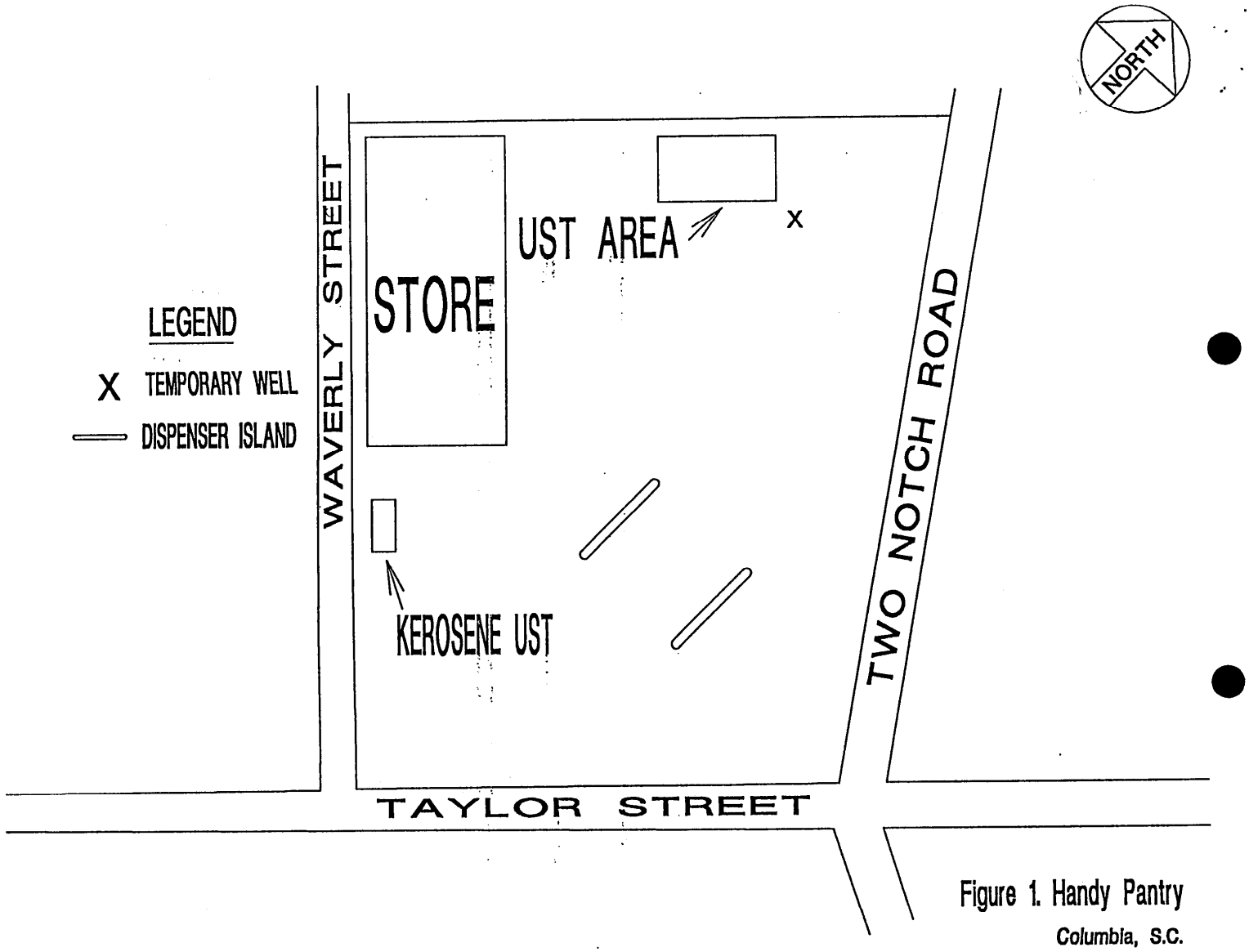


Figure 1. Handy Pantry
Columbia, S.C.
(NTS)

SPATCO

26, 1990 proposal from SPATCO Environmental. The soil boring was drilled using a truck mounted drill rig. A well was constructed inside of the boring using two-inch diameter threaded schedule 40 PVC casing and 0.01-inch slotted well screen. The well screen was set in the borehole so that it bracketed the water table. After the ground-water sample was obtained, the casing and screen were removed and the borehole abandoned with cement.

Split-spoon samples were obtained at five foot intervals during the drilling operation. The samples were described in the field by a geologist and screened for organic vapors using a Foxboro Model 128 Organic Vapor Analyzer (OVA). Prior to quantification with the OVA, the sample was placed in a zip-lock baggie and allowed to volatilize for at least five minutes. The probe of the OVA was then inserted into the headspace within the baggie, and the highest reading observed on the OVA meter was recorded. A boring log for the well is included in the appendix.

Ground-water Sampling

A ground-water sample was obtained from the well using disposable bailer and sampling equipment. Disposable latex gloves were worn during the sampling to maintain the integrity of the sample. The sample was placed in a sample bottle (provided by the laboratory), properly labeled, placed on ice, and transported with chain of custody documentation to a qualified laboratory for analysis.

Field Observations and Assessment Results

Based on the field observations during the drilling of the boring, a release of petroleum products in the subsurface at the site is evident. Petroleum odors and elevated organic vapor readings were noted in the boring at approximately 14 feet below land surface (bls). The ground-water sample taken from TW-1 was analyzed for benzene, toluene, ethylbenzene, and xylenes using Environmental Protection Agency analytical method 602 on December 11, 1990. The same sample was again analyzed for the same parameters on December 19, 1990. The following table shows a summary of the compounds detected by the laboratory:

Table 1. **Laboratory Results (BTEX)**

PARAMETER SAMPLE	BENZENE	TOLUENE	ETHYLBENZENE	TOTAL XYLENE(s)
TW-1 (analyzed 12/11/90)	610	1400	1300	6400
TW-1 (analyzed 12/19/90)	860	2300	2200	11,000

All results in parts per billion (ppb). Laboratory data sheets and the chain of custody form are included in the appendix.

The analytical results for sample TW-1 indicate that ground-water has been impacted at the site in the vicinity of the USTs. The levels of benzene detected are in excess of the limit (5 ppb) allowed in Class GB ground-waters.

A site reconnaissance revealed a previously unidentified UST located beside the Handy Pantry building and adjacent to Waverly Street. The UST appeared to be temporary out of operation. Assessment of the subsurface conditions in the vicinity of this UST was beyond the scope of the investigation.

Equipment Inspection

On January 4, 1991, the fuel dispensing equipment at the facility was inspected by Southern Pump and Tank Company. The equipment appeared to be in good condition. The results of the inspection are included in the appendix.

Conclusions and Recommendations

The subsurface soils at approximately 14 feet bls have been impacted at the site by petroleum products in the vicinity of the three USTs currently in operation. Ground water, which occurs at approximately 30 feet bls, has been impacted by petroleum products.

Since ground-water has been impacted, permanent ground-water monitoring wells should be installed to define the extent (horizontal and vertical) and severity of the contamination. Tests

should be performed to determine the direction and rate of ground-water movement and the hydrologic characteristics of the shallow aquifer beneath the site.

According to information provided by Mr. Mark Roberts of Acme Petroleum, the additional UST at the site was used in the past to store kerosene. The UST does not appear to be registered with the SCDHEC. A notification form #16 (photocopy in the appendix) should be completed and submitted to the SCDHEC as required by Section 280.22 of the South Carolina Underground Storage Tank Control Regulations (USTC). The SCDHEC should be informed that the UST had apparently been omitted when the other three USTs were registered. An assessment should be conducted in the vicinity of this UST to determine if a release has occurred.

As required by Section 280.50 of the USTC Regulations, the results of this investigation should be reported to the SCDHEC. A copy of the analytical results should be submitted to SCDHEC as required by the December 3, 1990 monitoring well approval issued by the Ground-water Protection Division.

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

Commissioner: Michael D. Jarrett

Board: John B. Pate, MD, Chairman
William E. Applegate, III, Vice Chairman
John H. Burriss, Secretary

Toney Graham, Jr., MD
Richard E. Jabbour, DDS
Henry S. Jordan, MD
Currie B. Spivey, Jr.

Promoting Health, Protecting the Environment

Monitoring Well Approval

Approval is hereby granted to:

Spatco
400 Arbor Lake Drive
Suite 600-A
Columbia, SC 29223-4535
Attn: Kim Caulk

RE: Handy Pantry Store
Taylor Street & Two Notch Road
Columbia, SC, Richland County
SCDHEC UST Reg. No. N-40-NO-07584

for the construction of temporary monitoring well designated TW-1 in accordance with the construction plans and specifications submitted on November 30, 1990. This well will be constructed to the approximate depth of 50 feet below the surface and screened in the uppermost aquifer for the purpose of monitoring for the presence of hydrocarbon contamination.

Conditions: That the latitude and longitude and actual construction details for each well be submitted within 30 days after installation. All analytical data must be submitted to the Department within 30 days of laboratory analyses. That the detection of any free product or dissolved hydrocarbon constituents be reported to the Department in accordance with R.61-92, Part 280.50(a) of the South Carolina Underground Storage Tank Control Regulations. That the district hydrogeologist (Paul Bristol, 935-7015) must be notified at least 48 hours prior to well installation.

This approval is pursuant to the provisions of Section 44-55-40 of the 1976 South Carolina Code of Laws and the Department of Health and Environmental Control Regulations R.61-71.

Date of Issue: December 3, 1990

Stanley M. Swartzel, Manager
Underground Storage Tank Section
Ground-Water Protection Division
Bureau of Drinking Water Protection

SMS/mb
12039018.29

cc: Central Midlands District EQC

recycled paper

Boring Log

Boring TW-1

Depth *	Description	OVA Reading **
4.5-6.0	Orange sandy (medium grain) clay	<10
9.5-11	Orange clayey sand	20
14.5-16	Brown silty sand (medium grained) (hydrocarbon odor)	50
19.5-21	Orange silty sand (medium to fine grain) (hydrocarbon odor)	110
24.5-26	Orange to tan, tight, sandy (medium grained) clay (moderate hydrocarbon odor)	90
29.5-31	Grey to purple, extremely tight, moist clay (kaolin) (slight hydrocarbon odor)	66
34.5-36	Yellow to tan, relatively dry, clayey sand (very fine grained)	28

* - Feet below land surface
** - All OVA readings in parts per million (ppm)

EnviroTech Mid-Atlantic

Virginia Tech Corporate Research Center
1861 Pratt Drive
Blacksburg, Virginia 24060

EnviroTech

RECEIVED
DEC 14 1990

DECEMBER 11, 1990

CLIENT : SPATCO ENVIRONMENTAL
ADDRESS: 400 ARBOR LAKE DR STE A600
COLUMBIA, SC 29223

REPORT # :1454
DATE RECEIVED:12/04/90

ATTENTION:K T CAULK
REFERENCE:HANDY PANTRY

FAX: 803-735-8663

SAMPLE IDENTIFICATION

Samples submitted and identified by client as:

HANDY PANTRY

SAMPLE	DESCRIPTION	DATE	TIME
1454	TW-1	12/03/90	11:50 am

LABORATORY DIRECTOR S. Deborah Oyler
S. Deborah Oyler

RECEIVED
DEC 14 1990

ENVIROTECH MID-ATLANTIC
REPORT # :1454
DATE REPORTED:12/11/90
REFERENCE:HANDY PANTRY

RESULTS OF ANALYSIS

BTEX - EPA 602/8020 METHOD

COMPOUND	DETECTION LIMIT (ppb)	CONCENTRATION (ppb) SAMPLE 1454
Benzene	50	610
Toluene	50	1400
Ethylbenzene	50	1300
Total-Xylene	50	6400

QUALITY CONTROL DATA

	% SPIKE REC	% RD
BTEX		
1,1 DCE	114	6.1
TCE	118	3.4
C BENZENE	100	1.0
BENZENE	106	0.9
TOLUENE	103	0.0

EnviroTech Mid-Atlantic
Virginia Tech Corporate Research Center
1861 Pratt Drive
Blacksburg, Virginia 24060

RECEIVED
DEC 26 1990

DECEMBER 19, 1990

CLIENT : SPATCO ENVIRONMENTAL
ADDRESS: 400 ARBOR LAKE DR STE A600
COLUMBIA, SC 29223

REPORT # :1454
DATE RECEIVED:12/04/90

ATTENTION:K T CAULK
REFERENCE:HANDY PANTRY

FAX: 803-735-8663

SAMPLE IDENTIFICATION and ANALYSIS RESULTS

Samples submitted and identified by client as:

HANDY PANTRY

SAMPLE	DESCRIPTION	DATE	TIME
1454	TW-1	12/03/90	11:50 am

BTEX - EPA 602/8020 METHOD

COMPOUND	DETECT LIMIT	CONCENTRATION (ppb)
Benzene	50	860
Toluene	50	2300
Ethylbenzene	50	2200
Total-Xylene	50	11000

LABORATORY DIRECTOR S. Deborah Oyler

S. Deborah Oyler

(703) 231-3983 FAX (703) 231-3984

CHAIN OF CUSTODY RECORD

Page 1 of 1

ENVIROTECH MID-ATLANTIC
1861 Pratt Dr., Blacksburg, VA 24060

PROJECT NO.

PROJECT NAME: Handy Pantry

SAMPLER'S (SIGNATURE): K. T. Caudle

STATION NO.	DATE	TIME	COMPOSITE	GRAB	STATION LOCATION	NO. OF CONTAINERS	TCL	BTEX (EPA Method 602)	REMARKS
Sample TW-1	12/3/90	11:50AM		✓		2			Lab # 1454

RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:
K. T. Caudle	12/3/90 - 4:00PM	Fed. Express			
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	RELINQUISHED BY:	DATE/TIME:	REMARKS:
RELINQUISHED BY:	DATE/TIME:	RECEIVED BY:	RECEIVED FOR LABORATORY BY: C Stradtler 12/4/90 11:00 am		

RECEIVED
DEC 14 1990

Charlotte, NC
Raleigh,NC
Columbia, SC
Winston-Salem, NC
Asheville, NC
Knoxville, TN
Greenville, SC
Chattanooga, TN
Nashville, TN

SPATCO

RECEIVED
JAN - 7 1991

January 4, 1991

Mr. Kim Caulk
SPATCO Environmental
Fontaine Business Park
400 Arbor Lake Drive
Suite A600
Columbia, SC 29223

REF: Handy Pantry
Forest Drive at Two Notch Road

Dear Kim:

SPATCO has inspected the fuel dispensing mechanical equipment at this location and found it to be in good condition in all respects.

Regards,

John R. McPherson

1625 Bluff Road / P.O. Box 13544 / Columbia, South Carolina 29201 / (803) 799-9090

SCDHEC

South Carolina Department of Health and Environmental Control
Columbia, South Carolina 29201

Notification for Underground Storage Tanks No Longer In Operation

Tanks taken out of operation after January 1, 1974, but still in the ground.

1. Name and address of the facility	2. Business mailing address of facility, if different from location address	3. Owner of tank (name, business address, and phone number)	4. Contact person for the facility (Name and phone numb

5. Type of owner (Mark "X" in appropriate box)

☐ Non Federal ☐ Federal (Give GSA #)

6. For State Use Only

Complete the following section(s) to the best of your knowledge using the examples provided as guidance. Check appropriate boxes and fill in blanks where applicable. If you need more space, photoc this page or use a continuation sheet.

7. Tanks taken out of use after January 1, 1974, but still in the ground.

a. Tank No.	b. Date of last use		c. Age when last used (yrs)					d. Total capacity (gal)	e. Material of construction			f. Internal protection		g. External protection				g. Substance last stored, if any				
	Month	Year	0-5	6-10	11-15	16-20	20+		Steel	Fiberglass reinforced plastic	Other (specify)	Lined	Unlined	Coated	Wrapped	Cathodic protection	Other (specify)	Hazardous substance name and/or Chemical Abstract Service (CAS) # if known	Petroleum products: Gasoline	Diesel	Kerosene	Other (specify)
Sample	6	75			X			8,000	TP				X	X					X			
1																						
2																						
3																						
4																						
5																						
6																						
7																						
8																						
9																						

8. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this and all attached documents, and that based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the submitted information is true, accurate, and complete.

a. Name and Official Title of Owner or Owner's Authorized Representative (Type or print)

b. Signature

c. Date signed

DHEC Exp. 8 18 (6/85)

Boring Log

Boring TW-1

Depth *	Description	OVA Reading **
4.5-6.0	Orange sandy (medium grain) clay	<10
9.5-11	Orange clayey sand	20
14.5-16	Brown silty sand (medium grained) (hydrocarbon odor)	50
19.5-21	Orange silty sand (medium to fine grain) (hydrocarbon odor)	110
24.5-26	Orange to tan, tight, sandy (medium grained) clay (moderate hydrocarbon odor)	90
29.5-31	Grey to purple, extremely tight, moist clay (kaolin) (slight hydrocarbon odor)	66
34.5-36	Yellow to tan, relatively dry, clayey sand (very fine grained)	28

* - Feet below land surface
** - All OVA readings in parts per million (ppm)

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

May 26, 2005

MR JOE T SUDDETH
302 BIDDLE ROAD
COLUMBIA SC 29212

Re: University Mart (Former Handy Pantry #65), 2367 Taylor Street, Columbia, SC
UST Permit #07584 and #18389
Tier II Assessment Report received May 25, 2005
Richland County

Dear Mr. Suddeth:

As you may be aware, an environmental assessment was conducted at the referenced facility by Consultech Environmental Incorporated to determine the severity and extent of the petroleum release. As part of the assessment, two monitoring wells were installed on your property. I am happy to report that monitoring wells MW-49 and MW-50 do not contain any petroleum chemicals of concern. A copy of the report is attached for your information. The SCDHEC anticipates these two wells will be sampled in the future. Your continued cooperation is appreciated.

On all correspondence regarding this site, please reference UST permit number 07584. Please feel free to contact me at (803) 896-6669 or (800) 826-5435 (within SC only), if you have questions or need additional information.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Copy of Tier II Assessment Report (Text, Tables and Figures)

cc: Technical File (w/o enc.)

UST PROGRAM
DOCKETING # 227 Tech

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

May 26, 2005

MR JAMES A & MARILYN L BUNDRICK
217 PALMER DRIVE
LEXINGTON SC 29072

Re: University Mart (Former Handy Pantry #65), 2367 Taylor Street, Columbia, SC
UST Permit #07584 and #18389
Tier II Assessment Report received May 25, 2005
Richland County

Dear Mr. and Ms. Bundrick:

As you may be aware, an environmental assessment was conducted at the referenced facility by Consultech Environmental Incorporated to determine the severity and extent of the petroleum release. As part of the assessment, four monitoring wells were installed on your property. I am happy to report that monitoring wells MW-16, MW-47, and MW-48 do not contain any petroleum chemicals of concern. Monitoring well MW-17 contains elevated levels of petroleum chemicals of concern. A copy of the report is attached for your information. The SCDHEC anticipates these four wells will be sampled in the future. Your continued cooperation is appreciated.

On all correspondence regarding this site, please reference UST permit number 07584. Please feel free to contact me at (803) 896-6669 or (800) 826-5435 (within SC only), if you have questions or need additional information.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Copy of Tier II Assessment Report (Text, Tables and Figures)

cc: Technical File (w/o enc.)

UST PROGRAM
DOCKETING # 228 Tech

D H E C
PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner
Promoting and protecting the health of the public and the environment.

May 26, 2005

MANAGER
KENTUCKY FRIED CHICKEN
2349 TAYLORS STREET
COLUMBIA SC 29204-7803

Re: University Mart (Former Handy Pantry #65), 2367 Taylor Street, Columbia, SC
UST Permit #07584 and #18389
Tier II Assessment Report received May 25, 2005
Richland County

Dear Sir:

As you may be aware, an environmental assessment was conducted at the referenced facility by Consultech Environmental Incorporated to determine the severity and extent of the petroleum release. As part of the assessment, several existing groundwater-monitoring wells were sampled on this facility and adjacent properties. The analytical results indicate that monitoring wells MW-9 and MW-10 on your property contain elevated levels of petroleum chemicals of concern. Since the impacted groundwater is over 25 feet below the ground surface, there is no current risk. A copy of the report is attached for your information. The SCDHEC anticipates corrective action will be required in the future to reduce the concentrations to acceptable levels of these petroleum constituents. Your continued cooperation is appreciated.

On all correspondence regarding this site, please reference UST permit number 07584. Please feel free to contact me at (803) 896-6669 or (800) 826-5435 (within SC only), if you have questions or need additional information.

Sincerely,

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

UST PROGRAM
DOCKETING # 229 Tech

enc: Copy of Tier II Assessment Report (Text, Tables and Figures)

cc: Technical File (w/o enc.)

D H E C

PROMOTE PROTECT PROSPER

C. Earl Hunter, Commissioner

Promoting and protecting the health of the public and the environment.

May 26, 2005

MR MAHESH PATEL
FAST POINT FOOD STORES
2811 REIDVILLE RD STE 11
SPARTEANBURG SC 29301-3227

Re: University Mart (Former Handy Pantry #65), 2367 Taylor Street, Columbia, SC
UST Permit #07584 and #18389
Tier II Assessment Report received May 25, 2005
Richland County

Dear Mr. Patel:

As you may be aware, an environmental assessment was conducted at the referenced facility by Consultech Environmental Incorporated to determine the severity and extent of the petroleum release. As part of the assessment, several existing and two newly installed groundwater-monitoring wells were sampled on this facility and adjacent properties. The analytical results indicate that the wells on your property contain elevated levels of petroleum chemicals of concern. Since the impacted groundwater is over 25 feet below the ground surface, there is no current risk. A copy of the report is attached for your information. The SCDHEC anticipates corrective action to reduce the concentrations to acceptable levels of these petroleum constituents will be required in the future. Your continued cooperation is appreciated.

On all correspondence regarding this site, please reference UST permit number 07584. Please feel free to contact me at (803) 896-6669 or (800) 826-5435 (within SC only), if you have questions or need additional information.

Sincerely,

UST PROGRAM DOCKETING # 230Rec'd

Arthur Shrader, Hydrogeologist
Assessment Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Copy of Tier II Assessment Report (Text, Tables and Figures)

cc: Technical File (w/o enc.)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

MR PETE OVERTON
ACME PETROLEUM & FUEL COMPANY
543 COX RD STE C
GASTONIA NC 28054

AUG 1 3 2013

UST DOCKETING

Re: **Sampling & Analytical Report Review**
23 feet UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release 1 reported January 30, 1991; Release 2 Reported April 17, 1998
100 feet UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991
100 feet UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991
Groundwater Sampling Reports received May 23, 2013
Analytical Reports received May 24, 2013 & June 5, 2013
Richland County

Dear Mr. Overton:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control recently directed Midlands Environmental Consultants, Inc. (MECI) to conduct a groundwater sampling event at the referenced facilities. Please find enclosed a summary of the historic and current sampling data and a site map. The next necessary scope of work is to continue corrective action activities.

If you have any questions, please contact me by phone at (803) 898-0614, by fax at (803) 898-0673, or by email at fulmersb@dhec.sc.gov.

Sincerely,

Susan B. Fulmer, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Enc: Summary Table
Site Map

cc: Technical Files (w/o enc)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

MRS WALLACE SCOTT
76 WHITEFORD WAY
LEXINGTON SC 29072

AUG 13 2013

Re: **Sampling & Analytical Report Review**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release 1 reported January 30, 1991; Release 2 Reported April 17, 1998
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991
Groundwater Sampling Reports received May 23, 2013
Analytical Reports received May 24, 2013 & June 5, 2013
Richland County

Dear Mrs. Scott:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control recently directed Midlands Environmental Consultants, Inc. (MECI) to conduct a groundwater sampling event at the referenced facilities. Please find enclosed a summary of the historic and current sampling data and a site map. The next necessary scope of work is to continue corrective action activities.

If you have any questions, please contact me by phone at (803) 898-0614, by fax at (803) 898-0673, or by email at fulmersb@dhec.sc.gov.

Sincerely,

Susan B. Fulmer, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Enc: Summary Table
Site Map

cc: Technical Files (w/o enc)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

MR ANDREW DIGGINS
PROVIDENCE HOSPITAL
2435 FOREST DR
COLUMBIA SC 29204

AUG 1 3 2013

Re: **Sampling & Analytical Report Review**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release 1 reported January 30, 1991; Release 2 Reported April 17, 1998
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991
Groundwater Sampling Reports received May 23, 2013
Analytical Reports received May 24, 2013 & June 5, 2013
Richland County

Dear Mr. Diggins:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control recently directed Midlands Environmental Consultants, Inc. (MECI) to conduct a groundwater sampling event at the referenced facilities. Please find enclosed a summary of the historic and current sampling data and a site map. The next necessary scope of work is to continue corrective action activities.

If you have any questions, please contact me by phone at (803) 898-0614, by fax at (803) 898-0673, or by email at fulmersb@dhec.sc.gov.

Sincerely,

Susan B. Fulmer, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Enc: Summary Table
Site Map

cc: Tom Pollard, Esq., Nexen Pruet Law Firm, PO Drawer 2426, Columbia, SC 29202 (w/ enc)
Technical Files (w/o enc)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

MR SOLOMON ADDICO
ASSISTANT VICE PRESIDENT FOR BUSINESS & FINANCE
BENEDICT COLLEGE
1600 HARDEN STREET
COLUMBIA SC 29204

AUG 13 2013

Re: **Sampling & Analytical Report Review**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release 1 reported January 30, 1991; Release 2 Reported April 17, 1998
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991
Groundwater Sampling Reports received May 23, 2013
Analytical Reports received May 24, 2013 & June 5, 2013
Richland County

Dear Mr. Addico:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control recently directed Midlands Environmental Consultants, Inc. (MECI) to conduct a groundwater sampling event at the referenced facilities. Please find enclosed a summary of the historic and current sampling data and a site map. The next necessary scope of work is to continue corrective action activities.

If you have any questions, please contact me by phone at (803) 898-0614, by fax at (803) 898-0673, or by email at fulmersb@dhec.sc.gov.

Sincerely,

Susan B. Fulmer, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Enc: Summary Table
Site Map

cc: Technical Files (w/o enc)

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

MR MAHESH PATEL
FAST POINT FOOD STORES
2811 REIDVILLE RD STE 11
SPARTANBURG SC 29301-3227

AUG 1 3 2013

Re: **Sampling & Analytical Report Review**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release 1 reported January 30, 1991; Release 2 Reported April 17, 1998
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991
Groundwater Sampling Reports received May 23, 2013
Analytical Reports received May 24, 2013 & June 5, 2013
Richland County

Dear Mr. Patel:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control recently directed Midlands Environmental Consultants, Inc. (MECI) to conduct a groundwater sampling event at the referenced facilities. Please find enclosed a summary of the historic and current sampling data and a site map. The next necessary scope of work is to continue corrective action activities.

If you have any questions, please contact me by phone at (803) 898-0614, by fax at (803) 898-0673, or by email at fulmersb@dhec.sc.gov.

Sincerely,

Susan B. Fulmer, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Enc: Summary Table
Site Map

cc: Technical Files (w/o enc)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

MS BETTE GORDON BATEMAN
MR JOHN BATEMAN
C/O TRUSTEES
PO BOX 1026
COLUMBIA SC 29201

AUG 1 3 2013

Re: **Sampling & Analytical Report Review**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release 1 reported January 30, 1991; Release 2 Reported April 17, 1998
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991
Groundwater Sampling Reports received May 23, 2013
Analytical Reports received May 24, 2013 & June 5, 2013
Richland County

Dear Mr. and Mrs. Bateman:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control recently directed Midlands Environmental Consultants, Inc. (MECI) to conduct a groundwater sampling event at the referenced facilities. Please find enclosed a summary of the historic and current sampling data and a site map. The next necessary scope of work is to continue corrective action activities.

If you have any questions, please contact me by phone at (803) 898-0614, by fax at (803) 898-0673, or by email at fulmersb@dhec.sc.gov.

Sincerely,

Susan B. Fulmer, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Enc: Summary Table
Site Map

cc: Technical Files (w/o enc)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

2368 TAYLOR ST LLC
1227 ROSEWOOD DR
COLUMBIA SC 29205

AUG 1 3 2013

Re: **Sampling & Analytical Report Review**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release 1 reported January 30, 1991; Release 2 Reported April 17, 1998
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991
Groundwater Sampling Reports received May 23, 2013
Analytical Reports received May 24, 2013 & June 5, 2013
Richland County

To Whom It May Concern:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control recently directed Midlands Environmental Consultants, Inc. (MECI) to conduct a groundwater sampling event at the referenced facilities. Please find enclosed a summary of the historic and current sampling data and a site map. The next necessary scope of work is to continue corrective action activities.

If you have any questions, please contact me by phone at (803) 898-0614, by fax at (803) 898-0673, or by email at fulmersb@dhec.sc.gov.

Sincerely,

Susan B. Fulmer, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Enc: Summary Table
Site Map

cc: Technical Files (w/o enc)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

SYLVAN FOOD SYSTEMS INC
1245 BOSTON AVE
WEST COLUMBIA SC 29170

AUG 1 3 2013

Re: **Sampling & Analytical Report Review**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release 1 reported January 30, 1991; Release 2 Reported April 17, 1998
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991
Groundwater Sampling Reports received May 23, 2013
Analytical Reports received May 24, 2013 & June 5, 2013
Richland County

To Whom It May Concern:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control recently directed Midlands Environmental Consultants, Inc. (MECI) to conduct a groundwater sampling event at the referenced facilities. Please find enclosed a summary of the historic and current sampling data and a site map. The next necessary scope of work is to continue corrective action activities.

If you have any questions, please contact me by phone at (803) 898-0614, by fax at (803) 898-0673, or by email at fulmersb@dhec.sc.gov.

Sincerely,

Susan B. Fulmer, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Enc: Summary Table
Site Map

cc: Kentucky Fried Chicken, 2349 Taylor St., Columbia, SC 29204 (w/ enc)
Technical Files (w/o enc)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

1500 MILLWOOD AVE LLC
1330 DEVONSHIRE DR
COLUMBIA SC 29204

AUG 1 3 2013

Re: **Sampling & Analytical Report Review**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release 1 reported January 30, 1991; Release 2 Reported April 17, 1998
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991
Groundwater Sampling Reports received May 23, 2013
Analytical Reports received May 24, 2013 & June 5, 2013
Richland County

To Whom It May Concern:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control recently directed Midlands Environmental Consultants, Inc. (MECI) to conduct a groundwater sampling event at the referenced facilities. Please find enclosed a summary of the historic and current sampling data and a site map. The next necessary scope of work is to continue corrective action activities.

If you have any questions, please contact me by phone at (803) 898-0614, by fax at (803) 898-0673, or by email at fulmersb@dhec.sc.gov.

Sincerely,

Susan B. Fulmer, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Enc: Summary Table
Site Map

cc: Technical Files (w/o enc)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

JOHN M SUDDETH
1410 N MILLWOOD AVE
COLUMBIA SC 29204

AUG 1 3 2013

Re: **Sampling & Analytical Report Review**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release 1 reported January 30, 1991; Release 2 Reported April 17, 1998
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991
Groundwater Sampling Reports received May 23, 2013
Analytical Reports received May 24, 2013 & June 5, 2013
Richland County

Dear Mr. Suddeth:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control recently directed Midlands Environmental Consultants, Inc. (MECI) to conduct a groundwater sampling event at the referenced facilities. Please find enclosed a summary of the historic and current sampling data and a site map. The next necessary scope of work is to continue corrective action activities.

If you have any questions, please contact me by phone at (803) 898-0614, by fax at (803) 898-0673, or by email at fulmersb@dhec.sc.gov.

Sincerely,

Susan B. Fulmer, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Enc: Summary Table
Site Map

cc: Technical Files (w/o enc)

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

MS LINDA WARREN
C/O DOUGLAS HARLEY
1527 LYON ST
COLUMBIA SC 29204

AUG 1 3 2013

Re: **Sampling & Analytical Report Review**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release 1 reported January 30, 1991; Release 2 Reported April 17, 1998
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991
Groundwater Sampling Reports received May 23, 2013
Analytical Reports received May 24, 2013 & June 5, 2013
Richland County

Dear Ms. Warren:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control recently directed Midlands Environmental Consultants, Inc. (MECI) to conduct a groundwater sampling event at the referenced facilities. Please find enclosed a summary of the historic and current sampling data and a site map. The next necessary scope of work is to continue corrective action activities.

If you have any questions, please contact me by phone at (803) 898-0614, by fax at (803) 898-0673, or by email at fulmersb@dhec.sc.gov.

Sincerely,

Susan B. Fulmer, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Enc: Summary Table
Site Map

cc: Technical Files (w/o enc)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

FUNG LAU
2300 TAYLOR ST STE D
COLUMBIA SC 29204

AUG 1 3 2013

Re: **Sampling & Analytical Report Review**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release 1 reported January 30, 1991; Release 2 Reported April 17, 1998
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991
Groundwater Sampling Reports received May 23, 2013
Analytical Reports received May 24, 2013 & June 5, 2013
Richland County

Dear Mr. Lau:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control recently directed Midlands Environmental Consultants, Inc. (MECI) to conduct a groundwater sampling event at the referenced facilities. Please find enclosed a summary of the historic and current sampling data and a site map. The next necessary scope of work is to continue corrective action activities.

If you have any questions, please contact me by phone at (803) 898-0614, by fax at (803) 898-0673, or by email at fulmersb@dhec.sc.gov.

Sincerely,

Susan B. Fulmer, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Enc: Summary Table
Site Map

cc: Technical Files (w/o enc)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

CHANG MOON SUENG
DBA STAR BEAUTY SUPPLY
2358 TAYLOR ST
COLUMBIA SC 29204

AUG 1 3 2013

Re: **Sampling & Analytical Report Review**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release 1 reported January 30, 1991; Release 2 Reported April 17, 1998
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991
Groundwater Sampling Reports received May 23, 2013
Analytical Reports received May 24, 2013 & June 5, 2013
Richland County

Dear Mr. Sueng:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control recently directed Midlands Environmental Consultants, Inc. (MECI) to conduct a groundwater sampling event at the referenced facilities. Please find enclosed a summary of the historic and current sampling data and a site map. The next necessary scope of work is to continue corrective action activities.

If you have any questions, please contact me by phone at (803) 898-0614, by fax at (803) 898-0673, or by email at fulmersb@dhec.sc.gov.

Sincerely,

Susan B. Fulmer, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Enc: Summary Table
Site Map

cc: Technical Files (w/o enc)

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

GILBERT WALKER
COLUMBIA HOUSING AUTHORITY
PO BOX 4307
COLUMBIA SC 29240

AUG 1 3 2013

Re: **Sampling & Analytical Report Review**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release 1 reported January 30, 1991; Release 2 Reported April 17, 1998
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991
Groundwater Sampling Reports received May 23, 2013
Analytical Reports received May 24, 2013 & June 5, 2013
Richland County

Dear Mr. Walker:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control recently directed Midlands Environmental Consultants, Inc. (MECI) to conduct a groundwater sampling event at the referenced facilities. Please find enclosed a summary of the historic and current sampling data and a site map. The next necessary scope of work is to continue corrective action activities.

If you have any questions, please contact me by phone at (803) 898-0614, by fax at (803) 898-0673, or by email at fulmersb@dhec.sc.gov.

Sincerely,

Susan B. Fulmer, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Enc: Summary Table
Site Map

cc: Technical Files (w/o enc)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

ALLEN UNIVERSITY
1530 HARDEN ST
COLUMBIA SC 29204

AUG 1 3 2013

Re: **Sampling & Analytical Report Review**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release 1 reported January 30, 1991; Release 2 Reported April 17, 1998
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991
Groundwater Sampling Reports received May 23, 2013
Analytical Reports received May 24, 2013 & June 5, 2013
Richland County

To Whom It May Concern:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control recently directed Midlands Environmental Consultants, Inc. (MECI) to conduct a groundwater sampling event at the referenced facilities. Please find enclosed a summary of the historic and current sampling data and a site map. The next necessary scope of work is to continue corrective action activities.

If you have any questions, please contact me by phone at (803) 898-0614, by fax at (803) 898-0673, or by email at fulmersb@dhec.sc.gov.

Sincerely,

Susan B. Fulmer

Susan B. Fulmer, P.G., Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Enc: Summary Table
Site Map

cc: Technical Files (w/o enc)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

AUG 1 4 2013

BRYAN SHANE
MIDLANDS ENVIRONMENTAL CONSULTANTS
PO BOX 854
LEXINGTON SC 29071

UST 2232 Tech DOCKETING

Re: **Notice to Proceed - Map Preparation**
Groundwater Sampling Contract
University Mart, 2367 Taylor St., Columbia, SC
UST Permit #07584; CA#46571
Solicitation # IFB-5400002759, PO#4600088529
Richland County

Dear Mr. Shane:

In accordance with bid solicitation # IFB-5400002759 and the UST Management Division Quality Assurance Program Plan (QAPP), Revision 2, it is requested that you prepare potentiometric maps and plume maps.

If you have any questions or need further assistance, please contact me at (803) 898-0631 or thomadl@dhec.sc.gov.

Sincerely,

Debra L Thoma

Debra L. Thoma, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land & Waste Management

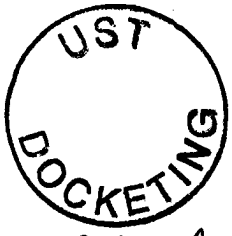
Enc: Site Information Package

cc: Technical File

Midlands Environmental Consultants, Inc.

August 28, 2013





Ms. Susan Fulmer, P.G., Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management
South Carolina Department of Health
and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Comprehensive Survey
Clouds Chevron
1600 Two Notch Road
Columbia, South Carolina
SCDHEC Site ID# 12352, CA # 46574 + UST #07777 167 tech
MECI Project Number 13-4579
Certified Site Rehabilitation Contractor UCC-0009 + UST #07584 - 233 tech

Dear Ms. Fulmer,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Comprehensive Survey for the referenced site. A comprehensive survey conducted by Construction Support Services, Inc. (Jay S. Joshi/PLS# 14811) dated August 27, 2013. A copy of the signed and stamped survey is attached. This comprehensive survey was conducted accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines, including adherence to the UST Division Programmatic Quality Assurance Program Plan (QAPP).

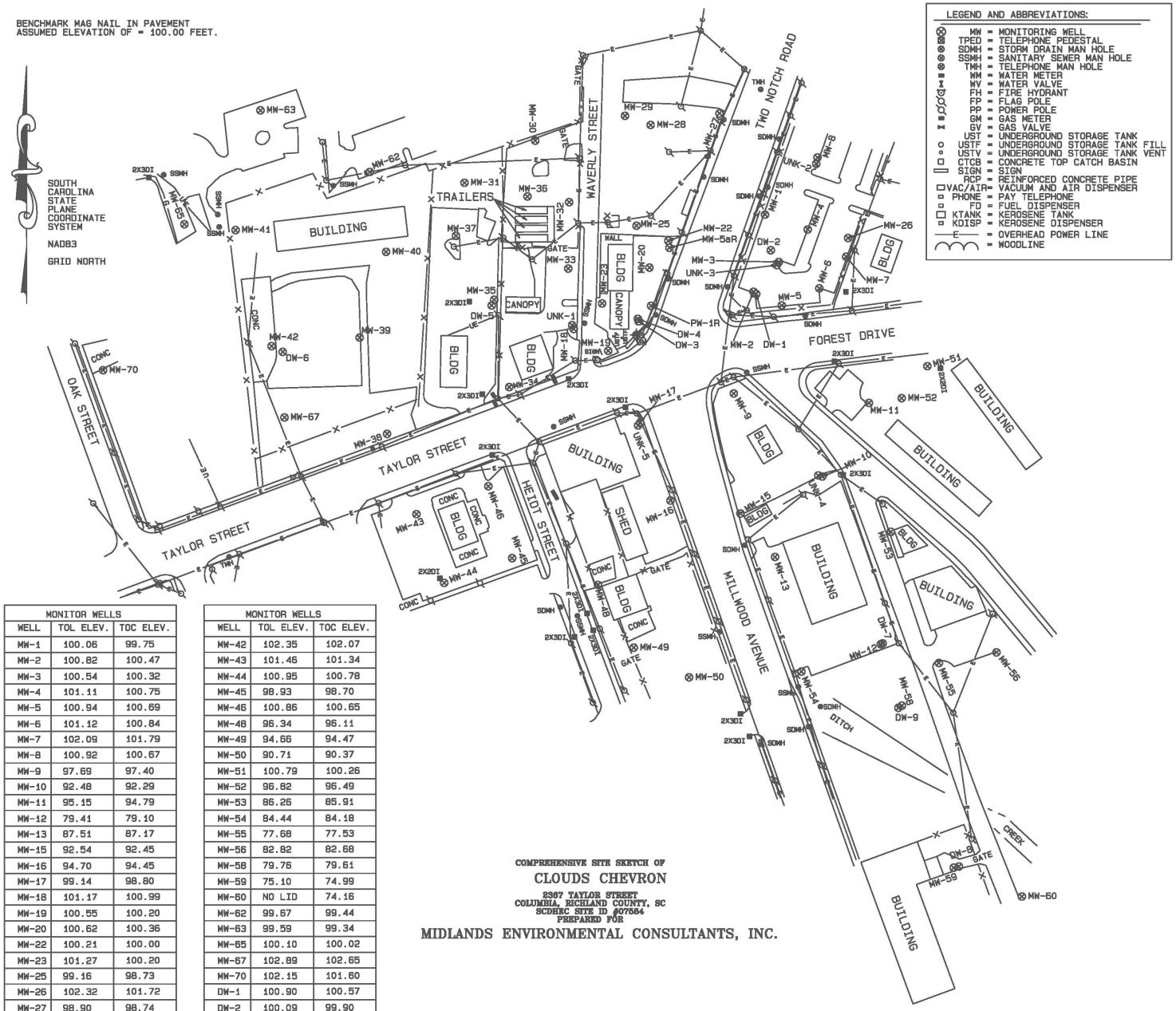
Midlands Environmental appreciates the opportunity to offer our professional environmental services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Courtney M. Sanders
Project Biologist

Jeff L. Coleman
Senior Scientist

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048



MONITOR WELLS		
WELL	TOL ELEV.	TOC ELEV.
MW-1	100.06	99.75
MW-2	100.82	100.47
MW-3	100.54	100.32
MW-4	101.11	100.75
MW-5	100.94	100.69
MW-6	101.12	100.84
MW-7	102.09	101.79
MW-8	100.92	100.67
MW-9	97.69	97.40
MW-10	92.48	92.29
MW-11	95.15	94.79
MW-12	79.41	79.10
MW-13	87.51	87.17
MW-15	92.54	92.45
MW-16	94.70	94.45
MW-17	99.14	98.80
MW-18	101.17	100.99
MW-19	100.55	100.20
MW-20	100.62	100.36
MW-22	100.21	100.00
MW-23	101.27	100.20
MW-25	99.16	98.73
MW-26	102.32	101.72
MW-27	98.90	98.74
MW-28	97.43	97.19
MW-29	97.17	96.86
MW-30	98.70	98.50
MW-31	101.64	101.51
MW-32	99.36	99.16
MW-33	100.34	100.11
MW-34	101.21	101.00
MW-35	100.18	100.02
MW-36	100.40	100.18
MW-37	100.25	100.09
MW-38	101.88	101.76
MW-39	102.65	102.44
MW-40	102.22	101.97
MW-41	101.29	101.08

MONITOR WELLS		
WELL	TOL ELEV.	TOC ELEV.
MW-42	102.35	102.07
MW-43	101.46	101.34
MW-44	100.95	100.78
MW-45	98.93	98.70
MW-46	100.86	100.65
MW-48	96.34	96.11
MW-49	94.66	94.47
MW-50	90.71	90.37
MW-51	100.79	100.26
MW-52	96.82	96.49
MW-53	86.26	85.91
MW-54	84.44	84.18
MW-55	77.68	77.53
MW-56	82.82	82.68
MW-58	79.76	79.61
MW-59	75.10	74.99
MW-60	NO LID	74.16
MW-62	99.67	99.44
MW-63	99.59	99.34
MW-65	100.10	100.02
MW-67	102.89	102.65
MW-70	102.15	101.60
DW-1	100.90	100.57
DW-2	100.09	99.90
DW-3	100.30	100.06
DW-4	100.37	100.13
DW-5	102.36	102.12
DW-6	100.23	99.98
DW-7	79.31	79.11
DW-8	74.62	74.30
DW-9	79.67	79.55
MW-5aR	100.16	99.94
PW-1R	100.25	100.00
UNK-1	100.71	100.56
UNK-2	100.81	CONC CAP
UNK-3	100.53	100.30
UNK-4	92.47	CONC CAP
UNK-5	99.09	98.93

COMPREHENSIVE SITE SKETCH OF

CLOUDS CHEVRON

2367 TAYLOR STREET
COLUMBIA, RICHLAND COUNTY, SC
SCDHEC SITE ID #07584
PREPARED FOR

MIDLANDS ENVIRONMENTAL CONSULTANTS, INC.

THIS PARCEL MAY BE SUBJECT TO EASEMENT AND/OR RIGHT-OF-WAYS NOT SHOWN. FINAL RESULTS, CONCLUSIVE OF TITLE SEARCH

NOTE:
NOT FOR THE PURPOSE OF RECORDATION AT COUNTY, COURTHOUSE OR THE CONVEYANCE OF PROPERTY.

NOTE:
I HEREBY CERTIFY THAT THE FIELD WORK, CALCULATIONS, AND DRAFTING WERE DONE UNDER MY DIRECT SUPERVISION.

GRAPHIC SCALE 1"=100'

0 100 200 300

SOUTH CAROLINA
CONSTRUCTION SUPPORT SERVICES
No. C02425
CERTIFICATE OF AUTHORIZATION

SOUTH CAROLINA
REGISTERED LAND SURVEYOR
No. 14811
JAY S. JOSHI

JAY S. JOSHI PLS # 14811
PO BOX 90408, COLUMBIA, SC, 29290 803-776-9909
DATE: AUGUST 27, 2013 JOB #081413B

234 tech - 07584
168 tech - 07777
103 tech - 12352

Midlands Environmental Consultants, Inc.

September 5, 2013



Ms. Susan B. Fulmer, P.G., Hydrogeologist
Corrective Action Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land & Waste Management
South Carolina Department of Health and
Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Subject: Report of Map Production
University Mart
2367 Taylor Street
Columbia, South Carolina
SCDHEC Site ID# 07584, CA# 46571
MECI Project Number 13-4585
Certified Site Rehabilitation Contractor UCC-0009

Dear Ms. Fulmer,

Midlands Environmental Consultants Inc. (MECI) is pleased to submit the attached Report of Map Production for the referenced site. This report describes activities conducted at the site in general accordance with South Carolina Department of Health and Environmental Control (SCDHEC) guidelines.

MAP PRODUCTION

SCDHEC requested MECI to provide services to create five (5) CoC concentration maps and two (2) potentiometric maps based on data collected during the May 10, 2013 groundwater sampling event performed at the referenced site.

The maps produced were based on potentiometric data and analytical data from the May 10, 2013 groundwater sampling event conducted at the subject site and the adjacent Clouds Chevron Site (UST Permit#'s 12352 & 07777). Figures included as part of the project include:

Figure 1 – Site Base Map
Figure 2 – Groundwater Contour Map ("Shallow" Zone)
Figure 2A – Groundwater Contour Map ("Deep" Zone)
Figure 3 – CoC Concentration Map (Benzene Isopleth)
Figure 3A – CoC Concentration Map (Naphthalene Isopleth)
Figure 3B - CoC Concentration Map (MTBE Isopleth)
Figure 3C – CoC Concentration Map (EDB Isopleth)
Figure 3D – CoC Concentration Map (TAA Isopleth)

COPY

Post Office Box 854, Lexington SC 29071 • 235-B Dooley Road, Lexington, SC 29073
Telephone: (803) 808-2043 • fax: (803) 808-2048

QUALIFICATIONS OF REPORT

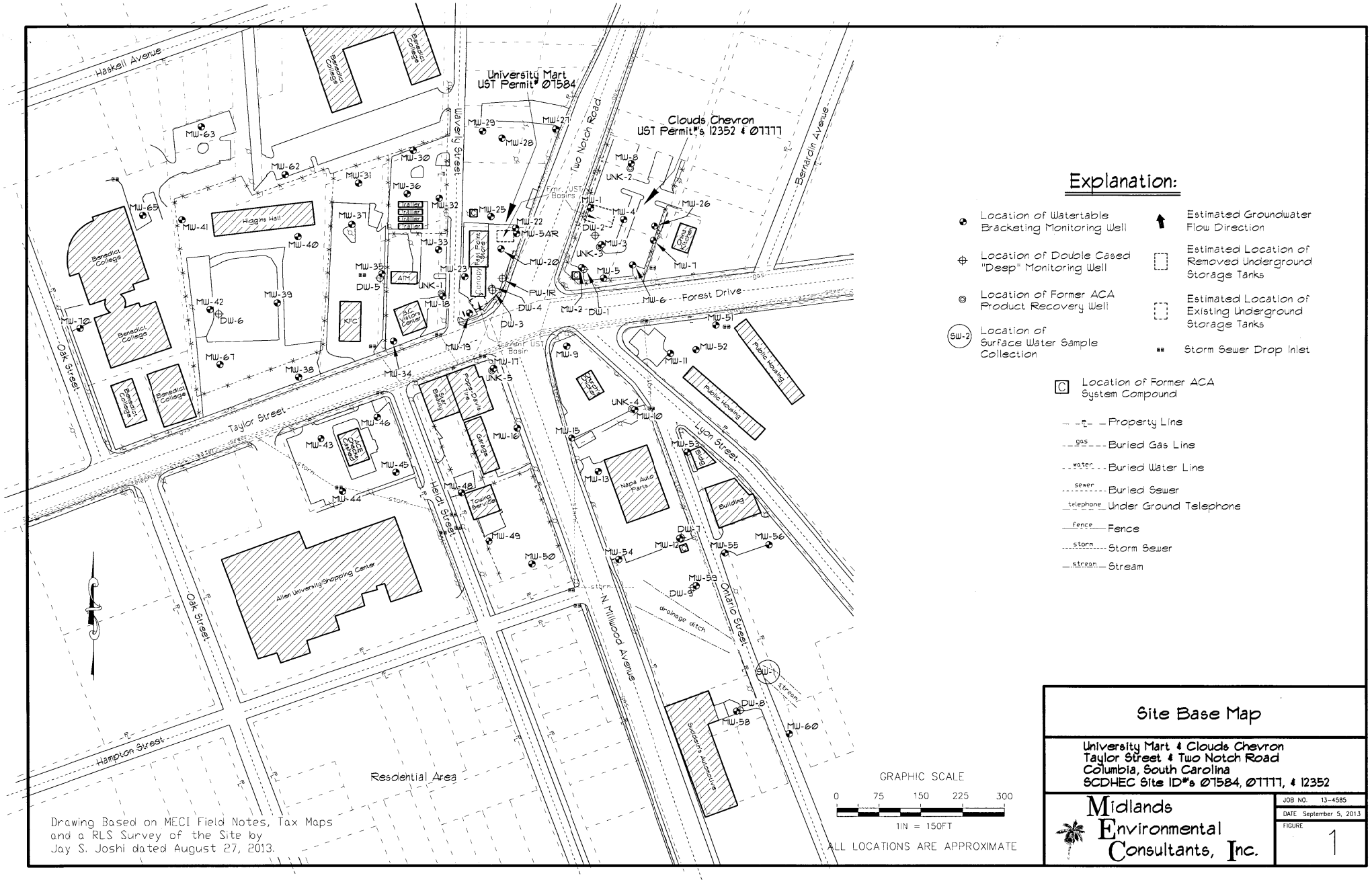
The activities and evaluative approaches used in this assessment are consistent with those normally employed in hydrogeological assessment and waste management projects of this type. Our evaluation of site conditions has been based on our understanding of the site, project information provided to us, and data obtained in our exploration. The general subsurface conditions utilized in our evaluation have been based on interpretation of subsurface data between borings. Contents of this report are intended for the sole use of the South Carolina Department of Health and Environmental Control, under mutually agreed upon terms and conditions. If other parties wish to rely on this report please contact MECI prior to their use of this information so that a mutual understanding and agreement of the terms and conditions of our services can be established.

Midlands Environmental appreciates the opportunity to offer our professional environmental services to you on this project. Please feel free to contact us at 803-808-2043 if you have any immediate questions or comments.

Sincerely,
Midlands Environmental Consultants, Inc.

Jeff L. Coleman
Senior Scientist

Bryan T. Shane, P.G.
Principal Geologist

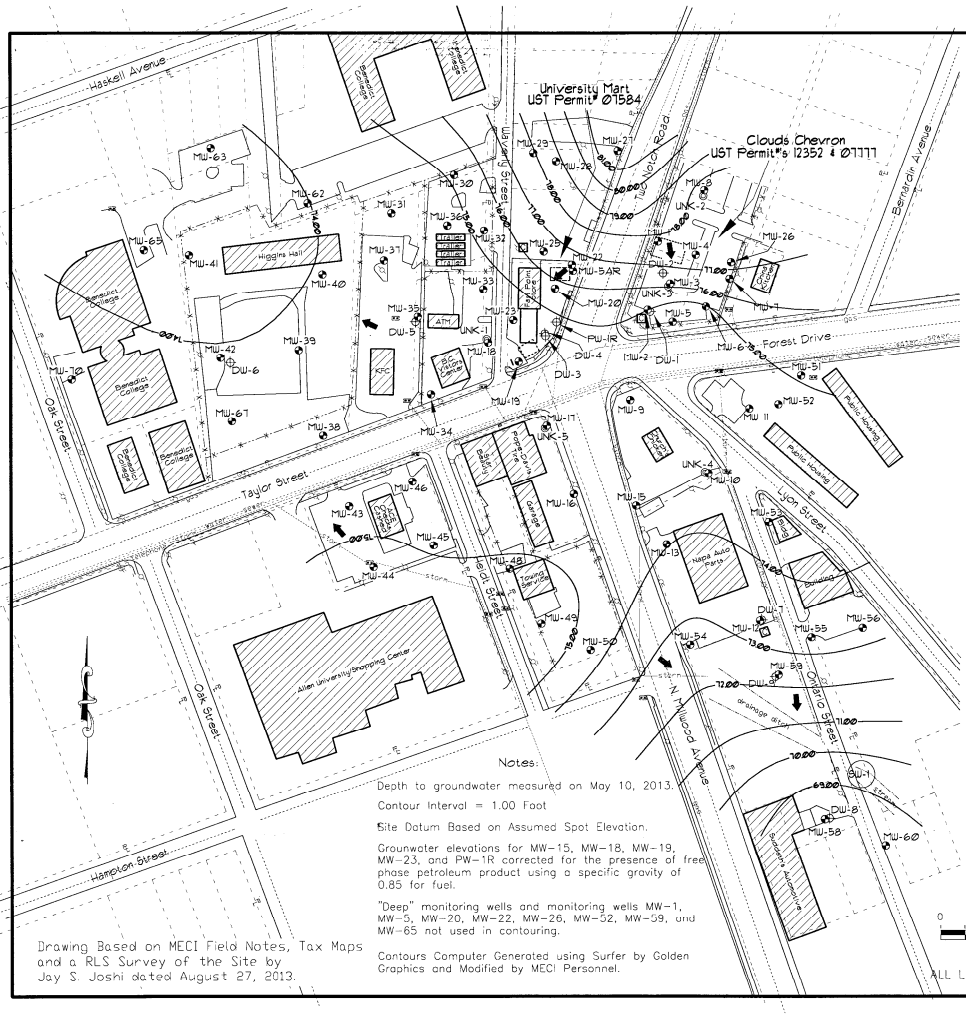


Site Base Map

University Mart & Clouds Chevron
Taylor Street & Two Notch Road
Columbia, South Carolina
SCDHEC Site ID#'s 07584, 07777, & 12352

Midlands Environmental Consultants, Inc.

JOB NO. 13-4585
DATE September 5, 2013
FIGURE 1



Notes:

Depth to groundwater measured on May 10, 2013.

Contour Interval = 1.00 Foot

Site Datum Based on Assumed Spot Elevation.

Grounwater elevations for MW-15, MW-18, MW-19, MW-23, and PW-1R corrected for the presence of free phase petroleum product using a specific gravity of 0.85 for fuel.

"Deep" monitoring wells and monitoring wells MW-1, MW-5, MW-20, MW-22, MW-26, MW-52, MW-59, and MW-65 not used in contouring.

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated August 27, 2013.

GRAPHIC SCALE

0 75 150 225 300

1IN = 150FT

ALL LOCATIONS ARE APPROXIMATE

Potentiometric Data

Well #	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well Head Elevation	Groundwater Elevation
MW-1	17-27	---	Dry	---	99.75	Dry
MW-2	20-30	---	25.50	---	100.47	74.97
MW-3	19-29	---	23.98	---	100.32	76.34
MW-4	18-28	---	23.00	---	100.75	77.75
MW-5	16-26	---	Dry	---	100.69	Dry
MW-6	20-30	---	25.80	---	100.84	74.89
MW-7	20-30	---	24.78	---	101.79	77.01
MW-8	18.5-28.5	---	23.19	---	100.67	77.48
MW-9	20-30	---	23.00	---	97.40	74.40
MW-10	18-28	---	18.14	---	92.29	74.15
MW-11	TD: 30.00	---	20.56	---	94.79	74.23
MW-12	TD: 24.65	---	5.50	---	79.10	73.60
MW-13	TD: 30.10	---	13.13	---	87.17	74.04
MW-15	15-25	18.40	18.63	0.23	92.45	74.02
MW-16	15-25	---	19.99	---	94.45	74.46
MW-17	20-30	---	24.36	---	98.80	74.44
MW-18	20-30	25.71	25.75	0.04	100.99	74.27
MW-19	20-30	25.80	25.92	0.12	100.20	74.38
MW-20	15-25	---	Dry	---	100.36	Dry
MW-22	20-30	---	25.90	---	100.00	74.10
MW-23	20-30	26.05	26.11	0.06	100.20	74.14
MW-25	TD: 25.60	---	22.25	---	98.73	76.48
MW-26	TD: 30.00	---	NS	---	101.72	NS
MW-27	12-30	---	19.70	---	99.74	80.04
MW-28	15-30	---	18.60	---	97.19	78.59
MW-29	15-30	---	19.00	---	95.86	77.86
MW-30	15-30	---	23.44	---	98.50	75.06
MW-31	20-35	---	27.20	---	101.51	74.31
MW-32	15-30	---	23.90	---	99.16	75.26
MW-33	20-35	---	25.70	---	100.11	74.41
MW-34	20-35	---	25.58	---	101.00	74.42
MW-35	20-35	---	25.73	---	100.02	74.29
MW-36	20-35	---	25.50	---	100.18	74.68
MW-37	20-35	---	25.85	---	100.09	74.24
MW-38	20-35	---	27.24	---	101.76	74.52
MW-39	20-35	---	28.15	---	102.44	74.29
MW-40	20-35	---	27.80	---	101.07	74.08
MW-41	20-35	---	27.89	---	101.08	73.19
MW-42	20-35	---	28.00	---	102.07	74.07
MW-43	20-40	---	26.73	---	101.34	74.61
MW-44	16-31	---	25.31	---	100.78	75.47
MW-45	15-30	---	23.87	---	98.70	74.83
MW-46	20-35	---	26.10	---	100.65	74.55
MW-48	13-30	---	21.00	---	96.11	75.11
MW-49	15-30	---	18.50	---	94.47	75.97
MW-50	15-30	---	15.82	---	90.37	74.55
MW-51	20-35	---	25.15	---	100.26	75.11
MW-52	15-30	---	Obstructed	---	96.49	Obstructed
MW-53	5-20	---	11.73	---	85.91	74.18
MW-54	5-20	---	11.84	---	84.18	72.34
MW-55	4-14	---	4.03	---	77.53	73.50
MW-56	5-20	---	9.20	---	82.68	73.48
MW-58	4-19	---	7.10	---	74.99	67.89
MW-59	2-17	---	5.22	---	79.61	74.39
MW-60	4-14	---	5.70	---	74.16	68.46
MW-62	20-35	---	25.45	---	99.44	73.99
MW-63	20-35	---	25.73	---	99.34	73.62
MW-65	20-35	---	Dry	---	100.02	Dry
MW-67	20-35	---	28.07	---	102.65	74.58
MW-70	20-35	---	26.80	---	101.60	74.80
MW-5aR	18-28	---	23.45	---	99.94	76.49
PW-1R	45-50	25.17	25.20	0.03	100.00	74.83
DW-1	65-70	---	46.70	---	100.57	53.87
DW-2	70-75	---	26.04	---	99.90	73.86
DW-3	47-52	---	25.24	---	100.06	74.82
DW-4	105-110	---	0.10	---	100.13	100.03
DW-5	55-70	---	45.76	---	102.12	56.36
DW-6	65-70	---	47.36	---	99.98	52.62
DW-7	50-55	---	26.19	---	79.11	52.92
DW-8	50-55	---	21.53	---	74.30	52.77
DW-9	60-65	---	26.80	---	79.55	52.75
UNK-1	Unknown	---	NM	---	100.56	NM
UNK-2	Unknown	---	Abandoned	---	Abandoned	Abandoned
UNK-3	Unknown	---	NM	---	100.30	NM
UNK-4	Unknown		Abandoned	---	Abandoned	Abandoned
UNK-5	Unknown	---	NM	---	98.93	NM

Explanation:

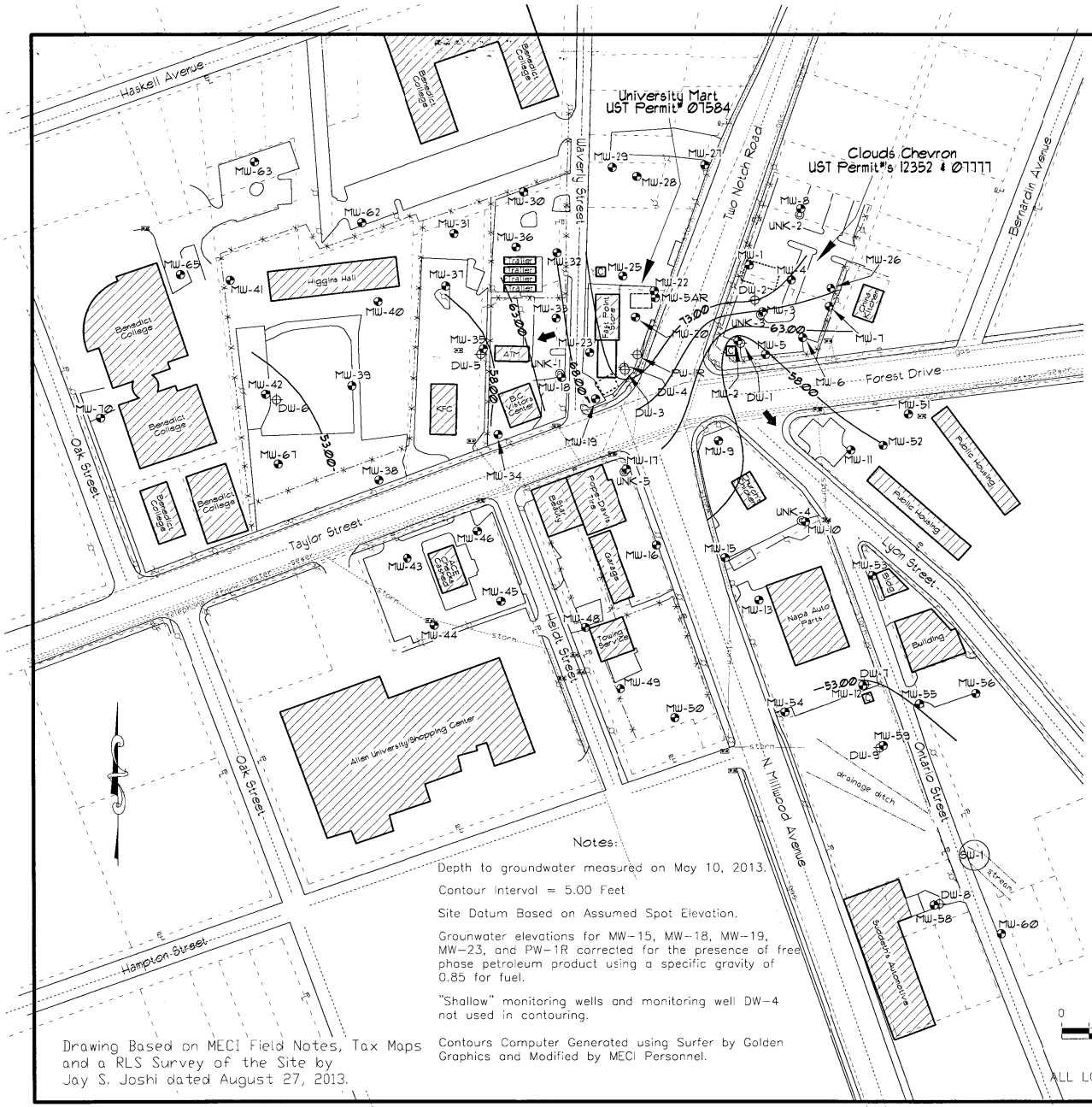
- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of Former ACA Product Recovery Well
- (SW-2) Location of Surface Water Sample Collection
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- Groundwater Elevation Contour (feet)

Potentiometric Data Site Map
(Groundwater Contour/"Shallow" Zone)

University Mart & Clouds Chevron
Taylor Street & Two Notch Road
Columbia, South Carolina
SCDHEC Site ID#s 01584, 01777, & 12352

Midlands Environmental Consultants, Inc.

JOB NO. 13-4585
DATE September 5, 2013
FIGURE 2



Potentiometric Data

Well #	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well Head Elevation	Groundwater Elevation
MW-1	17-27	---	Dry	---	99.75	Dry
MW-2	20-30	---	25.50	---	100.47	74.97
MW-3	19-29	---	23.98	---	100.32	76.34
MW-4	18-28	---	23.00	---	100.75	77.75
MW-5	16-26	---	Dry	---	100.69	Dry
MW-6	20-30	---	25.80	---	100.84	74.89
MW-7	20-30	---	24.78	---	101.79	77.01
MW-8	18.5-28.5	---	23.19	---	100.67	77.48
MW-9	20-30	---	23.00	---	97.40	74.40
MW-10	18-28	---	18.14	---	92.29	74.15
MW-11	TD: 30.00	---	20.56	---	94.79	74.23
MW-12	TD: 24.65	---	5.50	---	79.10	73.60
MW-13	TD: 30.10	---	13.13	---	87.17	74.04
MW-15	15-25	18.40	18.63	0.23	92.45	74.02
MW-16	15-25	---	19.99	---	94.45	74.46
MW-17	20-30	---	24.36	---	98.80	74.44
MW-18	20-30	26.71	26.75	0.04	100.99	74.27
MW-19	20-30	25.80	25.92	0.12	100.20	74.38
MW-20	15-25	---	Dry	---	100.35	Dry
MW-22	20-30	---	25.90	---	100.00	74.10
MW-23	20-30	26.05	26.11	0.06	100.20	74.14
MW-25	TD: 25.60	---	22.25	---	98.73	76.48
MW-26	TD: 30.00	---	NS	---	101.72	NS
MW-27	15-30	---	16.70	---	98.74	82.04
MW-28	15-30	---	18.60	---	97.19	78.59
MW-29	15-30	---	19.00	---	96.86	77.86
MW-30	15-30	---	23.44	---	98.50	75.06
MW-31	20-35	---	27.20	---	101.51	74.31
MW-32	15-30	---	23.90	---	99.16	75.26
MW-33	20-35	---	25.70	---	100.11	74.41
MW-34	20-35	---	26.58	---	101.00	74.42
MW-35	20-35	---	25.73	---	100.02	74.29
MW-36	20-35	---	25.50	---	100.18	74.68
MW-37	20-35	---	25.85	---	100.09	74.24
MW-38	20-35	---	27.24	---	101.76	74.52
MW-39	20-35	---	28.15	---	102.44	74.29
MW-40	20-35	---	27.89	---	101.97	74.08
MW-41	20-35	---	27.89	---	101.08	73.19
MW-42	20-35	---	28.00	---	102.07	74.07
MW-43	20-40	---	26.73	---	101.34	74.61
MW-44	16-31	---	25.31	---	100.78	75.47
MW-45	15-30	---	23.87	---	98.70	74.83
MW-46	20-35	---	26.10	---	100.65	74.55
MW-48	15-30	---	21.00	---	96.11	75.11
MW-49	15-30	---	18.50	---	94.47	75.97
MW-50	15-30	---	15.82	---	90.37	74.55
MW-51	20-35	---	25.15	---	100.26	75.11
MW-52	15-30	---	Obstructed	---	96.49	Obstructed
MW-53	5-20	---	11.73	---	85.91	74.18
MW-54	5-20	---	11.84	---	84.18	72.34
MW-55	4-14	---	4.03	---	77.53	73.50
MW-56	5-20	---	9.20	---	82.68	73.48
MW-58	4-19	---	7.10	---	74.99	67.89
MW-59	2-17	---	5.22	---	79.61	74.39
MW-60	4-14	---	5.70	---	74.16	68.46
MW-62	20-35	---	25.45	---	99.44	73.99
MW-63	20-35	---	25.72	---	99.34	73.62
MW-65	20-35	---	Dry	---	100.02	Dry
MW-67	20-35	---	28.07	---	102.65	74.58
MW-70	20-35	---	26.80	---	101.60	74.80
MW-5aR	18-28	---	23.45	---	99.94	76.49
PW-1R	45-50	25.17	25.20	0.03	100.00	74.83
DW-1	65-70	---	46.70	---	100.57	53.87
DW-2	70-75	---	26.04	---	99.90	73.86
DW-3	47-52	---	25.24	---	100.06	74.82
DW-4	105-110	---	0.10	---	100.13	100.03
DW-5	65-70	---	45.76	---	102.12	56.36
DW-6	65-70	---	47.36	---	99.98	52.62
DW-7	50-55	---	26.19	---	79.11	52.92
DW-8	50-55	---	21.53	---	74.30	52.77
DW-9	60-65	---	26.80	---	79.55	52.75
UNK-1	Unknown	---	NM	---	100.56	NM
UNK-2	Unknown	---	Abandoned	---	Abandoned	Abandoned
UNK-3	Unknown	---	NM	---	100.30	NM
UNK-4	Unknown		Abandoned	---	Abandoned	Abandoned
UNK-5	Unknown	---	NM	---	98.93	NM

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of Former ACA Product Recovery Well
- (SW-2) Location of Surface Water Sample Collection
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- Groundwater Elevation Contour (feet)

Notes:

Depth to groundwater measured on May 10, 2013.

Contour Interval = 5.00 Feet

Site Datum Based on Assumed Spot Elevation.

Grounwater elevations for MW-15, MW-18, MW-19, MW-23, and PW-1R corrected for the presence of free phase petroleum product using a specific gravity of 0.85 for fuel.

"Shallow" monitoring wells and monitoring well DW-4 not used in contouring.

Contours Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated August 27, 2013.

GRAPHIC SCALE

0 75 150 225 300

1IN = 150FT

ALL LOCATIONS ARE APPROXIMATE

Potentiometric Data Site Map

(Groundwater Contour/"Deep" Zone)

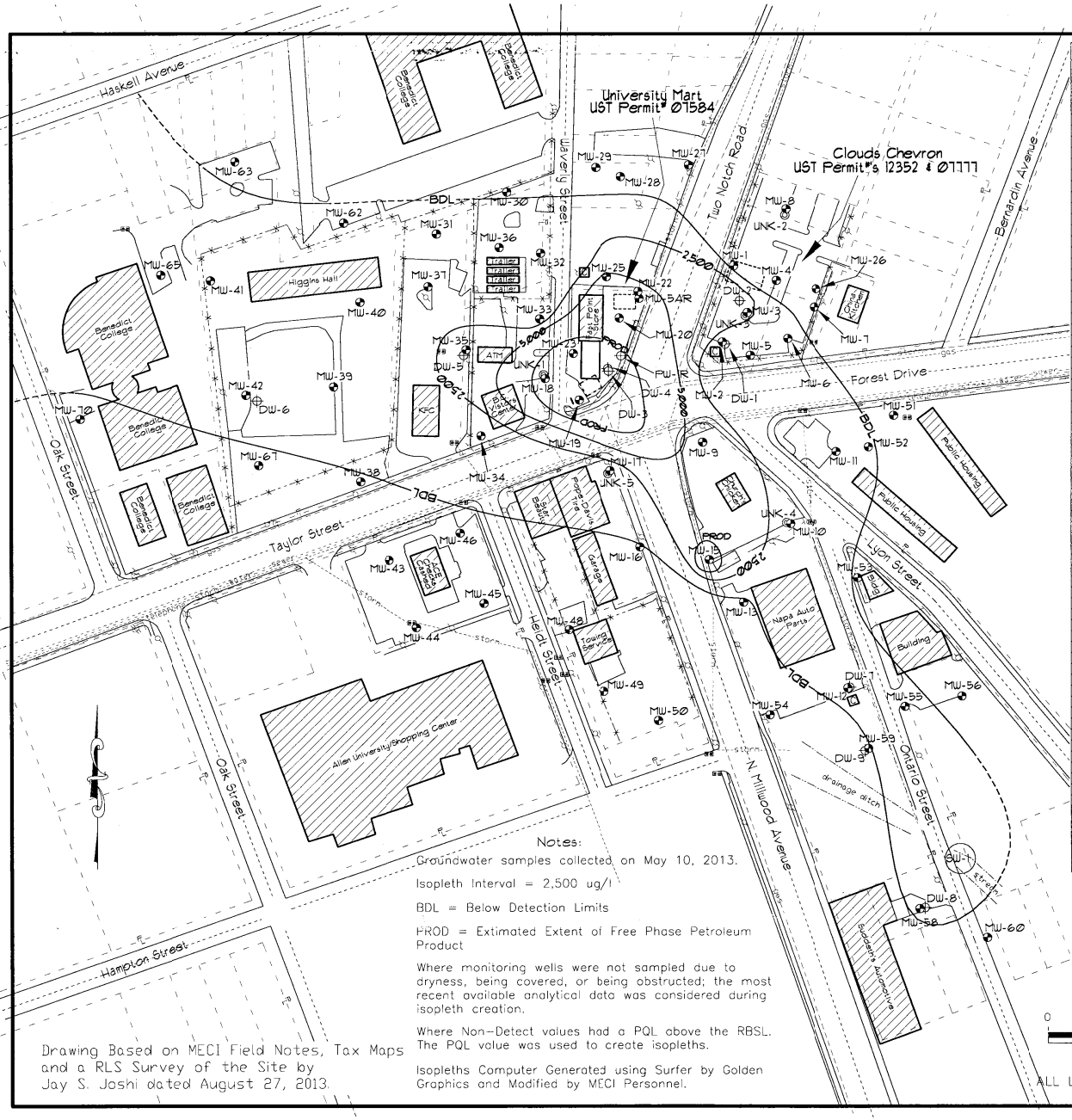
University Mart & Clouds Chevron
Taylor Street & Two Notch Road
Columbia, South Carolina
SCDHEC Site ID#'s 07584, 07777, & 12352

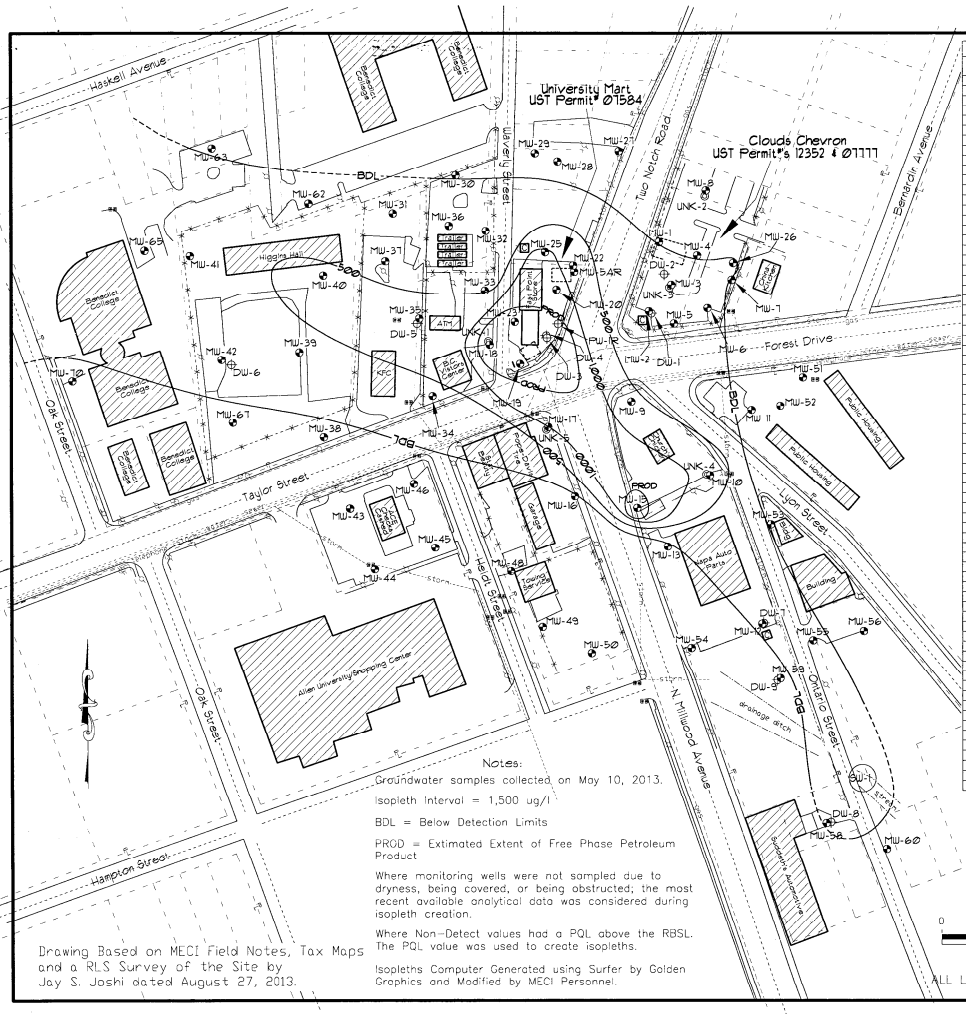
Midlands Environmental Consultants, Inc.

JOB NO. 13-4585

DATE September 5, 2013

FIGURE 2A


Haskell Avenue
Benedict College
Allen University
University Mart
UST Permit# 07584
Clouds Chevron
UST Permit#'s 12352 & 07777
Waverly Street
Two Notch Road
Bernardin Avenue
Higgins Hall
Forest Drive
Oak Street
Taylor Street
Hampton Street
Lyon Street
Ontario Street
N. Millwood Avenue
Public Housing
Napa Auto Parts
Allen University Shopping Center
Bridgestone Automotive
drainage ditch
BDL
PROD
2,500
5,000
7,500
10,000
MW-1
MW-2
MW-3
MW-4
MW-5
MW-6
MW-7
MW-8
MW-9
MW-10
MW-11
MW-12
MW-13
MW-14
MW-15
MW-16
MW-17
MW-18
MW-19
MW-20
MW-21
MW-22
MW-23
MW-24
MW-25
MW-26
MW-27
MW-28
MW-29
MW-30
MW-31
MW-32
MW-33
MW-34
MW-35
MW-36
MW-37
MW-38
MW-39
MW-40
MW-41
MW-42
MW-43
MW-44
MW-45
MW-46
MW-47
MW-48
MW-49
MW-50
MW-51
MW-52
MW-53
MW-54
MW-55
MW-56
MW-57
MW-58
MW-59
MW-60
MW-62
MW-63
MW-65
MW-67
MW-5AR
PW-1R
DW-1
DW-2
DW-3
DW-4
DW-5
DW-6
DW-7
DW-8
DW-9
UNK-1
UNK-2
UNK-3
UNK-4
UNK-5
SW-1
Trailer
Trailer
Trailer
ATM
Bldg
Garage
Building
Storage
Storage
Storage



Groundwater COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)
MW-1	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-2	140	280	56	460	54	380	<25	0.066P
MW-3	3,000	7,400	260J	4,500	260JS	3,300	<500	2.6
MW-4	<5.0	<5.0	<5.0	<5.0	<5.0	3.7J	<5.0	<0.020
MW-5	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-6	2.8J	<5.0	3.6J	3.3J	<5.0	70	<5.0	<0.023
MW-7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.023
MW-8	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-9	4,100	27,000	2,500	19,000	960J	150J	<1,000	5.0Q
MW-10	7,400	7,800	<2,500	13,000	930J	<2,500	<2,500	<0.022
MW-11	7.6	2.4J	6.2	2.8J	<5.0	17	<5.0	<0.021
MW-12	1.7J	<5.0	11	<5.0	4.7J	5.6	<5.0	<0.020
MW-13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-15	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-16	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-17	1,400	26,000	2,500	23,000	1,000	<1,000	<1,000	0.19
MW-18	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-19	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-20	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-22	3,300	17,000	2,900	200,000	640J	<1,000	<1,000	<0.025
MW-23	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-25	<5,000	3,000J	1,900J	23,000	<5,000	<5,000	<5,000	<0.020
MW-26	NS	NS	NS	NS	NS	NS	NS	NS
MW-27	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-28	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-29	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019
MW-30	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019
MW-31	57	90	520	250	210	12J	2.4J	<0.020
MW-32	8.8	4.3J	24	20	18	<5.0	<5.0	<0.020
MW-33	520	7,200	1,500	7,200	410J	<500	<500	<0.020
MW-34	17J	150	130	360	100	<25	<25	<0.020
MW-35	4,400	2,000	1,700	3,500	580	300	96J	0.15
MW-36	18J	<25	120	<25	69	<25	<25	<0.020
MW-37	240	34	270	240	220	11J	5.7J	<0.020
MW-38	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-39	13J	1,300	460	4,200	330	<250	<250	<0.020
MW-40	290J	2,900	650	7,100	530	<500	<500	<0.020
MW-41	260J	<1,000	1,100	<1,000	420J	<1,000	<1,000	<0.020
MW-42	<25	<25	36	<25	60	<25	<25	<0.019
MW-43	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-44	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-45	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-46	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-48	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-49	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019
MW-51	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019
MW-52	NS	NS	NS	NS	NS	NS	NS	NS
MW-53	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-54	<5.0	<5.0	<5.0	<5.0	<5.0	12	<5.0	<0.020
MW-55	0.31J	<5.0	3.6J	<5.0	4.1J	24	<5.0	<0.022
MW-56	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.021
MW-58	4.8J	<25	20J	<25	11J	93	<25	<0.020
MW-59	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.021
MW-60	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-62	8.2J	<25	<25	<25	9.6J	2.1J	<25	<0.020
MW-63	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-65	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-67	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-5aR	9,200	1,000	1,400	4,400	810	160J	<500	<0.020
PW-1R	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
DW-1	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
DW-2	<5.0	<5.0	<5.0	<5.0	<5.0	12	<5.0	<0.020
DW-3	2,600	19,000	2,200	10,000	620J	<1,000	<1,000	0.18
DW-4	0.23J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.021
DW-5	5,000	<250	<250	2,000	180J	920	<250	0.20
DW-6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
DW-7	0.39J	<5.0	<5.0	<5.0	<5.0	1.1J	<5.0	<0.020
DW-8	<5.0	4.2J	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
DW-9	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
SW-1	130	2.8	23	36	6.5	17	<1.0	<0.020

Explanation:

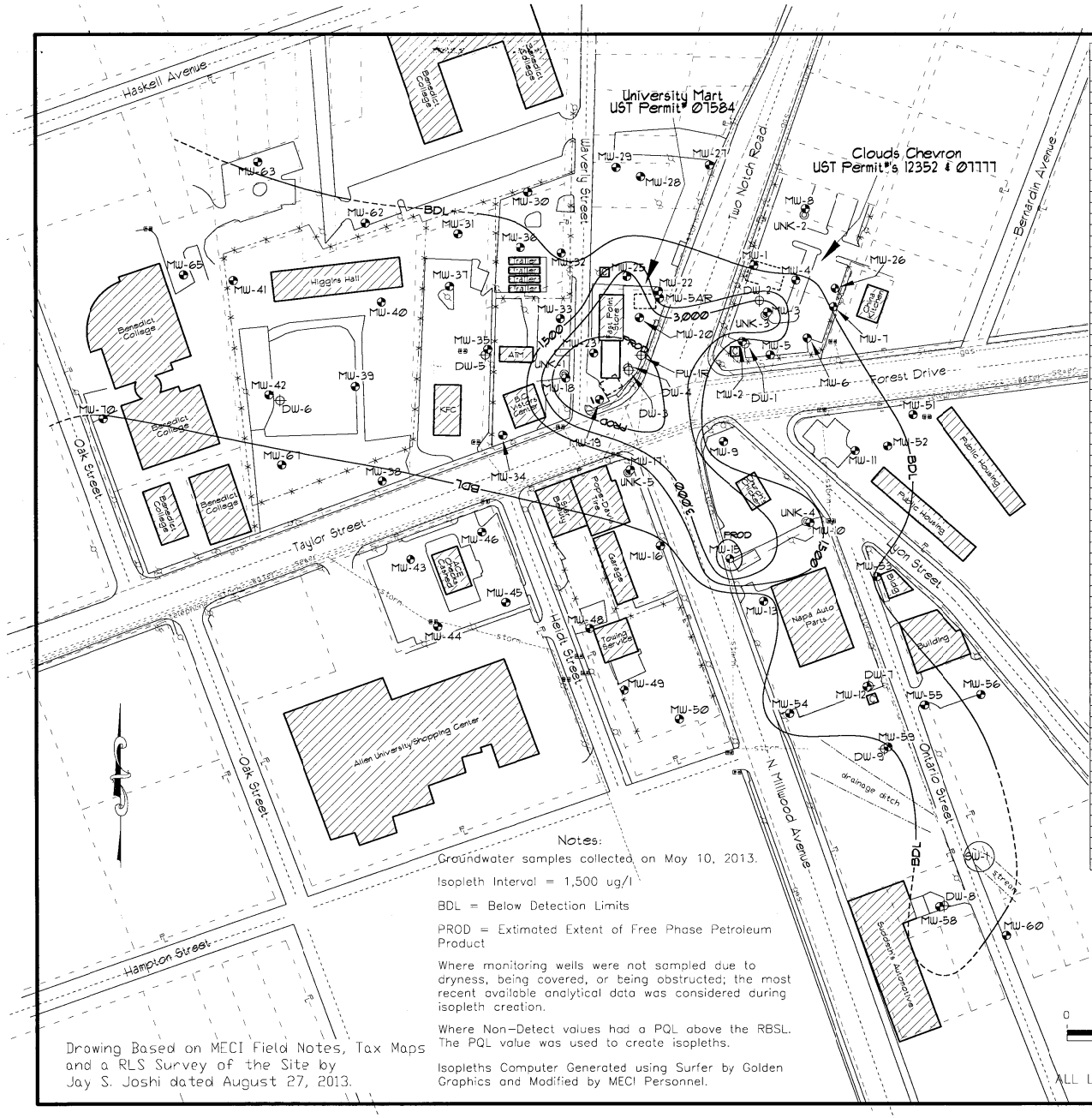
- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of Former ACA Product Recovery Well
- (SW-2) Location of Surface Water Sample Collection
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- Naphthalene Concentration Isopleth (ug/l)

Groundwater CoC Site Map
(Naphthalene Isopleth)

University Mart & Clouds Chevron
Taylor Street & Two Notch Road
Columbia, South Carolina
SCDHEC Site ID#'s Ø7584, Ø1777, & 12352

Midlands Environmental Consultants, Inc.

JOB NO. 13-4585
DATE September 5, 2013
FIGURE 3A



Groundwater COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)
MW-1	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-2	140	280	56	460	54	380	<25	0.066P
MW-3	3,000	7,400	260J	4,500	260JS	3,300	<500	2.6
MW-4	<5.0	<5.0	<5.0	<5.0	<5.0	3.7J	<5.0	<0.020
MW-5	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-6	2.8J	<5.0	3.6J	3.3J	<5.0	70	<5.0	<0.023
MW-7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.023
MW-8	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-9	4,100	27,000	2,500	19,000	960J	150J	<1,000	5.0Q
MW-10	740J	7,800	<2,500	15,000	950J	<2,500	<2,500	<0.022
MW-11	7.6	2.4J	6.2	2.8J	<5.0	17	<5.0	<0.021
MW-12	1.7J	<5.0	11	<5.0	4.7J	5.6	<5.0	<0.020
MW-13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-15	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-16	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-17	1,400	26,000	2,500	23,000	1,000	<1,000	<1,000	0.19
MW-18	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-19	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-20	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-22	3,300	17,000	2,900	200,000	640J	<1,000	<1,000	<0.025
MW-23	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-25	<5,000	3,000J	1,900J	23,000	<5,300	<5,000	<5,000	<0.020
MW-26	NS	NS	NS	NS	NS	NS	NS	NS
MW-27	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-28	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-29	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019
MW-30	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019
MW-31	57	90	520	250	210	12J	2.4J	<0.020
MW-32	8.8	4.3J	24	20	18	<5.0	<5.0	<0.020
MW-33	520	7,200	1,500	7,200	410J	<500	<500	<0.020
MW-34	17J	150	130	360	100	<25	<25	<0.020
MW-35	4,400	2,000	1,700	3,500	580	300	96J	0.15
MW-36	18J	<25	120	<25	69	<25	<25	<0.020
MW-37	240	34	270	240	220	11J	5.7J	<0.020
MW-38	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-39	13J	1,300	460	4,200	330	<250	<250	<0.020
MW-40	290J	2,900	650	7,100	530	<500	<500	<0.020
MW-41	260J	<1,000	1,100	<1,000	420J	<1,000	<1,000	<0.020
MW-42	<25	<25	36	<25	60	<25	<25	<0.019
MW-43	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-44	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-45	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-46	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-48	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-49	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019
MW-51	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019
MW-52	NS	NS	NS	NS	NS	NS	NS	NS
MW-53	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-54	<5.0	<5.0	<5.0	<5.0	<5.0	12	<5.0	<0.020
MW-55	0.31J	<5.0	3.6J	<5.0	4.1J	24	<5.0	<0.022
MW-56	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.021
MW-58	4.8J	<25	20J	<25	11J	93	<25	<0.020
MW-59	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.021
MW-60	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-62	6.2J	<25	<25	<25	9.6J	2.1J	<25	<0.020
MW-63	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-65	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-67	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-5aR	9,200	1,000	1,400	4,400	810	160J	<500	<0.020
Pw-1R	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
DW-1	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
DW-2	<5.0	<5.0	<5.0	<5.0	<5.0	12	<5.0	<0.020
DW-3	2,600	19,000	2,200	10,000	620J	<1,000	<1,000	0.18
DW-4	0.23J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.021
DW-5	5,000	<250	<250	2,000	180J	920	<250	0.20
DW-6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
DW-7	0.39J	<5.0	<5.0	<5.0	<5.0	1.1J	<5.0	<0.020
DW-8	<5.0	4.2J	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
DW-9	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
SW-1	130	2.8	23	36	6.5	17	<1.0	<0.020

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of Former ACA Product Recovery Well
- (SW-2) Location of Surface Water Sample Collection
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- MTBE Concentration Isopleth (ug/l)

Notes:

Groundwater samples collected on May 10, 2013.

Isopleth Interval = 1,500 ug/l

BDL = Below Detection Limits

PROD = Extimated Extent of Free Phase Petroleum Product

Where monitoring wells were not sampled due to dryness, being covered, or being obstructed; the most recent available analytical data was considered during isopleth creation.

Where Non-Detect values had a PQL above the RBSL. The PQL value was used to create isopleths.

Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MEC! Personnel.

Drawing Based on MEC! Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated August 27, 2013.

GRAPHIC SCALE

0 75 150 225 300

1IN = 150FT

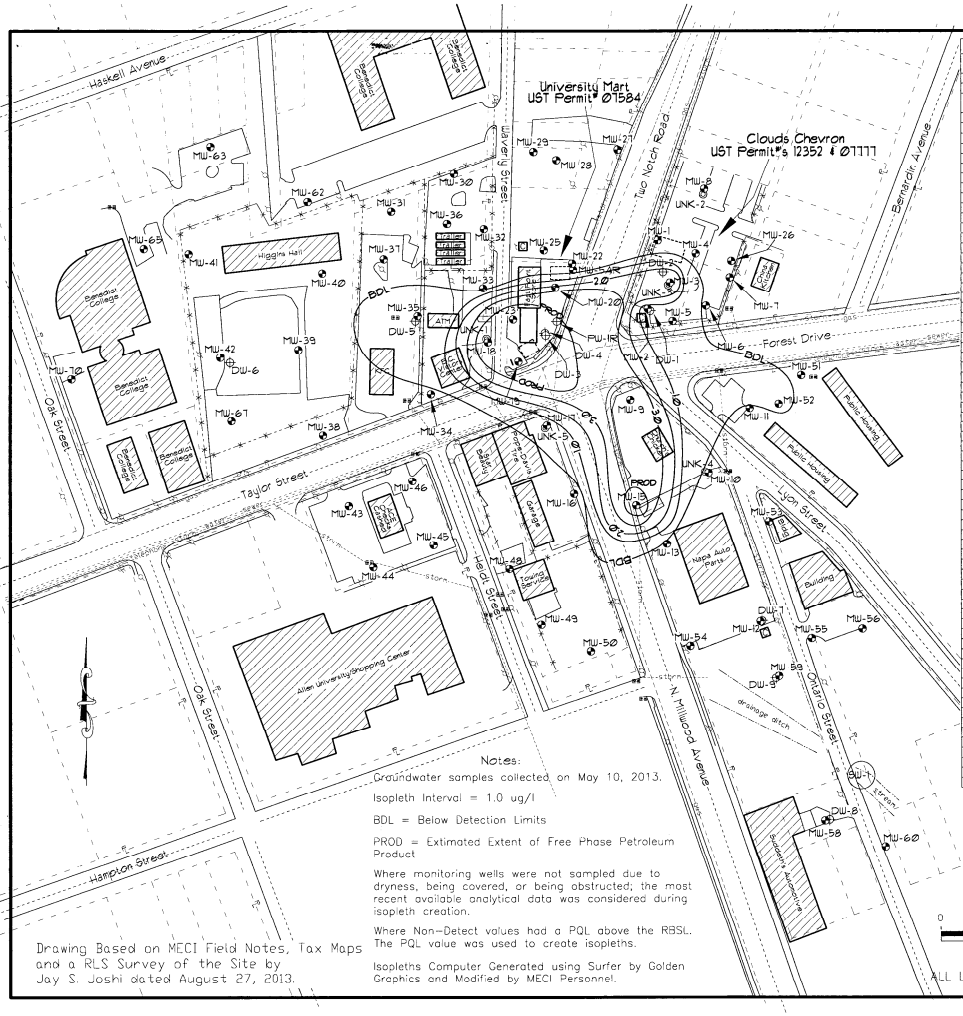
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(MTBE Isopleth)

University Mart & Clouds Chevron
Taylor Street & Two Notch Road
Columbia, South Carolina
SCDHEC Site ID#'s 07584, 07777, & 12352

Midlands Environmental Consultants, Inc.

JOB NO. 13-4585
DATE September 5, 2013
FIGURE 3B



Groundwater COC Concentration Lists

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2-DCA (ug/l)	EDB (ug/l)
MW-1	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-2	140	280	56	460	54	380	<25	0.066P
MW-3	3,000	7,400	260J	4,500	260JS	3,300	<500	2.6
MW-4	<5.0	<5.0	<5.0	<5.0	<5.0	3.7J	<5.0	<0.020
MW-5	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-6	2.8J	<5.0	3.6J	3.3J	<5.0	70	<5.0	<0.023
MW-7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.023
MW-8	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-9	4,100	27,000	2,500	19,000	960J	150J	<1,000	5.0Q
MW-10	740J	1,800	<2,000	13,000	930J	<2,500	<2,500	<0.022
MW-11	7.6	2.4J	6.2	2.8J	<5.0	17	<5.0	<0.021
MW-12	1.7J	<5.0	11	<5.0	4.7J	5.6	<5.0	<0.020
MW-13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-15	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-16	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-17	1,400	26,000	2,500	23,000	1,000	<1,000	<1,000	0.19
MW-18	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-19	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-20	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-22	3,300	17,000	2,900	200,000	840J	<1,000	<1,000	<0.025
MW-23	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-25	<5,000	3,000J	1,900J	23,000	<5,000	<5,000	<5,000	<0.020
MW-26	NS	NS	NS	NS	NS	NS	NS	NS
MW-27	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-28	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-29	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019
MW-30	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019
MW-31	57	90	520	250	210	12J	2.4J	<0.020
MW-32	8.8	4.3J	24	20	18	<5.0	<5.0	<0.020
MW-33	520	7,200	1,500	7,200	410J	<500	<500	<0.020
MW-34	17J	150	130	360	100	<25	<25	<0.020
MW-35	4,400	2,000	1,700	3,500	580	300	98J	0.15
MW-36	18J	<25	120	<25	69	<25	<25	<0.020
MW-37	240	34	270	240	220	11J	5.7J	<0.020
MW-38	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-39	13J	1,300	460	4,200	330	<250	<250	<0.020
MW-40	290J	2,900	650	7,100	530	<500	<500	<0.020
MW-41	260J	<1,000	1,100	<1,000	420J	<1,000	<1,000	<0.020
MW-42	<25	<25	36	<25	60	<25	<25	<0.019
MW-43	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-44	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-45	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-46	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-48	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-49	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019
MW-51	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019
MW-52	NS	NS	NS	NS	NS	NS	NS	NS
MW-53	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-54	<5.0	<5.0	<5.0	<5.0	<5.0	12	<5.0	<0.020
MW-55	0.31J	<5.0	3.6J	<5.0	4.1J	24	<5.0	<0.022
MW-56	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.021
MW-58	4.8J	<25	20J	<25	11J	93	<25	<0.020
MW-59	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.021
MW-60	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-62	6.2J	<25	<25	<25	9.6J	2.1J	<25	<0.020
MW-63	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-65	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-67	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-5aR	9,200	1,000	1,400	4,400	810	160J	<500	<0.020
PW-1R	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
DW-1	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
DW-2	<5.0	<5.0	<5.0	<5.0	<5.0	12	<5.0	<0.020
DW-3	2,600	19,000	2,200	10,000	620J	<1,000	<1,000	0.18
DW-4	0.23J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.021
DW-5	5,000	<250	<250	2,000	180J	920	<250	0.20
DW-6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
DW-7	0.39J	<5.0	<5.0	<5.0	<5.0	1.1J	<5.0	<0.020
DW-8	<5.0	4.2J	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
DW-9	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
SW-1	130	2.8	23	38	6.5	17	<1.0	<0.020

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of Former ACA Product Recovery Well
- (SW-2) Location of Surface Water Sample Collection
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- EDB Concentration Isopleth (ug/l)

Notes:

Groundwater samples collected on May 10, 2013.

Isopleth Interval = 1.0 ug/l

BDL = Below Detection Limits

PROD = Estimated Extent of Free Phase Petroleum Product

Where monitoring wells were not sampled due to dryness, being covered, or being obstructed; the most recent available analytical data was considered during isopleth creation.

Where Non-Detect values had a PQL above the RBSL. The PQL value was used to create isopleths.

Isopleths Computer Generated using Surfer by Golden Graphics and Modified by MECI Personnel.

Drawing Based on MECI Field Notes, Tax Maps and a RLS Survey of the Site by Jay S. Joshi dated August 27, 2013.

GRAPHIC SCALE

0 75 150 225 300

1IN = 150FT

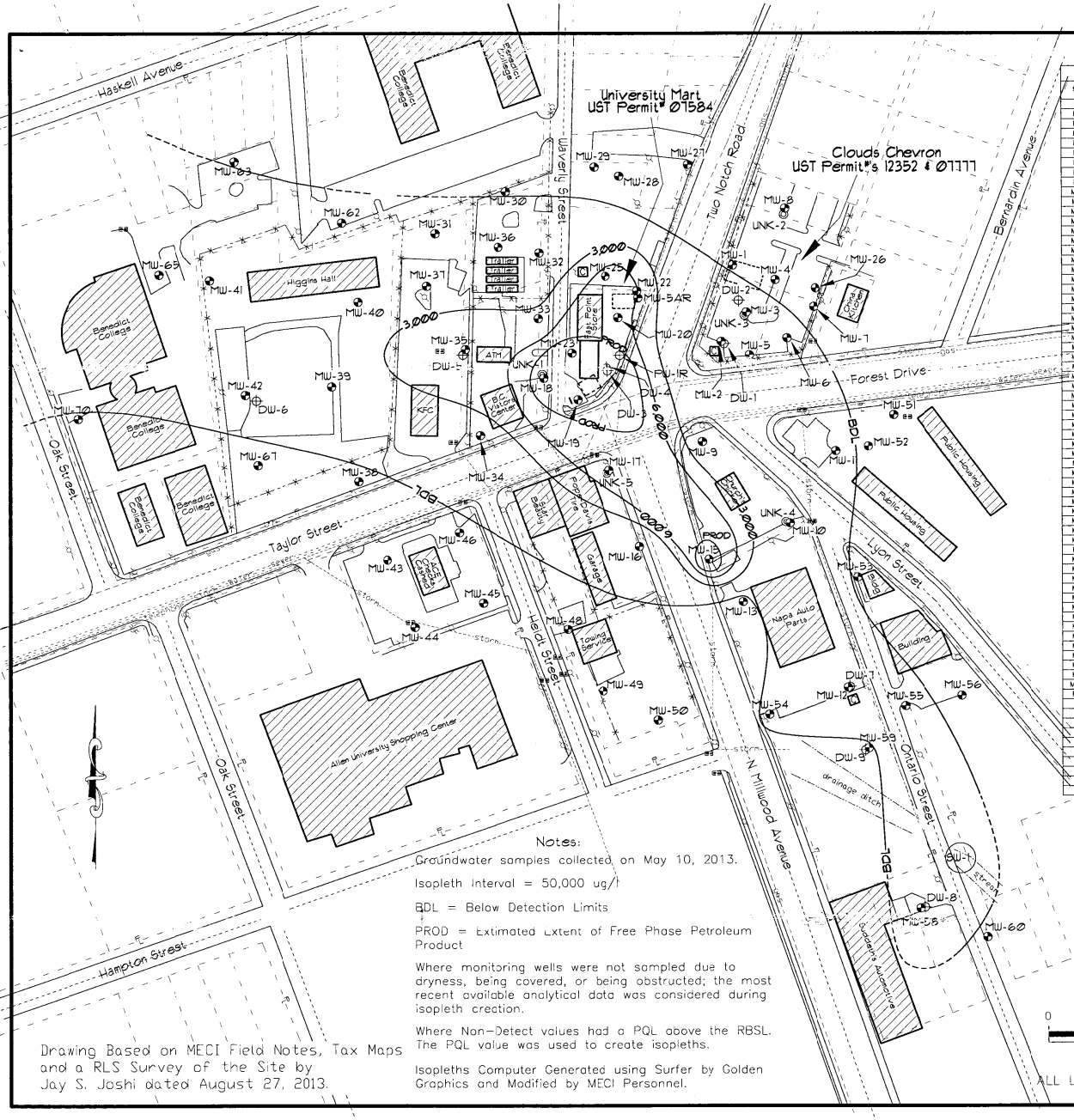
ALL LOCATIONS ARE APPROXIMATE

Groundwater CoC Site Map
(EDB Isopleth)

University Mart & Clouds Chevron
Taylor Street & Two Notch Road
Columbia, South Carolina
SCDHEC Site ID#s Ø7584, Ø7777, & 12352

Midlands Environmental Consultants, Inc.

JOB NO. 13-4585
DATE September 5, 2013
FIGURE 3C



Groundwater COC Concentration Data - Oxygenates

Sample *	TAA (ug/l)	TAME (ug/l)	TBF (ug/l)	DIPE (ug/l)	3,3-Dimethyl-1-butanol (ug/l)	Ethanol (ug/l)	ETBE (ug/l)	TBA (ug/l)
MW-1	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-2	200J	9.2J	<500L	18J	<500	<5,000	<500	140J
MW-3	2,000J	340J	<10,000L	140J	<10,000	<100,000	<10,000	1,300J
MW-4	<100	<10	<100L	<10	<100	<1,000	<100	<100
MW-5	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-6	<100	<10	<100	0.93J	<100	<1,000	<100	<100
MW-7	<100	<10	<100L	<10	<100	<1,000	<100	<100
MW-8	<100	<10	<100L	<10	<100	<1,000	<100	<100
MW-9	4,600J	<2,000	<20,000L	<2,000	<20,000	<200,000	<20,000	<20,000
MW-10	<50,000	<5,000	<50,000L	<5,000	<50,000	<500,000	<50,000	<50,000
MW-11	180	<10	<100	<10	<100	<1,000	<100	15J
MW-12	379	1.5J	<100	14	<100	<1,000	<100	19J
MW-13	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-15	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-16	65J	<10	<100L	<10	<100	<1,000	<100	<100
MW-17	9,400J	<2,000	<20,000	<2,000	<20,000	<200,000	<20,000	<20,000
MW-18	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-19	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-20	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-22	6,000J	130J	<20,000	370J	<20,000	<200,000	<20,000	<20,000
MW-23	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-25	<100,000	<10,000	<100,000	<10,000	<100,000	<1,000,000	<100,000	<100,000
MW-26	NS	NS	NS	NS	NS	NS	NS	NS
MW-27	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-28	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-29	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-30	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-31	419	<50	<500	[illegible]	[illegible]	<5,000	<500	45J
MW-32	200	<10	<100	<10	<100	<1,000	<100	9.1J
MW-33	3,200J	<1,000	<10,000	<1,000	<10,000	<100,000	<10,000	<10,000
MW-34	65J	<50	<500	<50	<500	<5,000	<500	46J
MW-35	5,300	51J	<5,000	270J	<5,000	<50,000	<5,000	<5,000
MW-36	160J	<50	<500	<50	<500	<5,000	<500	<500
MW-37	85J	<50	<500	8.8J	<500	<5,000	<500	44J
MW-38	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-39	<5,000	<500	<5,000	<500	<5,000	<50,000	<5,000	<5,000
MW-40	<10,000	<1,000	<10,000	<10,000	<10,000	<100,000	<10,000	<10,000
MW-41	<20,000	<2,000	<20,000	<2,000	<20,000	<200,000	<20,000	<20,000
MW-42	<500	<50	<500	<50	<500	<5,000	<500	<500
MW-43	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-44	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-45	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-46	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-48	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-49	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-50	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-51	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-52	NS	NS	NS	NS	NS	NS	NS	NS
MW-53	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-54	110	2.0J	<100	20	<100	35J	<100	14J
MW-55	94J	0.85J	<100	5.3J	<100	<1,000	<100	8.4J
MW-56	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-58	1,800	15J	<500	130	<500	<5,000	<500	100J
MW-59	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-60	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-62	440J	<50	<500	<50	<500	<5,000	<500	<500
MW-63	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-65	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-67	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-70	<100	<10	<100	<10	<100	<1,000	<100	<100
MW-5aR	1,300J	<1,000	<10,000	510J	<10,000	<100,000	<10,000	<10,000
PW-1R	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
DW-1	<100	<10	<100	<10	<100	<1,000	<100	<100
DW-2	<100	<10	<100	<10	<100	<1,000	<100	<100
DW-3	3,600J	<2,000	<20,000	<2,000	<20,000	<200,000	<20,000	<20,000
DW-4	<100	<10	<100	<10	<100	<1,000	<100	<100
DW-5	3,100J	77J	<5,000	500	<5,000	<50,000	<5,000	<5,000
DW-6	<100	<10	<100	<10	<100	<1,000	<100	<100
DW-7	17J	<10	<100	0.66J	<100	<1,000	<100	<100
DW-8	<100	<10	<100	<10	<100	<1,000	<100	<100
DW-9	<100	<10	<100	<10	<100	<1,000	<100	<100
SW-1	340	2.6J	<100	25	<100	<1,000	<100	23J

Explanation:

- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of Former ACA Product Recovery Well
- (SW-2) Location of Surface Water Sample Collection
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- TAA Concentration Isopleth (ug/l)

Groundwater CoC Site Map
(TAA Isopleth)

University Mart & Clouds Chevron
Taylor Street & Two Notch Road
Columbia, South Carolina
SCDHEC Site ID#'s 07584, 07777, & 12352

Midlands Environmental Consultants, Inc.

JOB NO. 13-4585
DATE September 5, 2013
FIGURE 3D

BID SHEET



SOUTH CAROLINA
DEPARTMENT OF HEALTH & ENVIRONMENTAL CONTROL

SOLICITATION NUMBER: IFB-5400007095 **PROCUREMENT OFFICER:** Matt Winslow

OPENING/CLOSING DATE: 1/30/14 **TIME:** 2:30 pm

COMPANY NAME	SC	US	VP					
Mid-Carolina Probe				1,189,405				
Crawford Environmental Services				540,000				

CERTIFIED AS TRUE AND ACCURATE

Dina Brazell
BID CLERK

E. Madison Smith
WITNESS

	State of South Carolina Invitation for Bid Amendment - 1	Solicitation Number: Date Issued: Procurement Officer: Phone: E-Mail Address:	5400007095 January 13, 2014 E. Madison Winslow E. Madison Winslow 803-898-3487 winsloem@dhec.sc.gov

DESCRIPTION: **UST Corrective Action, UST # 07584, # 07777, # 12352 - Columbia, South Carolina**

USING GOVERNMENTAL UNIT: **South Carolina Department of Health and Environmental Control**

The Term "Offer" Means Your "Bid" or "Proposal". Solicitation Number & Opening Date must appear on package exterior. See "Submitting Your Offer" provision.

SUBMIT YOUR SEALED OFFER TO EITHER OF THE FOLLOWING ADDRESSES:

MAILING ADDRESS:	**OPENING / PHYSICAL ADDRESS:**
DHEC – Division of Procurement Services Bureau of Business Management 2600 Bull Street Columbia, S.C. 29201	DHEC – Division of Procurement Services - Bureau of Business Management Columbia Mills Building – 4th Floor 301 Gervais Street Columbia, S.C. 29201 **See Section II.A - Public Opening Information – DHEC Clause**

SUBMIT OFFER BY (Opening Date/Time): **January 28, 2014/2:30 pm ET** (See "Deadline For Submission Of Offer" provision)

QUESTIONS MUST BE RECEIVED BY: **DEADLINE HAS PASSED** (See "Questions From Offerors" provision)

NUMBER OF COPIES TO BE SUBMITTED: **1**

CONFERENCE TYPE: **Not Applicable** DATE & TIME: (As appropriate, see "Conferences - Pre-Bid/Proposal" & "Site Visit" provisions)	LOCATION: **Not Applicable**

AWARD & AMENDMENTS	Award will be posted on **February 4, 2014.** The award, this solicitation, any amendments, and any related notices will be posted at the following web address: http://www.procurement.sc.gov

You must submit a signed copy of this form with Your Offer. By submitting a bid or proposal, You agree to be bound by the terms of the Solicitation. You agree to hold Your Offer open for a minimum of thirty (30) calendar days after the Opening Date. (See "Signing Your Offer" and "Electronic Signature" provisions.)

NAME OF OFFEROR Crawford Environmental Services, Inc. (full legal name of business submitting the offer)		Any award issued will be issued to, and the contract will be formed with, the entity identified as the Offeror. The entity named as the offeror must be a single and distinct legal entity. Do not use the name of a branch office or a division of a larger entity if the branch or division is not a separate legal entity, i.e., a separate corporation, partnership, sole proprietorship, etc.
AUTHORIZED SIGNATURE (Person must be authorized to submit binding offer to contract on behalf of Offeror.)		TAXPAYER IDENTIFICATION NO. 11-368-3978 (See "Taxpayer Identification Number" provision)
TITLE President / CEO (business title of person signing above)		STATE VENDOR NO. UCC-0388 7000-130-450 (Register to Obtain S.C. Vendor No. at www.procurement.sc.gov)
PRINTED NAME Charles F. Crawford (printed name of person signing above)	DATE SIGNED 01/26/14	STATE OF INCORPORATION Virginia (If you are a corporation, identify the state of incorporation.)

OFFEROR'S TYPE OF ENTITY: (Check one) (See "Signing Your Offer" provision.)

___ Sole Proprietorship ___ Partnership ___ Other_____

_X_ Corporate entity (not tax-exempt) ___ Corporation (tax-exempt) ___ Government entity (federal, state, or local)

PAGE TWO

(Return Page Two with Your Offer)

HOME OFFICE ADDRESS (Address for offeror's home office / principal place of business)	NOTICE ADDRESS (Address to which all procurement and contract related notices should be sent.) (See "Notice" clause)
15 Church Avenue, SW Roanoke, Virginia 24011	SAME AS HOME OFFICE ADDRESS 540.798.4205 540.343.6256 Number - Extension 540.343.6259 Facsimile Area Code - CCrawford@crawfordenvironmental.com dfisher@crawfordenvironmental.com E-mail Address

PAYMENT ADDRESS (Address to which payments will be sent.) (See "Payment" clause)	ORDER ADDRESS (Address to which purchase orders will be sent) (See "Purchase Orders and "Contract Documents" clauses)
15 Church Avenue, SW Roanoke, Virginia 24011	15 Church Avenue, SW Roanoke, Virginia 24011
X Payment Address same as Home Office Address ___Payment Address same as Notice Address **(check only one)**	X Order Address same as Home Office Address ___Order Address same as Notice Address **(check only one)**

ACKNOWLEDGMENT OF AMENDMENTS

Offerors acknowledges receipt of amendments by indicating amendment number and its date of issue. (See "Amendments to Solicitation" Provision)

Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date
1	1/13/14						

DISCOUNT FOR PROMPT PAYMENT (See "Discount for Prompt Payment" clause)	10 Calendar Days (%)	20 Calendar Days (%)	30 Calendar Days (%)	____Calendar Days (%)

End of PAGE TWO

VIII. BIDDING SCHEDULE/PRICE-BUSINESS PROPOSAL

BIDDING SCHEDULE (NOV 2007)

A. ACCEPTANCE AND DELIVERY STATEMENT

In compliance with the solicitation and subject to all requirements thereof, the Offeror agrees, if this bid is accepted within 90 days from date of opening, to initiate the corrective action as specified at the prices set forth for all sites as stated below. For the purpose of this submittal and acceptance of financial approval should it occur, I certify that this company understands the nature of the release(s) and the geologic conditions at this site as documented in the technical file and this solicitation. Any quantities listed in the corrective action method(s) below are estimates and changes to those quantities or to the listed method(s) will not affect the bid price. Additionally, I certify that this company understands that acceptance is based on total cost to treat the areas of concern.

Crawford Environmental Services, Inc. — UCC-0388

Offeror (Print) — UST Site Rehabilitation Contractor Certification #

B. Thomas Houghton — [signature]

Registered Professional Name (Print) — Registered Professional Signature (required)

P.G. [X] P.E. [ ] (check appropriate box) — Professional Certification # 2343

B. CORRECTIVE ACTION SOLICITATION RESPONSE

Please respond to the following questions for UST Permit # 07884, University Mart, 2367 Taylor St., Columbia, SC and UST Permit # 07777 & UST Permit # 12382, Cloud's Chevron, 1600 Two Notch Rd., Columbia, SC:

1. **State and briefly describe the corrective action method(s) or technology(ies) that will be discussed in detail in the CAP to achieve completion in five years, should financial approval occur. Attach an additional sheet if necessary.**

   High vacuum enhanced surfactant injection / extractions events to remove free-phase petroleum.

   Hydrogen peroxide and and biological injections to address dissolved-phase concentrations.

2. **The Corrective Action Completion Time, in months, to complete the corrective action from the date of corrective action plan implementation until the final corrective action goal has been achieved and maintained for 2 consecutive quarters is** 60 **months. All activities must be completed within 5 years of the date of financial award unless otherwise approved in writing by the Agency.**

3. **The Corrective Action Cost, in whole dollars, regardless of the type, quantity, or duration of the permitted technology applied, to treat the area of concern shown in the Appendix such that CoC concentrations do not exceed SSTLs at any point in the area of concern; complete all associated monitoring and post-corrective action verification; prepare all plans, reports, and correspondence; obtain and meet all terms and conditions of all required permits and licenses; design, install, monitor, operate, maintain, and when completed, properly abandon and/or remove all assessment and corrective action components; and complete other items outlined in this solicitation is:**

$ 540,000.00

IV. INFORMATION FOR OFFERORS TO SUBMIT

INFORMATION FOR OFFERORS TO SUBMIT -- GENERAL (JAN 2006)

Offeror shall submit a signed Cover Page and Page Two. Offeror should submit all other information and documents requested in this part and in parts II.B. Special Instructions; III. Scope of Work; V. Qualifications; VIII. Bidding Schedule/Price Proposal; and any appropriate attachments addressed in section IX. Attachments to Solicitations.
[04-4010-1]

MINORITY PARTICIPATION (JAN 2006)

Is the bidder a South Carolina Certified Minority Business? [ ] Yes [X] No

Is the bidder a Minority Business certified by another governmental entity? [ ] Yes [X] No

If so, please list the certifying governmental entity: _____

Will any of the work under this contract be performed by a SC certified Minority Business as a subcontractor? [ ] Yes [X] No

If so, what percentage of the total value of the contract will be performed by a SC certified Minority Business as a subcontractor? _____

Will any of the work under this contract be performed by a minority business certified by another governmental entity as a subcontractor? [ ] Yes [X] No

If so, what percentage of the total value of the contract will be performed by a minority business certified by another governmental entity as a subcontractor? _____

If a certified Minority Business is participating in this contract, please indicate all categories for which the Business is certified:

[ ] Traditional minority
[ ] Traditional minority, but female
[ ] Women (Caucasian females)
[ ] Hispanic minorities
[ ] DOT referral (Traditional minority)
[ ] DOT referral (Caucasian female)
[ ] Temporary certification
[ ] SBA 8 (a) certification referral
[ ] Other minorities (Native American, Asian, etc.)

(If more than one minority contractor will be utilized in the performance of this contract, please provide the information above for each minority business.)

For a list of certified minority firms, please consult the Minority Business Directory, which is available at the following URL:http://www.govoepp.state.sc.us/osmba/
[04-4015-1]

AMENDMENTS TO SOLICITATION (JAN 2004)
(a) The Solicitation may be amended at any time prior to opening. All actual and prospective Offerors should monitor the following web site for the issuance of Amendments: www.procurement.sc.gov (b) Offerors shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date in the space provided for this purpose on Page Two, (3) by letter, or (4) by submitting a bid that indicates in some way that the bidder received the amendment. (c) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged. [02-2A005-1]

Amendment Number Three
Solicitation 5400007095

Questions and Answers

1. **Question:** How much SUPERB Fund monies have been spent on each of the referenced sites to date?

   Answer: For UST # 07584, Release 1, $304,138.94 in SUPERB funds have been spent.
   For UST # 07584, Release 2, $188,793.66 in SUPERB funds have been spent.
   For UST # 07777, $364,711.80 in SUPERB funds have been spent.
   For UST # 12352, $200,851.65 in SUPERB funds have been spent.

2. **Question:** What is the SUPERB available balance for completing the solicited corrective action?

   Answer: $1 million is available for each site per release from the SUPERB account.

01-28-14
01-30-14

BUSINESS MANAGEMENT
2014 JAN 30 PM 1:36

Solicitation / IFB # 5400007095

Offeror: Crawford Environmental Services, Inc.

State Vendor # 7000-130-450

VCC # 0388

State of South Carolina

Invitation for Bid

Solicitation Number:	5400007095
Date Issued:	December 18, 2013
Procurement Officer:	E. Madison Winslow
	E Madison Winslow
Phone:	803-898-3487
E-Mail Address:	winsloem@dhec.sc.gov

DESCRIPTION: **UST Corrective Action, UST # 07584, # 07777, # 12352 - Columbia, South Carolina**

USING GOVERNMENTAL UNIT: **South Carolina Department of Health and Environmental Control**

The Term "Offer" Means Your "Bid" or "Proposal". Solicitation Number & Opening Date must appear on package exterior. See "Submitting Your Offer" provision.

SUBMIT YOUR SEALED OFFER TO EITHER OF THE FOLLOWING ADDRESSES:

MAILING ADDRESS:	OPENING / PHYSICAL ADDRESS:
DHEC – Division of Procurement Services Bureau of Business Management 2600 Bull Street Columbia, S.C. 29201	DHEC – Division of Procurement Services - Bureau of Business Management Columbia Mills Building – 4th Floor 301 Gervais Street Columbia, S.C. 29201 **See Section II.A - Public Opening Information – DHEC Clause**

SUBMIT OFFER BY (Opening Date/Time): **January 28, 2014/2:30 pm ET** (See "Deadline For Submission Of Offer" provision)

QUESTIONS MUST BE RECEIVED BY: **January 10, 2014/2:30 pm ET** (See "Questions From Offerors" provision)

NUMBER OF COPIES TO BE SUBMITTED: **1**

CONFERENCE TYPE: **Not Applicable** DATE & TIME: (As appropriate, see "Conferences - Pre-Bid/Proposal" & "Site Visit" provisions)	LOCATION: **Not Applicable**

AWARD & AMENDMENTS	Award will be posted on **February 4, 2014**. The award, this solicitation, any amendments, and any related notices will be posted at the following web address: http://www.procurement.sc.gov

You must submit a signed copy of this form with Your Offer. By submitting a bid or proposal, You agree to be bound by the terms of the Solicitation. You agree to hold Your Offer open for a minimum of thirty (30) calendar days after the Opening Date. (See "Signing Your Offer" and "Electronic Signature" provisions.)

NAME OF OFFEROR Mid-Carolina Probe, LLC (full legal name of business submitting the offer)		Any award issued will be issued to, and the contract will be formed with, the entity identified as the Offeror. The entity named as the offeror must be a single and distinct legal entity. Do not use the name of a branch office or a division of a larger entity if the branch or division is not a separate legal entity, i.e., a separate corporation, partnership, sole proprietorship, etc.
AUTHORIZED SIGNATURE Michael R. Woodward (Person must be authorized to submit binding offer to contract on behalf of Offeror.)		TAXPAYER IDENTIFICATION NO. 73-1696479 (See "Taxpayer Identification Number" provision)
TITLE President (business title of person signing above)		STATE VENDOR NO. 700015798 (Register to Obtain S.C. Vendor No. at www.procurement.sc.gov)
PRINTED NAME Michael L. Woodward (printed name of person signing above)	DATE SIGNED 1/26/2014	STATE OF INCORPORATION LLC (South Carolina) (If you are a corporation, identify the state of incorporation.)

OFFEROR'S TYPE OF ENTITY: (Check one) (See "Signing Your Offer" provision.)

___ Sole Proprietorship ___ Partnership ✓ Other LLC

___ Corporate entity (not tax-exempt) ___ Corporation (tax-exempt) ___ Government entity (federal, state, or local)

PAGE TWO

(Return Page Two with Your Offer)

HOME OFFICE ADDRESS (Address for offeror's home office / principal place of business)	NOTICE ADDRESS (Address to which all procurement and contract related notices should be sent.) (See "Notice" clause)
Mid-Carolina Probe, LLC 258 Tapp Road Greer, SC 29651-5221	Mid-Carolina Probe, LLC 258 Tapp Road Greer, S.C. 29651-5221 864-752-5025 Number - Extension 864-469-7129 Facsimile Area Code - mike@midcarolinaprobe.com E-mail Address

PAYMENT ADDRESS (Address to which payments will be sent.) (See "Payment" clause)	ORDER ADDRESS (Address to which purchase orders will be sent) (See "Purchase Orders and "Contract Documents" clauses)
✓ Payment Address same as Home Office Address ___ Payment Address same as Notice Address **(check only one)**	✓ Order Address same as Home Office Address ___ Order Address same as Notice Address **(check only one)**

ACKNOWLEDGMENT OF AMENDMENTS

Offerors acknowledges receipt of amendments by indicating amendment number and its date of issue. (See "Amendments to Solicitation" Provision)

Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date
1-3	1-13-2014						

DISCOUNT FOR PROMPT PAYMENT (See "Discount for Prompt Payment" clause)	10 Calendar Days (%)	20 Calendar Days (%)	30 Calendar Days (%)	____Calendar Days (%)

End of PAGE TWO

IV. INFORMATION FOR OFFERORS TO SUBMIT

INFORMATION FOR OFFERORS TO SUBMIT -- GENERAL (JAN 2006)

Offeror shall submit a signed Cover Page and Page Two. Offeror should submit all other information and documents requested in this part and in parts II.B. Special Instructions; III. Scope of Work; V. Qualifications; VIII. Bidding Schedule/Price Proposal; and any appropriate attachments addressed in section IX. Attachments to Solicitations. [04-4010-1]

MINORITY PARTICIPATION (JAN 2006)

Is the bidder a South Carolina Certified Minority Business? [ ] Yes [✓] No

Is the bidder a Minority Business certified by another governmental entity? [ ] Yes [✓] No

If so, please list the certifying governmental entity: _____

Will any of the work under this contract be performed by a SC certified Minority Business as a subcontractor? [ ] Yes [✓] No

If so, what percentage of the total value of the contract will be performed by a SC certified Minority Business as a subcontractor? _____

Will any of the work under this contract be performed by a minority business certified by another governmental entity as a subcontractor? [ ] Yes [✓] No

If so, what percentage of the total value of the contract will be performed by a minority business certified by another governmental entity as a subcontractor? _____

If a certified Minority Business is participating in this contract, please indicate all categories for which the Business is certified:

[ ] Traditional minority
[ ] Traditional minority, but female
[ ] Women (Caucasian females)
[ ] Hispanic minorities
[ ] DOT referral (Traditional minority)
[ ] DOT referral (Caucasian female)
[ ] Temporary certification
[ ] SBA 8 (a) certification referral
[ ] Other minorities (Native American, Asian, etc.)

(If more than one minority contractor will be utilized in the performance of this contract, please provide the information above for each minority business.)

For a list of certified minority firms, please consult the Minority Business Directory, which is available at the following URL:http://www.govoepp.state.sc.us/osmba/
[04-4015-1]

VIII. BIDDING SCHEDULE/PRICE-BUSINESS PROPOSAL

BIDDING SCHEDULE (NOV 2007)

A. ACCEPTANCE AND DELIVERY STATEMENT

In compliance with the solicitation and subject to all requirements thereof, the Offeror agrees, if this bid is accepted within 60 days from date of opening, to initiate the corrective action as specified at the prices set forth for all sites as stated below. For the purpose of this submittal and acceptance of financial approval should it occur, I certify that this company understands the nature of the release(s) and the geologic conditions at this site as documented in the technical file and this solicitation. **Any quantities listed in the corrective action method(s) below are estimates and changes to those quantities or to the listed method(s) will not affect the bid price.** Additionally, I certify that this company understands that acceptance is based on total cost to treat the areas of concern.

Mid-Carolina Probe, LLC — Offeror (Print)

No. 405 — UST Site Rehabilitation Contractor Certification #

F. Dean Salisbury — Registered Professional Name (Print)

F. Dean Salisbury — Registered Professional Signature (required)

P.G. ☑ P.E. ☐ (check appropriate box)

Professional Certification # _____

B. CORRECTIVE ACTION SOLICITATION RESPONSE

Please respond to the following questions for UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC and UST Permit # 07777 & UST Permit # 12352, Cloud's Chevron, 1600 Two Notch Rd., Columbia, SC:

1. State and briefly describe the corrective action method(s) or technology(ies) that will be discussed in detail in the CAP to achieve completion in five years, should financial approval occur. Attach an additional sheet if necessary. The contaminants of concern will be treated with insitu injection techologies including insitu chemical oxidation and othe proven biostimulation injection techologies. Aggressive fluid recovery and/or skimmer pumps will also be used.
2. The Corrective Action Completion Time, in months, to complete the corrective action from the date of corrective action plan implementation until the final corrective action goal has been achieved and maintained for 2 consecutive quarters is 54 months. All activities must be completed within 5 years of the date of financial award unless otherwise approved in writing by the Agency.
3. The Corrective Action Cost, in whole dollars, regardless of the type, quantity, or duration of the permitted technology applied, to treat the area of concern shown in the Appendix such that CoC concentrations do not exceed SSTLs at any point in the area of concern; complete all associated monitoring and post-corrective action verification; prepare all plans, reports, and correspondence; obtain and meet all terms and conditions of all required permits and licenses; design, install, monitor, operate, maintain, and when completed, properly abandon and/or remove all assessment and corrective action components; and complete other items outlined in this solicitation is:

$ 1,189,405

BUSINESS MANAGEMENT

2014 JAN 27 PM 3:53

IFB-5400007095

(UST #s 07584, 0777, 12352)

DHEC - Procurement Services

301 Gervais Street

Columbia, S.C. 29201

	State of South Carolina Invitation for Bid	Solicitation Number: Date Issued: Procurement Officer: Phone: E-Mail Address:	5400007095 December 18, 2013 E. Madison Winslow E. Madison Winslow 803-898-3487 winsloem@dhec.sc.gov

DESCRIPTION: **UST Corrective Action, UST # 07584, # 07777, # 12352 - Columbia, South Carolina**

USING GOVERNMENTAL UNIT: **South Carolina Department of Health and Environmental Control**

The Term "Offer" Means Your "Bid" or "Proposal". Solicitation Number & Opening Date must appear on package exterior. See "Submitting Your Offer" provision.

SUBMIT YOUR SEALED OFFER TO EITHER OF THE FOLLOWING ADDRESSES:

MAILING ADDRESS:	**OPENING / PHYSICAL ADDRESS:**
DHEC – Division of Procurement Services Bureau of Business Management 2600 Bull Street Columbia, S.C. 29201	DHEC – Division of Procurement Services - Bureau of Business Management Columbia Mills Building – 4th Floor 301 Gervais Street Columbia, S.C. 29201 **See Section II.A - Public Opening Information – DHEC Clause**

SUBMIT OFFER BY (Opening Date/Time): **January 28, 2014/2:30 pm ET** (See "Deadline For Submission Of Offer" provision)

QUESTIONS MUST BE RECEIVED BY: **January 10, 2014/2:30 pm ET** (See "Questions From Offerors" provision)

NUMBER OF COPIES TO BE SUBMITTED: **1**

CONFERENCE TYPE: **Not Applicable** DATE & TIME: (As appropriate, see "Conferences - Pre-Bid/Proposal" & "Site Visit" provisions)	LOCATION: **Not Applicable**

AWARD & AMENDMENTS	Award will be posted on **February 4, 2014**. The award, this solicitation, any amendments, and any related notices will be posted at the following web address: http://www.procurement.sc.gov

You must submit a signed copy of this form with Your Offer. By submitting a bid or proposal, You agree to be bound by the terms of the Solicitation. You agree to hold Your Offer open for a minimum of thirty (30) calendar days after the Opening Date. (See "Signing Your Offer" and "Electronic Signature" provisions.)

NAME OF OFFEROR (full legal name of business submitting the offer)		Any award issued will be issued to, and the contract will be formed with, the entity identified as the Offeror. The entity named as the offeror must be a single and distinct legal entity. Do not use the name of a branch office or a division of a larger entity if the branch or division is not a separate legal entity, i.e., a separate corporation, partnership, sole proprietorship, etc.
AUTHORIZED SIGNATURE (Person must be authorized to submit binding offer to contract on behalf of Offeror.)		TAXPAYER IDENTIFICATION NO. (See "Taxpayer Identification Number" provision)
TITLE (business title of person signing above)		STATE VENDOR NO. (Register to Obtain S.C. Vendor No. at www.procurement.sc.gov)
PRINTED NAME (printed name of person signing above)	DATE SIGNED	STATE OF INCORPORATION (If you are a corporation, identify the state of incorporation.)

OFFEROR'S TYPE OF ENTITY: (Check one) (See "Signing Your Offer" provision.)

___ Sole Proprietorship ___ Partnership ___ Other_____

___ Corporate entity (not tax-exempt) ___ Corporation (tax-exempt) ___ Government entity (federal, state, or local)

PAGE TWO

(Return Page Two with Your Offer)

HOME OFFICE ADDRESS (Address for offeror's home office / principal place of business)	NOTICE ADDRESS (Address to which all procurement and contract related notices should be sent.) (See "Notice" clause) _____ Area Code - Number - Extension Facsimile _____ E- mail Address
PAYMENT ADDRESS (Address to which payments will be sent.) (See "Payment" clause) ____Payment Address same as Home Office Address ____Payment Address same as Notice Address **(check only one)**	ORDER ADDRESS (Address to which purchase orders will be sent) (See "Purchase Orders and "Contract Documents" clauses) ____Order Address same as Home Office Address ____Order Address same as Notice Address **(check only one)**

ACKNOWLEDGMENT OF AMENDMENTS

Offerors acknowledges receipt of amendments by indicating amendment number and its date of issue. (See "Amendments to Solicitation" Provision)

Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date

DISCOUNT FOR PROMPT PAYMENT (See "Discount for Prompt Payment" clause)	10 Calendar Days (%)	20 Calendar Days (%)	30 Calendar Days (%)	_____Calendar Days (%)

End of PAGE TWO

TABLE OF CONTENTS

SECTION_I 3
ACQUIRE SERVICES (JAN 2006) 3
MAXIMUM CONTRACT PERIOD – ESTIMATED (DHEC 2011) 3
SECTION_IIA 4
DEFINITIONS (JAN 2006) 4
AMENDMENTS TO SOLICITATION (JAN 2004) 4
AUTHORIZED AGENT – ONLY THE DHEC PROCUREMENT OFFICER (DHEC – APR 2011) 4
AWARD NOTIFICATION (DHEC-UST JUL 2012) 4
BID/PROPOSAL AS OFFER TO CONTRACT (JAN 2004) 5
BID ACCEPTANCE PERIOD (JAN 2004) 5
BID IN ENGLISH and DOLLARS (JAN 2004) 5
CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (MAY 2008) 5
CERTIFICATION REGARDING DEBARMENT AND OTHER RESPONSIBILITY MATTERS (JAN 2004) 6
CODE OF LAWS AVAILABLE (JAN 2006) 6
COMPLETION OF FORMS/CORRECTION OF ERRORS (JAN 2006) 6
DEADLINE FOR SUBMISSION OF OFFER (JAN 2004) 7
DRUG FREE WORK PLACE CERTIFICATION (JAN 2004) 7
DUTY TO INQUIRE (JAN 2006) 7
ETHICS CERTIFICATE (MAY 2008) 7
OMIT TAXES FROM PRICE (JAN 2004) 7
PUBLIC OPENING (JAN 2004) 7
PUBLIC OPENING INFORMATION (JUL 2013) 7
QUESTIONS FROM OFFERORS (JAN 2004) 8
REJECTION/CANCELLATION (JAN 2004) 8
RESPONSIVENESS/IMPROPER OFFERS (JAN 2004) 8
RESTRICTIONS APPLICABLE TO OFFERORS (JAN 2004) 9
SIGNING YOUR OFFER (JAN 2004) 9
STATE OFFICE CLOSINGS (JAN 2004) 9
SUBMITTING CONFIDENTIAL INFORMATION (AUG 2002) 9
SUBMITTING YOUR OFFER OR MODIFICATION (JAN 2004) 10
TAX CREDIT FOR SUBCONTRACTING WITH DISADVANTAGED SMALL BUSINESSES (JAN 2008) 10
TAXPAYER IDENTIFICATION NUMBER (JAN 2004) 10
VENDOR REGISTRATION MANDATORY (JAN 2006) 10
WITHDRAWAL OR CORRECTION OF OFFER (JAN 2004) 11
SECTION_IIB 11
CLARIFICATION (NOV 2007) 11
UNIT PRICES REQUIRED (JAN 2006) 11
SECTION_IIC 11
ENVIRONMENTAL REMEDIATION PROCUREMENT PROCEDURES 11
SECTION_III 12
BIDDING SCHEDULE 12
DELIVERY/PERFORMANCE LOCATION -- SPECIFIED (JAN 2006) 12
SECTION_IV 23
INFORMATION FOR OFFERORS TO SUBMIT -- GENERAL (JAN 2006) 23
MINORITY PARTICIPATION (JAN 2006) 23
SECTION_V 24
QUALIFICATION OF OFFEROR (JAN 2006) 24
SUBCONTRACTOR -- IDENTIFICATION (JAN 2006) 24
SECTION_VI 25
AWARD CRITERIA -- BIDS (JAN 2006) 25
AWARD TO ONE OFFEROR (JAN 2006) 25
CORRECTIVE ACTION COST AND COMPLETION TIME 25
REASONABLE COST 25
SECTION_VIIA 26
ASSIGNMENT (JAN 2006) 26
BANKRUPTCY (JAN 2006) 26
CHOICE-OF-LAW (JAN 2006) 26
CONTRACT DOCUMENTS and ORDER OF PRECEDENCE (JAN 2006) 26

DISCOUNT FOR PROMPT PAYMENT (JAN 2006) 26
DISPUTES (JAN 2006) 27
EQUAL OPPORTUNITY (JAN 2006) 27
FALSE CLAIMS (JAN 2006) 27
FIXED PRICING REQUIRED (JAN 2006) 27
NON-INDEMNIFICATION (JAN 2006) 27
NOTICE (JAN 2006) 27
PAYMENT & INTEREST (May 2011) 27
PUBLICITY (JAN 2006) 28
PURCHASE ORDERS (JAN 2006) 28
SETOFF (JAN 2006) 28
SURVIVAL OF OBLIGATIONS (JAN 2006) 28
TAXES (JAN 2006) 28
TERMINATION DUE TO UNAVAILABILITY OF FUNDS (JAN 2006) 28
THIRD PARTY BENEFICIARY (JAN 2006) 29
WAIVER (JAN 2006) 29
SECTION_VIIB 30
CHANGES (JAN 2006) 30
COMPLIANCE WITH LAWS (JAN 2006) 30
CONTRACTOR'S LIABILITY INSURANCE (JAN 2006) 30
CONTRACTOR PERSONNEL (JAN 2006) 31
CONTRACTOR'S OBLIGATION - GENERAL (JAN 2006) 31
DEFAULT (JAN 2006) 31
ILLEGAL IMMIGRATION (NOV 2008) 32
INDEMNIFICATION – THIRD PARTY CLAIMS (NOV 2011) 32
LICENSES AND PERMITS (JAN 2006) 33
PRICE ADJUSTMENTS (JAN 2006) 33
PRICING DATA -- AUDIT -- INSPECTION (JAN 2006) 33
RELATIONSHIP OF THE PARTIES (JAN 2006) 34
TERMINATION FOR CONVENIENCE (JAN 2006) 34
SECTION_VIIC 35
PREVENTING AND REPORTING WASTE, FRAUD AND ABUSE (DHEC 2008) 35
SECTION_VIII 35
BIDDING SCHEDULE (NOV 2007) 36
SECTION_IX 37
LIST OF ATTACHMENTS 37
NONRESIDENT TAXPAYER REGISTRATION AFFIDAVIT INCOME TAX WITHHOLDING 38
OFFEROR'S CHECKLIST 39

I. SCOPE OF SOLICITATION

This solicitation is being released pursuant to South Carolina's statutes and regulations as outlined in Title 44, Chapter 2 of the 1976 SC Code of Laws as amended. The South Carolina Department of Health and Environmental Control (Agency) oversees and manages the state's Underground Storage Tank (UST) Management Division in accordance with State Regulation 61-92, Part 280. The South Carolina State Budget and Control Board granted an exemption for the UST Management Division from the South Carolina Consolidated Procurement Code on October 24, 1995, and amended on March 4, 1996 and March 15, 2007.

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) is seeking services to perform corrective action of a petroleum release at a regulated underground storage tank site in accordance with defined corrective action goals. The objectives are to prevent significant further migration of free-phase product (FPP) and chemicals of concern (CoC), to remove FPP, and to reduce the CoC concentrations to or below site-specific target levels (SSTLs) established by the Agency. All Offerors must be South Carolina-Certified Class I Site Rehabilitation Contractors.

ACQUIRE SERVICES (JAN 2006)

The purpose of this solicitation is to acquire services complying with the enclosed description and/or specifications and conditions. [01-1010-1]

MAXIMUM CONTRACT PERIOD – ESTIMATED (DHEC 2011)

Start Date: February 4, 2014 End Date: Completion of project

Dates provided are estimates only. Any resulting contract will begin on the date specified in the statement of award. This contract will be effective until the contractor has completed the project to the satisfaction of the Agency.

II. INSTRUCTIONS TO OFFERORS -- A. GENERAL INSTRUCTIONS

DEFINITIONS (JAN 2006)

EXCEPT AS OTHERWISE PROVIDED HEREIN, THE FOLLOWING DEFINITIONS ARE APPLICABLE TO ALL PARTS OF THE SOLICITATION.

AMENDMENT means a document issued to supplement the original solicitation document.
BOARD means the South Carolina Budget & Control Board.
BUYER means the Procurement Officer.
CHANGE ORDER means any written alteration in specifications, delivery point, rate of delivery, period of performance, price, quantity, or other provisions of any contract accomplished by mutual agreement of the parties to the contract.
CONTRACT See clause entitled Contract Documents & Order of Precedence.
CONTRACT MODIFICATION means a written order signed by the Procurement Officer, directing the contractor to make changes which the changes clause of the contract authorizes the Procurement Officer to order without the consent of the contractor.
CONTRACTOR means the Offeror receiving an award as a result of this solicitation.
COVER PAGE means the top page of the original solicitation on which the solicitation is identified by number. Offerors are cautioned that Amendments may modify information provided on the Cover Page.
OFFER means the bid or proposal submitted in response this solicitation. The terms Bid and Proposal are used interchangeably with the term Offer.
OFFEROR means the single legal entity submitting the offer. The term Bidder is used interchangeably with the term Offeror. See bidding provisions entitled Signing Your Offer and Bid/Proposal As Offer To Contract.
ORDERING ENTITY Using Governmental Unit that has submitted a Purchase Order.
PAGE TWO means the second page of the original solicitation, which is labeled Page Two.
PROCUREMENT OFFICER means the person, or his successor, identified as such on the Cover Page.
YOU and YOUR means Offeror.
SOLICITATION means this document, including all its parts, attachments, and any Amendments.
STATE means the Using Governmental Unit(s) identified on the Cover Page.
SUBCONTRACTOR means any person having a contract to perform work or render service to Contractor as a part of the Contractor's agreement arising from this solicitation.
USING GOVERNMENTAL UNIT means the unit(s) of government identified as such on the Cover Page. If the Cover Page names a Statewide Term Contract as the Using Governmental Unit, the Solicitation seeks to establish a Term Contract [11-35-310(35)] open for use by all South Carolina Public Procurement Units [11-35-4610(5)].
WORK means all labor, materials, equipment and services provided or to be provided by the Contractor to fulfill the Contractor's obligations under the Contract.
[02-2A003-1]

AMENDMENTS TO SOLICITATION (JAN 2004)

(a) The Solicitation may be amended at any time prior to opening. All actual and prospective Offerors should monitor the following web site for the issuance of Amendments:www.procurement.sc.gov(b) Offerors shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date in the space provided for this purpose on Page Two, (3) by letter, or (4) by submitting a bid that indicates in some way that the bidder received the amendment. (c) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged. [02-2A005-1]

AUTHORIZED AGENT - ONLY THE DHEC PROCUREMENT OFFICER (DHEC - APR 2011)

All authority regarding the conduct of this procurement is vested **solely** with the responsible Procurement Officer. Unless specifically delegated in writing, the Procurement Officer is the **only** government official authorized to bind the government with regard to this procurement. The Procurement Officer is an employee of the South Carolina Department of Health and Environmental Control (DHEC) acting on behalf of DHEC pursuant to the South Carolina Consolidated Procurement Code.

AWARD NOTIFICATION (DHEC-UST JULY 2012)

Notice regarding any award or cancellation of award will be posted at the location specified on the Cover Page. Any

Offeror desiring to exercise a grievance may do so under Section IV of DHEC Underground Storage Tank Environmental Remediation Procedures. All correspondence should be directed to the Director of Procurement Services, Bureau of Business Management, 2600 Bull Street, Columbia, S. C. 29201. DHEC Underground Storage Tank Environmental Remediation Procedures are attached to this solicitation.

BID/PROPOSAL AS OFFER TO CONTRACT (JAN 2004)

By submitting Your Bid or Proposal, You are offering to enter into a contract with the Using Governmental Unit(s). Without further action by either party, a binding contract shall result upon final award. Any award issued will be issued to, and the contract will be formed with, the entity identified as the Offeror on the Cover Page. An Offer may be submitted by only one legal entity; "joint bids" are not allowed. [02-2A015-1]

BID ACCEPTANCE PERIOD (JAN 2004)

In order to withdraw Your Offer after the minimum period specified on the Cover Page, You must notify the Procurement Officer in writing. [02-2A020-1]

BID IN ENGLISH and DOLLARS (JAN 2004)

Offers submitted in response to this solicitation shall be in the English language and in US dollars, unless otherwise permitted by the Solicitation. [02-2A025-1]

CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (MAY 2008)

GIVING FALSE, MISLEADING, OR INCOMPLETE INFORMATION ON THIS CERTIFICATION MAY RENDER YOU SUBJECT TO PROSECUTION UNDER SECTION 16-9-10 OF THE SOUTH CAROLINA CODE OF LAWS AND OTHER APPLICABLE LAWS.

(a) By submitting an offer, the offeror certifies that-

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to-
(i) Those prices;
(ii) The intention to submit an offer; or
(iii) The methods or factors used to calculate the prices offered.

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory-

(1) Is the person in the offeror's organization responsible for determining the prices being offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to paragraphs (a)(1) through (a)(3) of this certification; or

(2)(i) Has been authorized, in writing, to act as agent for the offeror's principals in certifying that those principals have not participated, and will not participate in any action contrary to paragraphs (a)(1) through (a)(3) of this certification [As used in this subdivision (b)(2)(i), the term "principals" means the person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal];
(ii) As an authorized agent, does certify that the principals referenced in subdivision (b)(2)(i) of this certification have not participated, and will not participate, in any action contrary to paragraphs (a)(1) through (a)(3) of this certification; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to paragraphs (a)(1) through (a)(3) of this certification.

(c) If the offeror deletes or modifies paragraph (a)(2) of this certification, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure. [02-2A032-1]

CERTIFICATION REGARDING DEBARMENT AND OTHER RESPONSIBILITY MATTERS (JAN 2004)

(a) (1) By submitting an Offer, Offeror certifies, to the best of its knowledge and belief, that-

(i) Offeror and/or any of its Principals-

(A) Are not presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any state or federal agency;
(B) Have not, within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and
(C) Are not presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph (a)(1)(i)(B) of this provision.

(ii) Offeror has not, within a three-year period preceding this offer, had one or more contracts terminated for default by any public (Federal, state, or local) entity.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

(b) Offeror shall provide immediate written notice to the Procurement Officer if, at any time prior to contract award, Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) If Offeror is unable to certify the representations stated in paragraphs (a)(1), Offer must submit a written explanation regarding its inability to make the certification. The certification will be considered in connection with a review of the Offeror's responsibility. Failure of the Offeror to furnish additional information as requested by the Procurement Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly or in bad faith rendered an erroneous certification, in addition to other remedies available to the State, the Procurement Officer may terminate the contract resulting from this solicitation for default.
[02-2A035-1]

CODE OF LAWS AVAILABLE (JAN 2006)

The South Carolina Code of Laws, including the Consolidated Procurement Code, is available at:
http://www.scstatehouse.gov/code/statmast.htm. The South Carolina Regulations are available at:
http://www.scstatehouse.gov/coderegs/statmast.htm [02-2A040-1]

COMPLETION OF FORMS/CORRECTION OF ERRORS (JAN 2006)

All prices and notations should be printed in ink or typewritten. Errors should be crossed out, corrections entered and initialed by the person signing the bid. Do not modify the solicitation document itself (including bid schedule).
(Applicable only to offers submitted on paper.) [02-2A045-1]

DEADLINE FOR SUBMISSION OF OFFER (JAN 2004)

Any offer received after the Procurement Officer of the governmental body or his designee has declared that the time set for opening has arrived, shall be rejected unless the offer has been delivered to the designated purchasing office or the governmental bodies mail room which services that purchasing office prior to the bid opening. [R.19-445.2070(H)] [02-2A050-1]

DRUG FREE WORK PLACE CERTIFICATION (JAN 2004)

By submitting an Offer, Contractor certifies that, if awarded a contract, Contractor will comply with all applicable provisions of The Drug-free Workplace Act, Title 44, Chapter 107 of the South Carolina Code of Laws, as amended. [02-2A065-1]

DUTY TO INQUIRE (JAN 2006)

Offeror, by submitting an Offer, represents that it has read and understands the Solicitation and that its Offer is made in compliance with the Solicitation. Offerors are expected to examine the Solicitation thoroughly and should request an explanation of any ambiguities, discrepancies, errors, omissions, or conflicting statements in the Solicitation. Failure to do so will be at the Offeror's risk. Offeror assumes responsibility for any patent ambiguity in the Solicitation that Offeror does not bring to the State's attention. [02-2A070-1]

ETHICS CERTIFICATE (MAY 2008)

By submitting an offer, the offeror certifies that the offeror has and will comply with, and has not, and will not, induce a person to violate Title 8, Chapter 13 of the South Carolina Code of Laws, as amended (ethics act). The following statutes require special attention: Section 8-13-700, regarding use of official position for financial gain; Section 8-13-705, regarding gifts to influence action of public official; Section 8-13-720, regarding offering money for advice or assistance of public official; Sections 8-13-755 and 8-13-760, regarding restrictions on employment by former public official; Section 8-13-775, prohibiting public official with economic interests from acting on contracts; Section 8-13-790, regarding recovery of kickbacks; Section 8-13-1150, regarding statements to be filed by consultants; and Section 8-13-1342, regarding restrictions on contributions by contractor to candidate who participated in awarding of contract. The state may rescind any contract and recover all amounts expended as a result of any action taken in violation of this provision. If contractor participates, directly or indirectly, in the evaluation or award of public contracts, including without limitation, change orders or task orders regarding a public contract, contractor shall, if required by law to file such a statement, provide the statement required by Section 8-13-1150 to the procurement officer at the same time the law requires the statement to be filed. [02-2A075-2]

OMIT TAXES FROM PRICE (JAN 2004)

Do not include any sales or use taxes in Your price that the State may be required to pay. [02-2A080-1]

PUBLIC OPENING (JAN 2004)

Offers will be publicly opened at the date/time and at the location identified on the Cover Page, or last Amendment, whichever is applicable. [02-2A090-1]

PUBLIC OPENING INFORMATION - DHEC (JUL 2013)

Vendors arriving at 301 Gervais Street will notice construction in the front of the State Museum. Proceed to the left side of the building, following the signs to "Visitor Parking Garage." Park in the upper deck of the two-level parking garage.

Adjacent to the parking garage is a glass door with a SC DHEC logo. This entrance is locked at all times, so vendors must call DHEC's procurement receptionist at (803) 898-3501 in order to enter the building. An employee will open the door and escort the vendor to the 4th floor receptionist for their offers to be date/time stamped and then, if desired, escorted to the conference room (403) where the public opening will take place.

To obtain building access and have offers date/time stamped will take several minutes. The public opening date/time is identified on the Cover Page, or the last Amendment, if applicable. Please plan accordingly; opening times will not be adjusted.

QUESTIONS FROM OFFERORS (JAN 2004)

(a) Any prospective offeror desiring an explanation or interpretation of the solicitation, drawings, specifications, etc., must request it in writing. Questions must be received by the Procurement Officer no later than five (5) days prior to opening unless otherwise stated on the Cover Page. Label any communication regarding your questions with the name of the procurement officer, and the solicitation's title and number. Oral explanations or instructions will not be binding. Any information given a prospective offeror concerning a solicitation will be furnished promptly to all other prospective offerors as an Amendment to the solicitation, if that information is necessary for submitting offers or if the lack of it would be prejudicial to other prospective offerors. (b) The State seeks to permit maximum practicable competition. Offerors are urged to advise the Procurement Officer -- as soon as possible -- regarding any aspect of this procurement, including any aspect of the Solicitation, that unnecessarily or inappropriately limits full and open competition. [02-2A095-1]

All questions must be in writing and received by E. Madison Winslow no later than **January 10, 2014/2:30 pm ET**. Email is the preferred method for submitting questions with "**Questions: UST Corrective Action - UST Permits # 07584, 07777, & 12352**" as the subject of the email. Submit questions in an easily copied format such as MS Word.

E-mail: winsloem@dhec.sc.gov

If you choose not to email questions, send to the following address/fax number:

South Carolina Department of Health and Environmental Control
Division of Procurement Services
Attn: E. Madison Winslow
2600 Bull Street, Columbia, S.C. 29201
Fax: 803-898-3505

REJECTION/CANCELLATION (JAN 2004)

The State may cancel this solicitation in whole or in part. The State may reject any or all proposals in whole or in part. [SC Code Section 11-35-1710 & R.19-445.2065] [02-2A100-1]

RESPONSIVENESS/IMPROPER OFFERS (JAN 2004)

(a) Bid as Specified. Offers for supplies or services other than those specified will not be considered unless authorized by the Solicitation.

(b) Multiple Offers. Offerors may submit more than one Offer, provided that each Offer has significant differences other than price. Each separate Offer must satisfy all Solicitation requirements. If this solicitation is an Invitation for Bids, each separate offer must be submitted as a separate document. If this solicitation is a Request for Proposals, multiple offers may be submitted as one document, provided that you clearly differentiate between each offer and you submit a separate cost proposal for each offer, if applicable.

(c) Responsiveness. Any Offer which fails to conform to the material requirements of the Solicitation may be rejected as nonresponsive. Offers which impose conditions that modify material requirements of the Solicitation may be rejected. If a fixed price is required, an Offer will be rejected if the total possible cost to the State cannot be determined. Offerors will not be given an opportunity to correct any material nonconformity. Any deficiency resulting from a minor informality may be cured or waived at the sole discretion of the Procurement Officer. [R.19-445.2070 and Section 11-35-1520(13)]

(d) Price Reasonableness: Any offer may be rejected if the Procurement Officer determines in writing that it is unreasonable as to price. [R. 19-445.2070].

(e) Unbalanced Bidding. The State may reject an Offer as nonresponsive if the prices bid are materially unbalanced between line items or subline items. A bid is materially unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated in relation to cost for other work, and if there is a reasonable doubt that the bid will result in the lowest overall cost to the State even though it may be the low evaluated bid, or if it is so

unbalanced as to be tantamount to allowing an advance payment.
[02-2A105-1]

RESTRICTIONS APPLICABLE TO OFFERORS (JAN 2004)

Violation of these restrictions may result in disqualification of your offer, suspension or debarment, and may constitute a violation of the state Ethics Act. (a) After issuance of the solicitation, ***you agree not to discuss this procurement activity in any way with the Using Governmental Unit or its employees, agents or officials*** All communications must be solely with the Procurement Officer. This restriction may be lifted by express written permission from the Procurement Officer. This restriction expires once a contract has been formed. (b) Unless otherwise approved in writing by the Procurement Officer, ***you agree not to give anything to any Using Governmental Unit or its employees, agents or officials prior to award.*** [02-2A110-1]

SIGNING YOUR OFFER (JAN 2004)

Every Offer must be signed by an individual with actual authority to bind the Offeror. (a) If the Offeror is an individual, the Offer must be signed by that individual. If the Offeror is an individual doing business as a firm, the Offer must be submitted in the firm name, signed by the individual, and state that the individual is doing business as a firm. (b) If the Offeror is a partnership, the Offer must be submitted in the partnership name, followed by the words by its Partner, and signed by a general partner. (c) If the Offeror is a corporation, the Offer must be submitted in the corporate name, followed by the signature and title of the person authorized to sign. (d) An Offer may be submitted by a joint venturer involving any combination of individuals, partnerships, or corporations. If the Offeror is a joint venture, the Offer must be submitted in the name of the Joint Venture and signed by every participant in the joint venture in the manner prescribed in paragraphs (a) through (c) above for each type of participant. (e) If an Offer is signed by an agent, other than as stated in subparagraphs (a) through (d) above, the Offer must state that is has been signed by an Agent. Upon request, Offeror must provide proof of the agent's authorization to bind the principal. [02-2A115-1]

STATE OFFICE CLOSINGS (JAN 2004)

If an emergency or unanticipated event interrupts normal government processes so that offers cannot be received at the government office designated for receipt of bids by the exact time specified in the solicitation, the time specified for receipt of offers will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal government processes resume. In lieu of an automatic extension, an Amendment may be issued to reschedule bid opening. If state offices are closed at the time a pre-bid or pre-proposal conference is scheduled, an Amendment will be issued to reschedule the conference. Useful information may be available at:
http://www.scemd.org/scgovweb/weather_alert.html [02-2A120-1]

SUBMITTING CONFIDENTIAL INFORMATION (AUG 2002)

(An overview is available at www.procurement.sc.gov) For every document Offeror submits in response to or with regard to this solicitation or request, Offeror must separately mark with the word "CONFIDENTIAL" every page, or portion thereof, that Offeror contends contains information that is exempt from public disclosure because it is either (a) a trade secret as defined in Section 30-4-40(a)(1), or (b) privileged and confidential, as that phrase is used in Section 11-35-410. For every document Offeror submits in response to or with regard to this solicitation or request, Offeror must separately mark with the words "TRADE SECRET" every page, or portion thereof, that Offeror contends contains a trade secret as that term is defined by Section 39-8-20 of the Trade Secrets Act. For every document Offeror submits in response to or with regard to this solicitation or request, Offeror must separately mark with the word "PROTECTED" every page, or portion thereof, that Offeror contends is protected by Section 11-35-1810. All markings must be conspicuous; use color, bold, underlining, or some other method in order to conspicuously distinguish the mark from the other text. Do not mark your entire response (bid, proposal, quote, etc.) as confidential, trade secret, or protected. If your response, or any part thereof, is improperly marked as confidential or trade secret or protected, the State may, in its sole discretion, determine it nonresponsive. If only portions of a page are subject to some protection, do not mark the entire page. By submitting a response to this solicitation or request, Offeror (1) agrees to the public disclosure of every page of every document regarding this solicitation or request that was submitted at any time prior to entering into a contract (including, but not limited to, documents contained in a response, documents submitted to clarify a response, and documents submitted during negotiations), unless the page is conspicuously marked "TRADE SECRET" or "CONFIDENTIAL" or "PROTECTED", (2) agrees that any information not marked, as required by these bidding instructions, as a "Trade Secret" is not a trade secret as defined by the Trade Secrets Act, and (3) agrees that, notwithstanding any claims or markings otherwise, any prices,

commissions, discounts, or other financial figures used to determine the award, as well as the final contract amount, are subject to public disclosure. In determining whether to release documents, the State will detrimentally rely on Offeror's marking of documents, as required by these bidding instructions, as being either "Confidential" or "Trade Secret" or "PROTECTED". By submitting a response, Offeror agrees to defend, indemnify and hold harmless the State of South Carolina, its officers and employees, from every claim, demand, loss, expense, cost, damage or injury, including attorney's fees, arising out of or resulting from the State withholding information that Offeror marked as "confidential" or "trade secret" or "PROTECTED". (All references to S.C. Code of Laws.) [02-2A125-1]

SUBMITTING YOUR OFFER OR MODIFICATION (JAN 2004)

(a) Offers and offer modifications shall be submitted in sealed envelopes or packages (unless submitted by electronic means) - (1) Addressed to the office specified in the Solicitation; and (2) Showing the time and date specified for opening, the solicitation number, and the name and address of the bidder. (b) If you are responding to more than one solicitation, each offer must be submitted in a different envelope or package. (c) Each Offeror must submit the number of copies indicated on the Cover Page. (d) Offerors using commercial carrier services shall ensure that the Offer is addressed and marked on the outermost envelope or wrapper as prescribed in paragraphs (a)(1) and (2) of this provision when delivered to the office specified in the Solicitation. (e) Facsimile or e-mail offers, modifications, or withdrawals, will not be considered unless authorized by the Solicitation. (f) Offers submitted by electronic commerce shall be considered only if the electronic commerce method was specifically stipulated or permitted by the solicitation. [02-2A130-1]

TAX CREDIT FOR SUBCONTRACTING WITH DISADVANTAGED SMALL BUSINESSES (JAN 2008)

Pursuant to Section 12-6-3350, a taxpayer having a contract with this State who subcontracts with a socially and economically disadvantaged small business is eligible for an income tax credit equal to four percent of the payments to that subcontractor for work pursuant to the contract. The subcontractor must be certified as a socially and economically disadvantaged small business as defined in Section 11-35-5010 and regulations pursuant to it. The credit is limited to a maximum of fifty thousand dollars annually. A taxpayer is eligible to claim the credit for ten consecutive taxable years beginning with the taxable year in which the first payment is made to the subcontractor that qualifies for the credit. After the above ten consecutive taxable years, the taxpayer is no longer eligible for the credit. A taxpayer claiming the credit shall maintain evidence of work performed for the contract by the subcontractor. The credit may be claimed on Form TC-2, "Minority Business Credit." A copy of the subcontractor's certificate from the Governor's Office of Small and Minority Business (OSMBA) is to be attached to the contractor's income tax return. Questions regarding the tax credit and how to file are to be referred to: SC Department of Revenue, Research and Review, Phone: (803) 898-5786, Fax: (803) 898-5888. Questions regarding subcontractor certification are to be referred to: Governor's Office of Small and Minority Business Assistance, Phone: (803) 734-0657, Fax: (803) 734-2498. [02-2A135-1]

TAXPAYER IDENTIFICATION NUMBER (JAN 2004)

(a) If Offeror is owned or controlled by a common parent as defined in paragraph (b) of this provision, Offeror shall submit with its Offer the name and TIN of common parent.
(b) Definitions: "Common parent," as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.
"Taxpayer Identification Number (TIN)," as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.
(c) If Offeror does not have a TIN, Offeror shall indicate if either a TIN has been applied for or a TIN is not required. If a TIN is not required, indicate whether (i) Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States; (ii) Offeror is an agency or instrumentality of a state or local government; (iii) Offeror is an agency or instrumentality of a foreign government; or (iv) Offeror is an agency or instrumentality of the Federal Government. [02-2A140-1]

VENDOR REGISTRATION MANDATORY (JAN 2006)

You must have a state vendor number to be eligible to submit an offer. To obtain a state vendor number, visit www.procurement.sc.gov and select New Vendor Registration. (To determine if your business is already registered, go to "Vendor Search"). Upon registration, you will be assigned a state vendor number. Vendors must keep their vendor information current. If you are already registered, you can update your information by selecting Change Vendor

Registration. (Please note that vendor registration does not substitute for any obligation to register with the S.C. Secretary of State or S.C. Department of Revenue. You can register with the agencies at http://www.scbos.com/default.htm) [02-2A145-1]

WITHDRAWAL OR CORRECTION OF OFFER (JAN 2004)

Offers may be withdrawn by written notice received at any time before the exact time set for opening. If the Solicitation authorizes facsimile offers, offers may be withdrawn via facsimile received at any time before the exact time set for opening. A bid may be withdrawn in person by a bidder or its authorized representative if, before the exact time set for opening, the identity of the person requesting withdrawal is established and the person signs a receipt for the bid. The withdrawal and correction of Offers is governed by S.C. Code Section 11-35-1520 and Regulation 19-445.2085. [02-2A150-1]

II. INSTRUCTIONS TO OFFERORS -- B. SPECIAL INSTRUCTIONS

CLARIFICATION (NOV 2007)

Pursuant to Section 11-35-1520(8), the Procurement Officer may elect to communicate with you after opening for the purpose of clarifying either your offer or the requirements of the solicitation. Such communications may be conducted only with offerors who have submitted an offer which obviously conforms in all material aspects to the solicitation. Clarification of an offer must be documented in writing and included with the offer. Clarifications may not be used to revise an offer or the solicitation. [Section 11-35-1520(8); R.19-445.2080] [02-2B055-1]

UNIT PRICES REQUIRED (JAN 2006)

Unit price to be shown for each item. [02-2B170-1]

II. INSTRUCTIONS TO OFFERORS -- C. SPECIAL INSTRUCTIONS

ENVIRONMENTAL REMEDIATION PROCUREMENT PROCEDURES

Attached to this solicitation are the applicable processes adopted by DHEC and approved by the South Carolina Office of the State Engineer for DHEC's Environmental Remediation Procurement Procedures.

III. SCOPE OF WORK/SPECIFICATIONS

BIDDING SCHEDULE

See Bidding Schedule (Solicitation Item VIII) [03-3005-1]

DELIVERY/PERFORMANCE LOCATION -- SPECIFIED (JAN 2006)

After award, all deliveries shall be made and all services provided to the following addresses, unless otherwise specified:
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
UST Permit # 07777 & UST Permit # 12352, Cloud's Chevron, 1600 Two Notch Rd., Columbia, SC
[03-3030-1]

3.1 DEFINITIONS

For the purposes of this contract the following terms and definitions shall apply:

A. Area of Concern: the horizontal and vertical area in which concentrations of petroleum chemicals of concern have been quantified and/or can be relatively determined by actual data and subsequent interpretation using accepted scientific principles.

B. Catastrophic Occurrence: An event (e.g., hurricane) that results in a declared state of emergency and directly and substantially affects the Contractor's operations at a site.

C. Chemicals of Concern (CoC): Specific petroleum constituents that are identified for monitoring and corrective action.

D. Corrective Action Completion Time: The time in months, submitted by the Contractor, necessary to reduce CoC concentrations to or below site-specific target levels (SSTLs), verify attainment of corrective action goals, and remove and/or properly abandon assessment and corrective action components (wells, treatment lines, etc.). All activities must be completed within five years of the date of financial award unless otherwise approved in writing by the Agency.

E. Corrective Action Cost: The total amount established via the procurement process to complete the scope of work/specifications detailed in the solicitation.

F. Corrective Action Plan (CAP): A document submitted by the Contractor that outlines and details proposed corrective action(s) and contains a timetable consistent with the Corrective Action Completion Time.

G. Corrective Action Plan Implementation Date: The date on which the Contractor initiates corrective action (i.e., physical treatment activities such excavation, extraction, injection, etc.) under the approved Corrective Action Plan. The date must be within 30 days of receipt of a Notice to Proceed issued by the Agency.

H. Day: For the purpose of this solicitation, any reference to day(s) will be intended as calendar day(s) and not business day(s).

I. Free-Phase Product (FPP): Petroleum lighter than water non-aqueous phase liquid (LNAPL) identified for monitoring and corrective action.

J. Liquidated Damages: Costs over and above the pre-approved amount that are incurred by the Agency in order to complete the corrective action as specified in this document in the event of a breach of contract by the Contractor resulting in termination of the contract.

K. QAPP: UST Management Division Quality Assurance Program Plan

L. Site Incentive Period: The period of time in months established by the Agency during which the Contractor must achieve the corrective action goals (see Solicitation Item III 3.4 B 3) in order to qualify for the Early Completion Incentive.

3.2 SCHEDULE OF DELIVERABLES

The following table summarizes the deadlines for deliverables associated with this contract:

DELIVERABLE DUE	DEADLINE
Questions	By January 10, 2014/2:30 pm ET
Invitation for Bids	By January 28, 2014/2:30 pm ET
QAPP Contractor Addendum for Initial Monitoring Report	15 days from issue of Purchase Order
Corrective Action Plan and QAPP Contractor Addendum for Corrective Action	30 days from issue of Purchase Order
Initial Monitoring Report	45 days from approval of QAPP Contractor Addendum for Initial Monitoring Report
CAP Implementation	30 days from Notice to Proceed
CAP Implementation Report	60 days from Notice to Proceed
Notify Project Manager of Sampling	At least 2 weeks prior to sampling event
Corrective Action System Evaluation Report	Semi-annually with initial report due within 90 days of the CAP Implementation Report or other schedule approved by the Agency
Update QAPP Contractor Addendum for Corrective Action	First quarter of each year or as needed until completion of corrective action
Abandon and/or Remove Assessment and Corrective Action Equipment and Components	Within 60 days from notice by the Agency

3.3 SITE-SPECIFIC INFORMATION

The scope of work defined in this solicitation is to be implemented at UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC and UST Permit # 07777 & UST Permit # 12352, Cloud's Chevron, 1600 Two Notch Rd., Columbia, SC for the releases reported on January 30, 1991, April 17, 1998, December 31, 1991, and December 30, 1991. A copy of the technical files will be available on-line at http://www.scdhec.gov/environment/lwm/usthome/OpenBids.htm until the initial Corrective Action Plan is approved. The technical files may also be reviewed at the Freedom of Information (FOI) Office located at the Sims/Aycock Building, 2600 Bull Street, Columbia, SC (803-898-3882).

3.4 CONTRACTUAL REQUIREMENTS

A. GENERAL REQUIREMENTS

1. SITE WORK VERIFICATION: The Contractor will be required to treat the area of concern as defined in Solicitation Item III 3.1 A and as shown in the Appendix (Figures 3A-3C). Verification that FPP removal and interim corrective action goals have been achieved will be based upon gauging/sampling results from the site-

specific target level (SSTL) wells and sampling points listed in the Appendix, and all injection and/or extraction wells installed as part of the corrective action. Verification that the final corrective action goal has been achieved will be based upon sampling results from all wells and sampling points listed in the Appendix and all verification wells to be installed at locations and depths designated by the Agency (see Solicitation Item III 3.5 B 11 for more details). It is understood that seasonal fluctuations in FPP thicknesses and CoC concentrations will occur. It is the intent of this corrective action to prevent further degradation of the aquifer(s) by continued migration of FPP and/or CoC into areas not previously impacted. If the corrective action allows FPP and/or CoC to migrate into areas not previously impacted, the Contractor will be responsible for completing assessment activities necessary to re-define the impacted areas without further compensation and for providing amendments to their Corrective Action Plan (CAP) to address the additional impact.

2. REPORTS: Reports are to be submitted to the Agency on, or prior to, established due dates unless otherwise approved in writing by the Agency. Deliver one paper copy and one electronic copy of each plan or report to: SCDHEC, Bureau of Land and Waste Management, UST Management Division, 2600 Bull Street, Columbia, SC 29201. The electronic copy should be submitted on compact disc (CD) in Personal Data Format (PDF). All data tables should be in MS Excel or comparable format. A copy of each plan or report must be delivered to each party on the Distribution List included in the Appendix. The distribution copies may be paper or electronic as agreed upon by the party and the Contractor. Based upon permitting and other requirements, additional copies of plans or reports may be required by the Agency. For such instances, the Agency will notify the Contractor in writing of the exact number of copies of each document to be submitted.

3. INVOICING: Invoices will be submitted to: SCDHEC, Bureau of Land and Waste Management, UST Management Division, ATTN: Financial Section, 2600 Bull Street, Columbia, SC 29201, using the Corrective Action (CA) Invoice form provided by the Agency. The initial invoice must be received at the above address within 4 months of CAP approval or funds will be uncommitted as required by the Section 44-2-40(B) of the SUPERB Act. If funds are uncommitted, the submitted invoice will be held until funding is available. **Payment will only be made for achieving corrective action goals as specified below. No partial payments will be made, except as outlined in Solicitation Item III 3.5 B 4.** No payments will be made if there are any outstanding reports associated with this solicitation. Payment to the Contractor will be on a pay-for-performance basis as follows:

   a. Payment of 40% of the total Corrective Action Cost will be made within 90 days following receipt of an invoice and documentation that the Contractor has completed the Corrective Action Plan Implementation. All corrective action activities must be as described in the CAP and are subject to the limitations of Section 44-2-40 of the SUPERB Act. The implementation should be documented in the Corrective Action Plan Implementation Report. The Corrective Action Plan Implementation Report must include the construction logs for all injection and/or extraction wells installed in accordance with the CAP.

   b. Payment of 30% of the total Corrective Action Cost will be made based on achieving FPP removal, interim CoC concentration reduction goals, and a final CoC concentration reduction goal as verified in the SSTL wells and sampling points listed in the Appendix, in all injection and/or extraction wells, and in all verification wells. Payments will be made upon receipt of invoices and documentation that the Contractor has achieved FPP removal, and interim and final goals of 60%, 90%, and 100% reduction of total CoC concentration above the SSTLs **by the implementation of corrective action**. CoC concentrations and SSTLs are listed in the Appendix.

      1) FPP removal will be achieved when the FPP thickness does not exceed 0.01' in all SSTL wells and sampling points listed in the Appendix, and in all verification and/ or extraction wells. Payment of 10% of the total Corrective Action Cost will be made upon verification (see Solicitation Item III 3.5 B 11 for the method of verification) that measurable (>0.01') FPP has been removed. **Achievement of FPP removal must be verified by gauging conducted by the Agency**.

      2) The first interim concentration reduction goal will be achieved when 60% of the total CoC concentration above SSTLs in the SSTL wells and sampling points listed in the Appendix is removed. The formula listed in the site rehabilitation section of the QAPP will be used to calculate the percent total concentration reduction. Payment of 10% of the total Corrective Action Cost will be made upon confirmation by CASE report or upon verification (see Solicitation Item III 3.5 B 11 for the method of verification) that at least 60% of the total CoC concentration above SSTLs has been removed.

2) The second interim concentration reduction goal will be achieved when 90% of the total CoC concentration above SSTLs in the SSTL wells and sampling points listed in the Appendix is removed. The formula listed in the site rehabilitation section of the QAPP will be used to calculate the percent total concentration reduction. Payment of 5% of the total Corrective Action Cost will be made upon verification (see Solicitation Item III 3.5 B 11 for the method of verification) that at least 90% of the total CoC concentration above SSTLs has been removed. **Achievement of this interim goal must be verified by split sampling conducted with the Agency.**

3) The final concentration reduction goal will be achieved when 100% of the total CoC concentration above SSTLs in the SSTL wells and sampling points listed in the Appendix is removed. The formula listed in the site rehabilitation section of the QAPP will be used to calculate the percent total concentration reduction. Payment of 5% of the total Corrective Action Cost will be made upon verification (see Solicitation Item III 3.5 B 11 for the method of verification) that 100% of the total CoC concentration above SSTLs has been removed. **The 100% payment milestone must be verified following two consecutive quarters with <u>all</u> corrective action activities completely ceased prior to payment eligibility. Achievement of this goal must be verified by split sampling conducted with the Agency (to be completed during the 2nd 100% verification quarter).** CoC concentrations must not exceed SSTLs in all wells and sampling points listed in the Appendix, in all verification wells, and at any point in the area of concern.

c. The final 30% of the total Corrective Action Cost will be paid upon receipt of an invoice and verification that all assessment and corrective action components (e.g., piping, wells, trenches, etc.) have been removed from the site or properly abandoned (see Solicitation Item III 3.5 B 11-14 for more details), and the facility and associated adjacent properties have been restored to the condition that existed prior to assessment and corrective action (Solicitation Item 3.5 B 13). If 100% CoC concentration reduction is not achieved, the final payment may be reduced accordingly (e.g., 98% paid for 98% final reduction) as mutually agreed upon by the Agency and the Contractor.

4. NOTIFICATION FOR FAILURE TO PERFORM: If the Contractor fails during the course of this contract to make reasonable progress toward the cleanup goals in accordance with the Corrective Action Completion Time as included in the corrective action plan, or fails to meet any requirement or specification of corrective action as outlined in this document without prior notification to the Agency of circumstances legitimately beyond their control, the Agency will, on the first occurrence, notify the Contractor by certified letter and meet with them to establish a timetable and remedy for the deficiency (ies). If the Contractor corrects the deficiency (ies) within the agreed to period of time, the contract award will continue. If the Contractor does not correct the deficiency (ies) in a satisfactory manner as specified by the Agency within the agreed to period of time, the Contractor will be in breach of contract and the contract award may be voided by the Agency. On a second occurrence of a deficiency, the Agency will notify the Contractor by certified letter and meet with them to establish a timetable and remedy for any deficiency (ies). If the Contractor corrects the deficiency (ies) within the agreed to period of time, the contract award will continue. If the Contractor does not correct the deficiency (ies) within the agreed period of time to the satisfaction of the Agency, the Contractor will be in breach of contract and the contract award may be voided by the Agency. **If the Contractor fails on a third occasion during the course of this contract to meet any requirement or specification established in this document, the Contractor will be in breach of contract and the contract award will be voided by the Agency.** The Agency will notify the Contractor by certified letter that the contract award has been voided and will initiate appropriate actions in accordance with Solicitation Item III 3.4 A 6. **In the event that the contract award is voided due to a breach of contract as outlined above, no further payment of any invoices will be made and the Contractor will incur a one-year suspension from bidding on any UST-related solicitations in South Carolina and may be subject to suspension or decertification in accordance with the SUPERB Site Rehabilitation and Fund Access Regulations, R.61-98.**

5. CANCELLATION: **The accepted Corrective Action Cost will be final and will not be increased or cancelled for any reason (e.g., unanticipated iron fouling of a system, wells clogging because of biological activity or sediments, damage by lightning, increased subcontractor costs, loss of utilities, modification to the system to meet the remediation goals, etc.) with the exception of: 1) unforeseen subsurface conditions as determined solely at the discretion of the Agency; and 2) identification of additional FPP or CoC from a confirmed release that occurs after the award of this contract and that adversely impacts the corrective action as determined by the Agency. Payment will only be made for achieving the corrective action goals as specified in this document. No interim or partial payments will be made, except as outlined in Solicitation Item III 3.5 B 4. Once corrective action has been initiated under this contract and in the event of a cancellation due to any of the conditions described in this**

contract Item, final payment, if appropriate, will be a percentage of the Corrective Action Cost. The percentage will be equal to actual percent total CoC concentration reduction based upon the last sampling results, as verified by the Agency, from all wells and sampling points listed in the Appendix and all verification wells, less the amount previously paid. Contractor-owned items used on-site for the corrective action that are damaged or destroyed by common acts of nature, improper maintenance or handling, theft or vandalism will not be replaced or reimbursed by the SUPERB Account. The Contractor cannot delay progress or suspend corrective action activities at the site based upon a claim of a suspected new petroleum release from the UST system. Unless directed otherwise by the Agency, the Contractor must continue to perform corrective action activities under this contract during any period of time during which a new petroleum release from the UST system is being investigated. The Contractor must clearly demonstrate sufficient evidence of the release in the form of analytical test results or other demonstrative evidence to the Agency. The determination that a new petroleum release from the UST system has occurred that post-dates the contract award, and that adversely impacts corrective action at the site, is the sole discretion of the Agency.

6. LIQUIDATED DAMAGES: In the event that the contract award is voided for cause as outlined in Solicitation Item III 3.4 A 4, the Contractor will be required to pay liquidated damages equal to the costs that are incurred by the Agency over and above the Corrective Action Cost in order to complete the corrective action as specified in this contract. The amount of liquidated damages will be computed by subtracting the unpaid balance of the Corrective Action Cost from the completion cost of the corrective action as determined by re-bid of the corrective action contract. The Contractor will be notified by certified mail of the amount of liquidated damages within 15 business days following opening of the re-bid. The Contractor will have 60 days from the date of notification to make payment of the amount. In the event that the Contractor is unable or unwilling to pay the liquidated damages, the Agency will initiate decertification of the Contractor in accordance with Section V A 4 of the SUPERB Site Rehabilitation and Fund Access Regulations, R.61-98, and may initiate legal action to secure payment of the damages.

B. SPECIFIC REQUIREMENTS

1. CONTRACT SCOPE: This contract is for corrective action at two sites (three UST Permits) in South Carolina.

2. INQUIRIES: A copy of the technical files will be available on-line at http://www.scdhec.gov/environment/lwm/usthome/OpenBids.htm until the initial Corrective Action Plan is approved. The technical files may also be reviewed at the Freedom of Information (FOI) Office located at the Sims/Aycock Building, 2600 Bull Street, Columbia, SC (803-898-3882). Questions or requests for information must be submitted in writing and received by 2:30 P.M. on the date specified in Solicitation Item III 3.2. After this date, no further questions will be addressed. A written response will be provided to all requestors of the solicitation. The questions may be faxed to E. Madison Winslow in the Bureau of Business Management at 803- 898-3505.

3. PROVISION FOR EARLY COMPLETION INCENTIVE: The Agency will pay the Contractor an incentive of 10% of the Corrective Action Cost for early completion, subject to the conditions set forth in this provision. Payment will be made if the corrective action goals have been met in accordance with the terms of this contract prior to the end of the Site Incentive Period, as established by the Agency, and verified in accordance with Solicitation Item III 3.5 B 11.

   The Site Incentive Period will commence on the Corrective Action Plan Implementation Date. A month starts at 12:00 Midnight on the Corrective Action Plan Implementation Date and ends at Midnight preceding the same day of the following month. Months will be consecutively counted from the Corrective Action Plan Implementation Date. Following implementation, the Agency will provide the Contractor notice in writing of the closing date of the Site Incentive Period.

   The Site Incentive Period will not be adjusted for any reason, cause or circumstance whatsoever, regardless of fault, save and except: 1) in the instance of a catastrophic occurrence (e.g., hurricane) that results in a declared state of emergency and that directly and substantially affects the Contractor's operations at a site and results in unavoidable delay of the corrective action, or 2) an unforeseen condition that could not have been anticipated following financial award to which the Agency has been notified in writing by the Contractor and as the Agency has approved in writing. In the event of a catastrophic occurrence or unforeseen condition on a specific site, shall determine the number of months reasonably necessary to extend the Site Incentive Period

due solely to such catastrophic occurrence. Any amendments to the Site Incentive Period will be provided to the Contractor in writing.

The parties anticipate that routine delays may be caused by or arise from any number of events during the course of corrective action, including, but not limited to, work performed, work deleted, supplemental agreements, delays, disruptions, differing site conditions, utility conflicts, design changes or defects, extra work, right-of-way issues, permitting issues, actions of suppliers, subcontractors, or other Contractors, actions by third parties, revision of the work scope by the Contractor, weather, weekends, holidays, suspensions of the Contractor's operations, or any other such events, forces or factors experienced in environmental work. Such delays or events, and their potential impacts on performance by the Contractor are specifically contemplated and acknowledged by the Contractor upon entering into this contract, and shall not affect the Site Incentive Period or incentives set forth in this contract item. Further, any and all costs or impacts whatsoever incurred by the Contractor to complete corrective action within the Site Incentive Period, whether successful or not, shall be the sole responsibility of the Contractor in every instance.

The Contractor shall have no rights under the contract to make any claim arising out of this incentive provision except as is expressly set forth in this provision.

The Site Incentive Period for UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC and UST Permit # 07777 & UST Permit # 12352, Cloud's Chevron, 1600 Two Notch Rd., Columbia, SC is 36 months.

4. SITE-SPECIFIC DETAILS: A brief technical summary, including maps and data tables, is attached in the Appendix. A copy of the technical files will be available on-line at http://www.scdhec.gov/environment/lwm/usthome/OpenBids.htm until the initial Corrective Action Plan is approved. The technical files may also be reviewed at the Freedom of Information (FOI) Office located at the Sims/Aycock Building, 2600 Bull Street, Columbia, SC. Appointment(s) to view the technical files may be scheduled on weekdays between the hours of 8:30 A.M. to 5:00 P.M. by calling FOI at 803-898-3882. **Offerors are strongly encouraged to review the file(s) to ensure a complete understanding of corrective action requirements. The successful Offeror will be responsible for all information in the technical file(s).**

3.5 CORRECTIVE ACTION SPECIFICATIONS

A. GENERAL SPECIFICATIONS

1. SUBMITTALS: All Offerors must submit a completed Corrective Action Solicitation Response form (Solicitation Item VIII). The response outlines in general terms the Offeror's approach to achieve the corrective action goals.

2. MINIMUM REQUIREMENTS: Corrective action will be considered complete when: 1) the CoC concentrations are verified to be at or below SSTLs in all wells and sampling points listed in the Appendix, in all verification wells, and at any point in the area of concern for **two consecutive quarters**; 2) all assessment and corrective action components (e.g., piping, wells, trenches, etc.) have been removed from the sites or are properly abandoned; and 3) the facilities and associated adjacent properties have been restored to the condition that existed prior to assessment and corrective action in accordance with Solicitation Item 3.5 B 13. See Solicitation Item III 3.5 B 11 for the method of verification. Per R.61-98, all site rehabilitation activities associated with a UST release must be performed by an SCDHEC-certified Class I Site Rehabilitation Contractor. The Contractor will be required to adhere to all applicable portions of the QAPP. See http://www.scdhec.gov/environment/lwm/usthome/Qapp.htm and follow the link for UST Quality Assurance Program Plan for the most up-to-date version. All corrective action plans and reports must be sealed by a Professional Engineer or Professional Geologist registered in the State of South Carolina. All engineering reports, drawings and plans must be sealed by a Professional Engineer registered in the State of South Carolina. All laboratory analysis for CoC must be performed by an SC-certified laboratory. All monitoring, verification, injection and/or extraction wells must be installed and abandoned by an SC-certified well driller. All applicable certification, training, permits, applications, and fees associated with well installation; injection, discharge, treatment, or transportation of groundwater, air, or soil; construction or operation of a corrective action system; and any other action requiring a permit are the responsibility of the Contractor. Any required business or occupation licenses and occupational safety and health training (e.g. OSHA) as defined by the laws and regulations of the United States of America, the State of South Carolina, the county, or city are also the responsibility of the Contractor. The terms and conditions of all applicable permits will be met.

Any contaminated soil and construction debris, contaminated water, and FPP must be properly transported and disposed of, or treated at, an approved facility with prior approval from the Agency. Any costs for utilities construction and service (electric, telephone, sewer, etc.) required by the corrective action are the responsibility of the Contractor.

B. PERFORMANCE REQUIREMENTS

1. QAPP CONTRACTOR ADDENDA: The Contractor must submit a QAPP Contactor Addendum for the Initial Monitoring Report **within 15 days** from issue of the Purchase Order by the Bureau of Business Management. The Addendum for the Initial Monitoring Report must be approved by the Agency prior to initiation of work at the sites. A QAPP Contractor Addendum for corrective action must be submitted with the Corrective Action Plan (CAP). The Addendum for corrective action must be updated during the first quarter of each calendar year or as needed until completion of corrective action.

2. CORRECTIVE ACTION PLAN: The Contractor must complete and submit a detailed Corrective Action Plan (CAP) and QAPP Contractor Addendum for corrective action within 30 days from issue of the Purchase Order by the Bureau of Business Management. Copies of the CAP must be distributed in accordance with Solicitation Item III 3.4 A 2. The CAP must define the method(s) and technology(ies) proposed to achieve corrective action goals in a manner that is consistent with the Corrective Action Completion Time submitted by the Contractor. **The corrective action method(s) or technology(ies) will be designed to prevent vapors from entering onsite or adjacent structures.** It must be shown, by use of scientific models, computations, or discussion, how FPP will be removed and CoC concentrations will be reduced by each method and technology proposed. Any assumptions used in a model will be listed or shown, as well as appropriate references. **The use of monitoring well(s) for injection, extraction, or FPP recovery purposes is not allowed.** Accordingly, the CAP may propose installation of additional injection, extraction, or compliance wells. General construction details will be included in the CAP (e.g., install 4 extraction wells, install 8 injection wells, excavate 3,000 cubic yards of impacted soils, etc.) as well as details of assessment and corrective action component abandonment and removal.

   A corrective action timetable that includes demobilization and site restoration (Solicitation Items III 3.5 B 11-14) will be provided by the Contractor. As corrective action is required to be completed within 5 years from CAP implementation, the submitted timetable shall not exceed 5 years in any case. The timetable shall itemize when the Contractor expects to meet the FPP removal, 60%, 90%, and 100% interim payment milestones. During corrective action, this timetable may be adjusted (as approved in writing by the Agency) if circumstances beyond the control of the Contractor arise. If the Contractor fails to meet the interim goals in the proposed time frames, a remedy will be sought through the procedures outlined in Solicitation Item III 3.4 A 4.

   The Agency will review the CAP or CAP addendum, as appropriate, and initiate a public notice period for a maximum of 30 days. The names and addresses of the owners of all impacted properties and all properties located adjacent to the impacted properties are provided in the Appendix. The Contractor may be required to attend and provide input at one or more public meetings upon request by the Agency. Any CAP amendments and modifications resulting from the public notice must be submitted within 15 days of notification by the Agency. The CAP and any amendments or modifications must be sealed by a qualified Professional Geologist or Engineer registered in the State of South Carolina. The Contractor shall consult with the UST Owner/Operator and any other affected property owners regarding the location of the corrective action system and obtain written approval from them prior to implementation. Copies of the approval(s) should be included in the CAP Implementation Report. Any aboveground part of the system that is to remain on-site for longer than 30 contiguous days must be secured within a fenced area or building.

3. PERMIT APPLICATIONS: The Contractor must complete and submit all applications for permits (injection, NPDES, BAQC modeling form, thermal treatment, construction, etc.) with the CAP. All submitted applications must comply with the requirements of the respective permitting program. Any required permit changes or corrections will be submitted within 15 days of notification by the Agency.

4. INITIAL MONITORING REPORT: Prior to Corrective Action Plan implementation, the Contractor must submit an initial monitoring report to the Agency documenting FPP thicknesses, CoC concentrations, and potentiometric conditions in all wells and sampling points listed in the Appendix. The report will be due **within 45 days** after QAPP Contractor Addendum approval. The report should include color photographs

with date stamp of the facility/site and surrounding properties to provide documentation of the condition of the facility/site prior to implementation of any corrective action activities. Copies of the initial monitoring report must be distributed in accordance with Solicitation Item III 3.4 A 2.

Naturally occurring conditions may cause FPP thicknesses and CoC concentrations to increase or decrease. For the purpose of this solicitation, the total FPP thickness or CoC concentration for all wells and sampling points listed in the Appendix may reasonably increase up to 150% or decrease as much as 50%. If the total FPP thickness or CoC concentration in all wells and sampling points listed in the Appendix increases more than 150% or decreases by more than 50% based on initial sampling, or if measurable (>0.01') FPP that has not been previously documented in any report is detected during the initial sampling event, the Contractor may request in writing that the contract award be canceled. **If any of these conditions is identified during initial gauging and sampling, the Contractor will notify the Agency within 2 days of identification and will submit written documentation within 5 days of notification.** The Contractor will be reimbursed based on the following rate schedule:

Subcontractor costs*	Invoice + 15%
Personnel mobilization	$125.00
Equipment mobilization	$250.00
Groundwater sample collection	$35.00 per well
Gauging FPP	$20.00 per well
Contaminated water disposal	$.80 per gallon
CAP preparation and associated costs	$6,000.00
QAPP Contractor Addendum preparation	$525.00

* Includes laboratory analysis, drilling, electrical, etc.

If the total FPP thickness or CoC concentration in all wells and sampling points listed in the Appendix decreases more than 50% based on initial sampling, the Agency may cancel the contract award. The Contractor will be notified of the cancellation by certified letter and must submit an invoice for the appropriate items listed in the rate schedule within 20 days from receipt of the letter. The rate schedule above does not apply in the event that the award is voided due to breach of contract in accordance with Solicitation Item III 3.4 A 4. If the contract is cancelled prior to the Corrective Action Plan Implementation Date due to any of the conditions described in this Contract Item, final payment will not exceed 40% of the Corrective Action Cost under any circumstance as no FPP removal or CoC reduction will have been accomplished by implementation of corrective action. If the CAP has been implemented and physical treatment activities performed, the Contractor will be required to complete the contract unless conditions outlined in Solicitation Item III 3.4 A 5 are encountered.

5. CORRECTIVE ACTION PLAN IMPLEMENTATION: After CAP, QAPP Contractor Addendum, and all permit applications are reviewed and approved in accordance with the QAPP and R.61-92, Section 280.66, the Agency will issue a notice to proceed with CAP implementation. The Contractor will implement the CAP within 30 days of receipt of the notice to proceed and any required permit to construct. A penalty of $100 per day will be assessed for each calendar day late if the CAP is not implemented in 30 days unless the Contractor obtains written approval from the Agency regarding a change in the implementation schedule. Any assessed penalty amounts will be deducted from the initial payment. If any problem with CAP implementation occurs, the Contractor will notify the Agency within 24 hours of problem identification and will submit written documentation within 5 days of notification. Disruption to the normal business at the sites will be kept to a minimum. Any modification, relocation, disturbance, or destruction of physical structures or features as a result of CAP implementation must be approved in writing by the affected property owner prior to CAP implementation. Upon completion of any required construction, the Agency will inspect the corrective action system and issue a permit to operate. The Contractor will, at all times, keep the sites free from waste materials and rubbish related to the corrective action and maintain the site in a neat and workmanlike condition for the duration of the corrective action. All contaminated soil and construction debris,

contaminated water, and FPP generated will be removed from the sites promptly. Manifests documenting the proper disposal of contaminated soil and construction debris, contaminated water, and FPP must be included in the appropriate report. The Contractor will repair and/or restore the sites/facilities to the condition that existed prior to CAP implementation and as documented by the photographs included in the Initial Monitoring Report in accordance with III 3.5B 13. Any deviation in returning the sites/facilities to the condition that existed prior to CAP implementation must be documented in writing by the Contractor and signed by the Owner/Operator and property owner.

Implementation of the CAP is not authorized until the Contractor receives a notice to proceed from the Agency. If unauthorized implementation occurs, the Agency will not reimburse related costs incurred by the Contractor from the SUPERB Account, and the Corrective Action Cost will be reduced by the amount of the incurred costs. If the Agency agrees with early implementation to better protect human health in an emergency and provides approval in writing, early implementation without any reduction to the Corrective Action Cost will be authorized.

A Corrective Action Plan Implementation Report will be due 60 days from the Notice to Proceed and shall include a description of work sufficient to document CAP implementation activities and the associated dates of work.

6. PROPERTY ACCESS: The Contractor will secure access to the sites and adjacent properties to gauge and sample wells and sampling points, and to install any corrective action components, as required. The Contractor will be responsible for corrective action components installed on adjacent properties. Costs to repair or replace components of the corrective action system damaged due to the actions of adjacent property owners cannot be paid by the SUPERB Account.

7. START-UP: The Contractor will initiate corrective action within 15 days of receipt of the permit to operate, if required. Corrective action as defined by the CAP will begin upon start-up. **NOTE: The application of corrective action technologies or natural fluctuations in the water table can mobilize FPP and cause possible appearance of FPP and/or elevated CoC concentrations in non-SSTL wells and sampling points.**

8. REPORTING: The Contractor must complete and submit a Corrective Action Plan (CAP) Implementation Report within 60 days of the Notice to Proceed. The Contractor must also complete and submit a Corrective Action System Evaluation (CASE) report on a semi-annual schedule. The CAP Implementation Report and CASE reports will be distributed in accordance with Solicitation Item III 3.4 A 2. The first CASE report is due within 90 days of the CAP Implementation Report. **CASE reports must be submitted regardless of the status of corrective action activities**.

   All wells and sampling points listed in the Appendix will be sampled on a semi-annual schedule following submittal of the CAP Implementation Report. The Contractor must submit a written request for a change in the protocol to the Agency. **Approval for any reduction in the number of wells and sampling points to be sampled, or for any lengthening of the reporting interval, is at the sole discretion of the Agency.**

   CASE reports must include, at a minimum, all items stipulated in the Documents and Records section and Active Site Rehabilitation Procedures section of the QAPP. CASE reports must also include any additional data required by permits (e.g., air analyses, wastewater effluent analyses, etc.). The Contractor will be provided with the proper report forms and reporting format prior to Corrective Action Plan Implementation. The Agency will notify the Contractor regarding any revisions to the forms or format 60 days prior to the due date for the next CASE report.

9. SAMPLING: The Contractor must collect water samples from all wells and sampling points listed in the Appendix on a semi-annual schedule. **Do not sample wells and sampling points containing measurable (>0.01') FPP.** If measurable FPP is present, the thickness of product and depth to groundwater must be recorded to the nearest 0.01'. The sampling will be conducted in accordance with applicable portions of the QAPP. Additional samples (air, groundwater, effluent, soil) required by permits must be collected in accordance with established QA/QC protocol and submitted to an SC-certified laboratory for analysis. The samples will be analyzed for parameters stipulated in the permits. Sampling and analytical data for each sample (e.g., field sampling logs, chain of custody forms, certificates of analysis, lab certification number) will be included in the CASE report.

The Contractor must submit a written request to the Agency for a change in the sampling protocol. Approval for any reduction in the number of wells and sampling points to be sampled is at the sole discretion of the Agency. The Contractor may choose to conduct sampling more frequently in order to document that a reduction milestone has been achieved.

10. DISPOSAL: The Contractor must properly dispose of all contaminated water, contaminated soil, and FPP generated during the corrective action. The Owner/Operator of the UST facility is considered to be the generator. In the case of an orphan site, the Contractor will be considered the generator. Treatment and disposal must be conducted at an SCDHEC-approved facility, and must be documented in the CASE reports.

11. QUALITY ASSURANCE & VERIFICATION: Once sampling data indicate 100% CoC concentration reduction, the Contractor must completely suspend corrective action and provide notification to the Agency. After 30 days, the Contractor will sample all wells and sampling points listed in the Appendix to verify that the final (100%) CoC concentration reduction goal has been achieved and maintained. If the goal is maintained, the date of the 30-day sampling event will be considered the start of the two-quarter, post-corrective action verification period. During the verification period, the Contractor will conduct quarterly sampling of all wells and sampling points listed in the Appendix and all verification wells. **Do not sample wells and sampling points containing measurable (>0.01') FPP.** If measurable FPP is present, the thickness of product and depth to groundwater must be recorded to the nearest 0.01'. The samples should be analyzed for the parameters listed in the Appendix, and for dissolved oxygen, ferrous iron, methane, nitrate, and sulfate using the analytical methods and reporting limits detailed in the QAPP.

    If sampling results show that the final (100%) CoC concentration reduction goal has not been maintained, and/or CoC concentrations exceed SSTLs in any verification well, corrective action must be resumed. The Agency may require the Contractor to propose a revised corrective action strategy and timetable to achieve and maintain the goal. The strategy may require modification of the existing corrective action system. The post-corrective action period will be suspended and corrective action will continue until the final (100%) CoC concentration reduction goal is again achieved and maintained for a period of 30 days, and CoC concentrations in the verification well(s) remain below SSTLs for a period of 30 days. Once again, the Contractor will completely suspend corrective action and a new post-corrective action verification period will begin. The aforementioned cycle of activity must be repeated until CoC concentrations remain at or below SSTLs in all wells and sampling points listed in the Appendix and in all verification wells for 2 consecutive quarters.

    The Agency may require installation of four verification wells during the post-corrective action verification period at designated locations and depths. Costs for the verification wells will be considered part of the Corrective Action Cost. SSTLs for the verification wells will be provided by the Agency.

    The Agency will collect split samples from wells and sampling points in the area of concern to verify achievement of the second (90%) interim CoC concentration reduction goal, and may collect split samples to verify achievement of the first (60%) interim CoC reduction goal and to confirm the start of the two-quarter, post-corrective action verification period. Split samples will also be collected at the end of the two-quarter, post-corrective action verification period to confirm that corrective action goals have been maintained. In addition to the split samples, the Agency may provide up to three standards or prepared blanks for the Contractor's laboratory to analyze. Analytical data sets from the Contractor's laboratory and the Agency's laboratory will be compared. In the event of substantial variance (more than 15%) between the sets, a second split sampling event may be conducted with the Contractor. If the variance persists, all data sets and associated quality assurance/quality control data will be provided to Laboratory Certification to determine the cause of the variance. The Director of the Assessment and Corrective Action Division, UST Management Division, will solicit input from Laboratory Certification, the UST Section Manager, the UST Project Manager, and the Contractor, and render a final decision as to which data set will be used for verification. The Contractor will be provided a written record of the decision.

    If the Contractor anticipates that split sampling is warranted, the Agency must be allowed at least 2 weeks to schedule a mutually agreeable time for the split sampling event. Costs for transportation and analysis of split or duplicate samples collected by the Agency will be paid by the Agency.

12. DEMOBILIZATION: The Contractor will disassemble and remove the corrective action system and associated components including utilities within 60 days of notification by the Agency that the final CoC concentration reduction goal has been achieved and maintained for 2 consecutive quarters. Disruption to the UST Owner/Operator's or property owner's business must be kept to a minimum.

13 SITE RESTORATION: The Contractor must remove or properly abandon **all** assessment and corrective action components (piping, monitoring wells, injection and/or extraction wells, trenches, etc.) within 60 days of notification by the Agency that the final CoC concentration reduction goal has been achieved and maintained for 2 consecutive quarters. **Please note that the corrective action components previously installed at these sites and at adjacent properties must also be removed and/or abandoned.** Abandonment will be in accordance with South Carolina Well Standards and Regulations R. 61-71, the UST Management Division QAPP, and accepted industry standards for abandonment of trenches and piping/utility runs. Disruption to the owner/operator's or property owner's business must be kept to a minimum. The Contractor must provide the Agency with documentation of the abandonment and disposal of any remaining contaminated soil, contaminated groundwater, and FPP. **The Contractor will restore the sites and adjacent properties to the condition that existed prior to assessment and corrective action (e.g., repaving, reseeding, etc.) as documented by the photographs included in the Initial Monitoring Report or other written documentation detailing a variance from the conditions documented by the photographs. Neither the Agency nor the SUPERB Account will be liable for any damages caused by the Contractor. As required by Section IV.A.4c of the SUPERB Site Rehabilitation and Fund Access Regulations R.61-98, the Contractor shall be required to indemnify the property owner, UST Owner/Operator and the State of South Carolina from and against all claims, damages, losses and expenses arising out of or resulting from activity conducted by the Contractor, its agents, employees or subcontractors.**

14. COMPLETION NOTICE: Written notice must be provided to the Agency at least two weeks prior to completion of site restoration. This will allow the Agency and the Contractor time to jointly inspect the sites and adjacent properties and compile a list of tasks to be finished. Task items may include, but are not limited to, well abandonment, pavement repair, debris removal, etc. **Site restoration will be complete once all the tasks are finished, the sites pass a final inspection by the Agency, and the Agency issues written notice that the contract is complete**.

IV. INFORMATION FOR OFFERORS TO SUBMIT

INFORMATION FOR OFFERORS TO SUBMIT -- GENERAL (JAN 2006)

Offeror shall submit a signed Cover Page and Page Two. Offeror should submit all other information and documents requested in this part and in parts II.B. Special Instructions; III. Scope of Work; V. Qualifications; VIII. Bidding Schedule/Price Proposal; and any appropriate attachments addressed in section IX. Attachments to Solicitations. [04-4010-1]

MINORITY PARTICIPATION (JAN 2006)

Is the bidder a South Carolina Certified Minority Business? [ ] Yes [ ] No

Is the bidder a Minority Business certified by another governmental entity? [ ] Yes [ ] No

If so, please list the certifying governmental entity: _____

Will any of the work under this contract be performed by a SC certified Minority Business as a subcontractor? [ ] Yes [ ] No

If so, what percentage of the total value of the contract will be performed by a SC certified Minority Business as a subcontractor? _____

Will any of the work under this contract be performed by a minority business certified by another governmental entity as a subcontractor? [ ] Yes [ ] No

If so, what percentage of the total value of the contract will be performed by a minority business certified by another governmental entity as a subcontractor? _____

If a certified Minority Business is participating in this contract, please indicate all categories for which the Business is certified:

[ ] Traditional minority
[ ] Traditional minority, but female
[ ] Women (Caucasian females)
[ ] Hispanic minorities
[ ] DOT referral (Traditional minority)
[ ] DOT referral (Caucasian female)
[ ] Temporary certification
[ ] SBA 8 (a) certification referral
[ ] Other minorities (Native American, Asian, etc.)

(If more than one minority contractor will be utilized in the performance of this contract, please provide the information above for each minority business.)

For a list of certified minority firms, please consult the Minority Business Directory, which is available at the following URL:http://www.govoepp.state.sc.us/osmba/
[04-4015-1]

V. QUALIFICATIONS

QUALIFICATION OF OFFEROR (JAN 2006)

To be eligible for award of a contract, a prospective contractor must be responsible. In evaluating an Offeror's responsibility, the State Standards of Responsibility [R.19-445.2125] and information from any other source may be considered. An Offeror must, upon request of the State, furnish satisfactory evidence of its ability to meet all contractual requirements. Unreasonable failure to supply information promptly in connection with a responsibility inquiry may be grounds for determining that you are ineligible to receive an award. S.C. Code Section 11-35-1810. [05-5005-1]

SUBCONTRACTOR - IDENTIFICATION (JAN 2006)

If you intend to subcontract with another business for any portion of the work and that portion exceeds 10% of your price, your offer must identify that business and the portion of work which they are to perform. Identify potential subcontractors by providing the business name, address, phone, taxpayer identification number, and point of contact. In determining your responsibility, the state may evaluate your proposed subcontractors. [05-5030-1]

VI. AWARD CRITERIA

AWARD CRITERIA -- BIDS (JAN 2006)

Award will be made to the lowest responsible and responsive bidder(s). [06-6020-1]

AWARD TO ONE OFFEROR (JAN 2006)

Award will be made to one Offeror. [06-6040-1]

CORRECTIVE ACTION COST AND COMPLETION TIME

Award will be made to a South Carolina-Certified UST Site Rehabilitation Contractor based on the Corrective Action Cost (Solicitation Item VIII B 3), method(s), and Corrective Action Completion Time for the site listed. For a bid to be considered responsive, the proposed implementation schedule and the proposed remediation technology(ies) or method(s) for active corrective action to achieve the remediation goals must be protective of public health and the environment and be eligible for permitting by the Agency. The total cost, methods, and time to complete the contract must be advantageous to the State of South Carolina.

a. The Corrective Action Completion Time shall be determined by the Offeror and entered into the Corrective Action Solicitation Response (Contract Item VIII.B.2)

    1) Time is of the essence in completing the site work to restore the aquifers and protect human health and the environment. Therefore, Offerors are encouraged to strive for efficient remediation methods and to propose the shortest practical time for the completion of this site.

    2) Award of the contract, if made, will be made to the responsible and qualified Offeror who submits a responsive bid with the lowest Corrective Action Cost. In the event that two or more Offerors submit the lowest Corrective Action Cost, the award, if made, will be decided in accordance with the Tie Bids procedure in Section B. (6) of the Underground Storage Tank Environmental Remediation Procedures. The Agency reserves the right to request additional information to clarify the feasibility of the proposed remediation technology(ies) or method(s) for corrective action included in the bid.

    3) The Offeror shall enter the number of months in the space provided in the Corrective Action Solicitation Response.

REASONABLE COST

The Agency reserves the right to reject any and all bids that appear to be above customary and reasonable cost for the same scope of work in a similar geologic setting, that propose technologies that cannot be permitted in South Carolina, or that propose time frames for cleanup that are not protective of human health or the environment. The Agency reserves the right to request additional information to clarify the feasibility of the proposed remediation technology(ies) or method(s) for corrective action included in the bid.

VII. TERMS AND CONDITIONS -- A. GENERAL

ASSIGNMENT (JAN 2006)

No contract or its provisions may be assigned, sublet, or transferred without the written consent of the Procurement Officer. [07-7A004-1]

BANKRUPTCY (JAN 2006)

(a) Notice. In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish written notification of the bankruptcy to the Using Governmental Unit. This notification shall be furnished within five (5) days of the initiation of the proceedings relating to the bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of all State contracts against which final payment has not been made. This obligation remains in effect until final payment under this Contract. (b) Termination. This contract is voidable and subject to immediate termination by the State upon the contractor's insolvency, including the filing of proceedings in bankruptcy. [07-7A005-1]

CHOICE-OF-LAW (JAN 2006)

The Agreement, any dispute, claim, or controversy relating to the Agreement, and all the rights and obligations of the parties shall, in all respects, be interpreted, construed, enforced and governed by and under the laws of the State of South Carolina, except its choice of law rules. As used in this paragraph, the term "Agreement" means any transaction or agreement arising out of, relating to, or contemplated by the solicitation. [07-7A010-1]

CONTRACT DOCUMENTS and ORDER OF PRECEDENCE (JAN 2006)

(a) Any contract resulting from this solicitation shall consist of the following documents: (1) a Record of Negotiations, if any, executed by you and the Procurement Officer, (2) documentation regarding the clarification of an offer [e.g., 11-35-1520(8) or 11-35-1530(6)], if applicable, (3) the solicitation, as amended, (4) modifications, if any, to your offer, if accepted by the Procurement Officer, (5) your offer, (6) any statement reflecting the state's final acceptance (a/k/a "award"), and (7) purchase orders. These documents shall be read to be consistent and complimentary. Any conflict among these documents shall be resolved by giving priority to these documents in the order listed above. (b) The terms and conditions of documents (1) through (6) above shall apply notwithstanding any additional or different terms and conditions in either (i) a purchase order or other instrument submitted by the State or (ii) any invoice or other document submitted by Contractor. Except as otherwise allowed herein, the terms and conditions of all such documents shall be void and of no effect. (c) No contract, license, or other agreement containing contractual terms and conditions will be signed by any Using Governmental Unit. Any document signed or otherwise agreed to by persons other than the Procurement Officer shall be void and of no effect. [07-7A015-1]

DISCOUNT FOR PROMPT PAYMENT (JAN 2006)

(a) Discounts for prompt payment will not be considered in the evaluation of offers. However, any offered discount will form a part of the award, and will be taken if payment is made within the discount period indicated in the offer by the offeror. As an alternative to offering a discount for prompt payment in conjunction with the offer, offerors awarded contracts may include discounts for prompt payment on individual invoices.

(b) In connection with any discount offered for prompt payment, time shall be computed from the date of the invoice. If the Contractor has not placed a date on the invoice, the due date shall be calculated from the date the designated billing office receives a proper invoice, provided the state annotates such invoice with the date of receipt at the time of receipt. For the purpose of computing the discount earned, payment shall be considered to have been made on the date that appears on the payment check or, for an electronic funds transfer, the specified payment date. When the discount date falls on a Saturday, Sunday, or legal holiday when Federal Government offices are closed and Government business is not expected to be conducted, payment may be made on the following business day
[07-7A020-1]

DISPUTES (JAN 2006)

(1) Choice-of-Forum. All disputes, claims, or controversies relating to the Agreement shall be resolved exclusively by the appropriate Chief Procurement Officer in accordance with Title 11, Chapter 35, Article 17 of the South Carolina Code of Laws, or in the absence of jurisdiction, only in the Court of Common Pleas for, or a federal court located in, Richland County, State of South Carolina. Contractor agrees that any act by the Government regarding the Agreement is not a waiver of either the Government's sovereign immunity or the Government's immunity under the Eleventh Amendment of the United State's Constitution. As used in this paragraph, the term "Agreement" means any transaction or agreement arising out of, relating to, or contemplated by the solicitation. (2) Service of Process. Contractor consents that any papers, notices, or process necessary or proper for the initiation or continuation of any disputes, claims, or controversies relating to the Agreement; for any court action in connection therewith; or for the entry of judgment on any award made, may be served on Contractor by certified mail (return receipt requested) addressed to Contractor at the address provided as the Notice Address on Page Two or by personal service or by any other manner that is permitted by law, in or outside South Carolina. Notice by certified mail is deemed duly given upon deposit in the United States mail. [07-7A025-1]

EQUAL OPPORTUNITY (JAN 2006)

Contractor is referred to and shall comply with all applicable provisions, if any, of Title 41, Part 60 of the Code of Federal Regulations, including but not limited to Sections 60-1.4, 60-4.2, 60-4.3, 60-250.5(a), and 60-741.5(a), which are hereby incorporated by reference. [07-7A030-1]

FALSE CLAIMS (JAN 2006)

According to the S.C. Code of Laws Section 16-13-240, "a person who by false pretense or representation obtains the signature of a person to a written instrument or obtains from another person any chattel, money, valuable security, or other property, real or personal, with intent to cheat and defraud a person of that property is guilty" of a crime. [07-7A035-1]

FIXED PRICING REQUIRED (JAN 2006)

Any pricing provided by contractor shall include all costs for performing the work associated with that price. Except as otherwise provided in this solicitation, contractor's price shall be fixed for the duration of this contract, including option terms. This clause does not prohibit contractor from offering lower pricing after award. [07-7A040-1]

NON-INDEMNIFICATION (JAN 2006)

Any term or condition is void to the extent it requires the State to indemnify anyone. [07-7A045-1]

NOTICE (JAN 2006)

(A) After award, any notices shall be in writing and shall be deemed duly given (1) upon actual delivery, if delivery is by hand, (2) upon receipt by the transmitting party of automated confirmation or answer back from the recipient's device if delivery is by telex, telegram, facsimile, or electronic mail, or (3) upon deposit into the United States mail, if postage is prepaid, a return receipt is requested, and either registered or certified mail is used. (B) Notice to contractor shall be to the address identified as the Notice Address on Page Two. Notice to the state shall be to the Procurement Officer's address on the Cover Page. Either party may designate a different address for notice by giving notice in accordance with this paragraph. [07-7A050-1]

PAYMENT & INTEREST (MAY 2011)

(a) Unless otherwise provided in this Solicitation, the State shall pay the Contractor, after the submission of proper invoices or vouchers, the prices stipulated in this contract for supplies delivered and accepted or services rendered and accepted, less any deductions provided in this contract. Unless otherwise specified herein, including the purchase order, payment shall not be made on partial deliveries accepted by the Government. (b) Unless otherwise provided herein, including the purchase order, payment will be made by check. (c) Notwithstanding any other provision, payment shall be made in accordance with S.C. Code Section 11-35-45, which provides the Contractor's exclusive means of recovering any type of interest from the Owner. Contractor waives imposition of an interest penalty unless the invoice submitted specifies that the late penalty is applicable. Except as set forth in this paragraph, the State shall not be liable for the payment of interest on any debt or claim

arising out of or related to this contract for any reason. (d) Amounts due to the State shall bear interest at the rate of interest established by the South Carolina Comptroller General pursuant to Section 11-35-45 ("an amount not to exceed fifteen percent each year"), as amended. (e) Any other basis for interest, including but not limited to general (pre- and post-judgment) or specific interest statutes, including S.C. Code Ann. § 34-31-20, are expressly waived by both parties. If a court, despite this agreement and waiver, requires that interest be paid on any debt by either party other than as provided by items (c) and (d) above, the parties further agree that the applicable interest rate for any given calendar year shall be the lowest prime rate as listed in the first edition of the Wall Street Journal published for each year, applied as simple interest without compounding.

PUBLICITY (JAN 2006)

Contractor shall not publish any comments or quotes by State employees, or include the State in either news releases or a published list of customers, without the prior written approval of the Procurement Officer. [07-7A060-1]

PURCHASE ORDERS (JAN 2006)

Contractor shall not perform any work prior to the receipt of a purchase order from the using governmental unit. The using governmental unit shall order any supplies or services to be furnished under this contract by issuing a purchase order. Purchase orders may be used to elect any options available under this contract, e.g., quantity, item, delivery date, payment method, but are subject to all terms and conditions of this contract. Purchase orders may be electronic. No particular form is required. An order placed pursuant to the purchasing card provision qualifies as a purchase order. [07-7A065-1]

SETOFF (JAN 2006)

The state shall have all of its common law, equitable, and statutory rights of set-off. These rights shall include, but not be limited to, the State's option to withhold for the purposes of set-off any moneys due to the Contractor under this contract up to any amounts due and owing to the state with regard to this contract, any other contract with any state department or agency, including any contract for a term commencing prior to the term of this contract, plus any amounts due and owing to the state for any other reason including, without limitation, tax delinquencies, fee delinquencies or monetary penalties relative thereto. [07-7A070-1]

SURVIVAL OF OBLIGATIONS (JAN 2006)

The Parties' rights and obligations which, by their nature, would continue beyond the termination, cancellation, rejection, or expiration of this contract shall survive such termination, cancellation, rejection, or expiration, including, but not limited to, the rights and obligations created by the following clauses: Indemnification - Third Party Claims, Intellectual Property Indemnification, and any provisions regarding warranty or audit. [07-7A075-1]

TAXES (JAN 2006)

Any tax the contractor may be required to collect or pay upon the sale, use or delivery of the products shall be paid by the State, and such sums shall be due and payable to the contractor upon acceptance. Any personal property taxes levied after delivery shall be paid by the State. It shall be solely the State's obligation, after payment to contractor, to challenge the applicability of any tax by negotiation with, or action against, the taxing authority. Contractor agrees to refund any tax collected, which is subsequently determined not to be proper and for which a refund has been paid to contractor by the taxing authority. In the event that the contractor fails to pay, or delays in paying, to any taxing authorities, sums paid by the State to contractor, contractor shall be liable to the State for any loss (such as the assessment of additional interest) caused by virtue of this failure or delay. Taxes based on Contractor's net income or assets shall be the sole responsibility of the contractor. [07-7A080-1]

TERMINATION DUE TO UNAVAILABILITY OF FUNDS (JAN 2006)

Payment and performance obligations for succeeding fiscal periods shall be subject to the availability and appropriation of funds therefor. When funds are not appropriated or otherwise made available to support continuation of performance in a subsequent fiscal period, the contract shall be canceled. In the event of a cancellation pursuant to this paragraph, contractor will be reimbursed the resulting unamortized, reasonably incurred, nonrecurring costs. Contractor will not be reimbursed any costs amortized beyond the initial contract term. [07-7A085-1]

THIRD PARTY BENEFICIARY (JAN 2006)

This Contract is made solely and specifically among and for the benefit of the parties hereto, and their respective successors and assigns, and no other person will have any rights, interest, or claims hereunder or be entitled to any benefits under or on account of this Contract as a third party beneficiary or otherwise. [07-7A090-1]

WAIVER (JAN 2006)

The State does not waive any prior or subsequent breach of the terms of the Contract by making payments on the Contract, by failing to terminate the Contract for lack of performance, or by failing to strictly or promptly insist upon any term of the Contract. Only the Procurement Officer has actual authority to waive any of the State's rights under this Contract. Any waiver must be in writing. [07-7A095-1]

VII. TERMS AND CONDITIONS -- B. SPECIAL

CHANGES (JAN 2006)

(1) Contract Modification. By a written order, at any time, and without notice to any surety, the Procurement Officer may, subject to all appropriate adjustments, make changes within the general scope of this contract in any one or more of the following:

(a) drawings, designs, or specifications, if the supplies to be furnished are to be specially manufactured for the [State] in accordance therewith;
(b) method of shipment or packing;
(c) place of delivery;
(d) description of services to be performed;
(e) time of performance (i.e., hours of the day, days of the week, etc.); or,
(f) place of performance of the services. Subparagraphs (a) to (c) apply only if supplies are furnished under this contract. Subparagraphs (d) to (f) apply only if services are performed under this contract.

(2) Adjustments of Price or Time for Performance. If any such change increases or decreases the contractor's cost of, or the time required for, performance of any part of the work under this contract, whether or not changed by the order, an adjustment shall be made in the contract price, the delivery schedule, or both, and the contract modified in writing accordingly. Any adjustment in contract price made pursuant to this clause shall be determined in accordance with the Price Adjustment Clause of this contract. Failure of the parties to agree to an adjustment shall not excuse the contractor from proceeding with the contract as changed, provided that the State promptly and duly make such provisional adjustments in payment or time for performance as may be reasonable. By proceeding with the work, the contractor shall not be deemed to have prejudiced any claim for additional compensation, or an extension of time for completion.
(3) Time Period for Claim. Within 30 days after receipt of a written contract modification under Paragraph (1) of this clause, unless such period is extended by the Procurement Officer in writing, the contractor shall file notice of intent to assert a claim for an adjustment. Later notification shall not bar the contractor's claim unless the State is prejudiced by the delay in notification.
(4) Claim Barred After Final Payment. No claim by the contractor for an adjustment hereunder shall be allowed if notice is not given prior to final payment under this contract.
[07-7B025-1]

COMPLIANCE WITH LAWS (JAN 2006)

During the term of the contract, contractor shall comply with all applicable provisions of laws, codes, ordinances, rules, regulations, and tariffs. [07-7B035-1]

CONTRACTOR'S LIABILITY INSURANCE (JAN 2013)

(a) Contractor shall procure from a company or companies lawfully authorized to do business in South Carolina and with a current A.M. Best rating of no less than A: VII, and maintain for the duration of the contract, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work and the results of that work by the contractor, his agents, representatives, employees or subcontractors. (b) Coverage shall be at least as broad as:

(1) Commercial General Liability (CGL): Insurance Services Office (ISO) Form CG 00 01 12 07 covering CGL on an "occurrence" basis, including products-completed operations, personal and advertising injury, with limits no less than $1,000,000 per occurrence. If a general aggregate limit applies, the general aggregate limit shall be twice the required occurrence limit. This contract shall be considered to be an "insured contract" as defined in the policy.

(2) Auto Liability: ISO Form Number CA 00 01 covering any auto (Code 1), or if Contractor has no owned autos, hired, (Code 8) and non-owned autos (Code 9), with limits no less than $1,000,000 per accident for bodily injury and property damage.

(3) Worker's Compensation: As required by the State of South Carolina, with Statutory Limits, and Employer's Liability Insurance with limit of no less than $1,000,000 per accident for bodily injury or disease.

(b) Every applicable Using Governmental Unit, and the officers, officials, employees and volunteers of any of them, must be covered as additional insureds on the CGL policy with respect to liability arising out of work or operations performed by

or on behalf of the Contractor including materials, parts or equipment furnished in connection with such work or operations. General liability coverage can be provided in the form of an endorsement to the Contractor's insurance at least as broad as ISO Form CG 20 10 11 85 or if not available, through the addition of both CG 20 10 and CG 20 37 if a later edition is used.

(c) For any claims related to this contract, the Contractor's insurance coverage shall be primary insurance as respects the State, every applicable Using Governmental Unit, and the officers, officials, employees and volunteers of any of them. Any insurance or self-insurance maintained by the State, every applicable Using Governmental Unit, or the officers, officials, employees and volunteers of any of them, shall be excess of the Contractor's insurance and shall not contribute with it.

(d) Prior to commencement of the work, the Contractor shall furnish the State with original certificates and amendatory endorsements or copies of the applicable policy language effecting coverage required by this section. All certificates are to be received and approved by the State before work commences. However, failure to obtain the required documents prior to the work beginning shall not waive the Contractor's obligation to provide them. The State reserves the right to require complete, certified copies of all required insurance policies, including endorsements required by this section, at any time.

(e) Should any of the above described policies be cancelled before the expiration date thereof, notice will be delivered in accordance with the policy provisions. In addition, the Contractor shall notify the State immediately upon receiving any information that any of the coverages required by this section are or will be changed, cancelled, or replaced.

(f) Contractor hereby grants to the State and every applicable Using Governmental Unit a waiver of any right to subrogation which any insurer of said Contractor may acquire against the State or applicable Using Governmental Unit by virtue of the payment of any loss under such insurance. Contractor agrees to obtain any endorsement that may be necessary to effect this waiver of subrogation, but this provision applies regardless of whether or not the State or Using Governmental Unit has received a waiver of subrogation endorsement from the insurer.

(g) Any deductibles or self-insured retentions must be declared to and approved by the State. The State may require the Contractor to purchase coverage with a lower deductible or retention or provide proof of ability to pay losses and related investigations, claim administration, and defense expenses within the retention.

(h) The State reserves the right to modify these requirements, including limits, based on the nature of the risk, prior experience, insurer, coverage, or other special circumstances.

CONTRACTOR PERSONNEL (JAN 2006)

The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Contract. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them. [07-7B060-1]

CONTRACTOR'S OBLIGATION -- GENERAL (JAN 2006)

The contractor shall provide and pay for all materials, tools, equipment, labor and professional and non-professional services, and shall perform all other acts and supply all other things necessary, to fully and properly perform and complete the work. The contractor must act as the prime contractor and assume full responsibility for any subcontractor's performance. The contractor will be considered the sole point of contact with regard to all situations, including payment of all charges and the meeting of all other requirements. [07-7B065-1]

DEFAULT (JAN 2006)

(a) (1) The State may, subject to paragraphs (c) and (d) of this clause, by written notice of default to the Contractor, terminate this contract in whole or in part if the Contractor fails to:

(i) Deliver the supplies or to perform the services within the time specified in this contract or any extension;

(ii) Make progress, so as to endanger performance of this contract (but see paragraph (a)(2) of this clause); or

(iii) Perform any of the other material provisions of this contract (but see paragraph (a)(2) of this clause).

(2) The State's right to terminate this contract under subdivisions (a)(1)(ii) and (1)(iii) of this clause, may be exercised if the

Contractor does not cure such failure within 10 days (or more if authorized in writing by the Procurement Officer) after receipt of the notice from the Procurement Officer specifying the failure.

(b) If the State terminates this contract in whole or in part, it may acquire, under the terms and in the manner the Procurement Officer considers appropriate, supplies or services similar to those terminated, and the Contractor will be liable to the State for any excess costs for those supplies or services. However, the Contractor shall continue the work not terminated.

(c) Except for defaults of subcontractors at any tier, the Contractor shall not be liable for any excess costs if the failure to perform the contract arises from causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include (1) acts of God or of the public enemy, (2) acts of the State in either its sovereign or contractual capacity, (3) fires, (4) floods, (5) epidemics, (6) quarantine restrictions, (7) strikes, (8) freight embargoes, and (9) unusually severe weather. In each instance the failure to perform must be beyond the control and without the fault or negligence of the Contractor.

(d) If the failure to perform is caused by the default of a subcontractor at any tier, and if the cause of the default is beyond the control of both the Contractor and subcontractor, and without the fault or negligence of either, the Contractor shall not be liable for any excess costs for failure to perform, unless the subcontracted supplies or services were obtainable from other sources in sufficient time for the Contractor to meet the required delivery schedule.

(e) If this contract is terminated for default, the State may require the Contractor to transfer title and deliver to the State, as directed by the Procurement Officer, any (1) completed supplies, and (2) partially completed supplies and materials, parts, tools, dies, jigs, fixtures, plans, drawings, information, and contract rights (collectively referred to as "manufacturing materials" in this clause) that the Contractor has specifically produced or acquired for the terminated portion of this contract. Upon direction of the Procurement Officer, the Contractor shall also protect and preserve property in its possession in which the State has an interest.

(f) The State shall pay contract price for completed supplies delivered and accepted. The Contractor and Procurement Officer shall agree on the amount of payment for manufacturing materials delivered and accepted and for the protection and preservation of the property; if the parties fail to agree, the Procurement Officer shall set an amount subject to the Contractor's rights under the Disputes clause. Failure to agree will be a dispute under the Disputes clause. The State may withhold from these amounts any sum the Procurement Officer determines to be necessary to protect the State against loss because of outstanding liens or claims of former lien holders.

(g) If, after termination, it is determined that the Contractor was not in default, or that the default was excusable, the rights and obligations of the parties shall, if the contract contains a clause providing for termination for convenience of the State, be the same as if the termination had been issued for the convenience of the State. If, in the foregoing circumstances, this contract does not contain a clause providing for termination for convenience of the State, the contract shall be adjusted to compensate for such termination and the contract modified accordingly subject to the contractor's rights under the Disputes clause.

(h) The rights and remedies of the State in this clause are in addition to any other rights and remedies provided by law or under this contract.
[07-7B075-1]

ILLEGAL IMMIGRATION (NOV. 2008)

(An overview is available at www.procurement.sc.gov) By signing your offer, you certify that you will comply with the applicable requirements of Title 8, Chapter 14 of the South Carolina Code of Laws and agree to provide to the State upon request any documentation required to establish either: (a) that Title 8, Chapter 14 is inapplicable to you and your subcontractors or sub-subcontractors; or (b) that you and your subcontractors or sub-subcontractors are in compliance with Title 8, Chapter 14. Pursuant to Section 8-14-60, "A person who knowingly makes or files any false, fictitious, or fraudulent document, statement, or report pursuant to this chapter is guilty of a felony, and, upon conviction, must be fined within the discretion of the court or imprisoned for not more than five years, or both." You agree to include in any contracts with your subcontractors language requiring your subcontractors to (a) comply with the applicable requirements of Title 8, Chapter 14, and (b) include in their contracts with the sub-subcontractors language requiring the sub-subcontractors to comply with the applicable requirements of Title 8, Chapter 14. [07-7B097-1]

INDEMNIFICATION - THIRD PARTY CLAIMS (NOV 2011)

Notwithstanding any limitation in this agreement, and to the fullest extent permitted by law, Contractor shall defend and hold harmless Indemnitees for and against any and all suits or claims of any character (and all related damages, settlement payments, attorneys' fees, costs, expenses, losses or liabilities) by a third party which are attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property arising out of or in connection with the goods or services acquired hereunder or caused in whole or in part by any act or omission of contractor, its subcontractors, their employees, workmen, servants, agents, or anyone directly or indirectly employed by them or anyone for whose acts any of them may be liable, regardless of whether or not caused in part by an Indemnitee, and whether or not such claims are made by a third party or an Indemnitee; however, if an Indemnitee's negligent act or omission is subsequently determined to be the sole proximate cause of a suit or claim, the Indemnitee shall not be entitled to indemnification hereunder. Contractor shall be given timely written notice of any suit or claim. Contractor's obligations hereunder are in no way limited by any protection afforded under workers' compensation acts, disability benefits acts, or other employee benefit acts. This clause shall not negate, abridge, or reduce any other rights or obligations of indemnity which would otherwise exist. The obligations of this paragraph shall survive termination, cancelation, or expiration of the parties' agreement. This provision shall be construed fairly and reasonably, neither strongly for nor against either party, and without regard to any clause regarding insurance. As used in this clause, "Indemnitees" means the State of South Carolina, its instrumentalities, agencies, departments, boards, political subdivisions and all their respective officers, agents and employees.

LICENSES AND PERMITS (JAN 2006)

During the term of the contract, the Contractor shall be responsible for obtaining, and maintaining in good standing, all licenses (including professional licenses, if any), permits, inspections and related fees for each or any such licenses, permits and /or inspections required by the State, county, city or other government entity or unit to accomplish the work specified in this solicitation and the contract. [07-7B115-1]

PRICE ADJUSTMENTS (JAN 2006)

(1) Method of Adjustment. Any adjustment in the contract price made pursuant to a clause in this contract shall be consistent with this Contract and shall be arrived at through whichever one of the following ways is the most valid approximation of the actual cost to the Contractor (including profit, if otherwise allowed):
(a) by agreement on a fixed price adjustment before commencement of the pertinent performance or as soon thereafter as practicable;
(b) by unit prices specified in the Contract or subsequently agreed upon;
(c) by the costs attributable to the event or situation covered by the relevant clause, including profit if otherwise allowed, all as specified in the Contract; or subsequently agreed upon;
(d) in such other manner as the parties may mutually agree; or,
(e) in the absence of agreement by the parties, through a unilateral initial written determination by the Procurement Officer of the costs attributable to the event or situation covered by the clause, including profit if otherwise allowed, all as computed by the Procurement Officer in accordance with generally accepted accounting principles, subject to the provisions of Title 11, Chapter 35, Article 17 of the S.C. Code of Laws.
(2) Submission of Price or Cost Data. Upon request of the Procurement Officer, the contractor shall provide reasonably available factual information to substantiate that the price or cost offered, for any price adjustments is reasonable, consistent with the provisions of Section 11-35-1830.
[07-7B160-1]

PRICING DATA-- AUDIT-- INSPECTION (JAN 2006)

[Clause Included Pursuant to Section 11-35-1830, - 2210, & -2220] (a) Cost or Pricing Data. Upon Procurement Officer's request, you shall submit cost or pricing data, as defined by 48 C.F.R. Section 2.101 (2004), prior to either (1) any award to contractor pursuant to 11-35-1530 or 11-35-1560, if the total contract price exceeds $500,000, or (2) execution of a change order or contract modification with contractor which exceeds $100,000. Your price, including profit or fee, shall be adjusted to exclude any significant sums by which the state finds that such price was increased because you furnished cost or pricing data that was inaccurate, incomplete, or not current as of the date agreed upon between parties. (b) Records Retention. You shall maintain your records for three years from the date of final payment, or longer if requested by the chief Procurement Officer. The state may audit your records at reasonable times and places. As used in this subparagraph (b), the term "records" means any books or records that relate to cost or pricing data submitted pursuant to this clause. In addition to the obligation stated in this subparagraph (b), you shall retain all records and allow any audits provided for by

11-35-2220(2). (c) Inspection. At reasonable times, the state may inspect any part of your place of business which is related to performance of the work. (d) Instructions Certification. When you submit data pursuant to subparagraph (a), you shall (1) do so in accordance with the instructions appearing in Table 15-2 of 48 C.F.R. Section 15.408 (2004) (adapted as necessary for the state context), and (2) submit a Certificate of Current Cost or Pricing Data, as prescribed by 48 CFR Section 15.406-2(a) (adapted as necessary for the state context). (e) Subcontracts. You shall include the above text of this clause in all of your subcontracts. (f) Nothing in this clause limits any other rights of the state. [07-7B185-1]

RELATIONSHIP OF THE PARTIES (JAN 2006)

Neither party is an employee, agent, partner, or joint venturer of the other. Neither party has the right or ability to bind the other to any agreement with a third party or to incur any obligation or liability on behalf of the other party. [07-7B205-1]

TERMINATION FOR CONVENIENCE (JAN 2006)

(1) Termination. The Procurement Officer may terminate this contract in whole or in part, for the convenience of the State. The Procurement Officer shall give written notice of the termination to the contractor specifying the part of the contract terminated and when termination becomes effective.
(2) Contractor's Obligations. The contractor shall incur no further obligations in connection with the terminated work and on the date set in the notice of termination the contractor will stop work to the extent specified. The contractor shall also terminate outstanding orders and subcontracts as they relate to the terminated work. The contractor shall settle the liabilities and claims arising out of the termination of subcontracts and orders connected with the terminated work. The Procurement Officer may direct the contractor to assign the contractor's right, title, and interest under terminated orders or subcontracts to the State. The contractor must still complete the work not terminated by the notice of termination and may incur obligations as are necessary to do so.
(3) Right to Supplies. The Procurement Officer may require the contractor to transfer title and deliver to the State in the manner and to the extent directed by the Procurement Officer: (a) any completed supplies; and (b) such partially completed supplies and materials, parts, tools, dies, jigs, fixtures, plans, drawings, information, and contract rights (hereinafter called "manufacturing material") as the contractor has specifically produced or specially acquired for the performance of the terminated part of this contract. The contractor shall, upon direction of the Procurement Officer, protect and preserve property in the possession of the contractor in which the State has an interest. If the Procurement Officer does not exercise this right, the contractor shall use best efforts to sell such supplies and manufacturing materials in a accordance with the standards of Uniform Commercial Code Section 2-706. Utilization of this Section in no way implies that the State has breached the contract by exercise of the Termination for Convenience Clause.
(4) Compensation. (a) The contractor shall submit a termination claim specifying the amounts due because of the termination for convenience together with cost or pricing data required by Section 11-35-1830 bearing on such claim. If the contractor fails to file a termination claim within one year from the effective date of termination, the Procurement Officer may pay the contractor, if at all, an amount set in accordance with Subparagraph (c) of this Paragraph.
(b) The Procurement Officer and the contractor may agree to a settlement and that the settlement does not exceed the total contract price plus settlement costs reduced by payments previously made by the State, the proceeds of any sales of supplies and manufacturing materials under Paragraph (3) of this clause, and the contract price of the work not terminated;
(c) Absent complete agreement under Subparagraph (b) of this Paragraph, the Procurement Officer shall pay the contractor the following amounts, provided payments agreed to under Subparagraph (b) shall not duplicate payments under this Subparagraph:
(i) contract prices for supplies or services accepted under the contract;
(ii) costs reasonably incurred in performing the terminated portion of the work less amounts paid or to be paid for accepted supplies or services;
(iii) reasonable costs of settling and paying claims arising out of the termination of subcontracts or orders pursuant to Paragraph (2) of this clause. These costs must not include costs paid in accordance with Subparagraph (c)(ii) of this paragraph;
(iv) any other reasonable costs that have resulted from the termination. The total sum to be paid the contractor under this Subparagraph shall not exceed the total contract price plus the reasonable settlement costs of the contractor reduced by the amount of payments otherwise made, the proceeds of any sales of supplies and manufacturing materials under Subparagraph (b) of this Paragraph, and the contract price of work not terminated.
(d) Contractor must demonstrate any costs claimed, agreed to, or established under Subparagraphs (b) and (c) of this Paragraph using its standard record keeping system, provided such system is consistent with any applicable Generally Accepted Accounting Principles.
(5) Contractor's failure to include an appropriate termination for convenience clause in any subcontract shall not (i) affect the state's right to require the termination of a subcontract, or (ii) increase the obligation of the state beyond what it would have been if the subcontract had contained an appropriate clause.
[07-7B265-1]

VII. TERMS AND CONDITIONS -- C. DHEC'S SPECIAL CLAUSES

PREVENTING AND REPORTING FRAUD, WASTE AND ABUSE (DHEC 2008)

(a) Federal and state laws make it unlawful to submit false claims to the government for payment; provide for civil, criminal and administrative penalties; and protect individuals, including government employees, who make good faith reports of suspected violations.
(b) SCDHEC has established procedures and policies concerning the prevention and reporting of fraud, waste and abuse (FWA) in agency-funded programs, including but not limited to those funded by federal grants such as Medicaid. No agency employee, agent, or contractor shall direct, participate in, approve, or tolerate any violation of federal or state laws regarding FWA in government programs. Any employee, agent, or contractor of SCDHEC who submits a false claim in violation of federal or state laws will be reported to appropriate authorities.
(c) The federal False Claims Act provides civil penalties for submitting false claims or statements to a federally funded program and authorizes the U. S. Attorney General to enforce this law. Citizens may bring an action on behalf of the government within six years of submittal of the false claim, and may receive part of any damages. An individual who in good faith reports information about false claims submitted by others is protected by law from retaliation for making the report ("whistleblower" protection.) Federal law also allows certain agencies, including the Department of Health and Human Services, to hold administrative hearings to penalize persons for false or fraudulent claims.
(d) Under State law, persons may be criminally prosecuted for false claims made to an insurer, HMO or any person, including state government, providing benefits for health care. Medicaid fraud statutes allow criminal prosecution of health care providers and Medicaid applicants or recipients who knowingly make false statements to the Medicaid Program, or conceal or fail to disclose material facts affecting entitlement to Medicaid reimbursement, payment, or benefits. Health care providers may also be liable for civil and administrative penalties and sanctions for Medicaid fraud. The State Attorney General has authority to prosecute persons for insurance fraud who make false statements and misrepresentations in order to obtain an undeserved economic benefit or to deny someone a benefit in connection with any insurance transaction. The State Computer Crimes Act authorizes criminal penalties for persons who use a computer to devise or execute any fraud scheme or to obtain money or services by false representations.
(e) Anyone who becomes aware of the existence or apparent existence of FWA in agency funded programs is encouraged to report such matters by writing to the Office of Internal Audits, SCDHEC, 2600 Bull Street, Columbia, South Carolina 29201; or by calling the Agency Fraud, Waste and Abuse Hotline at 803-0896-0650 or toll-free at 1-866-206-5202. Reports will be handled confidentially.
(f) The Contractor is required to inform contractor's employees of the existence of SCDHEC's policy prohibiting FWA and the procedures for reporting FWA to the agency.

VIII. BIDDING SCHEDULE/PRICE-BUSINESS PROPOSAL

BIDDING SCHEDULE (NOV 2007)

A. ACCEPTANCE AND DELIVERY STATEMENT

In compliance with the solicitation and subject to all requirements thereof, the Offeror agrees, if this bid is accepted within _____ days from date of opening, to initiate the corrective action as specified at the prices set forth for all sites as stated below. For the purpose of this submittal and acceptance of financial approval should it occur, I certify that this company understands the nature of the release(s) and the geologic conditions at this site as documented in the technical file and this solicitation. **Any quantities listed in the corrective action method(s) below are estimates and changes to those quantities or to the listed method(s) will not affect the bid price.** Additionally, I certify that this company understands that acceptance is based on total cost to treat the areas of concern.

_____ _____

Offeror (Print) UST Site Rehabilitation Contractor Certification #

_____ _____

Registered Professional Name (Print) Registered Professional Signature (required)

P.G. ☐ P.E. ☐ (check appropriate box) Professional Certification # _____

B. CORRECTIVE ACTION SOLICITATION RESPONSE

Please respond to the following questions for UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC and UST Permit # 07777 & UST Permit # 12352, Cloud's Chevron, 1600 Two Notch Rd., Columbia, SC:

1. State and briefly describe the corrective action method(s) or technology(ies) that will be discussed in detail in the CAP to achieve completion in five years, should financial approval occur. Attach an additional sheet if necessary.

2. The Corrective Action Completion Time, in months, to complete the corrective action from the date of corrective action plan implementation until the final corrective action goal has been achieved and maintained for 2 consecutive quarters is _____ months. All activities must be completed within 5 years of the date of financial award unless otherwise approved in writing by the Agency.

3. The Corrective Action Cost, in whole dollars, regardless of the type, quantity, or duration of the permitted technology applied, to treat the area of concern shown in the Appendix such that CoC concentrations do not exceed SSTLs at any point in the area of concern; complete all associated monitoring and post-corrective action verification; prepare all plans, reports, and correspondence; obtain and meet all terms and conditions of all required permits and licenses; design, install, monitor, operate, maintain, and when completed, properly abandon and/or remove all assessment and corrective action components; and complete other items outlined in this solicitation is:

$_____

IX. ATTACHMENTS TO SOLICITATION

ATTACHMENTS LIST [09-9002-1]

The following documents are attached to this solicitation:

** Site File
***Appendix – Technical File (Two parts)
***Environmental Remediation Procurement Procedures
Nonresident Taxpayer Registration Affidavit Income Tax Withholding
Offeror's Checklist

** Available at http://www.scdhec.gov/environment/lwm/usthome/OpenBids.htm
***Listed in separate document

NONRESIDENT TAXPAYER REGISTRATION AFFIDAVIT INCOME TAX WITHHOLDING

IMPORTANT TAX NOTICE - NONRESIDENTS ONLY

Withholding Requirements for Payments to Nonresidents: Section 12-8-550 of the South Carolina Code of Laws requires persons hiring or contracting with a nonresident conducting a business or performing personal services of a temporary nature within South Carolina to withhold 2% of each payment made to the nonresident. The withholding requirement does not apply to (1) payments on purchase orders for tangible personal property when the payments are not accompanied by services to be performed in South Carolina, (2) nonresidents who are not conducting business in South Carolina, (3) nonresidents for contracts that do not exceed $10,000 in a calendar year, or (4) payments to a nonresident who (a) registers with either the S.C. Department of Revenue or the S.C. Secretary of State and (b) submits a Nonresident Taxpayer Registration Affidavit - Income Tax Withholding, Form I-312 to the person letting the contract.

The withholding requirement applies to every governmental entity that uses a contract ("Using Entity"). Nonresidents should submit a separate copy of the Nonresident Taxpayer Registration Affidavit - Income Tax Withholding, Form I-312 to every Using Entity that makes payment to the nonresident pursuant to this solicitation. Once submitted, an affidavit is valid for all contracts between the nonresident and the Using Entity, unless the Using Entity receives notice from the Department of Revenue that the exemption from withholding has been revoked.

Section 12-8-540 requires persons making payment to a nonresident taxpayer of rentals or royalties at a rate of $1,200.00 or more a year for the use of or for the privilege of using property in South Carolina to withhold 7% of the total of each payment made to a nonresident taxpayer who is not a corporation and 5% if the payment is made to a corporation. Contact the Department of Revenue for any applicable exceptions.

For information about other withholding requirements (e.g., employee withholding), contact the Withholding Section at the South Carolina Department of Revenue at 803-898-5383 or visit the Department's website at: **www.sctax.org**

This notice is for informational purposes only. This agency does not administer and has no authority over tax issues. All registration questions should be directed to the License and Registration Section at 803-898-5872 or to the South Carolina Department of Revenue, Registration Unit, Columbia, S.C. 29214-0140. All withholding questions should be directed to the Withholding Section at 803-896-1420.

PLEASE SEE THE "NONRESIDENT TAXPAYER REGISTRATION AFFIDAVIT INCOME TAX WITHHOLDING" FORM (FORM NUMBER I-312) LOCATED AT:
http://www.sctax.org/Forms+and+Instructions/withholding/default.htm

[09-9005-1]

OFFEROR'S CHECKLIST (JUN 2007)

OFFEROR'S CHECKLIST -- AVOID COMMON BID/PROPOSAL MISTAKES

Review this checklist prior to submitting your bid/proposal.

If you fail to follow this checklist, you risk having your bid/proposal rejected.

- Do not include any of your standard contract forms!

- Unless expressly required, do not include any additional boilerplate contract clauses.

- Reread your entire bid/proposal to make sure your bid/proposal does not take exception to any of the state's mandatory requirements.

- Make sure you have properly marked all protected, confidential, or trade secret information in accordance with the instructions entitled: SUBMITTING CONFIDENTIAL INFORMATION. **DO NOT mark your entire bid/proposal as confidential, trade secret, or protected! Do not include a legend on the cover stating that your entire response is not to be released!**

- Have you properly acknowledged all amendments? Instructions regarding how to acknowledge an amendment should appear in all amendments issued.

- Make sure your bid/proposal includes a copy of the solicitation cover page. Make sure the cover page is signed by a person that is authorized to contractually bind your business.

- Make sure your Bid/proposal includes the number of copies requested.

- Check to ensure your Bid/proposal includes everything requested!

- If you have concerns about the solicitation, do not raise those concerns in your response! **After opening, it is too late! If this solicitation includes a pre-bid/proposal conference or a question & answer period, raise your questions as a part of that process!** Please see instructions under the heading "submission of questions" and any provisions regarding pre-bid/proposal conferences.

Appendix A

UST # 07584, Handy Pantry # 65/ University Mart
UST # 07777/ UST # 12352, Cloud's Chevron
Richland County

Distribution List for Plans and Reports

Mr. Pete Overton
Acme Petroleum and Fuel Company
543 Cox Rd. Ste. C
Gastonia SC 28054

Mrs. Wallace Scott
76 Whiteford Way
Lexington SC 29072

Mr. Mahesh Patel
Fast Point Food Stores Inc
2811 Reidville Rd Ste 11
Spartanburg SC 29301

R11412-10-16, 2367 Taylor St.

Mr. Andrew Diggins
Providence Hospital
2345 Forest Dr.
Columbia SC 29204

R11412-09-14A, 1600 Block Two Notch Rd.
R11412-09-13, 2409 Forest Dr.

Ms. Bette Gordon Bateman &
Mr. John Bateman
c/o Trustees
PO Box 1026
Columbia, SC 29201

R11411-02-01, 2436 Taylor St.

2368 Taylor St LLC
200 Gauley Dr
Columbia SC 29212

R11411-01-02, 2368 Taylor St.
R11411-01-03, 1512 Heidt St.

Chang Moon Sueng
DBA Star Beauty Supply
2358 Taylor St.
Columbia SC 29204

R11411-01-01, 2358 Taylor St.

Mr. Solomon Addico
Benedict College
1600 Harden St.
Columbia SC 29204

R11408-10-31, 2361 Taylor St.
R11408-10-30, 1613 Waverly St.
R11408-10-29, 1617 Waverly.
R11407-06-01, 1616 Oak St.
R11407-06-03, 1604 Oak St.
R11407-06-02, 2305 Taylor St.

Allen University
1530 Harden St
Columbia SC 29204

R11408-10-12, 2315 Taylor St.

UST # 07584, Handy Pantry # 65/ University Mart
UST # 07777/ UST # 12352, Cloud's Chevron
Richland County

Sylvan Food Systems Inc. 1245 Boston Ave West Columbia SC 29170	R11408-10-32, 2349 Taylor St.
Ms. Linda Warren c/o Douglas Harley 1527 Lyon St. Columbia SC 29204	R11411-03-01, 1527 Lyon St. R11411-03-02, 1510 Lyon St.
Gilbert Walker Public Housing Authority Gonzales Gardens PO Box 4307 Columbia SC 29240	R11411-04-01, 1505 Garden Plaza
1500 Millwood Ave LLC 1330 Devonshire Dr Columbia SC 29204	R11411-2-02, 1527 Ontario St.
John M Suddeth 1410 N Millwood Ave Columbia SC 29204	R11411-02-03, Ontario St.
Fung Lau 2300 Taylor St Ste D Columbia SC 29204	R11407-07-02, 2324 Taylor St.

UST # 07584, Handy Pantry # 65/ University Mart
UST # 07777/ UST # 12352, Cloud's Chevron
Richland County

Table 1: Analytical Parameters

Analyte	Analytical Method*
BTEX	8260B
Naphthalene	8260B
MTBE	8260B
TAA, TAME, TBA	8260-OXY

* See Programmatic QAPP for Reporting Limits.

The analyses listed in Table 1 are required for all sampling events.

Table 2: Natural Attenuation Parameters

Analyte	Analytical Method*
Dissolved Oxygen	SM4500-O G
Ferrous Iron	SM3500-Fe D
Methane	Kerr Method
Nitrate	9056/9210
Sulfate	9038/9056

* See Programmatic QAPP for Reporting Limits.

The analyses listed in Table 2 are required for verification sampling.

Verification Wells

Four verification wells may be installed during the post-corrective action monitoring period at locations and depths designated by the UST Management Division. Costs for the well installation are considered part of the approved Corrective Action Cost. The site-specific target levels (SSTLs) for the verification wells will be calculated by the UST Management Division and provided to the contractor in writing. During verification, all wells must be sampled for the analytical parameters listed above in Table 1 as well as the natural attenuation parameters listed in Table 2.

UST # 07584, Handy Pantry # 65/ University Mart
UST # 07777/ UST # 12352, Cloud's Chevron
Richland County

Table 3: Current CoC Concentrations in Groundwater

CoC concentrations requiring reduction in micrograms per liter (µg/l) based on May 9-10, 2013 sampling and gauging:

Well	Free Product Thickness (ft)	Benzene	Toluene	Ethyl-benzene	Xylene	MtBE	Naphth.	TAA	TAME	TBA
MW-1[1]		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-2		140	280	56	460	380	54	200	9.2	140
MW-3		3000	7400	260	4500	3300	260	2000	340	1300
MW-4		<5	<5	<5	<5	3.7	<5	<100	<10	<100
MW-5[1]		<50	<50	<50	30.5	946	<50	<1000	<100	<1000
MW-6		2.8	<5	3.6	3.3	70	<5	<500	<50	<500
MW-7		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-8		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-9		4100	27,000	2500	19,000	150	960	1600	<2000	<20,000
MW-10		740	7800	<2500	15,000	<2500	950	<50,000	<5000	<50,000
MW-11		7.6	2.4	6.2	2.8	17	<5	180	<10	15
MW-12		1.7	<5	11	<5	5.6	4.7	370	1.5	19
MW-13		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-15[2]	0.23									
MW-16		<5	<5	<5	<5	<5	<5	65	<10	<100
MW-17		1400	26,000	2500	23,000	<1000	1000	9400	<2000	<20,000
MW-18[2]	0.04									
MW-19[2]	0.12									
MW-20[1]		412	2930	728	8820	88.7	817	2850	<200	<2000
MW-22		3300	17,000	2900	20,000	<1000	640	6200	130	<20,000
MW-23[2]	0.06									
MW-25		<5000	3000	1900	23,000	<5000	<5000	<100,000	<10,000	<100,000
MW-26[3]		<5	<5	<5	<5	<5	3.2	<100	<10	<100
MW-27		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-28		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-29		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-30		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-31		57	90	520	250	12	210	510	<50	<500
MW-32		8.8	4.3J	24	20	<5	18	200	<10	<100
MW-33		520	7200	1500	7200	<500	410	3200	<1000	<10,000
MW-34		17	150	130	360	<25	100	65	<50	46
MW-35		4400	2000	1700	3500	300	580	5300	51	<5000
MW-36		18	<25	120	<25	<25	69	160	<50	<500
MW-37		240	34	270	240	11	220	850	<50	44
MW-38		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-39		13	1300	460	4200	<250	330	<5000	<500	<5000
MW-40		290	2900	650	7100	<500	530	<10,000	<1000	<10,000
MW-41		260	<1000	1100	<1000	<1000	420	<20,000	<2000	<20,000
MW-42		<25	<25	36	<25	<25	60	<500	<50	<500
MW-43		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-44		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-45		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-46		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-48		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-49		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-50		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-51		<5	<5	<5	<5	<5	<5	<100	<10	<100

UST # 07584, Handy Pantry # 65/ University Mart
UST # 07777/ UST # 12352, Cloud's Chevron
Richland County

Well	Free Product Thickness (ft)	Benzene	Toluene	Ethyl-benzene	Xylene	MtBE	Naphth.	TAA	TAME	TBA
MW-53		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-54		<5	<5	<5	<5	<5	<5	110	2	14
MW-55		0.31	<5	3.6	<5	24	4.1	94	0.85	8.4
MW-56		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-58		4.8	<25	20	<25	93	11	1800	15	100
MW-59		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-60		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-62		6.2	<25	<25	<25	2.1	9.6	440	<50	<500
MW-63		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-65[1]		420	398	234	262	16.4	168	648	<50	<500
MW-67		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-70		<5	<5	<5	<5	<5	<5	<100	<10	<100
MW-5aR		9200	1000	1400	4400	160	810	1300	<1000	<10,000
PW-1R[2]	0.03									
DW-1		<5	<5	<5	<5	<5	<5	<100	<10	<100
DW-2		<5	<5	<5	<5	12	<5	<100	<10	<100
DW-3		2600	19,000	2200	10,000	<1000	620	3600	<2000	<20,000
DW-4		0.23	<5	<5	<5	12	<5	<100	<10	<100
DW-5		5000	<250	<250	2000	920	180	3100	77	<5000
DW-6		<5	<5	<5	<5	<5	<5	<100	<10	<100
DW-7		0.39	<5	<5	<5	1.1	<5	17	<10	<100
DW-8		<5	4.2	<5	<5	<5	<5	<100	<10	<100
DW-9		<5	<5	<5	<5	<5	<5	<100	<10	<100
SW-1		130	2.8	23	36	17	6.5	340	2.6	23

CoC concentations may vary due to seasonal fluctuations in the groundwater.
[1] Monitoring well was dry and not sampled. Concentrations are from the previous sampling event.
[2] Baseline CoC concentrations will be set at the levels detected after the removal of Free Phase Product.
[3] Monitoring well was covered and not sampled. Concentrations are from the previous sampling event.

UST # 07584, Handy Pantry # 65/ University Mart
UST # 07777/ UST # 12352, Cloud's Chevron
Richland County

Table 4: Site-Specific Target Levels

Site-specific target levels (SSTLs) for interim payment under this solicitation in micrograms per liter (µg/l).

Well	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphth.	TAA	TAME	TBA
MW-2	77	280*	56*	460*	380*	54*	200*	9.2*	140*
MW-3	111	7400*	260*	4500*	1976	108	2000*	340*	1300*
MW-5	50**	50**	50**	30.5*	946*	50**	1000**	100**	1000**
MW-9	35	7134	2500*	19,000*	150*	68	809	270	15,628
MW-10	24	7800*	2500**	15,000*	294	53	793	707	11,042
MW-12	1.7*	5**	11*	5**	5.6*	4.7*	370*	1.5*	19*
MW-15	16	3198	3700	21,680	730	45	492	199	5838
MW-17	32	6631	2500*	21,680	1000*	66	773	263	14,286
MW-18	40	19,326	3700	21,680	4260	348	938	4989	54,462
MW-19	54	11,081	3700	21,680	16,080	86	1065	320	26,814
MW-20	83	2930*	728*	8820*	88.7*	108	1403	200**	2000**
MW-22	90	17,000*	2900*	20,000*	1000**	112	1469	130*	20,000**
MW-23	72	14,880	3700	21,680	33,368	100	1279	359	38,475
MW-25	104	3000*	1900*	23,000*	5000**	121	1612	415	60,494
MW-31	51*	90*	520*	250*	12*	210*	510*	50**	500**
MW-33	53	7200*	1500*	7200*	500**	410*	1136	1000**	10,000**
MW-35	56	2000*	1700*	3500*	300*	542	1181	51*	5000**
MW-37	90	34*	270*	240*	11*	220*	850*	50**	44*
MW-39	13*	1300*	460*	4200*	250**	330*	1607	500**	5000**
MW-40	113	2900*	650*	7100*	500**	530*	1876	1000*	10,000**
MW-41	257	1000**	1100*	1000**	1000**	420*	3234	2000**	20,000**
MW-54	5**	5**	5**	5**	5**	5**	110*	2*	14*
MW-58	4.8*	25**	20*	25**	51	11*	279	15*	100*
MW-65	326	398*	234*	262*	16.4*	168*	648*	50**	500**
MW-5aR	83	1000*	1400*	4400*	160*	108	1300*	381	10,000**
PW-1R	58	11,928	3700	21,680	290*	19,298	1114	330	29,344
DW-3	45	8470	2200*	10,000*	1000*	620*	3600*	2000**	20,000**
SW-1	5	2.8*	23*	36*	17*	6.5*	240	2.6*	23*

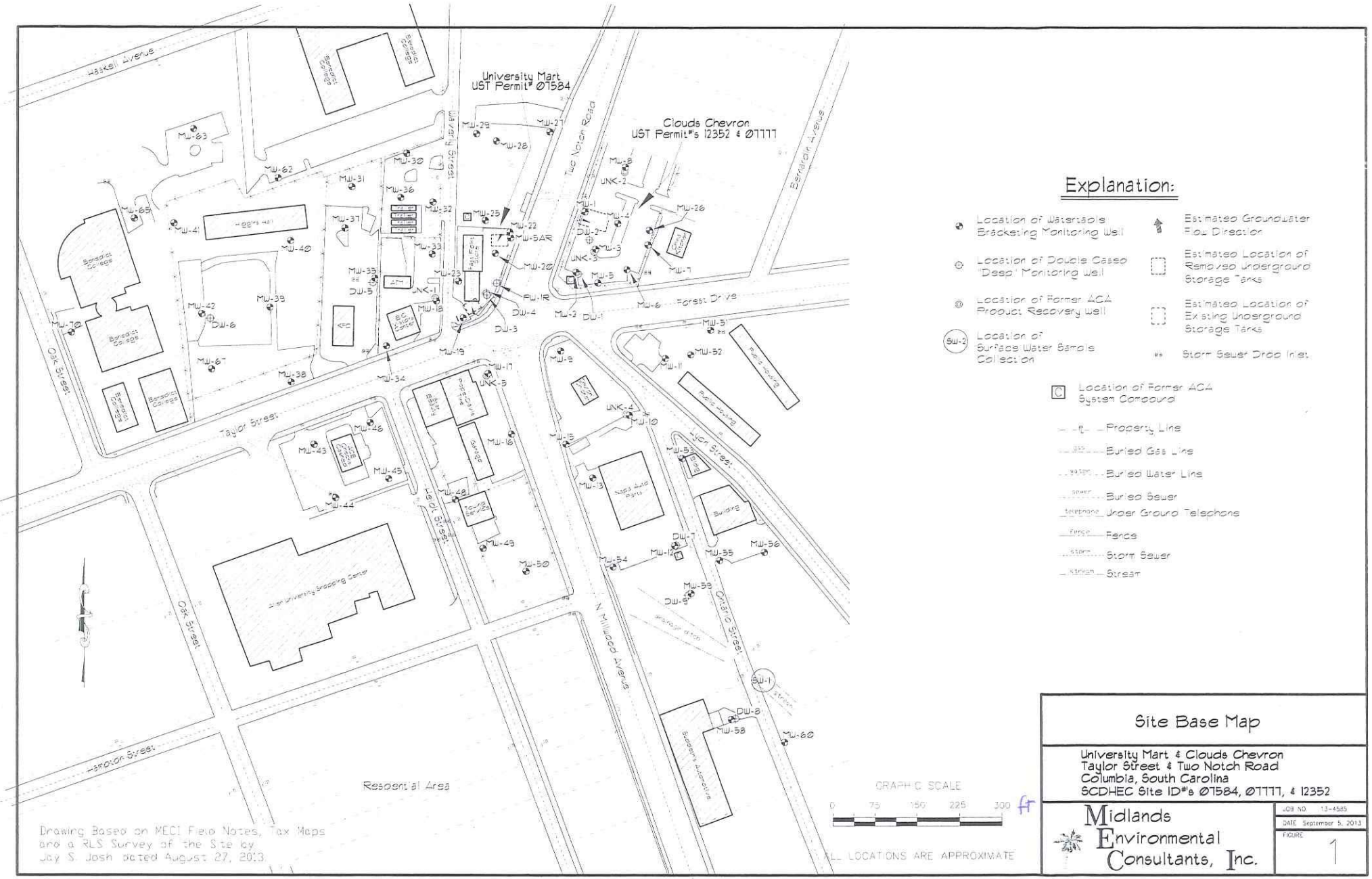
* Laboratory analysis is less than calculated SSTL. SSTL is set equal to laboratory analysis.

** Laboratory analysis is below detection limit. SSTL is set equal to detection limit.

List of Nearby Facilities

- The former Handy Pantry # 65 (UST Permit # 07584) is currently an operating facility under UST Permit # 18389, University Mart.

- UST Permit # 18184, Imports Only, Inc., 1300 N. Millwood Ave., Columbia, SC
  2 Tanks last used before 1974 and empty.
  Release Reported June 25, 1988.



Explanation:

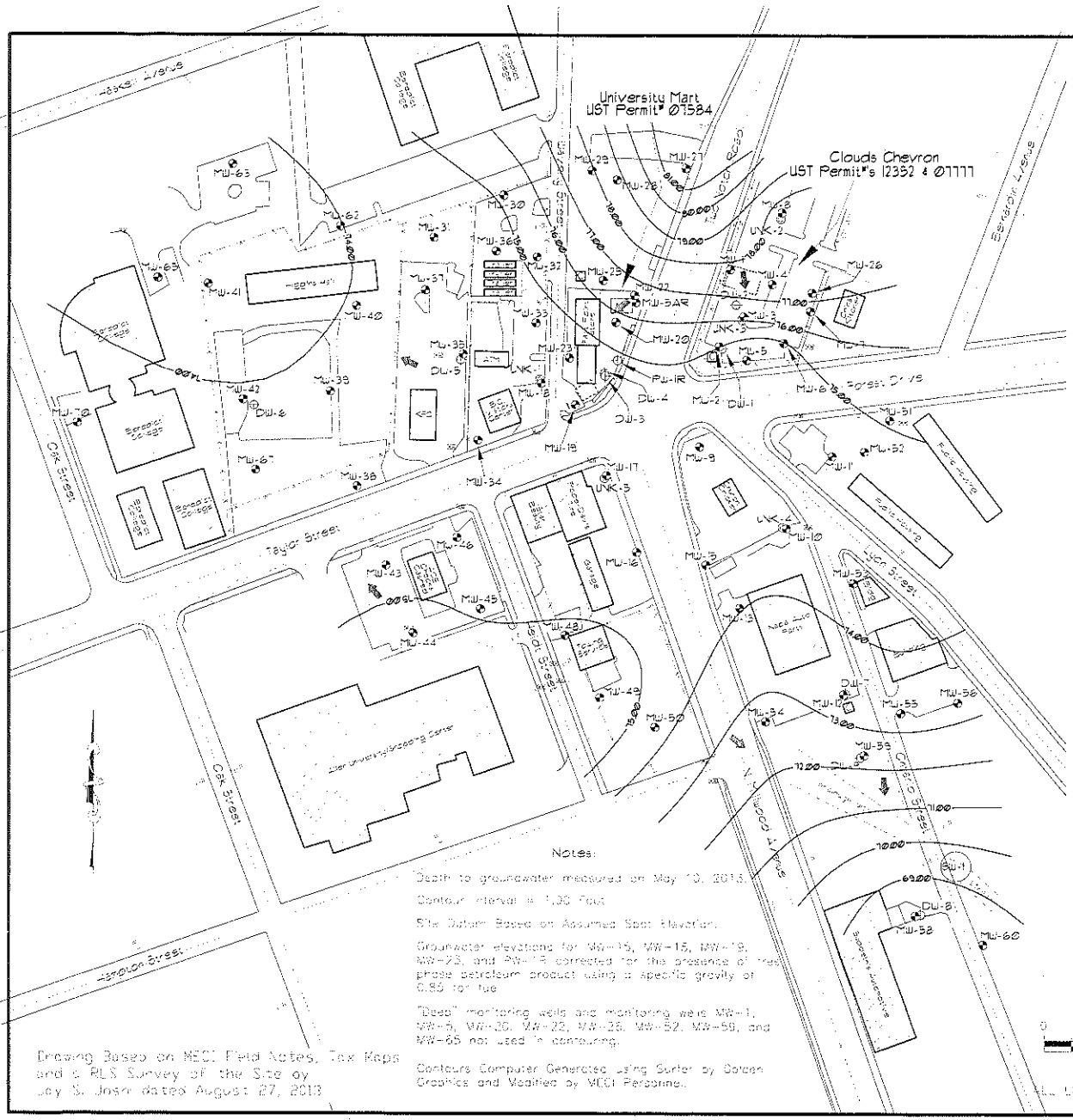
- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of Former ACA Product Recovery Well
- (SW-2) Location of Surface Water Sample Collection
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- ** Storm Sewer Drop Inlet
- Location of Former ACA System Compound
- Property Line
- Buried Gas Line
- Buried Water Line
- Buried Sewer
- Underground Telephone
- Fence
- Storm Sewer
- Street

Site Base Map

University Mart & Clouds Chevron
Taylor Street & Two Notch Road
Columbia, South Carolina
SCDHEC Site ID#'s 07584, 07777, & 12352

Midlands Environmental Consultants, Inc.

JOB NO. 13-4585
DATE September 5, 2013
FIGURE 1



Potentiometric Data

Well #	Screened Interval (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Well Head Elevation	Groundwater Elevation
MW-1	17-27	---	Dry	---	99.75	Dry
MW-2	25-30	---	25.50	---	100.47	74.97
MW-3	19-29	---	23.86	---	100.22	76.36
MW-4	16-26	---	25.00	---	100.75	77.75
MW-5	15-25	---	Dry	---	100.68	Dry
MW-6	25-30	---	25.80	---	100.94	74.94
MW-7	25-30	---	24.78	---	101.75	77.07
MW-8	18.5-28.5	---	25.19	---	100.67	77.48
MW-9	20-30	---	25.00	---	97.40	74.40
MW-10	19-29	---	24.14	---	98.29	74.15
MW-11	10-30.00	---	26.66	---	94.79	74.23
MW-12	10-24.85	---	5.60	---	79.13	73.53
MW-13	10-30.10	---	13.13	---	87.17	74.04
MW-15	15-25	18.40	18.63	0.23	92.45	74.02
MW-16	15-25	---	19.90	---	94.45	74.46
MW-17	20-30	---	24.35	---	98.80	74.44
MW-18	22-30	26.71	26.75	0.04	100.95	74.27
MW-19	20-30	25.80	25.92	0.12	100.20	74.36
MW-20	15-25	---	Dry	---	100.36	Dry
MW-22	20-30	---	25.90	---	100.00	74.10
MW-23	20-30	25.26	25.11	0.06	100.20	74.14
MW-25	10-25.80	---	22.25	---	96.73	74.48
MW-26	10-30.00	---	NS	---	101.72	NS
MW-27	10-30	---	18.20	---	98.74	82.04
MW-28	15-30	---	16.80	---	97.79	78.99
MW-29	15-30	---	15.00	---	96.66	77.66
MW-30	15-30	---	23.44	---	99.50	76.06
MW-31	25-35	---	27.40	---	101.61	74.21
MW-32	15-30	---	23.90	---	99.15	75.25
MW-33	25-35	---	25.70	---	100.11	74.41
MW-34	25-35	---	26.58	---	101.00	74.42
MW-35	25-35	---	25.73	---	100.23	74.50
MW-36	25-35	---	25.50	---	100.18	74.68
MW-37	25-35	---	25.85	---	100.09	74.24
MW-38	25-35	---	27.24	---	101.76	74.52
MW-39	25-35	---	29.15	---	102.64	74.76
MW-40	25-35	---	27.89	---	101.97	74.08
MW-41	25-35	---	27.69	---	101.58	73.89
MW-42	25-35	---	28.50	---	102.37	74.37
MW-43	25-40	---	26.72	---	101.34	74.91
MW-44	19-31	---	25.31	---	100.78	75.47
MW-45	15-30	---	23.87	---	98.70	74.83
MW-46	25-35	---	28.10	---	103.65	74.55
MW-49	15-30	---	21.00	---	96.11	75.11
MW-49	15-30	---	18.50	---	94.47	75.97
MW-50	15-30	---	15.82	---	92.37	74.55
MW-51	20-25	---	25.15	---	100.26	75.11
MW-52	15-30	---	Obstructed	---	96.45	Obstructed
MW-53	5-20	---	11.73	---	86.91	74.18
MW-54	5-20	---	11.84	---	84.18	73.34
MW-55	4-14	---	4.03	---	77.53	73.50
MW-56	5-20	---	9.20	---	82.65	73.45
MW-58	4-19	---	7.10	---	74.99	67.89
MW-59	4-17	---	5.22	---	79.61	74.39
MW-60	4-14	---	5.70	---	74.16	68.46
MW-62	20-35	---	25.45	---	99.44	73.99
MW-63	20-35	---	25.72	---	99.24	73.52
MW-65	20-32	---	Dry	---	100.02	Dry
MW-67	20-35	---	29.07	---	102.85	74.58
MW-70	25-35	---	25.80	---	101.60	74.80
MW-86R	19-29	---	23.45	---	99.94	76.49
PW-1R	45-56	25.17	25.20	0.03	100.00	74.83
PW-1	85-70	---	45.70	---	100.57	53.87
DW-2	70-75	---	26.04	---	99.50	73.96
DW-3	47-52	---	25.24	---	100.06	74.82
DW-4	105-110	---	0.0	---	100.13	100.03
DW-5	69-79	---	45.75	---	102.12	56.36
DW-6	65-70	---	47.35	---	99.98	52.62
DW-7	55-95	---	25.13	---	79.11	53.92
DW-8	90-95	---	27.54	---	74.30	52.77
DW-9	90-65	---	25.80	---	78.05	52.25
UNK-1	Unknown	---	NM	---	100.56	NM
UNK-2	Unknown	---	Abandoned	---	Abandoned	Abandoned
UNK-3	Unknown	---	NM	---	100.50	NM
UNK-4	Unknown	---	Abandoned	---	Abandoned	Abandoned
UNK-5	Unknown	---	NM	---	98.93	NM

Explanation:

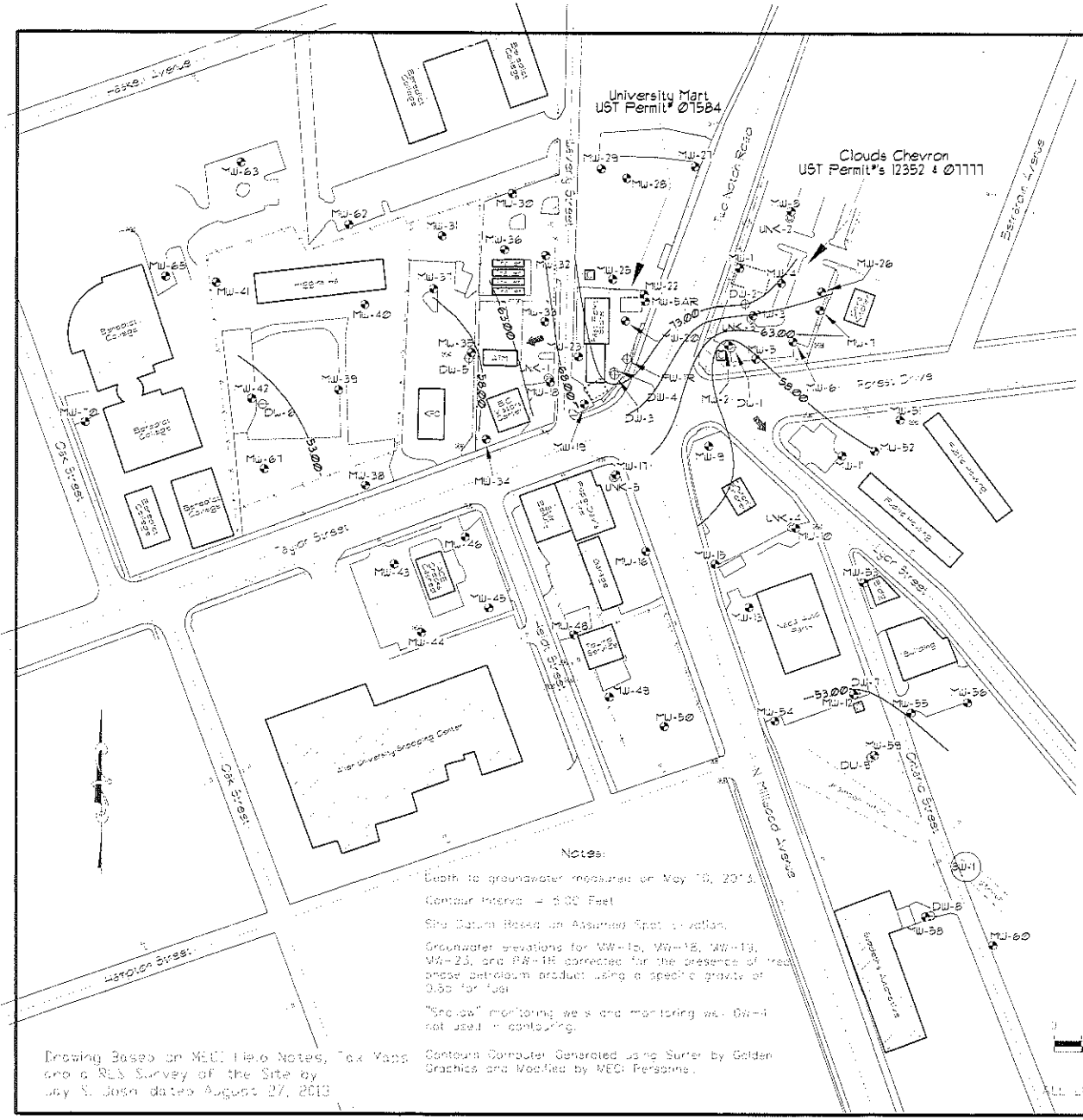
- Location of Waterlab e Bracketing Monitoring Well
- Location of Douds Cased "Deep" Monitoring Well
- Location of Former ECA Product Recovery Well
- SW-2 Location of Surface Water Sample Collection
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- Groundwater Elevation Contour (Feet)

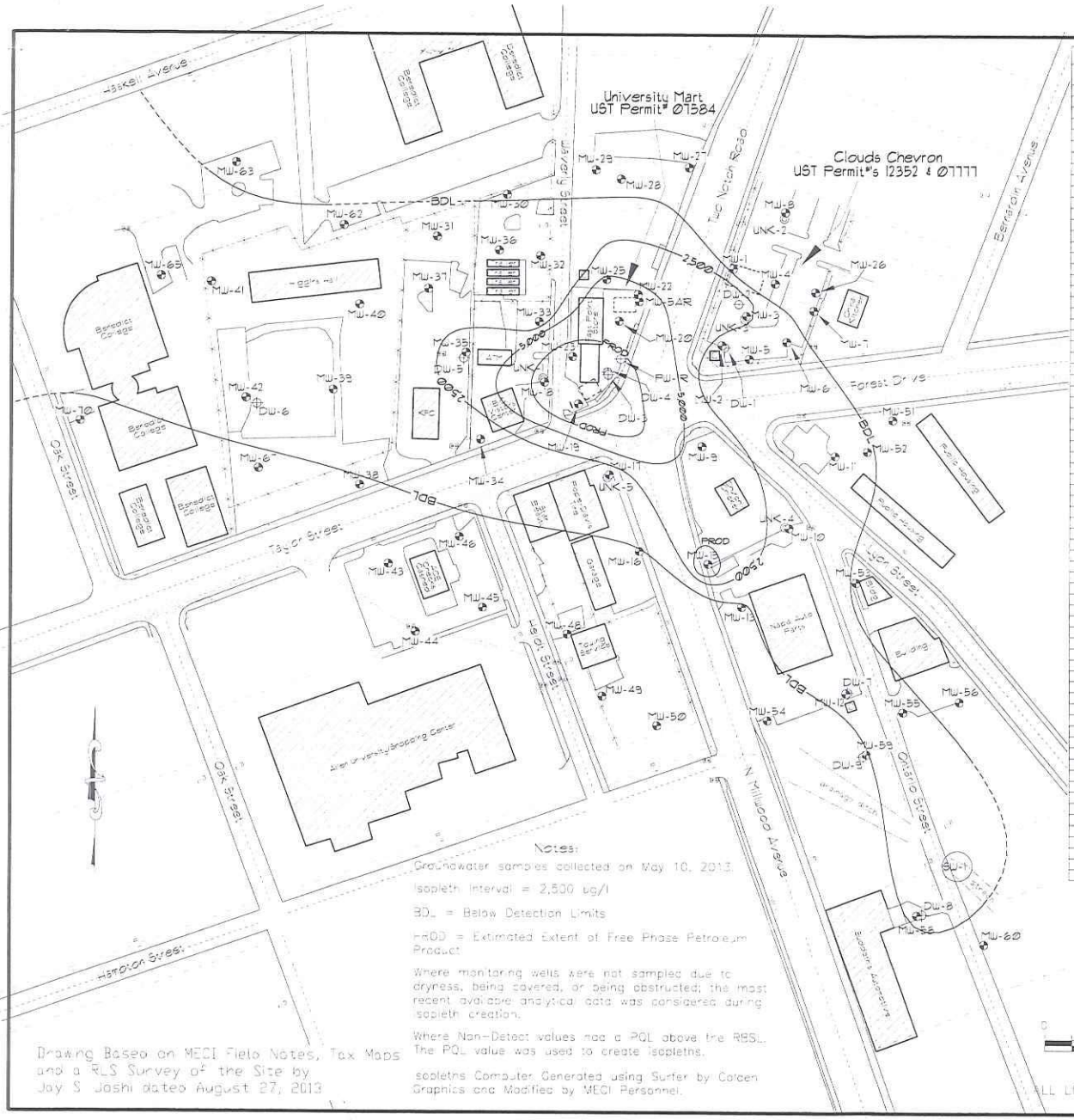
Potentiometric Data Site Map
(Groundwater Contour/"Shallow" Zone)

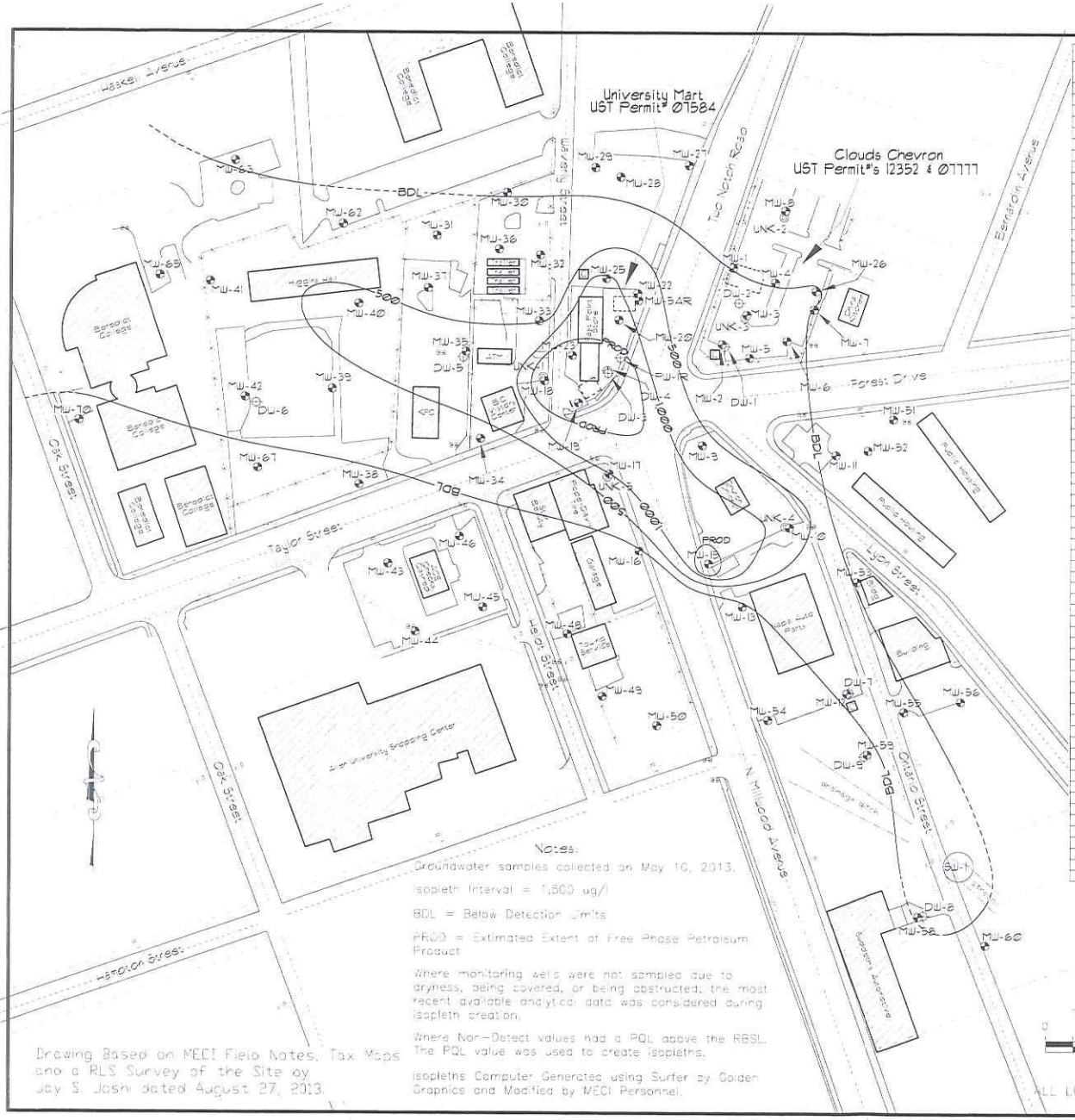
University Mart & Clouds Chevron
Taylor Street & Two Notch Road
Columbia, South Carolina
SCDHEC Site ID#'s 07584, 07777, & 12352

Midlands Environmental Consultants, Inc.

JOB NO. 13-4585
DATE September 9, 2013
FIGURE 2


University Mart
UST Permit# 01584
Clouds Chevron
UST Permit's 12352 & 01777
Bergson Avenue
Two Notch Road
Forest Drive
Taylor Street
Oak Street
Hampton Street
N. Main Street
Gadsden Street
Assembly Street
Harden Street
Bergson College
Bergson College
Bergson College
Bergson College
Oak Terrace Preparatory School
Oak Terrace Preparatory School
Oak Terrace Preparatory School


University Mart
UST Permit# Ø1584
Clouds Chevron
UST Permit#s 12352 & Ø1777
Haskell Avenue
Oak Street
Taylor Street
Forest Drive
Two Notch Road
Bernstorff Avenue
N Millwood Avenue
Harden Street
Bensdale College
Bensdale Garage
Bensdale Garage
Bensdale College
Bensdale College
Bensdale College
Bensdale College
KFC
Bank of America
Bank of America
Taco Bell
Taco Bell
Food Store
Food Store
Garage
Garage
Garage



Groundwater COC Concentration Data

Sample #	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Total Xylenes (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	1,2 DCA (ug/l)	EDB (ug/l)
MW-1	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-2	140	280	56	460	64	380	<25	0.066P
MW-3	3,000	7,400	260J	4,500	260JS	3,300	<500	2.5
MW-4	<5.0	<5.0	<5.0	<5.0	<5.0	3.7J	<5.0	<0.020
MW-5	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-6	2.8J	<5.0	3.6J	3.3J	<5.0	70	<5.0	<0.023
MW-7	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.023
MW-8	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-9	4,100	27,000	2,500	19,000	960J	150J	<1,000	5.0Q
MW-10	740J	7,800	<2,500	15,000	950J	<2,500	<2,500	<0.022
MW-11	7.5	2.4J	6.2	2.8J	<5.0	17	<5.0	<0.021
MW-12	1.7J	<5.0	1	<5.0	4.7J	5.6	<5.0	<0.020
MW-13	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-15	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-16	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-17	1,400	26,000	2,500	23,000	1,000	<1,000	<1,000	0.19
MW-18	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-19	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-20	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-22	3,300	17,000	2,900	200,000	840J	<1,000	<1,000	<0.025
MW-23	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
MW-25	<5,000	3,000J	1,900J	23,000	<5,000	<5,000	<5,000	<0.020
MW-26	NS	NS	NS	NS	NS	NS	NS	NS
MW-27	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-28	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-29	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019
MW-30	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019
MW-31	57	90	520	250	210	12J	2.4J	<0.020
MW-32	5.8	4.3J	24	20	18	<5.0	<5.0	<0.020
MW-33	520	7,200	1,500	7,200	410J	<500	<500	<0.020
MW-34	17J	150	130	350	100	<25	<25	<0.020
MW-35	4,400	2,000	1,700	3,500	560	300	98J	0.15
MW-36	18J	<25	120	<25	68	<25	<25	<0.020
MW-37	240	34	270	240	220	11J	5.7J	<0.020
MW-38	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-39	13J	1,300	460	4,200	330	<250	<250	<0.020
MW-40	290J	2,900	650	7,100	530	<500	<500	<0.020
MW-41	260J	<1,000	1,100	<1,000	420J	<1,000	<1,000	<0.020
MW-42	<25	<25	36	<25	60	<25	<25	<0.019
MW-43	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-44	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-45	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-46	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-48	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-49	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-50	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019
MW-51	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.019
MW-52	NS	NS	NS	NS	NS	NS	NS	NS
MW-53	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-54	<5.0	<5.0	<5.0	<5.0	<5.0	12	<5.0	<0.020
MW-55	0.31J	<5.0	3.6J	<5.0	4.1J	24	<5.0	<0.022
MW-56	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.021
MW-58	4.6J	<25	20J	<25	11J	93	<25	<0.020
MW-59	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.021
MW-60	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-62	9.2J	<25	<25	5.6J	21J	<25	<25	<0.020
MW-63	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-65	Dry	Dry	Dry	Dry	Dry	Dry	Dry	Dry
MW-67	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-70	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
MW-5aR	9,200	1,000	1,400	4,400	810	160J	<500	<0.020
PW-1R	PROD	PROD	PROD	PROD	PROD	PROD	PROD	PROD
DW-1	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
DW-2	<5.0	<5.0	<5.0	<5.0	<5.0	12	<5.0	<0.020
DW-3	2,600	19,000	2,200	10,000	620J	<1,000	<1,000	0.18
DW-4	0.23J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.021
DW-5	5,900	<250	<250	2,600	180J	920	<250	0.20
DW-6	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
DW-7	0.39J	<5.0	<5.0	<5.0	<5.0	1.1J	<5.0	<0.020
DW-8	<5.0	4.2J	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
DW-9	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<0.020
SW-1	130	2.8	23	36	6.5	17	<1.0	<0.020

Explanation:

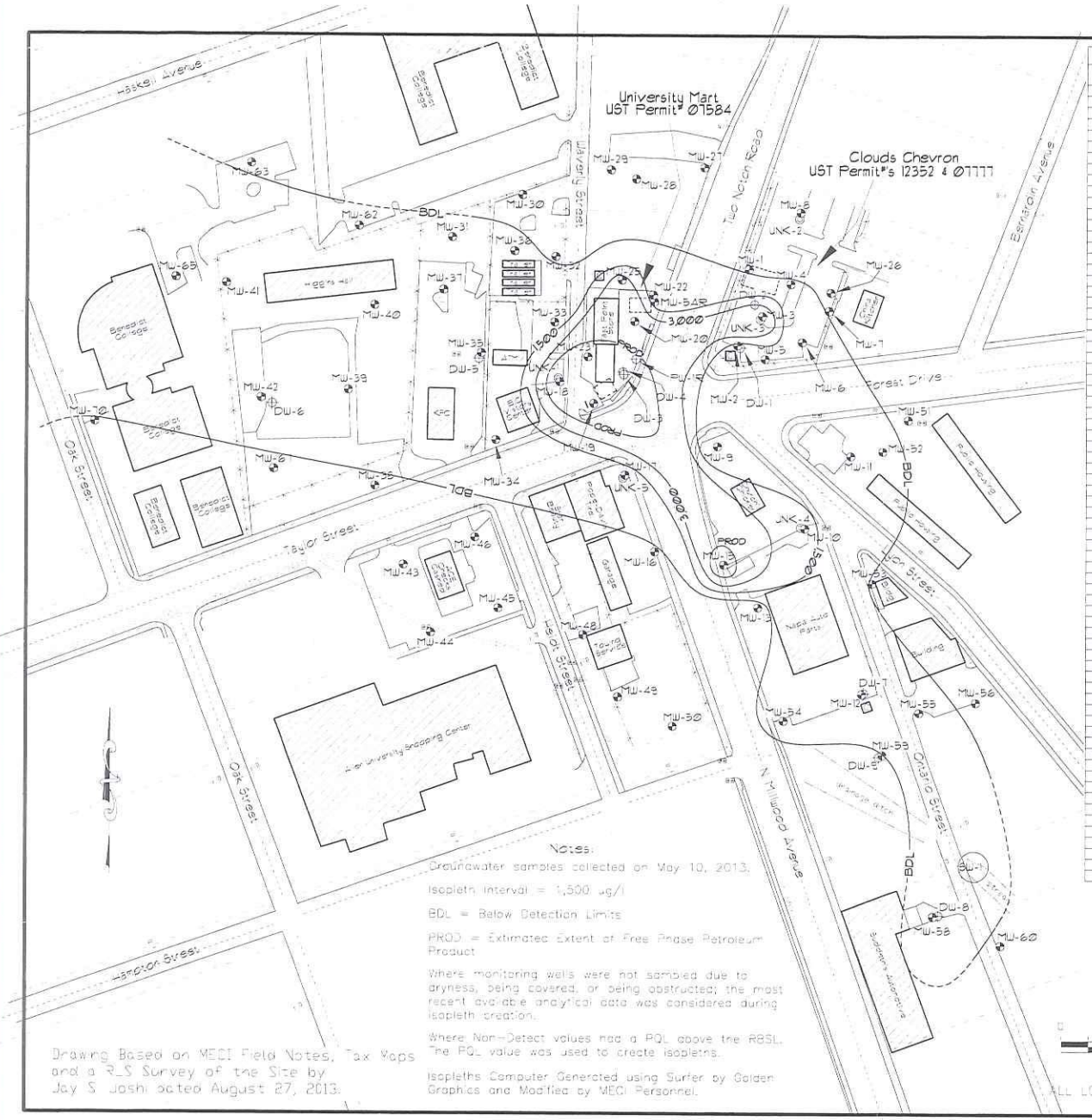
- Location of Watertable Bracketing Monitoring Well
- Location of Double Cased "Deep" Monitoring Well
- Location of Former ACA Product Recovery Well
- SW-2 Location of Surface Water Sample Collection
- Estimated Groundwater Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- Naphthalene Concentration Isopleth (ug/l)

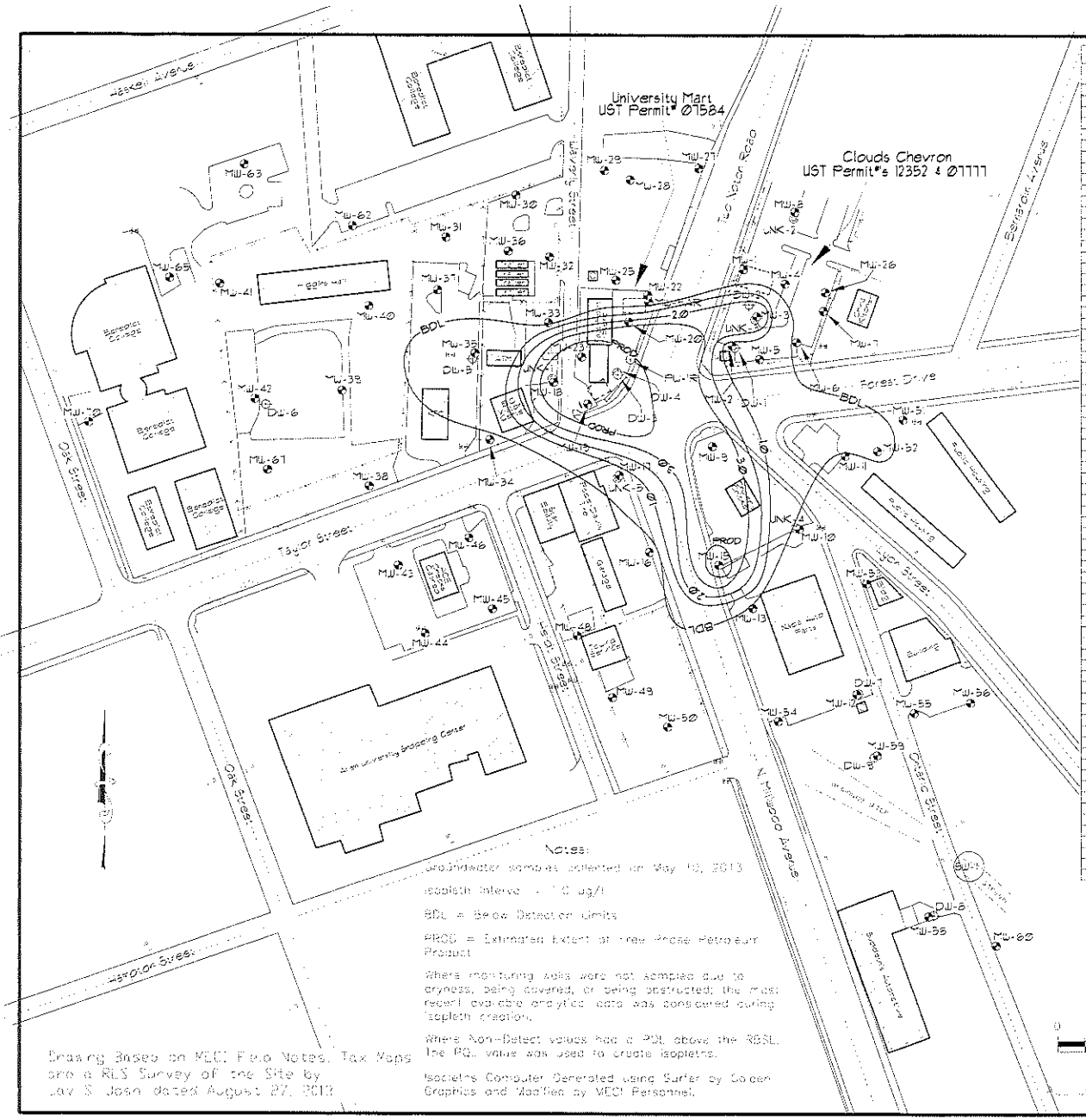
Groundwater CoC Site Map
(Naphthalene Isopleth)

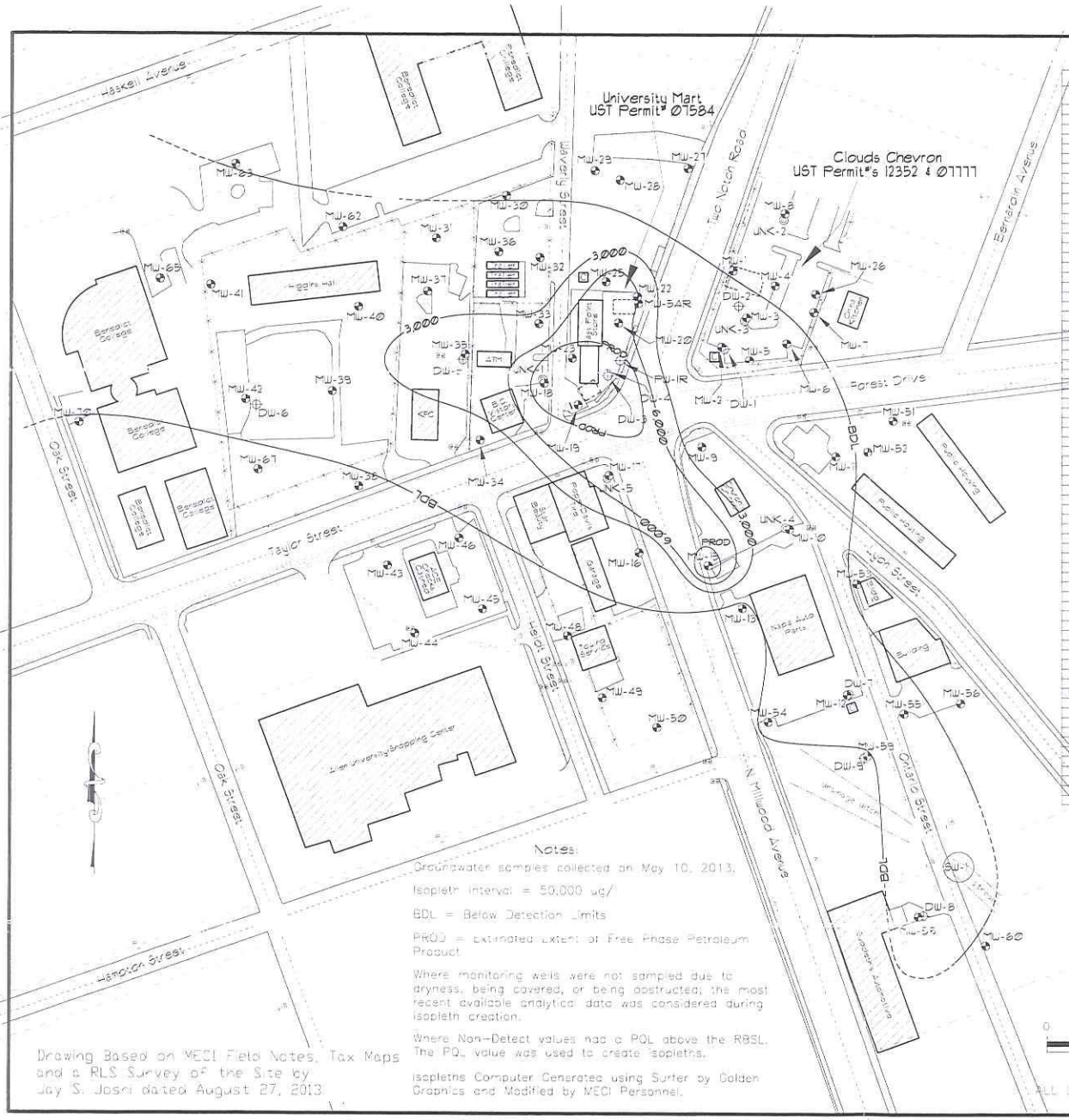
University Mart & Clouds Chevron
Taylor Street & Two Notch Road
Columbia, South Carolina
SCDHEC Site ID#'s 07584, 07777, & 12352

Midlands Environmental Consultants, Inc.

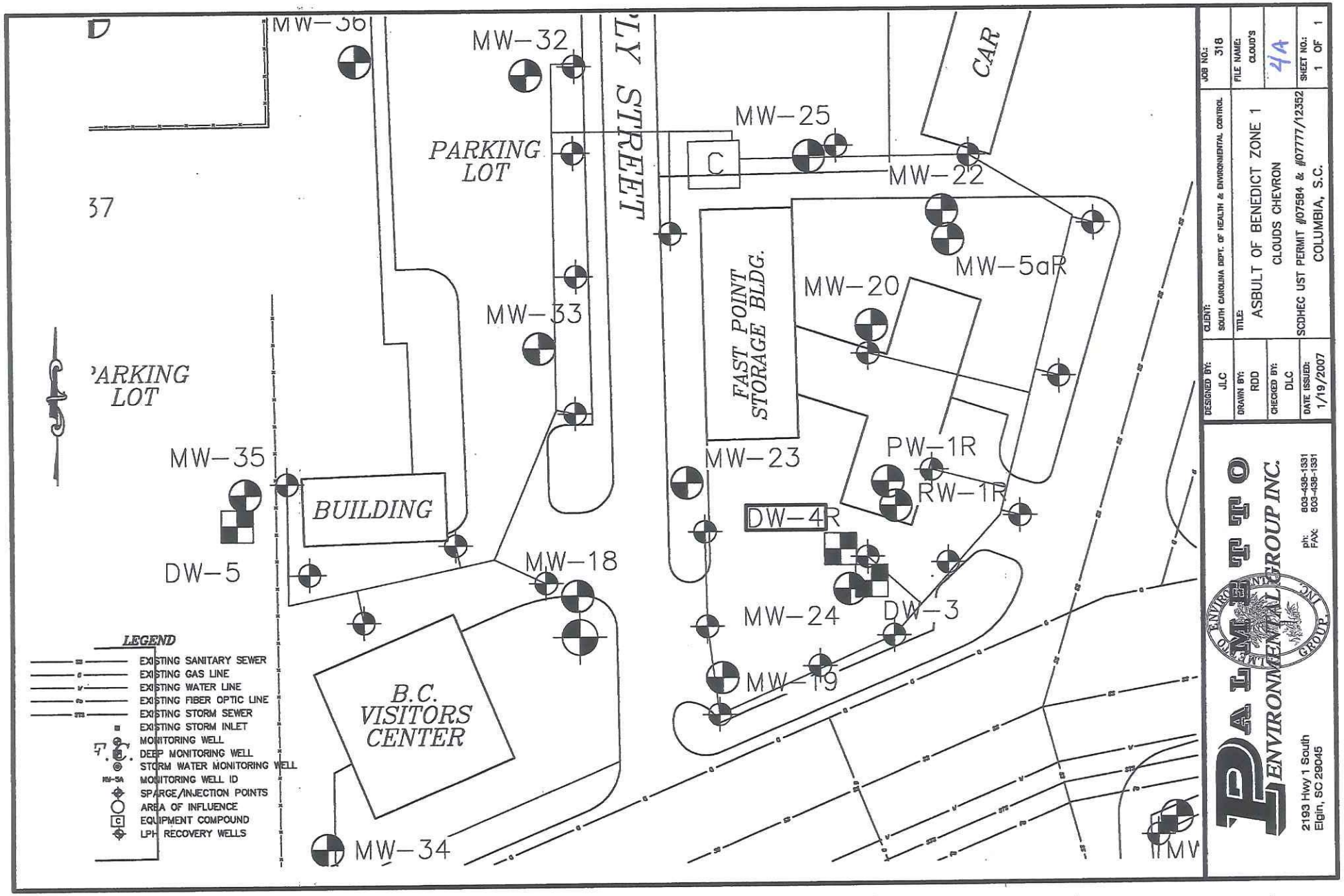
JOB NO. 13-4585
DATE September 5, 2013
FIGURE 3A


University Mart
UST Permit# 01584
Clouds Chevron
UST Permit's 12352 & 01777
Haskell Avenue
Two Notch Road
Elmwood Avenue
Forest Drive
Oak Street
Taylor Street
Huron Street
Washington Street
N Millwood Avenue
Oneida Street
Wayne Street
Lyon Street
Bldg. 1
Bldg. 2
Bldg. 3
Bldg. 4
Bldg. 5
Bldg. 6
Bldg. 7
Bldg. 8
Bldg. 9
Bldg. 10
Bldg. 11
Bldg. 12
Bldg. 13
Bldg. 14
Bldg. 15
Bldg. 16
Bldg. 17
Bldg. 18
Bldg. 19
Bldg. 20
Bldg.

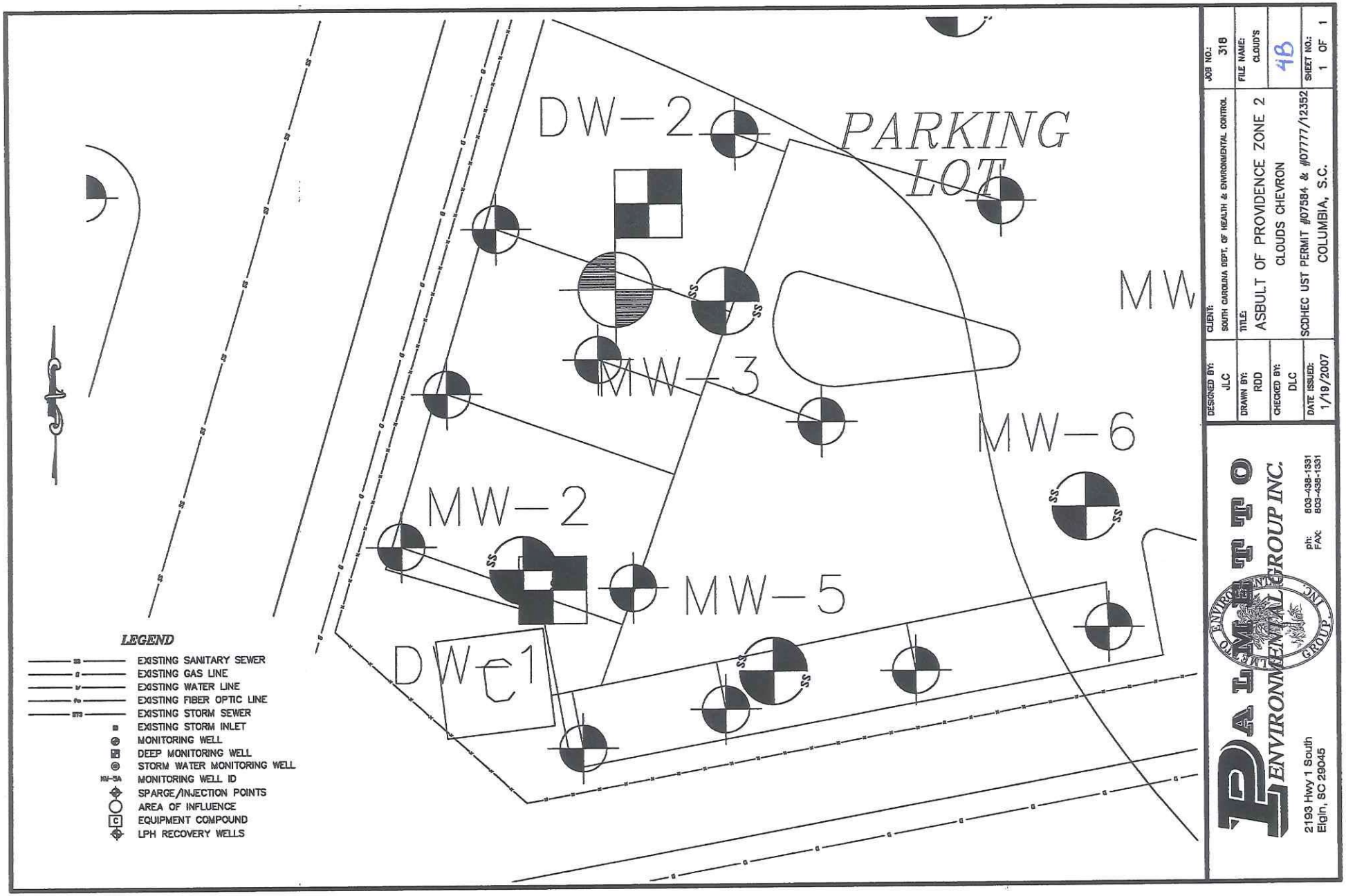

University Mart
UST Permit# 07584
Clouds Chevron
UST Permit#s 12352 & 07777
Basket Avenue
Taylor Street
Oak Street
Forest Drive
Harden Street
Two Notch Road
Bensdale Avenue
N. Hillcrest Avenue
Oneil Street
Harrison Street
Bensdale Garage
Bensdale Garage
Bensdale Garage


University Mart
UST Permit# 07584
Clouds Chevron
UST Permit#s 12352 & 07777
Haskell Avenue
Bus Loop Road
Senator Avenue
Forest Drive
Oak Street
Taylor Street
Hampton Street
Millwood Avenue
Ontario Street
Harper Street
Wheat Street
Greene Street
Assembly Street
Garage
Bldg. A&D Parts
Bldg. B Parts
Bldg. C Parts
Bldg. E Parts
Bldg. F Parts
Bldg. G Parts
Bldg. H Parts
Bldg. I Parts
Bldg. J Parts
Bldg. K Parts
Bldg. L Parts
Bldg. M Parts
Bldg. N Parts
Bldg. O Parts
Bldg. P Parts
Bldg. Q Parts
Bldg. R Parts
Bldg. S Parts
Bldg. T Parts
Bldg. U Parts
Bldg. V Parts
Bldg. W Parts
Bldg. X Parts
Bldg. Y Parts
Bldg. Z Parts
Bldg. AA Parts
Bldg. BB Parts
Bldg. CC Parts
Bldg. DD Parts
Bldg. EE Parts
Bldg. FF Parts
Bldg. GG Parts
Bldg. HH Parts
Bldg. II Parts
Bldg. JJ Parts
Bldg. KK Parts
Bldg. LL Parts
Bldg. MM Parts
Bldg. NN Parts
Bldg. OO Parts
Bldg. PP Parts
Bldg. QQ Parts
Bldg. RR Parts
Bldg. SS Parts
Bldg. TT Parts
Bldg. UU Parts
Bldg. VV Parts
Bldg. WW Parts
Bldg. XX Parts
Bldg. YY Parts
Bldg. ZZ Parts
Bldg. AAA Parts
Bldg. BBB Parts
Bldg. CCC Parts
Bldg. DDD Parts
Bldg. EEE Parts
Bldg. FFF Parts
Bldg. GGG Parts
Bldg. HHH Parts
Bldg. III Parts
Bldg. JJJ Parts
Bldg. KKK Parts
Bldg. LLL Parts
Bldg. MMM Parts
Bldg. NNN Parts
Bldg. OOO Parts
Bldg. PPP Parts
Bldg. QQQ Parts
Bldg. RRR Parts
Bldg. SSS Parts
Bldg. TTT Parts
Bldg. UUU Parts
Bldg. VVV Parts
Bldg. WWW Parts
Bldg. XXX Parts
Bldg. YYY Parts
Bldg. ZZZ Parts
Bldg. AAAA Parts
Bldg. BBBB Parts
Bldg. CCCC Parts
Bldg. DDDD Parts
Bldg. EEEE Parts
Bldg. FFFF Parts
Bldg. GGGG Parts
Bldg. HHHH Parts
Bldg. IIII Parts
Bldg. JJJJ Parts
Bldg. KKKK Parts
Bldg. LLLL Parts
Bldg. MMMM Parts
Bldg. NNNN Parts
Bldg. OOOO Parts
Bldg. PPPP Parts
Bldg. QQQQ Parts
Bldg. RRRR Parts
Bldg. SSSS Parts
Bldg. TTTT Parts
Bldg. UUUU Parts
Bldg. VVVV Parts
Bldg. WWWW Parts
Bldg. XXXX Parts
Bldg. YYYY Parts
Bldg. ZZZZ Parts
Bldg. AAAAA Parts
Bldg. BBBBB Parts
Bldg. CCCCC Parts
Bldg. DDDDD Parts
Bldg. EEEEE Parts
Bldg. FFFFF Parts
Bldg. GGGGG Parts
Bldg. HHHHH Parts
Bldg. IIIII Parts
Bldg. JJJJJ Parts
Bldg. KKKKK Parts
Bldg. LLLLL Parts
Bldg. MMMMM Parts
Bldg. NNNNN Parts
Bldg. OOOOO Parts
Bldg. PPPPP Parts
Bldg. QQQQQ Parts
Bldg. RRRRR Parts
Bldg. SSSSS Parts
Bldg. TTTTT Parts
Bldg. UUUUU Parts
Bldg. VVVVV Parts
Bldg. WWWWW Parts
Bldg. XXXXX Parts
Bldg. YYYYY Parts
Bldg. ZZZZZ Parts
Bldg. AAAAAA Parts
Bldg. BBBBBB Parts
Bldg. CCCCCC Parts
Bldg. DDDDDD Parts
Bldg. EEEEEE Parts
Bldg. FFFFFF Parts
Bldg. GGGGGG Parts
Bldg. HHHHHH Parts
Bldg. IIIIII Parts
Bldg. JJJJJJ Parts
Bldg. KKKKKK Parts
Bldg. LLLLLL Parts
Bldg. MMMMMM Parts
Bldg. NNNNNN Parts
Bldg. OOOOOO Parts
Bldg. PPPPPP Parts
Bldg. QQQQQQ Parts
Bldg. RRRRRR Parts
Bldg. SSSSSS Parts
Bldg. TTTTTT Parts
Bldg. UUUUUU Parts
Bldg. VVVVVV Parts
Bldg. WWWWWW Parts
Bldg. XXXXXX Parts
Bldg. YYYYYY Parts
Bldg. ZZZZZZ Parts
Bldg. AAAAAAA Parts
Bldg. BBBBBBB Parts
Bldg. CCCCCCC Parts
Bldg. DDDDDDD Parts
Bldg. EEEEEEE Parts
Bldg. FFFFFFF Parts
Bldg. GGGGGGG Parts
Bldg. HHHHHHH Parts
Bldg. IIIIIII Parts
Bldg. JJJJJJJ Parts
Bldg. KKKKKKK Parts
Bldg. LLLLLLL Parts
Bldg. MMMMMMM Parts
Bldg. NNNNNNN Parts
Bldg. OOOOOOO Parts
Bldg. PPPPPPP Parts
Bldg. QQQQQQQ Parts
Bldg. RRRRRRR Parts
Bldg. SSSSSSS Parts
Bldg. TTTTTTT Parts
Bldg. UUUUUUU Parts
Bldg. VVVVVVV Parts
Bldg. WWWWWWW Parts
Bldg. XXXXXXX Parts
Bldg. YYYYYYY Parts
Bldg. ZZZZZZZ Parts
Bldg. AAAAAAAA Parts
Bldg. BBBBBBBB Parts
Bldg. CCCCCCCC Parts
Bldg. DDDDDDDD Parts
Bldg. EEEEEEEE Parts
Bldg. FFFFFFFF Parts
Bldg. GGGGGGGG Parts
Bldg. HHHHHHHH Parts
Bldg. IIIIIIII Parts
Bldg. JJJJJJJJ Parts
Bldg. KKKKKKKK Parts
Bldg. LLLLLLLL Parts
Bldg. MMMMMMMM Parts
Bldg. NNNNNNNN Parts
Bldg. OOOOOOOO Parts
Bldg. PPPPPPPP Parts
Bldg. QQQQQQQQ Parts
Bldg. RRRRRRRR Parts
Bldg. SSSSSSSS Parts
Bldg. TTTTTTTT Parts
Bldg. UUUUUUUU Parts
Bldg. VVVVVVVV Parts
Bldg. WWWWWWWW Parts
Bldg. XXXXXXXX Parts
Bldg. YYYYYYYY Parts
Bldg. ZZZZZZZZ Parts
Bldg. AAAAAAAAA Parts
Bldg. BBBBBBBBB Parts
Bldg. CCCCCCCCC Parts
Bldg. DDDDDDDDD Parts
Bldg. EEEEEEEEE Parts
Bldg. FFFFFFFFF Parts
Bldg. GGGGGGGGG Parts
Bldg. HHHHHHHHH Parts
Bldg. IIIIIIIII Parts
Bldg. JJJJJJJJJ Parts
Bldg. KKKKKKKKK Parts
Bldg. LLLLLLLLL Parts
Bldg. MMMMMMMMM Parts
Bldg. NNNNNNNNN Parts
Bldg. OOOOOOOOO Parts
Bldg. PPPPPPPPP Parts
Bldg. QQQQQQQQQ Parts
Bldg. RRRRRRRRR Parts
Bldg. SSSSSSSSS Parts
Bldg. TTTTTTTTT Parts
Bldg. UUUUUUUUU Parts
Bldg. VVVVVVVVV Parts
Bldg. WWWWWWWWW Parts
Bldg. XXXXXXXXX Parts
Bldg. YYYYYYYYY Parts
Bldg. ZZZZZZZZZ Parts
Bldg. AAAAAAAAAA Parts
Bldg. BBBBBBBBBB Parts
Bldg. CCCCCCCCCC Parts
Bldg. DDDDDDDDDD Parts
Bldg. EEEEEEEEEE Parts
Bldg. FFFFFFFFFF Parts
Bldg. GGGGGGGGGG Parts
Bldg. HHHHHHHHHH Parts
Bldg. IIIIIIIIII Parts
Bldg. JJJJJJJJJJ Parts
Bldg. KKKKKKKKKK Parts
Bldg. LLLLLLLLLL Parts
Bldg. MMMMMMMMMM Parts
Bldg. NNNNNNNNNN Parts
Bldg. OOOOOOOOOO Parts
Bldg. PPPPPPPPPP Parts
Bldg. QQQQQQQQQQ Parts
Bldg. RRRRRRRRRR Parts
Bldg. SSSSSSSSSS Parts
Bldg. TTTTTTTTTT Parts
Bldg. UUUUUUUUUU Parts
Bldg. VVVVVVVVVV Parts
Bldg. WWWWWWWWWW Parts
Bldg. XXXXXXXXXX Parts
Bldg. YYYYYYYYYY Parts
Bldg. ZZZZZZZZZZ Parts
Bldg. AAAAAAAAAAA Parts
Bldg. BBBBBBBBBBB Parts
Bldg. CCCCCCCCCCC Parts
Bldg. DDDDDDDDDDD Parts
Bldg. EEEEEEEEEEE Parts
Bldg. FFFFFFFFFFF Parts
Bldg. GGGGGGGGGGG Parts
Bldg. HHHHHHHHHHH Parts
Bldg. IIIIIIIIIII Parts
Bldg. JJJJJJJJJJJ Parts
Bldg. KKKKKKKKKKK Parts
Bldg. LLLLLLLLLLL Parts
Bldg. MMMMMMMMMMM Parts
Bldg. NNNNNNNNNNN Parts
Bldg. OOOOOOOOOOO Parts
Bldg. PPPPPPPPPPP Parts
Bldg. QQQQQQQQQQQ Parts
Bldg. RRRRRRRRRRR Parts
Bldg. SSSSSSSSSSS Parts
Bldg. TTTTTTTTTTT Parts
Bldg. UUUUUUUUUUU Parts
Bldg. VVVVVVVVVVV Parts
Bldg. WWWWWWWWWWW Parts
Bldg. XXXXXXXXXXX Parts
Bldg. YYYYYYYYYYY Parts
Bldg. ZZZZZZZZZZZ Parts
Bldg. AAAAAAAAAAAA Parts
Bldg. BBBBBBBBBBBB Parts
Bldg. CCCCCCCCCCCC Parts
Bldg. DDDDDDDDDDDD Parts
Bldg. EEEEEEEEEEEE Parts
Bldg. FFFFFFFFFFFF Parts
Bldg. GGGGGGGGGGGG Parts
Bldg. HHHHHHHHHHHH Parts
Bldg. IIIIIIIIIIII Parts
Bldg. JJJJJJJJJJJJ Parts
Bldg. KKKKKKKKKKKK Parts
Bldg. LLLLLLLLLLLL Parts
Bldg. MMMMMMMMMMMM Parts
Bldg. NNNNNNNNNNNN Parts
Bldg. OOOOOOOOOOOO Parts
Bldg. PPPPPPPPPPPP Parts
Bldg. QQQQQQQQQQQQ Parts
Bldg. RRRRRRRRRRRR Parts
Bldg. SSSSSSSSSSSS Parts
Bldg. TTTTTTTTTTTT Parts
Bldg. UUUUUUUUUUUU Parts
Bldg. VVVVVVVVVVVV Parts
Bldg. WWWWWWWWWWWW Parts
Bldg. XXXXXXXXXXXX Parts
Bldg. YYYYYYYYYYYY Parts
Bldg. ZZZZZZZZZZZZ Parts
Bldg. AAAAAAAAAAAAA Parts
Bldg. BBBBBBBBBBBBB Parts
Bldg. CCCCCCCCCCCCC Parts
Bldg. DDDDDDDDDDDDD Parts
Bldg. EEEEEEEEEEEEE Parts
Bldg. FFFFFFFFFFFFF Parts
Bldg. GGGGGGGGGGGGG Parts
Bldg. HHHHHHHHHHHHH Parts
Bldg. IIIIIIIIIIIII Parts
Bldg. JJJJJJJJJJJJJ Parts
Bldg. KKKKKKKKKKKKK Parts
Bldg. LLLLLLLLLLLLL Parts
Bldg. MMMMMMMMMMMMM Parts
Bldg. NNNNNNNNNNNNN Parts
Bldg. OOOOOOOOOOOOO Parts
Bldg. PPPPPPPPPPPPP Parts
Bldg. QQQQQQQQQQQQQ Parts
Bldg. RRRRRRRRRRRRR Parts
Bldg. SSSSSSSSSSSSS Parts
Bldg. TTTTTTTTTTTTT Parts
Bldg. UUUUUUUUUUUUU Parts
Bldg. VVVVVVVVVVVVV Parts
Bldg. WWWWWWWWWWWWW Parts
Bldg. XXXXXXXXXXXXX Parts
Bldg. YYYYYYYYYYYYY Parts
Bldg. ZZZZZZZZZZZZZ Parts
Bldg. AAAAAAAAAAAAAA Parts
Bldg. BBBBBBBBBBBBBB Parts
Bldg. CCCCCCCCCCCCCC Parts
Bldg. DDDDDDDDDDDDDD Parts
Bldg. EEEEEEEEEEEEEE Parts
Bldg. FFFFFFFFFFFFFF Parts
Bldg. GGGGGGGGGGGGGG Parts
Bldg. HHHHHHHHHHHHHH Parts
Bldg. IIIIIIIIIIIIII Parts
Bldg. JJJJJJJJJJJJJJ Parts
Bldg. KKKKKKKKKKKKKK Parts
Bldg. LLLLLLLLLLLLLL Parts
Bldg. MMMMMMMMMMMMMM Parts
Bldg. NNNNNNNNNNNNNN Parts
Bldg. OOOOOOOOOOOOOO Parts
Bldg. PPPPPPPPPPPPPP Parts
Bldg. QQQQQQQQQQQQQQ Parts
Bldg. RRRRRRRRRRRRRR Parts
Bldg. SSSSSSSSSSSSSS Parts
Bldg. TTTTTTTTTTTTTT Parts
Bldg. UUUUUUUUUUUUUU Parts
Bldg. VVVVVVVVVVVVVV Parts
Bldg. WWWWWWWWWWWWWW Parts
Bldg. XXXXXXXXXXXXXX Parts
Bldg. YYYYYYYYYYYYYY Parts
Bldg. ZZZZZZZZZZZZZZ Parts
Bldg. AAAAAAAAAAAAAAA Parts
Bldg. BBBBBBBBBBBBBBB Parts
Bldg. CCCCCCCCCCCCCCC Parts
Bldg. DDDDDDDDDDDDDDD Parts
Bldg. EEEEEEEEEEEEEEE Parts
Bldg. FFFFFFFFFFFFFFF Parts
Bldg. GGGGGGGGGGGGGGG Parts
Bldg. HHHHHHHHHHHHHHH Parts
Bldg. IIIIIIIIIIIIIII Parts
Bldg. JJJJJJJJJJJJJJJ Parts
Bldg. KKKKKKKKKKKKKKK Parts
Bldg. LLLLLLLLLLLLLLL Parts
Bldg. MMMMMMMMMMMMMMM Parts
Bldg. NNNNNNNNNNNNNNN Parts
Bldg. OOOOOOOOOOOOOOO Parts
Bldg. PPPPPPPPPPPPPPP Parts
Bldg. QQQQQQQQQQQQQQQ Parts
Bldg. RRRRRRRRRRRRRRR Parts
Bldg. SSSSSSSSSSSSSSS Parts
Bldg. TTTTTTTTTTTTTTT Parts
Bldg. UUUUUUUUUUUUUUU Parts
Bldg. VVVVVVVVVVVVVVV Parts
Bldg. WWWWWWWWWWWWWWW Parts
Bldg. XXXXXXXXXXXXXXX Parts
Bldg. YYYYYYYYYYYYYYY Parts
Bldg. ZZZZZZZZZZZZZZZ Parts
Bldg. AAAAAAAAAAAAAAAA Parts
Bldg. BBBBBBBBBBBBBBBB Parts
Bldg. CCCCCCCCCCCCCCCC Parts
Bldg. DDDDDDDDDDDDDDDD Parts
Bldg. EEEEEEEEEEEEEEEE Parts
Bldg. FFFFFFFFFFFFFFFF Parts
Bldg. GGGGGGGGGGGGGGGG Parts
Bldg. HHHHHHHHHHHHHHHH Parts
Bldg. IIIIIIIIIIIIIIII Parts
Bldg. JJJJJJJJJJJJJJJJ Parts
Bldg. KKKKKKKKKKKKKKKK Parts
Bldg. LLLLLLLLLLLLLLLL Parts
Bldg. MMMMMMMMMMMMMMMM Parts
Bldg. NNNNNNNNNNNNNNNN Parts
Bldg. OOOOOOOOOOOOOOOO Parts
Bldg. PPPPPPPPPPPPPPPP Parts
Bldg. QQQQQQQQQQQQQQQQ Parts
Bldg. RRRRRRRRRRRRRRRR Parts
Bldg. SSSSSSSSSSSSSSSS Parts
Bldg. TTTTTTTTTTTTTTTT Parts
Bldg. UUUUUUUUUUUUUUUU Parts
Bldg. VVVVVVVVVVVVVVVV Parts
Bldg. WWWWWWWWWWWWWWWW Parts
Bldg. XXXXXXXXXXXXXXXX Parts
Bldg. YYYYYYYYYYYYYYYY Parts
Bldg. ZZZZZZZZZZZZZZZZ Parts
Bldg. AAAAAAAAAAAAAAAAA Parts
Bldg. BBBBBBBBBBBBBBBBB Parts
Bldg. CCCCCCCCCCCCCCCCC Parts
Bldg. DDDDDDDDDDDDDDDDD Parts
Bldg. EEEEEEEEEEEEEEEEE Parts
Bldg. FFFFFFFFFFFFFFFFF Parts
Bldg. GGGGGGGGGGGGGGGGG Parts
Bldg. HHHHHHHHHHHHHHHHH Parts
Bldg. IIIIIIIIIIIIIIIII Parts
Bldg. JJJJJJJJJJJJJJJJJ Parts
Bldg. KKKKKKKKKKKKKKKKK Parts
Bldg. LLLLLLLLLLLLLLLLL Parts
Bldg. MMMMMMMMMMMMMMMMM Parts
Bldg. NNNNNNNNNNNNNNNNN Parts
Bldg. OOOOOOOOOOOOOOOOO Parts
Bldg. PPPPPPPPPPPPPPPPP Parts
Bldg. QQQQQQQQQQQQQQQQQ Parts
Bldg. RRRRRRRRRRRRRRRRR Parts
Bldg. SSSSSSSSSSSSSSSSS Parts
Bldg. TTTTTTTTTTTTTTTTT Parts
Bldg. UUUUUUUUUUUUUUUUU Parts
Bldg. VVVVVVVVVVVVVVVVV Parts
Bldg. WWWWWWWWWWWWWWWWW Parts
Bldg. XXXXXXXXXXXXXXXXX Parts
Bldg. YYYYYYYYYYYYYYYYY Parts
Bldg. ZZZZZZZZZZZZZZZZZ Parts
Bldg. AAAAAAAAAAAAAAAAAA Parts
Bldg. BBBBBBBBBBBBBBBBBB Parts
Bldg. CCCCCCCCCCCCCCCCCC Parts
Bldg. DDDDDDDDDDDDDDDDDD Parts
Bldg. EEEEEEEEEEEEEEEEEE Parts
Bldg. FFFFFFFFFFFFFFFFFF Parts
Bldg. GGGGGGGGGGGGGGGGGG Parts
Bldg. HHHHHHHHHHHHHHHHHH Parts
Bldg. IIIIIIIIIIIIIIIIII Parts
Bldg. JJJJJJJJJJJJJJJJJJ Parts
Bldg. KKKKKKKKKKKKKKKKKK Parts
Bldg. LLLLLLLLLLLLLLLLLL Parts
Bldg. MMMMMMMMMMMMMMMMMM Parts
Bldg. NNNNNNNNNNNNNNNNNN Parts
Bldg. OOOOOOOOOOOOOOOOOO Parts
Bldg. PPPPPPPPPPPPPPPPPP Parts
Bldg. QQQQQQQQQQQQQQQQQQ Parts
Bldg. RRRRRRRRRRRRRRRRRR Parts
Bldg. SSSSSSSSSSSSSSSSSS Parts
Bldg. TTTTTTTTTTTTTTTTTT Parts
Bldg. UUUUUUUUUUUUUUUUUU Parts
Bldg. VVVVVVVVVVVVVVVVVV Parts
Bldg. WWWWWWWWWWWWWWWWWW Parts
Bldg. XXXXXXXXXXXXXXXXXX Parts
Bldg. YYYYYYYYYYYYYYYYYY Parts
Bldg. ZZZZZZZZZZZZZZZZZZ Parts
Bldg. AAAAAAAAAAAAAAAAAAA Parts
Bldg. BBBBBBBBBBBBBBBBBBB Parts
Bldg. CCCCCCCCCCCCCCCCCCC Parts
Bldg. DDDDDDDDDDDDDDDDDDD Parts
Bldg. EEEEEEEEEEEEEEEEEEE Parts
Bldg. FFFFFFFFFFFFFFFFFFF Parts
Bldg. GGGGGGGGGGGGGGGGGGG Parts
Bldg. HHHHHHHHHHHHHHHHHHH Parts
Bldg. IIIIIIIIIIIIIIIIIII Parts
Bldg. JJJJJJJJJJJJJJJJJJJ Parts
Bldg. KKKKKKKKKKKKKKKKKKK Parts
Bldg. LLLLLLLLLLLLLLLLLLL Parts
Bldg. MMMMMMMMMMMMMMMMMMM Parts
Bldg. NNNNNNNNNNNNNNNNNNN Parts
Bldg. OOOOOOOOOOOOOOOOOOO Parts
Bldg. PPPPPPPPPPPPPPPPPPP Parts
Bldg. QQQQQQQQQQQQQQQQQQQ Parts
Bldg. RRRRRRRRRRRRRRRRRRR Parts
Bldg. SSSSSSSSSSSSSSSSSSS Parts
Bldg. TTTTTTTTTTTTTTTTTTT Parts
Bldg. UUUUUUUUUUUUUUUUUUU Parts
Bldg. VVVVVVVVVVVVVVVVVVV Parts
Bldg. WWWWWWWWWWWWWWWWWWW Parts
Bldg. XXXXXXXXXXXXXXXXXXX Parts
Bldg. YYYYYYYYYYYYYYYYYYY Parts
Bldg. ZZZZZZZZZZZZZZZZZZZ Parts
Bldg. AAAAAAAAAAAAAAAAAAAA Parts
Bldg. BBBBBBBBBBBBBBBBBBBB Parts
Bldg. CCCCCCCCCCCCCCCCCCCC Parts
Bldg. DDDDDDDDDDDDDDDDDDDD Parts
Bldg. EEEEEEEEEEEEEEEEEEEE Parts
Bldg. FFFFFFFFFFFFFFFFFFFF Parts
Bldg. GGGGGGGGGGGGGGGGGGGG Parts
Bldg. HHHHHHHHHHHHHHHHHHHH Parts
Bldg. IIIIIIIIIIIIIIIIIIII Parts
Bldg. JJJJJJJJJJJJJJJJJJJJ Parts
Bldg. KKKKKKKKKKKKKKKKKKKK Parts
Bldg. LLLLLLLLLLLLLLLLLLLL Parts
Bldg. MMMMMMMMMMMMMMMMMMMM Parts
Bldg. NNNNNNNNNNNNNNNNNNNN Parts
Bldg. OOOOOOOOOOOOOOOOOOOO Parts
Bldg. PPPPPPPPPPPPPPPPPPPP Parts
Bldg. QQQQQQQQQQQQQQQQQQQQ Parts
Bldg. RRRRRRRRRRRRRRRRRRRR Parts
Bldg. SSSSSSSSSSSSSSSSSSSS Parts
Bldg. TTTTTTTTTTTTTTTTTTTT Parts
Bldg. UUUUUUUUUUUUUUUUUUUU Parts
Bldg. VVVVVVVVVVVVVVVVVVVV Parts
Bldg. WWWWWWWWWWWWWWWWWWWW Parts
Bldg. XXXXXXXXXXXXXXXXXXXX Parts
Bldg. YYYYYYYYYYYYYYYYYYYY Parts
Bldg. ZZZZZZZZZZZZZZZZZZZZ Parts
Bldg. AAAAAAAAAAAAAAAAAAAAA Parts
Bldg. BBBBBBBBBBBBBBBBBBBBB Parts
Bldg. CCCCCCCCCCCCCCCCCCCCC Parts
Bldg. DDDDDDDDDDDDDDDDDDDDD Parts
Bldg. EEEEEEEEEEEEEEEEEEEEE Parts
Bldg. FFFFFFFFFFFFFFFFFFFFF Parts
Bldg. GGGGGGGGGGGGGGGGGGGGG Parts
Bldg. HHHHHHHHHHHHHHHHHHHHH Parts
Bldg. IIIIIIIIIIIIIIIIIIIII Parts
Bldg. JJJJJJJJJJJJJJJJJJJJJ Parts
Bldg. KKKKKKKKKKKKKKKKKKKKK Parts
Bldg. LLLLLLLLLLLLLLLLLLLLL Parts
Bldg. MMMMMMMMMMMMMMMMMMMMM Parts
Bldg. NNNNNNNNNNNNNNNNNNNNN Parts
Bldg. OOOOOOOOOOOOOOOOOOOOO Parts
Bldg. PPPPPPPPPPPPPPPPPPPPP Parts
Bldg. QQQQQQQQQQQQQQQQQQQQQ Parts
Bldg. RRRRRRRRRRRRRRRRRRRRR Parts
Bldg. SSSSSSSSSSSSSSSSSSSSS Parts
Bldg. TTTTTTTTTTTTTTTTTTTTT Parts
Bldg. UUUUUUUUUUUUUUUUUUUUU Parts
Bldg. VVVVVVVVVVVVVVVVVVVVV Parts
Bldg. WWWWWWWWWWWWWWWWWWWWW Parts
Bldg. XXXXXXXXXXXXXXXXXXXXX Parts
Bldg. YYYYYYYYYYYYYYYYYYYYY Parts
Bldg. ZZZZZZZZZZZZZZZZZZZZZ Parts
Bldg. AAAAAAAAAAAAAAAAAAAAAA Parts
Bldg. BBBBBBBBBBBBBBBBBBBBBB Parts
Bldg. CCCCCCCCCCCCCCCCCCCCCC Parts
Bldg. DDDDDDDDDDDDDDDDDDDDDD Parts
Bldg. EEEEEEEEEEEEEEEEEEEEEE Parts
Bldg. FFFFFFFFFFFFFFFFFFFFFF Parts
Bldg. GGGGGGGGGGGGGGGGGGGGGG Parts
Bldg. HHHHHHHHHHHHHHHHHHHHHH Parts
Bldg. IIIIIIIIIIIIIIIIIIIIII Parts
Bldg. JJJJJJJJJJJJJJJJJJJJJJ Parts
Bldg. KKKKKKKKKKKKKKKKKKKKKK Parts
Bldg. LLLLLLLLLLLLLLLLLLLLLL Parts
Bldg. MMMMMMMMMMMMMMMMMMMMMM Parts
Bldg. NNNNNNNNNNNNNNNNNNNNNN Parts
Bldg. OOOOOOOOOOOOOOOOOOOOOO Parts
Bldg. PPPPPPPPPPPPPPPPPPPPPP Parts
Bldg. QQQQQQQQQQQQQQQQQQQQQQ Parts
Bldg. RRRRRRRRRRRRRRRRRRRRRR Parts
Bldg. SSSSSSSSSSSSSSSSSSSSSS Parts
Bldg. TTTTTTTTTTTTTTTTTTTTTT Parts
Bldg. UUUUUUUUUUUUUUUUUUUUUU Parts
Bldg. VVVVVVVVVVVVVVVVVVVVVV Parts
Bldg. WWWWWWWWWWWWWWWWWWWWWW Parts
Bldg. XXXXXXXXXXXXXXXXXXXXXX Parts
Bldg. YYYYYYYYYYYYYYYYYYYYYY Parts
Bldg. ZZZZZZZZZZZZZZZZZZZZZZ Parts
Bldg. AAAAAAAAAAAAAAAAAAAAAAA Parts
Bldg. BBBBBBBBBBBBBBBBBBBBBBB Parts
Bldg. CCCCCCCCCCCCCCCCCCCCCCC Parts
Bldg. DDDDDDDDDDDDDDDDDDDDDDD Parts
Bldg. EEEEEEEEEEEEEEEEEEEEEEE Parts
Bldg. FFFFFFFFFFFFFFFFFFFFFFF Parts
Bldg. GGGGGGGGGGGGGGGGGGGGGGG Parts
Bldg. HHHHHHHHHHHHHHHHHHHHHHH Parts
Bldg. IIIIIIIIIIIIIIIIIIIIIII Parts
Bldg. JJJJJJJJJJJJJJJJJJJJJJJ Parts
Bldg. KKKKKKKKKKKKKKKKKKKKKKK Parts
Bldg. LLLLLLLLLLLLLLLLLLLLLLL Parts
Bldg. MMMMMMMMMMMMMMMMMMMMMMM Parts
Bldg. NNNNNNNNNNNNNNNNNNNNNNN Parts
Bldg. OOOOOOOOOOOOOOOOOOOOOOO Parts
Bldg. PPPPPPPPPPPPPPPPPPPPPPP Parts
Bldg. QQQQQQQQQQQQQQQQQQQQQQQ Parts
Bldg. RRRRRRRRRRRRRRRRRRRRRRR Parts
Bldg. SSSSSSSSSSSSSSSSSSSSSSS Parts
Bldg. TTTTTTTTTTTTTTTTTTTTTTT Parts
Bldg. UUUUUUUUUUUUUUUUUUUUUUU Parts
Bldg. VVVVVVVVVVVVVVVVVVVVVVV Parts
Bldg. WWWWWWWWWWWWWWWWWWWWWWW Parts
Bldg. XXXXXXXXXXXXXXXXXXXXXXX Parts
Bldg. YYYYYYYYYYYYYYYYYYYYYYY Parts
Bldg. ZZZZZZZZZZZZZZZZZZZZZZZ Parts
Bldg. AAAAAAAAAAAAAAAAAAAAAAAA Parts
Bldg. BBBBBBBBBBBBBBBBBBBBBBBB Parts
Bldg. CCCCCCCCCCCCCCCCCCCCCCCC Parts
Bldg. DDDDDDDDDDDDDDDDDDDDDDDD Parts
Bldg. EEEEEEEEEEEEEEEEEEEEEEEE Parts
Bldg. FFFFFFFFFFFFFFFFFFFFFFFF Parts
Bldg. GGGGGGGGGGGGGGGGGGGGGGGG Parts
Bldg. HHHHHHHHHHHHHHHHHHHHHHHH Parts
Bldg. IIIIIIIIIIIIIIIIIIIIIIII Parts
Bldg. JJJJJJJJJJJJJJJJJJJJJJJJ Parts
Bldg. KKKKKKKKKKKKKKKKKKKKKKKK Parts
Bldg. LLLLLLLLLLLLLLLLLLLLLLLL Parts
Bldg. MMMMMMMMMMMMMMMMMMMMMMMM Parts
Bldg. NNNNNNNNNNNNNNNNNNNNNNNN Parts
Bldg. OOOOOOOOOOOOOOOOOOOOOOOO Parts
Bldg. PPPPPPPPPPPPPPPPPPPPPPPP Parts
Bldg. QQQQQQQQQQQQQQQQQQQQQQQQ Parts
Bldg. RRRRRRRRRRRRRRRRRRRRRRRR Parts
Bldg. SSSSSSSSSSSSSSSSSSSSSSSS Parts
Bldg. TTTTTTTTTTTTTTTTTTTTTTTT Parts
Bldg. UUUUUUUUUUUUUUUUUUUUUUUU Parts
Bldg. VVVVVVVVVVVVVVVVVVVVVVVV Parts
Bldg. WWWWWWWWWWWWWWWWWWWWWWWW Parts
Bldg. XXXXXXXXXXXXXXXXXXXXXXXX Parts
Bldg. YYYYYYYYYYYYYYYYYYYYYYYY Parts
Bldg. ZZZZZZZZZZZZZZZZZZZZZZZZ Parts
Bldg. AAAAAAAAAAAAAAAAAAAAAAAAA Parts
Bldg. BBBBBBBBBBBBBBBBBBBBBBBBB Parts
Bldg. CCCCCCCCCCCCCCCCCCCCCCCCC Parts
Bldg. DDDDDDDDDDDDDDDDDDDDDDDDD Parts
Bldg. EEEEEEEEEEEEEEEEEEEEEEEEE Parts
Bldg. FFFFFFFFFFFFFFFFFFFFFFFFF Parts
Bldg. GGGGGGGGGGGGGGGGGGGGGGGGG Parts
Bldg. HHHHHHHHHHHHHHHHHHHHHHHHH Parts
Bldg. IIIIIIIIIIIIIIIIIIIIIIIII Parts
Bldg. JJJJJJJJJJJJJJJJJJJJJJJJJ Parts
Bldg. KKKKKKKKKKKKKKKKKKKKKKKKK Parts
Bldg. LLLLLLLLLLLLLLLLLLLLLLLLL Parts
Bldg. MMMMMMMMMMMMMMMMMMMMMMMMM Parts
Bldg. NNNNNNNNNNNNNNNNNNNNNNNNN Parts
Bldg. OOOOOOOOOOOOOOOOOOOOOOOOO Parts
Bldg. PPPPPPPPPPPPPPPPPPPPPPPPP Parts
Bldg. QQQQQQQQQQQQQQQQQQQQQQQQQ Parts
Bldg. RRRRRRRRRRRRRRRRRRRRRRRRR Parts
Bldg. SSSSSSSSSSSSSSSSSSSSSSSSS Parts
Bldg. TTTTTTTTTTTTTTTTTTTTTTTTT Parts
Bldg. UUUUUUUUUUUUUUUUUUUUUUUUU Parts
Bldg. VVVVVVVVVVVVVVVVVVVVVVVVV Parts
Bldg. WWWWWWWWWWWWWWWWWWWWWWWWW Parts
Bldg. XXXXXXXXXXXXXXXXXXXXXXXXX Parts
Bldg. YYYYYYYYYYYYYYYYYYYYYYYYY Parts
Bldg. ZZZZZZZZZZZZZZZZZZZZZZZZZ Parts
Bldg. AAAAAAAAAAAAAAAAAAAAAAAAAA Parts
Bldg. BBBBBBBBBBBBBBBBBBBBBBBBBB Parts
Bldg. CCCCCCCCCCCCCCCCCCCCCCCCCC Parts
Bldg. DDDDDDDDDDDDDDDDDDDDDDDDDD Parts
Bldg. EEEEEEEEEEEEEEEEEEEEEEEEEE Parts
Bldg. FFFFFFFFFFFFFFFFFFFFFFFFFF Parts
Bldg. GGGGGGGGGGGGGGGGGGGGGGGGGG Parts
Bldg. HHHHHHHHHHHHHHHHHHHHHHHHHH Parts
Bldg. IIIIIIIIIIIIIIIIIIIIIIIIII Parts
Bldg. JJJJJJJJJJJJJJJJJJJJJJJJJJ Parts
Bldg. KKKKKKKKKKKKKKKKKKKKKKKKKK Parts
Bldg. LLLLLLLLLLLLLLLLLLLLLLLLLL Parts
Bldg. MMMMMMMMMMMMMMMMMMMMMMMMMM Parts
Bldg. NNNNNNNNNNNNNNNNNNNNNNNNNN Parts
Bldg. OOOOOOOOOOOOOOOOOOOOOOOOOO Parts
Bldg. PPPPPPPPPPPPPPPPPPPPPPPPPP Parts
Bldg. QQQQQQQQQQQQQQQQQQQQQQQQQQ Parts
Bldg. RRRRRRRRRRRRRRRRRRRRRRRRRR Parts
Bldg. SSSSSSSSSSSSSSSSSSSSSSSSSS Parts
Bldg. TTTTTTTTTTTTTTTTTTTTTTTTTT Parts
Bldg. UUUUUUUUUUUUUUUUUUUUUUUUUU Parts
Bldg. VVVVVVVVVVVVVVVVVVVVVVVVVV Parts
Bldg. WWWWWWWWWWWWWWWWWWWWWWWWWW Parts
Bldg. XXXXXXXXXXXXXXXXXXXXXXXXXX Parts
Bldg. YYYYYYYYYYYYYYYYYYYYYYYYYY Parts
Bldg. ZZZZZZZZZZZZZZZZZZZZZZZZZZ Parts
Bldg. AAAAAAAAAAAAAAAAAAAAAAAAAAA Parts
Bldg. BBBBBBBBBBBBBBBBBBBBBBBBBBB Parts
Bldg. CCCCCCCCCCCCCCCCCCCCCCCCCCC Parts
Bldg. DDDDDDDDDDDDDDDDDDDDDDDDDDD Parts
Bldg. EEEEEEEEEEEEEEEEEEEEEEEEEEE Parts
Bldg. FFFFFFFFFFFFFFFFFFFFFFFFFFF Parts
Bldg. GGGGGGGGGGGGGGGGGGGGGGGGGGG Parts
Bldg. HHHHHHHHHHHHHHHHHHHHHHHHHHH Parts
Bldg. IIIIIIIIIIIIIIIIIIIIIIIIIII Parts
Bldg. JJJJJJJJJJJJJJJJJJJJJJJJJJJ Parts
Bldg. KKKKKKKKKKKKKKKKKKKKKKKKKKK Parts
Bldg. LLLLLLLLLLLLLLLLLLLLLLLLLLL Parts
Bldg. MMMMMMMMMMMMMMMMMMMMMMMMMMM Parts
Bldg. NNNNNNNNNNNNNNNNNNNNNNNNNNN Parts
Bldg. OOOOOOOOOOOOOOOOOO

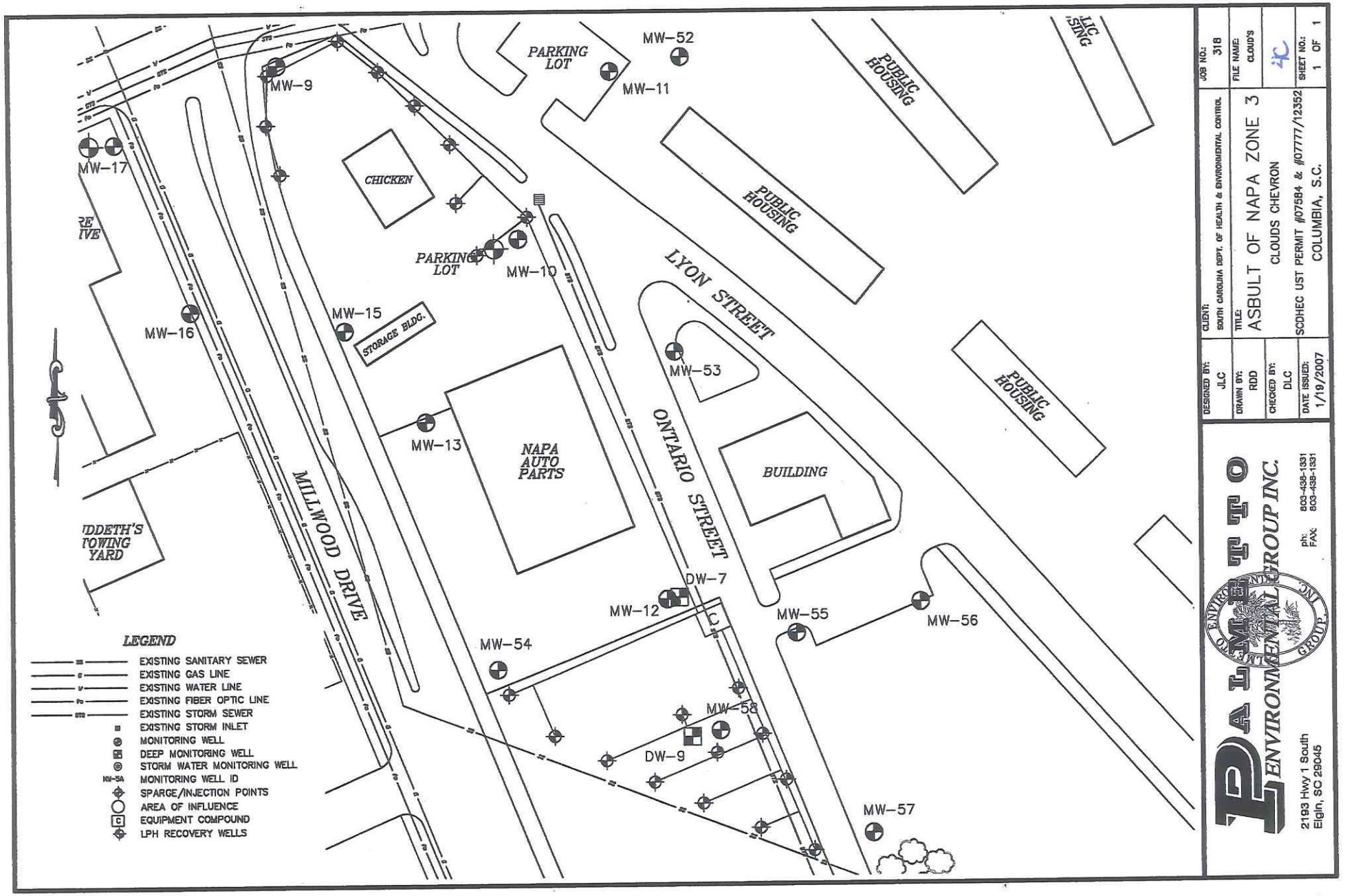
As Built for previous ACA. Remediation wells may or may not be functional.

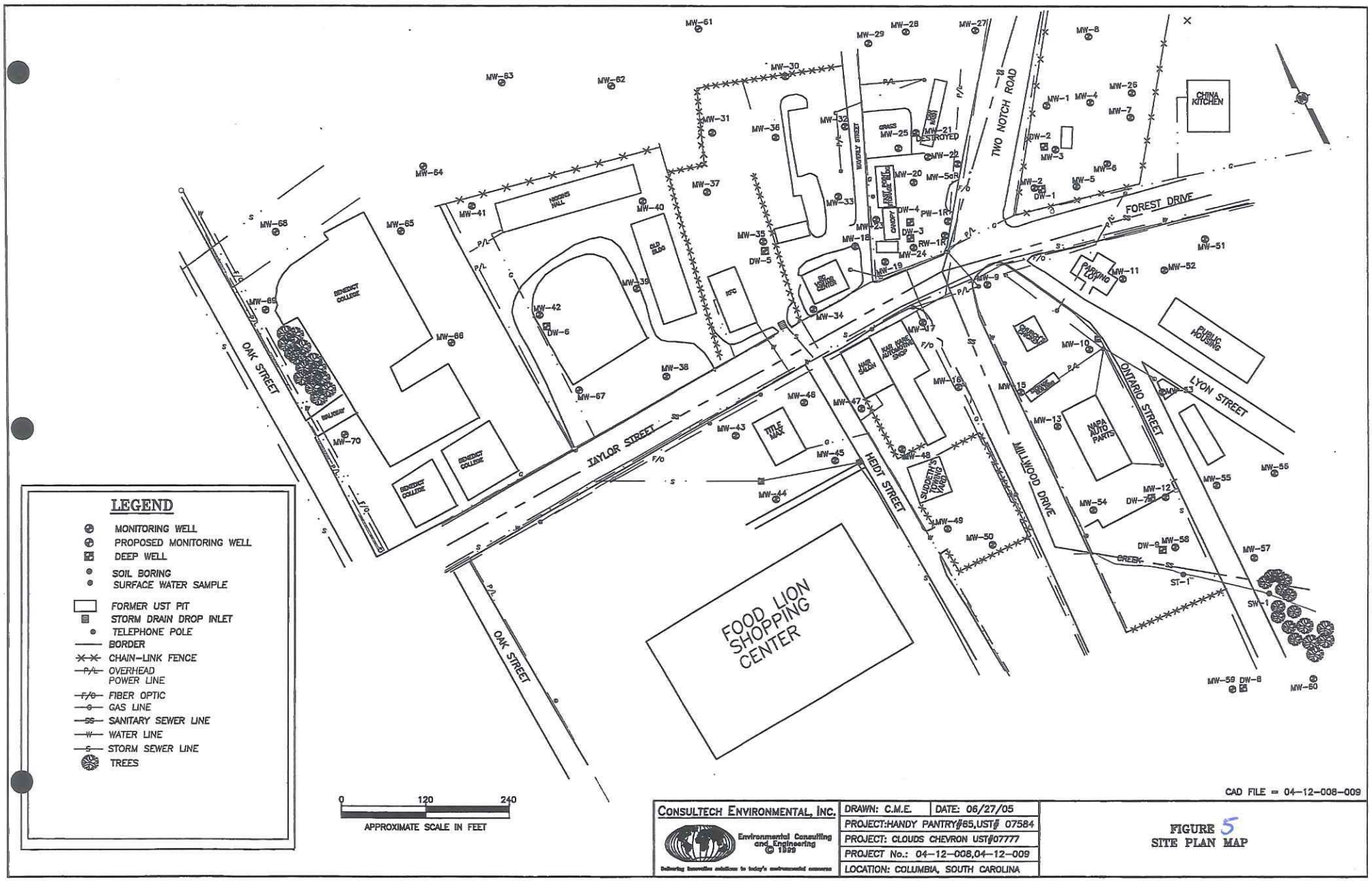


As Built for previous ACA. Remediation wells may or may not be functional.



As Built for previous ACA. Remediation wells may or may not be functional.

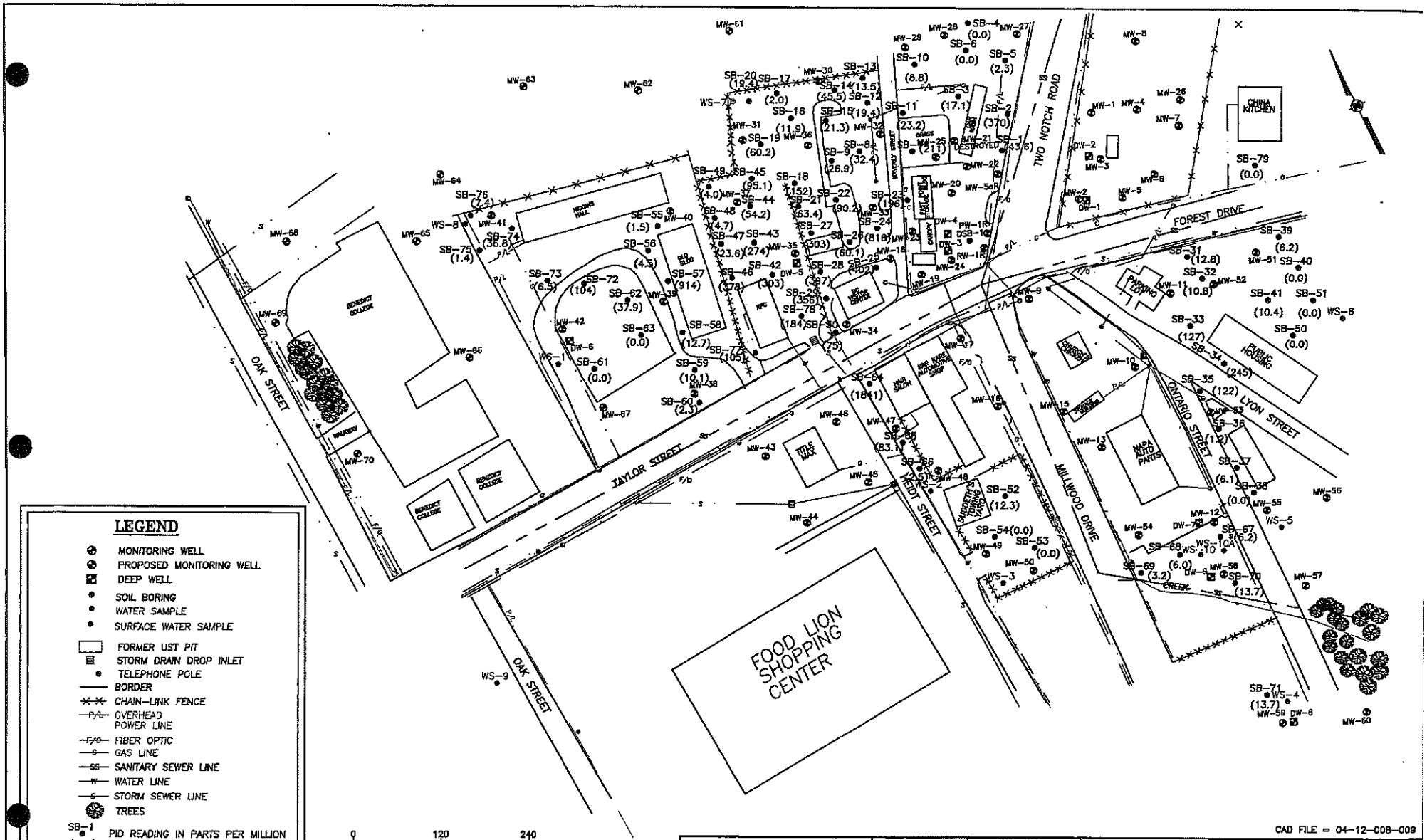




CAD FILE = 04-12-008-009

CONSULTECH ENVIRONMENTAL, INC.	DRAWN: C.M.E.	DATE: 06/27/05
Environmental Consulting and Engineering © 1999	PROJECT:HANDY PANTRY#65,UST# 07584	
Delivering Innovative solutions to today's environmental concerns	PROJECT: CLOUDS CHEVRON UST#07777	
	PROJECT No.: 04-12-008,04-12-009	
	LOCATION: COLUMBIA, SOUTH CAROLINA	

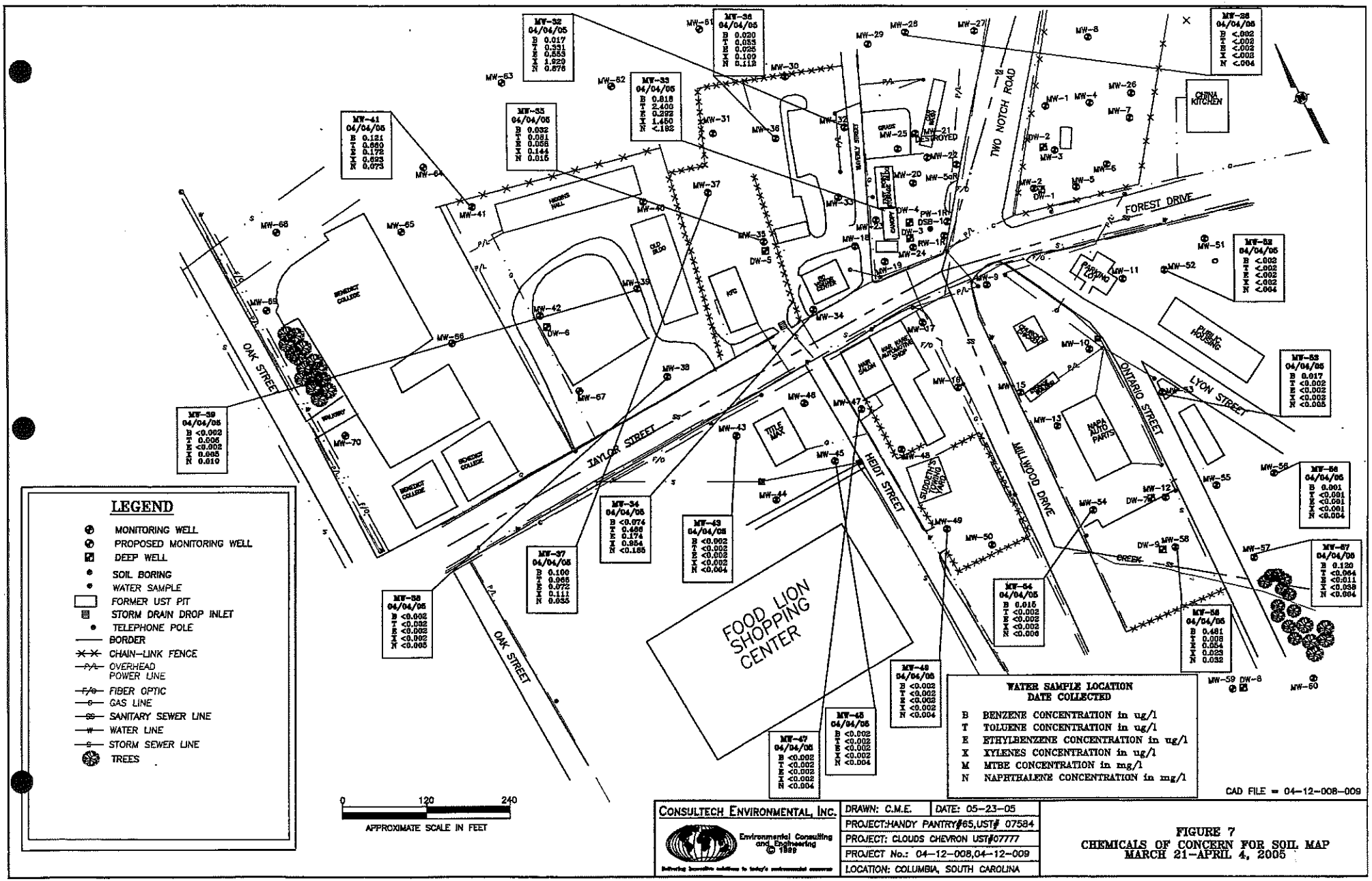
FIGURE 5
SITE PLAN MAP

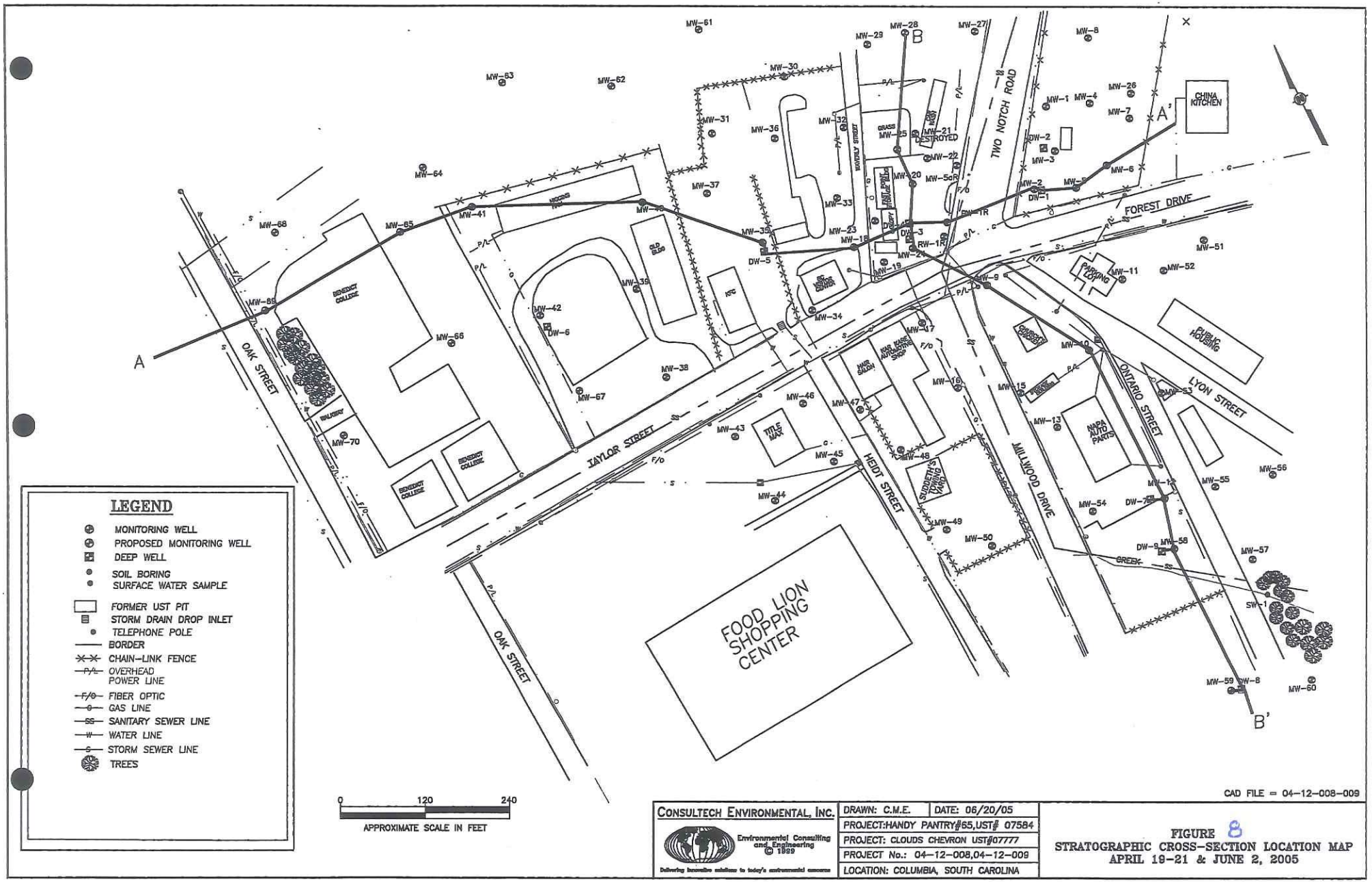


CAD FILE = 04-12-008-009

CONSULTECH ENVIRONMENTAL, INC.	DRAWN: C.M.E.	DATE: 05-23-05
Environmental Consulting and Engineering © 1999	PROJECT:HANDY PANTRY#65,UST# 07584	
Delivering innovative solutions to today's environmental concerns	PROJECT: CLOUDS CHEVRON UST#07777	
	PROJECT No.: 04-12-008,04-12-009	
	LOCATION: COLUMBIA, SOUTH CAROLINA	

FIGURE 6
FIELD SCREENING RESULTS
FEBRUARY 8-24, 2005

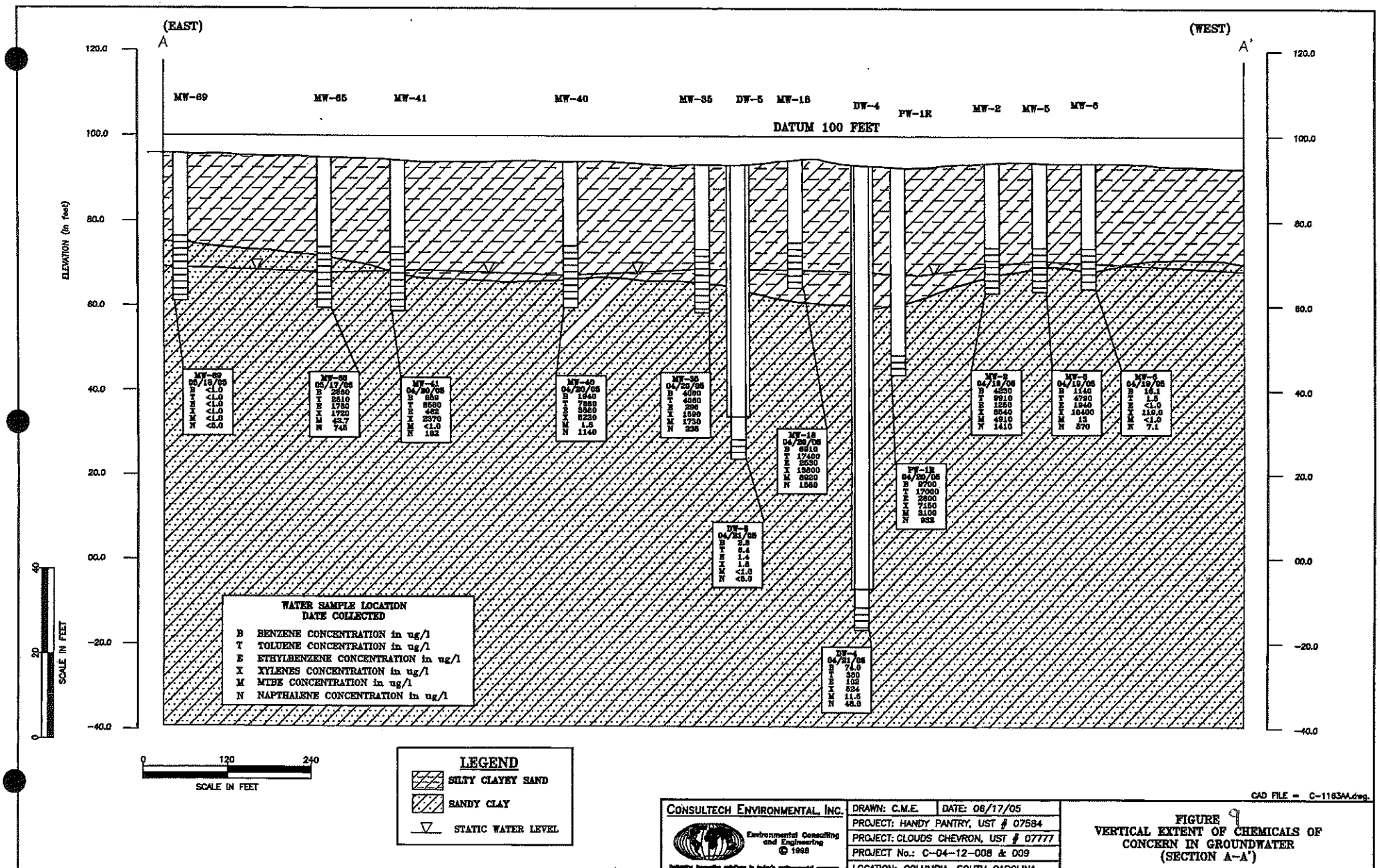

LEGEND
MONITORING WELL
PROPOSED MONITORING WELL
DEEP WELL
SOIL BORING
WATER SAMPLE
FORMER UST PIT
STORM DRAIN DROP INLET
TELEPHONE POLE
BORDER
CHAIN-LINK FENCE
OVERHEAD POWER LINE
FIBER OPTIC
GAS LINE
SANITARY SEWER LINE
WATER LINE
STORM SEWER LINE
TREES
0
120
240
APPROXIMATE SCALE IN FEET
WATER SAMPLE LOCATION
DATE COLLECTED
B BENZENE CONCENTRATION in ug/l
T TOLUENE CONCENTRATION in ug/l
E ETHYLBENZENE CONCENTRATION in ug/l
X XYLENES CONCENTRATION in ug/l
M MTBE CONCENTRATION in mg/l
N NAPHTHALENE CONCENTRATION in mg/l
CAD FILE = 04-12-008-009
CONSULTECH ENVIRONMENTAL, INC.
Environmental Consulting and Engineering
DRAWN: C.M.E.
DATE: 05-23-05
PROJECT:HANDY PANTRY#65,UST# 07584
PROJECT: CLOUDS CHEVRON UST#07777
PROJECT No.: 04-12-008,04-12-009
LOCATION: COLUMBIA, SOUTH CAROLINA
FIGURE 7
CHEMICALS OF CONCERN FOR SOIL MAP
MARCH 21-APRIL 4, 2005
TWO NOTCH ROAD
FOREST DRIVE
OAK STREET
TAYLOR STREET
HEIDT STREET
MILLWOOD DRIVE
ONTARIO STREET
LYON STREET
FOOD LION SHOPPING CENTER
CHINA KITCHEN
PUBLIC HOUSING
CREEK



CAD FILE = 04-12-008-009

CONSULTECH ENVIRONMENTAL, INC.	DRAWN: C.M.E.	DATE: 06/20/05
Environmental Consulting and Engineering © 1999	PROJECT:HANDY PANTRY#65,UST# 07584	
Delivering innovative solutions to today's environmental concerns	PROJECT: CLOUDS CHEVRON UST#07777	
	PROJECT No.: 04-12-008,04-12-009	
	LOCATION: COLUMBIA, SOUTH CAROLINA	

FIGURE 8
STRATOGRAPHIC CROSS-SECTION LOCATION MAP
APRIL 19-21 & JUNE 2, 2005

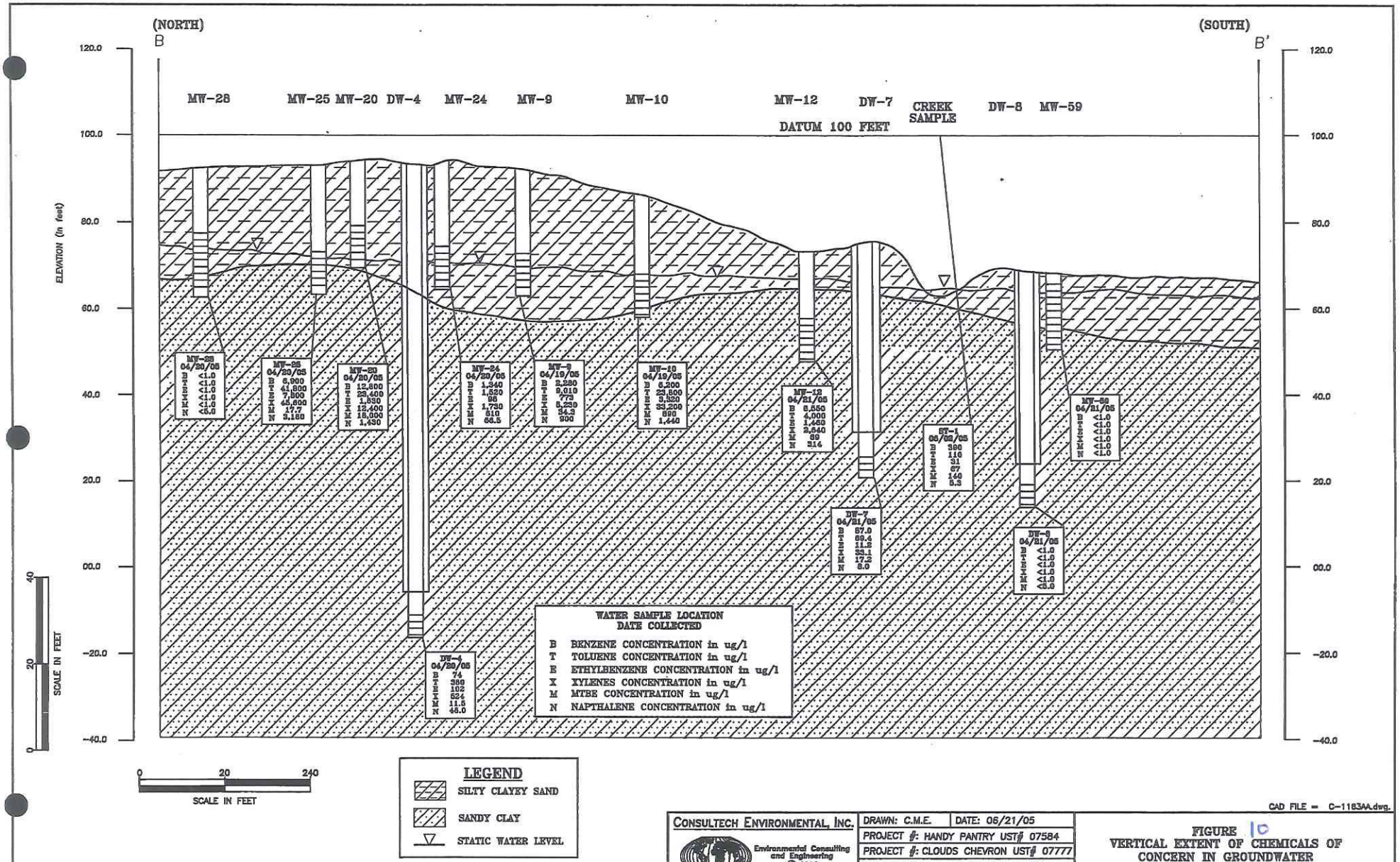


CAD FILE = C-1163AA.dwg.

CONSULTECH ENVIRONMENTAL, INC.
Environmental Consulting and Engineering
© 1998
Delivering Innovative solutions to today's environmental concerns

DRAWN: C.M.E.	DATE: 08/17/05
PROJECT: HANDY PANTRY, UST # 07584	
PROJECT: CLOUDS CHEVRON, UST # 07777	
PROJECT No.: C-04-12-008 & 009	
LOCATION: COLUMBIA, SOUTH CAROLINA	

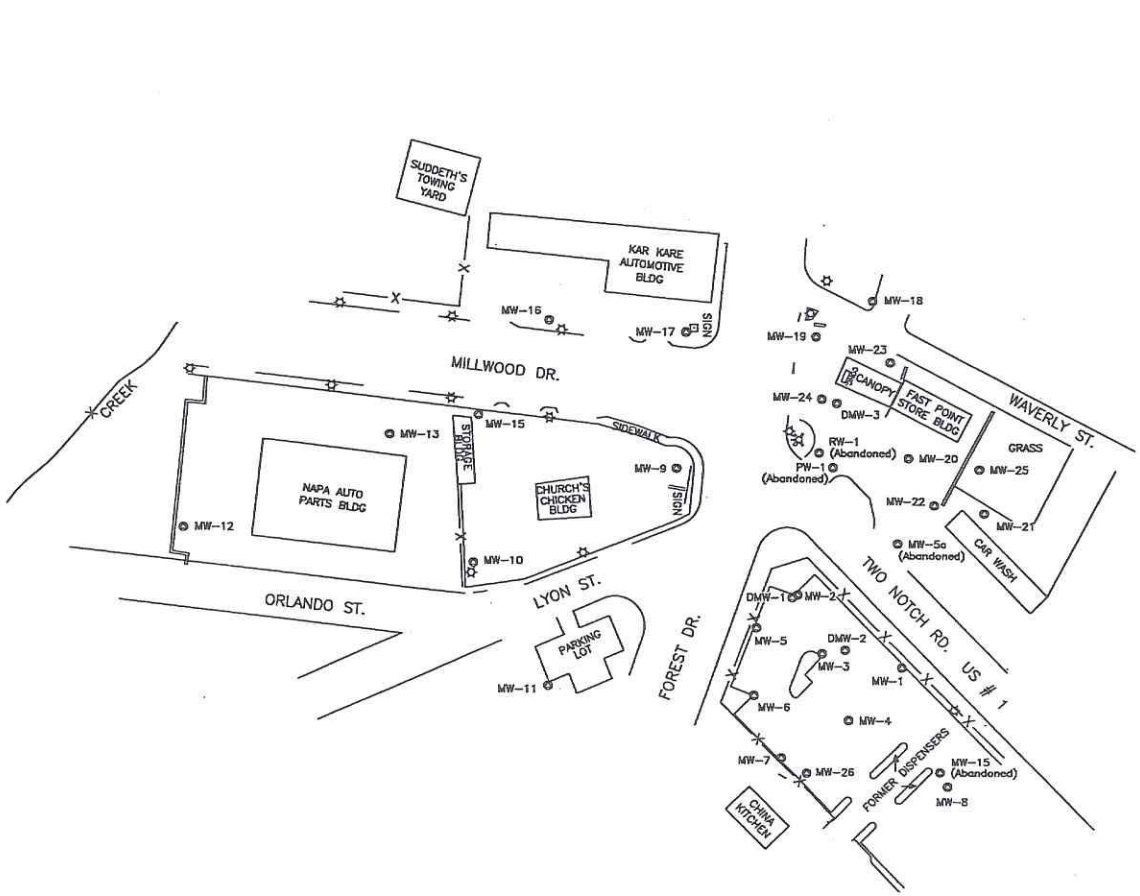
FIGURE 9
VERTICAL EXTENT OF CHEMICALS OF CONCERN IN GROUNDWATER
(SECTION A-A')



CAD FILE = C-1183AA.dwg

CONSULTECH ENVIRONMENTAL, INC. Environmental Consulting and Engineering © 1998 Delivering innovative solutions to today's environmental concerns	DRAWN: C.M.E.	DATE: 06/21/05
	PROJECT #: HANDY PANTRY UST# 07584	
	PROJECT #: CLOUDS CHEVRON UST# 07777	
	PROJECT No.: C-04-12-008 & 009	
	LOCATION: COLUMBIA, SOUTH CAROLINA	

FIGURE 10
VERTICAL EXTENT OF CHEMICALS OF CONCERN IN GROUNDWATER
(SECTION B-B')



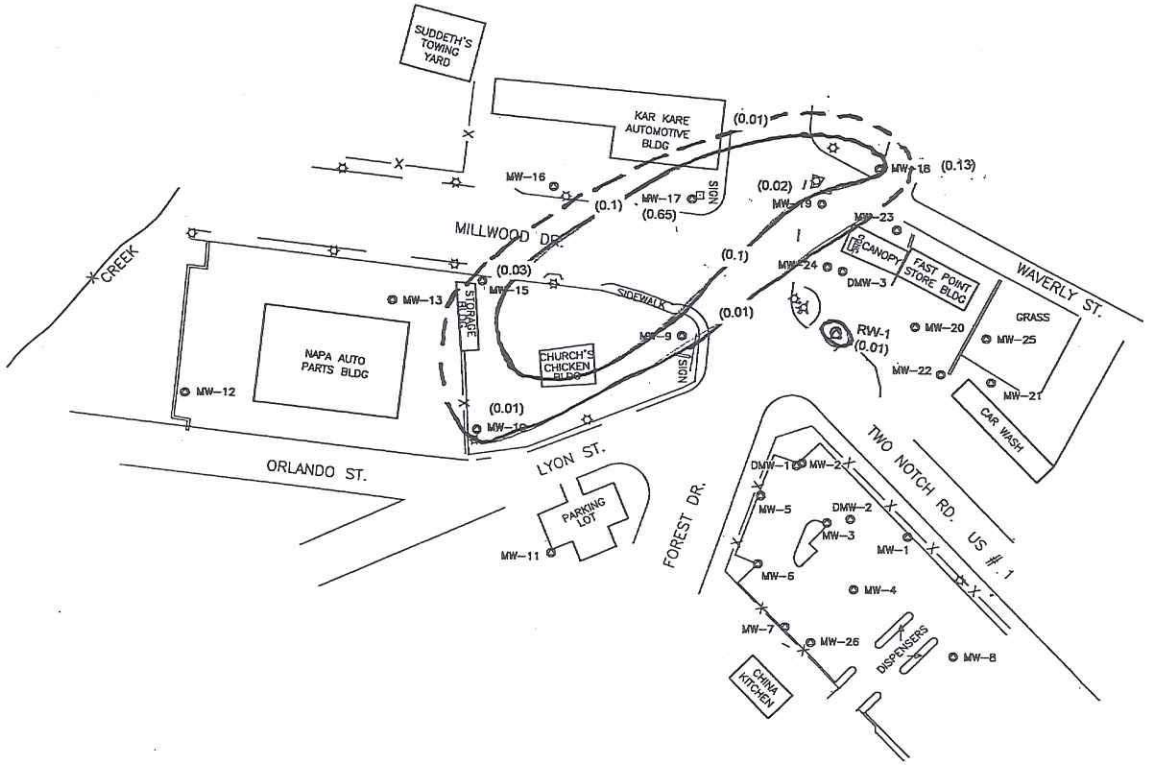
GRAPHIC SCALE
0 50 100 ft

LEGEND
- Monitoring Well Location
- X Approximate Location of Creek Sample

SITE MAP
SCDHEC SITE ID #07777
CLOUD'S CHEVRON
1600 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vera Road
Lexington, SC 29072
Phone: 803-359-3200

DRAWN BY	CHECKED BY		CADD NO.
CAB	KK		CloudsChev
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
OA	01/28/04	CloudsChev	11



GRAPHIC SCALE
0 50 100 ft

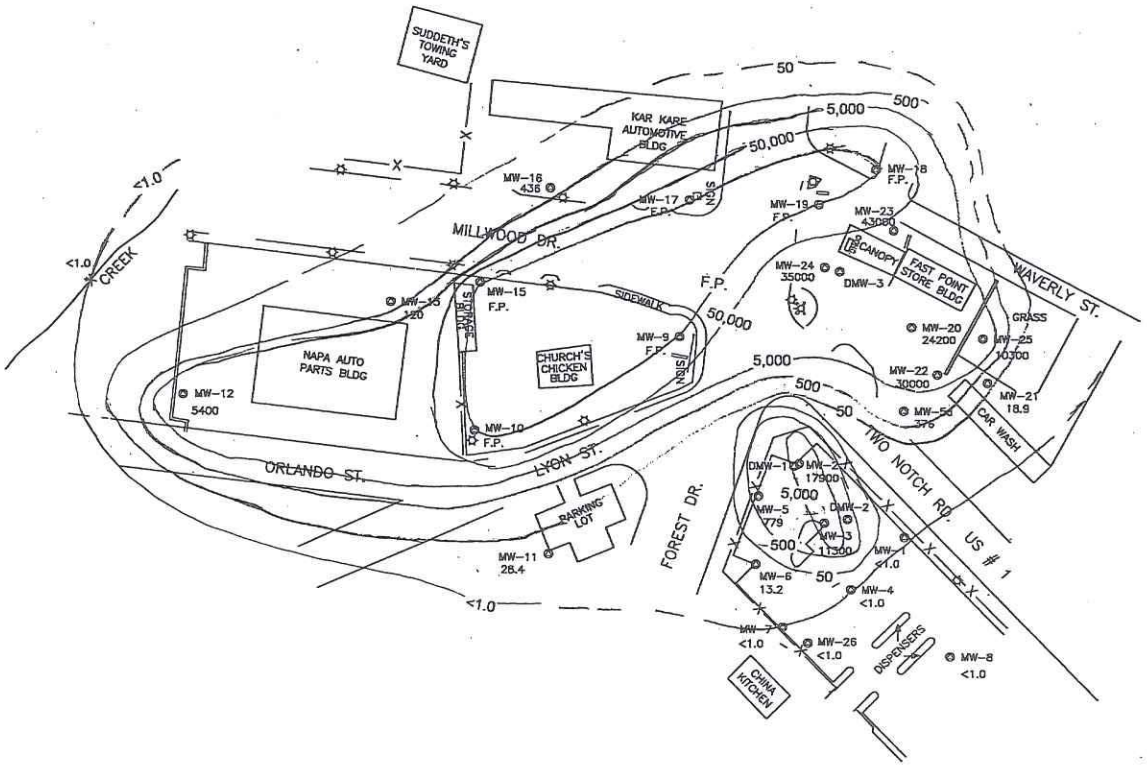
LEGEND

- Monitoring Well Location
- X Approximate Location of Creek Sample
- (0.01) Approximate Thickness of Free Product (in feet)

FREE PRODUCT ISO – CONCENTRATION MAP
SCDHEC SITE ID #07777
CLOUD'S CHEVRON
1600 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vera Road
Lexington, SC 29072
Phone: 803-359-3200

DRAWN BY	CHECKED BY		CADD NO.
CAB	KK		CloudsChev
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
OA	01/28/04	CloudsChev	12



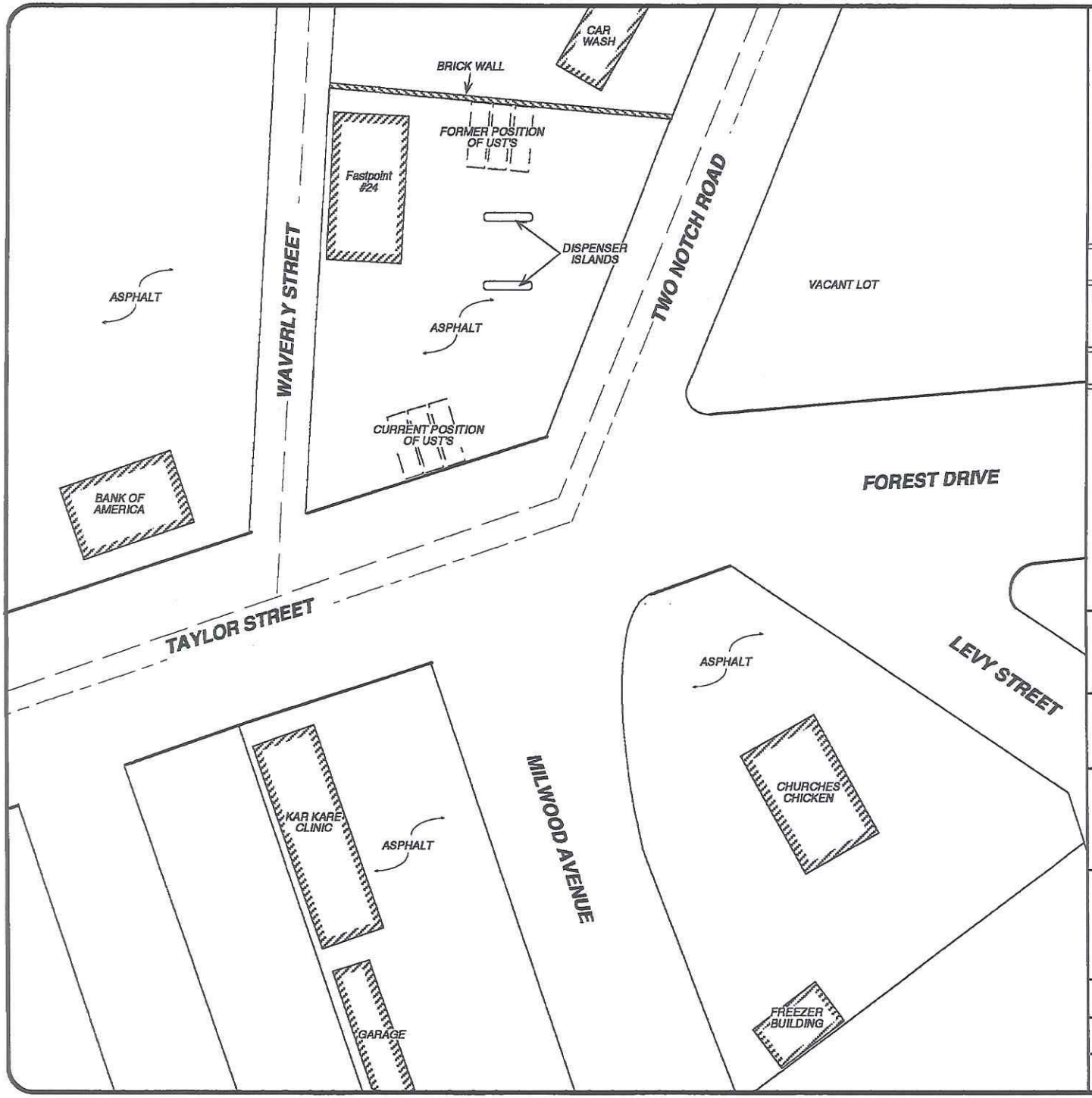
GRAPHIC SCALE
0 50 100 ft

LEGEND
- ⊙ Monitoring Well Location
- X Approximate Location of Creek Sample

BENZENE ISO – CONCENTRATION MAP
SCDHEC SITE ID #07777
CLOUD'S CHEVRON
1600 TWO NOTCH ROAD
COLUMBIA, SOUTH CAROLINA

Force & Associates, Inc.
Environmental and Hydrogeological Consulting
147 Vera Road
Lexington, SC 29072
Phone: 803-359-3200

DRAWN BY	CHECKED BY		CADD NO.
CAB	KK		CloudsChev
DESIGN BY	DATE	PROJECT NO.	FIGURE NO.
OA	01/28/04	CloudsChev	13



N

W E

S

NOTES

DASHED LINES INDICATE SUBSURFACE FEATURES

LEGEND

MUNICIPAL WATER MAIN

SANITARY SEWER LINE

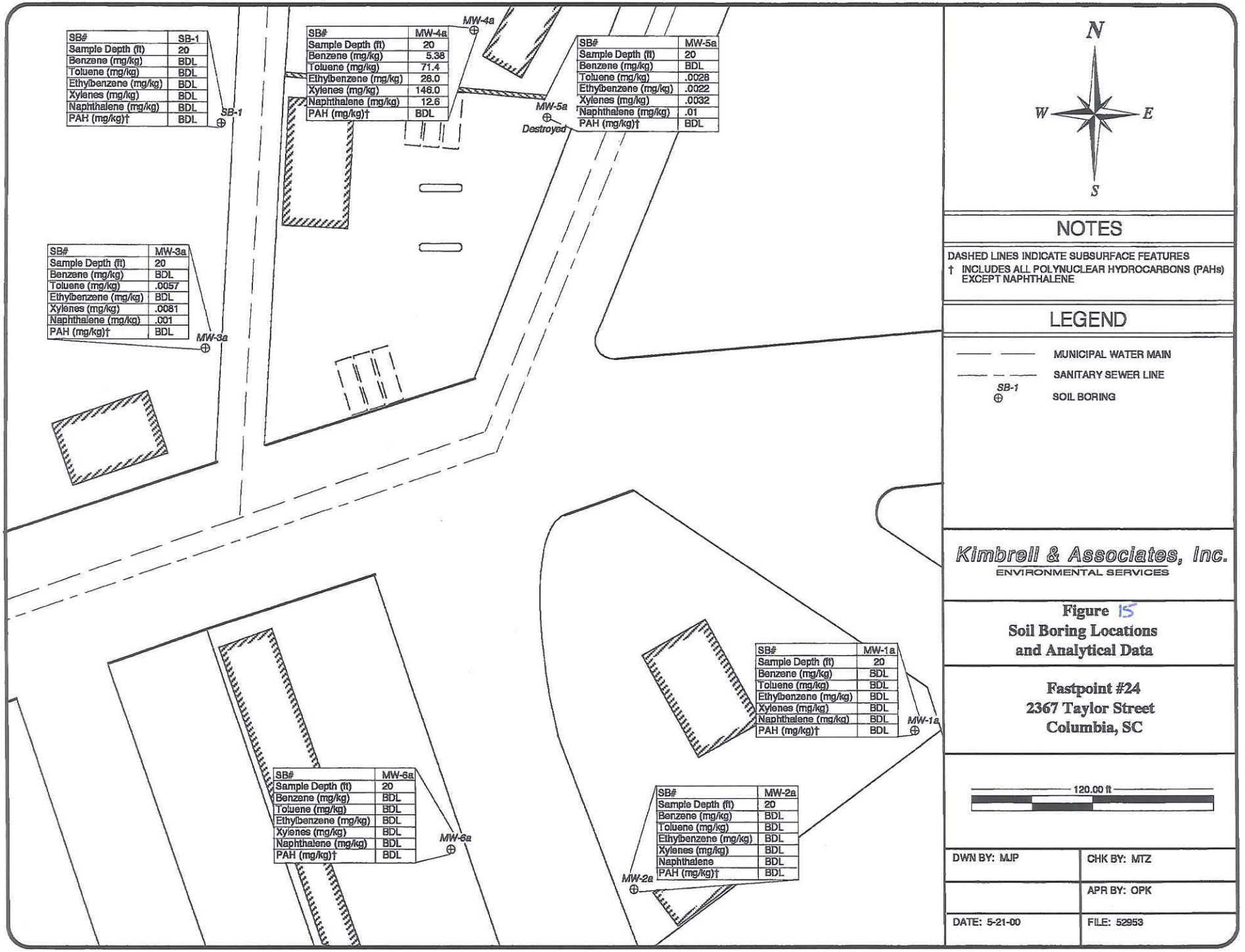
Kimbrell & Associates, Inc.
ENVIRONMENTAL SERVICES

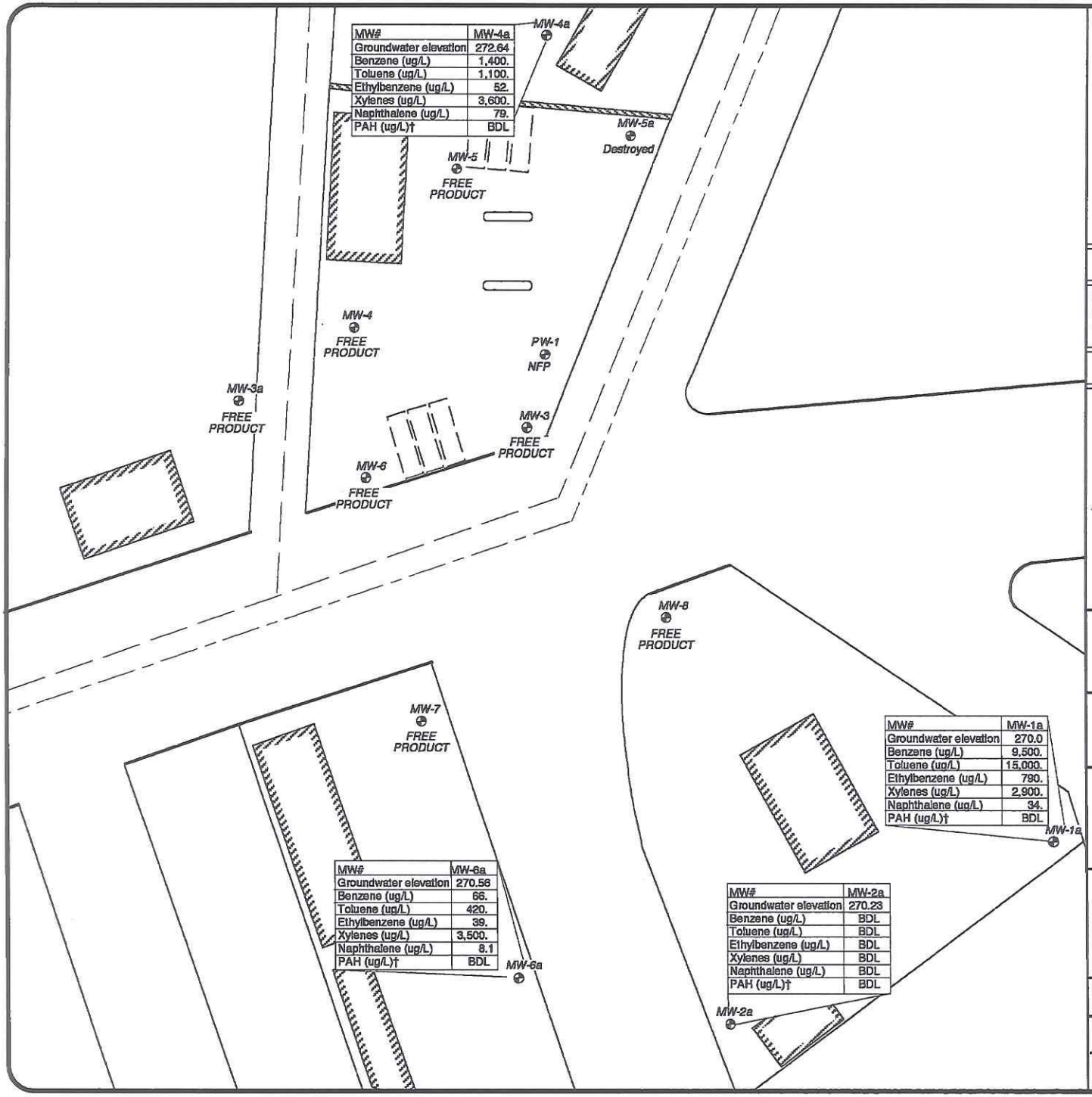
Figure 14
Site Map

Fastpoint #24
2367 Taylor Street
Columbia, SC

120.00 ft

DWN BY: MJP	CHK BY: MTZ
	APR BY: OPK
DATE: 5-21-00	FILE: 52953


SB#
SB-1
Sample Depth (ft)
20
Benzene (mg/kg)
BDL
Toluene (mg/kg)
BDL
Ethylbenzene (mg/kg)
BDL
Xylenes (mg/kg)
BDL
Naphthalene (mg/kg)
BDL
PAH (mg/kg)†
BDL
SB-1
SB#
MW-4a
Sample Depth (ft)
20
Benzene (mg/kg)
5.38
Toluene (mg/kg)
71.4
Ethylbenzene (mg/kg)
28.0
Xylenes (mg/kg)
146.0
Naphthalene (mg/kg)
12.6
PAH (mg/kg)†
BDL
MW-4a
SB#
MW-5a
Sample Depth (ft)
20
Benzene (mg/kg)
BDL
Toluene (mg/kg)
.0028
Ethylbenzene (mg/kg)
.0022
Xylenes (mg/kg)
.0032
Naphthalene (mg/kg)
.01
PAH (mg/kg)†
BDL
MW-5a
Destroyed
SB#
MW-3a
Sample Depth (ft)
20
Benzene (mg/kg)
BDL
Toluene (mg/kg)
.0057
Ethylbenzene (mg/kg)
BDL
Xylenes (mg/kg)
.0081
Naphthalene (mg/kg)
.001
PAH (mg/kg)†
BDL
MW-3a
SB#
MW-1a
Sample Depth (ft)
20
Benzene (mg/kg)
BDL
Toluene (mg/kg)
BDL
Ethylbenzene (mg/kg)
BDL
Xylenes (mg/kg)
BDL
Naphthalene (mg/kg)
BDL
PAH (mg/kg)†
BDL
MW-1a
SB#
MW-6a
Sample Depth (ft)
20
Benzene (mg/kg)
BDL
Toluene (mg/kg)
BDL
Ethylbenzene (mg/kg)
BDL
Xylenes (mg/kg)
BDL
Naphthalene (mg/kg)
BDL
PAH (mg/kg)†
BDL
MW-6a
SB#
MW-2a
Sample Depth (ft)
20
Benzene (mg/kg)
BDL
Toluene (mg/kg)
BDL
Ethylbenzene (mg/kg)
BDL
Xylenes (mg/kg)
BDL
Naphthalene
BDL
PAH (mg/kg)†
BDL
MW-2a
N
W
E
S
NOTES
DASHED LINES INDICATE SUBSURFACE FEATURES
† INCLUDES ALL POLYNUCLEAR HYDROCARBONS (PAHs) EXCEPT NAPHTHALENE
LEGEND
MUNICIPAL WATER MAIN
SANITARY SEWER LINE
SB-1
SOIL BORING
Kimbrell & Associates, Inc.
ENVIRONMENTAL SERVICES
Figure 15
Soil Boring Locations
and Analytical Data
Fastpoint #24
2367 Taylor Street
Columbia, SC
120.00 ft
DWN BY: MJP
CHK BY: MTZ
APR BY: OPK
DATE: 5-21-00
FILE: 52953



N

W E

S

NOTES

DASHED LINES INDICATE SUBSURFACE FEATURES

FREE PRODUCT MEASUREMENTS RECORDED ON 05-11-00

† INCLUDES ALL POLYNUCLEAR HYDROCARBONS (PAHs) EXCEPT NAPHTHALENE

LEGEND

MUNICIPAL WATER MAIN

SANITARY SEWER LINE

MW-1a MONITORING WELL

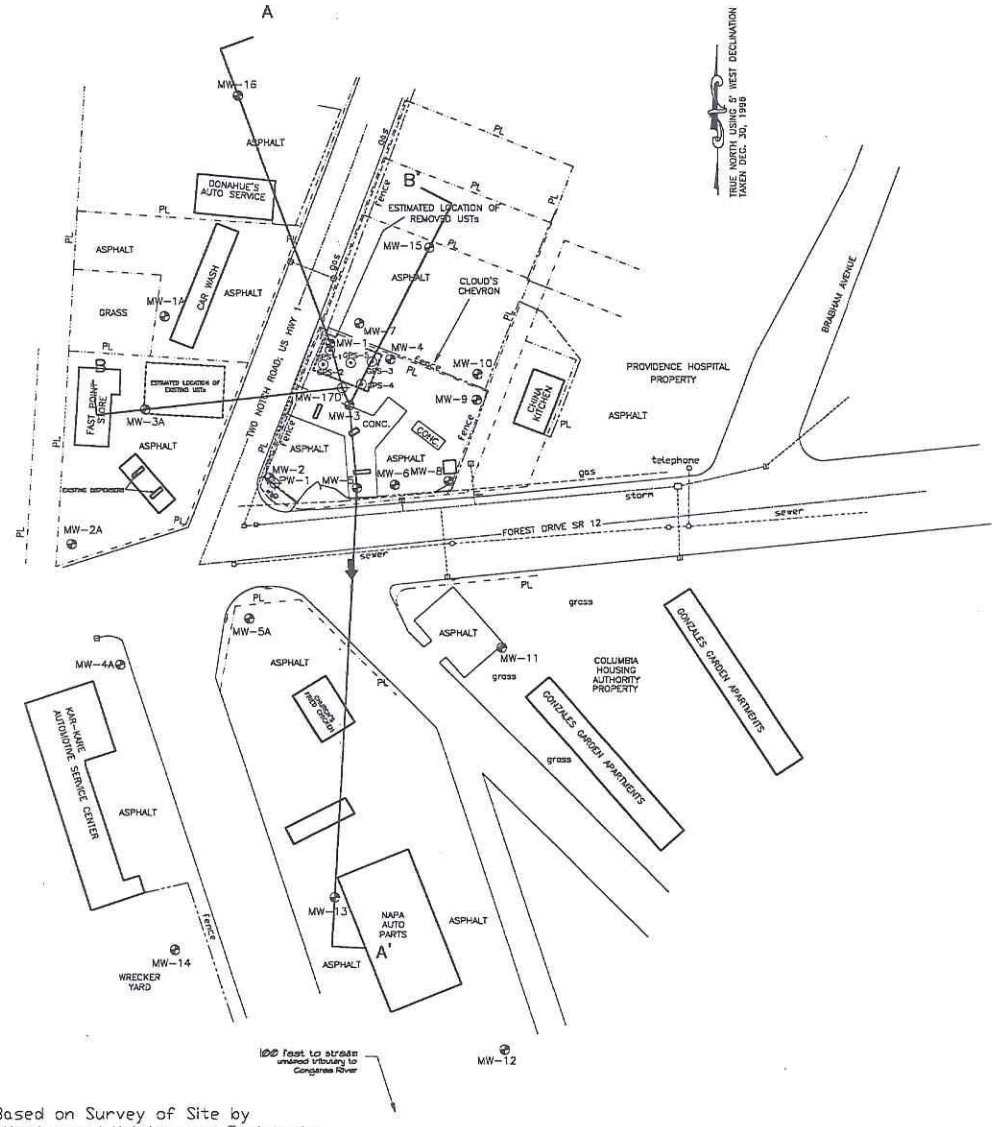
Kimbrell & Associates, Inc.
ENVIRONMENTAL SERVICES

Figure 16
Monitoring Well Locations and Analytical Data

Fastpoint #24
2367 Taylor Street
Columbia, SC

120.00 ft

DWN BY: MJP	CHK BY: MTZ
	APR BY: OPK
DATE: 5-21-00	FILE: 52953



Explanation:

- Location of Soil Test Boring
- Location of Type II Monitoring Well
- Location of Type III Monitoring Well
- Estimated Ground-Water Flow Direction
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- Property Line
- Buried Gas Line
- Buried Water Line
- Buried Sewer
- Under Ground Telephone
- Fence
- Storm Sewer
- Stream
- Buried Product Lines
- A — A' Geologic Cross Section (Refer to Figures 4 & 5)

Soil Analytical Data *

Sample Location	Depth (feet)	BTEX (ug/kg)	TPH 3550 (mg/kg)	TPH 5030 (mg/kg)
GPS-1	16-17	432	BDL	BDL
GPS-2	16-17	118800	8050	1110
GPS-3	16-17	317400	BDL	3890
GPS-4	16-17	54620	BDL	613
GPS-5	16-17	147090	1100	14500
GPS-6	16-17	BDL	BDL	BDL
GPS-7	16-17	BDL	BDL	BDL
GPS-8	16-17	BDL	BDL	BDL
GPS-9	16-17	BDL	BDL	BDL
GPS-10	16-17	BDL	BDL	BDL
MW-10	13-15	BDL	BDL	BDL
MW-11	18-20	BDL	BDL	BDL
MW-12	8-10	BDL	BDL	BDL
MW-13	13-15	BDL	BDL	BDL
MW-14	18-20	BDL	BDL	BDL
MW-15	18-20	BDL	BDL	BDL
MW-16	18-20	BDL	BDL	BDL
MW-17D	18-20	4262	243	296

* See Table 3

GRAPHIC SCALE
0 50 100 200

ALL LOCATIONS ARE APPROXIMATE

Drawing Based on Survey of Site by Smith Monitoring and Maintenance Engineering, Inc. dated March 15, 1997

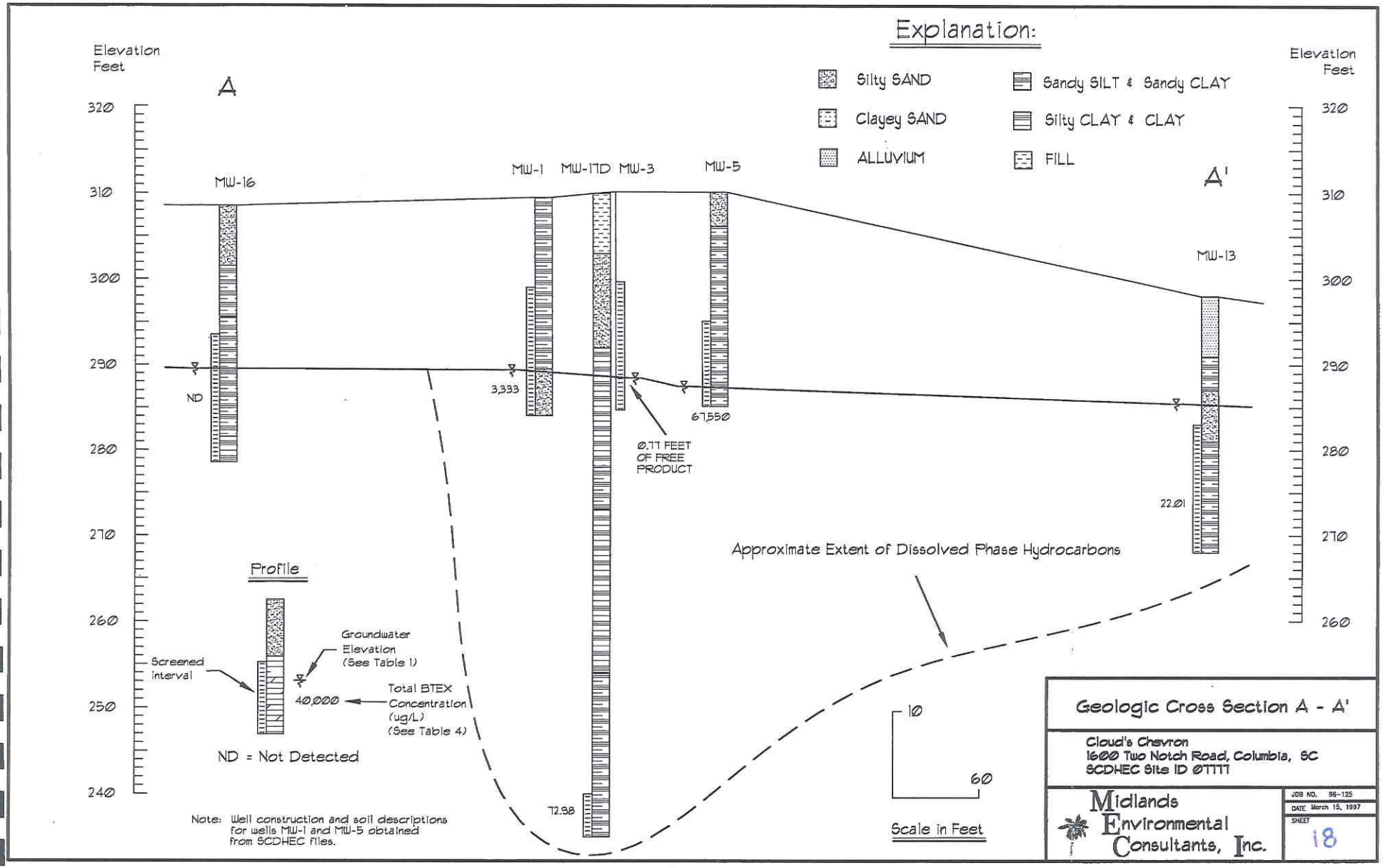
Site Features

Cloud's Chevron
1600 Two Notch Road, Columbia, SC
SCDHEC Site ID 01111

Midlands Environmental Consultants, Inc.

JOB NO. 96-125
DATE March 15, 1997
SHEET 17

*Note - some well numbers were later changed.



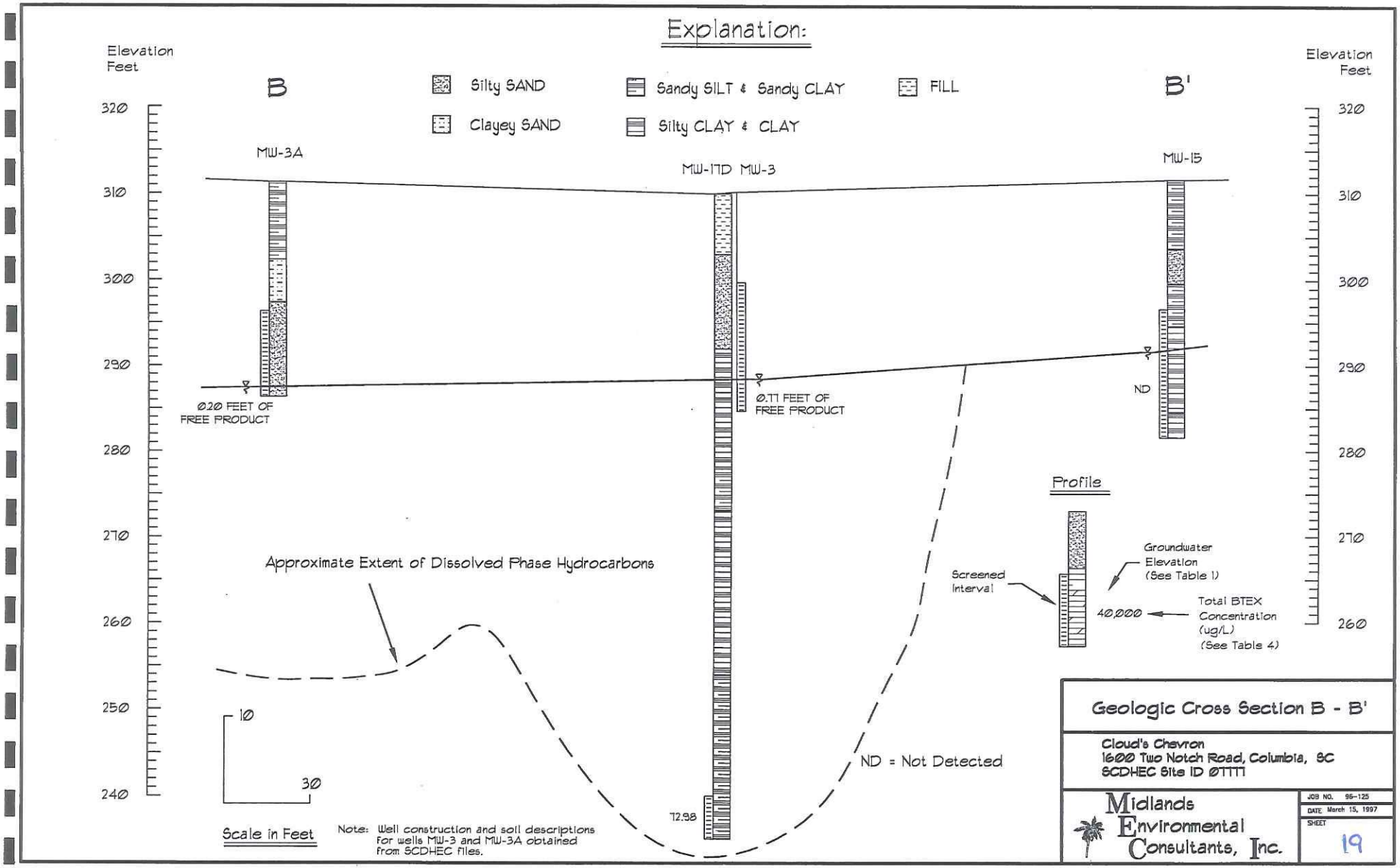
Geologic Cross Section A - A'

Cloud's Chevron
1600 Two Notch Road, Columbia, SC
SCDHEC Site ID 07777

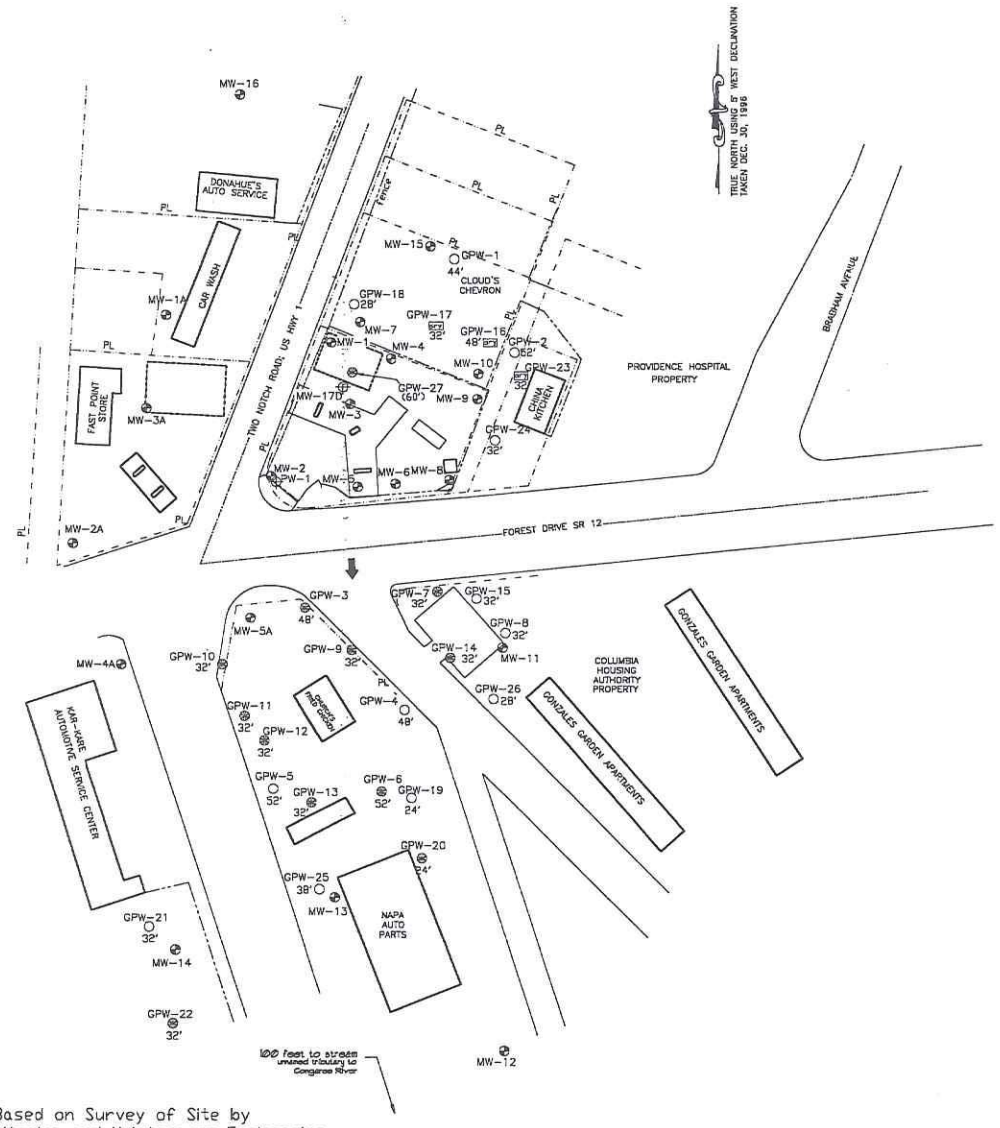
Midlands Environmental Consultants, Inc.

JOB NO. 96-125
DATE March 15, 1997
SHEET 18

* Note - Some well numbers were later changed.



*Note – Some well numbers were later changed.



Explanation:

- Location of Soil Test Boring
- Location of Type II Monitoring Well
- Location of Type III Monitoring Well
- 38' Gsoprobe/ImmunoAssay Screening Location BTEX Detected
- 38' Gsoprobe/ImmunoAssay Screening Location BTEX Not Detected
- Estimated Location of Removed Underground Storage Tanks
- Estimated Location of Existing Underground Storage Tanks
- Estimated Ground-Water Flow Direction

Immunoassay Screening Results

Sample ID	Depth (feet)	Result (ppm)
GPW-1	44	BDL
GPW-2	52	BDL
GPW-3	48	0.21
GPW-4	48	BDL
GPW-5	52	BDL
GPW-6	52	0.11
GPW-7	36	2.35
GPW-8	32	BDL
GPW-9	32	2.90
CPW-10	32	2.61
GPW-11	32	1.85
GPW-12	32	0.07
GPW-13	32	0.15
GPW-14	32	0.03
GPW-15	32	BDL
CPW-16	48	DRY
GPW-17	32	DRY
CPW-18	28	BDL
GPW-19	24	BDL
GPW-20	24	0.05
GPW-21	32	BDL
GPW-22	32	0.05
GPW-23	32	DRY
GPW-24	32	BDL
GPW-25	24	BDL
GPW-26	28	BDL
GPW-27	60	0.74

Samples Collected on February 14-17, 1997

Drawing Based on Survey of Site by Smith Monitoring and Maintenance Engineering, Inc. dated March 15, 1997

GRAPHIC SCALE
0 50 100 200

ALL LOCATIONS ARE APPROXIMATE

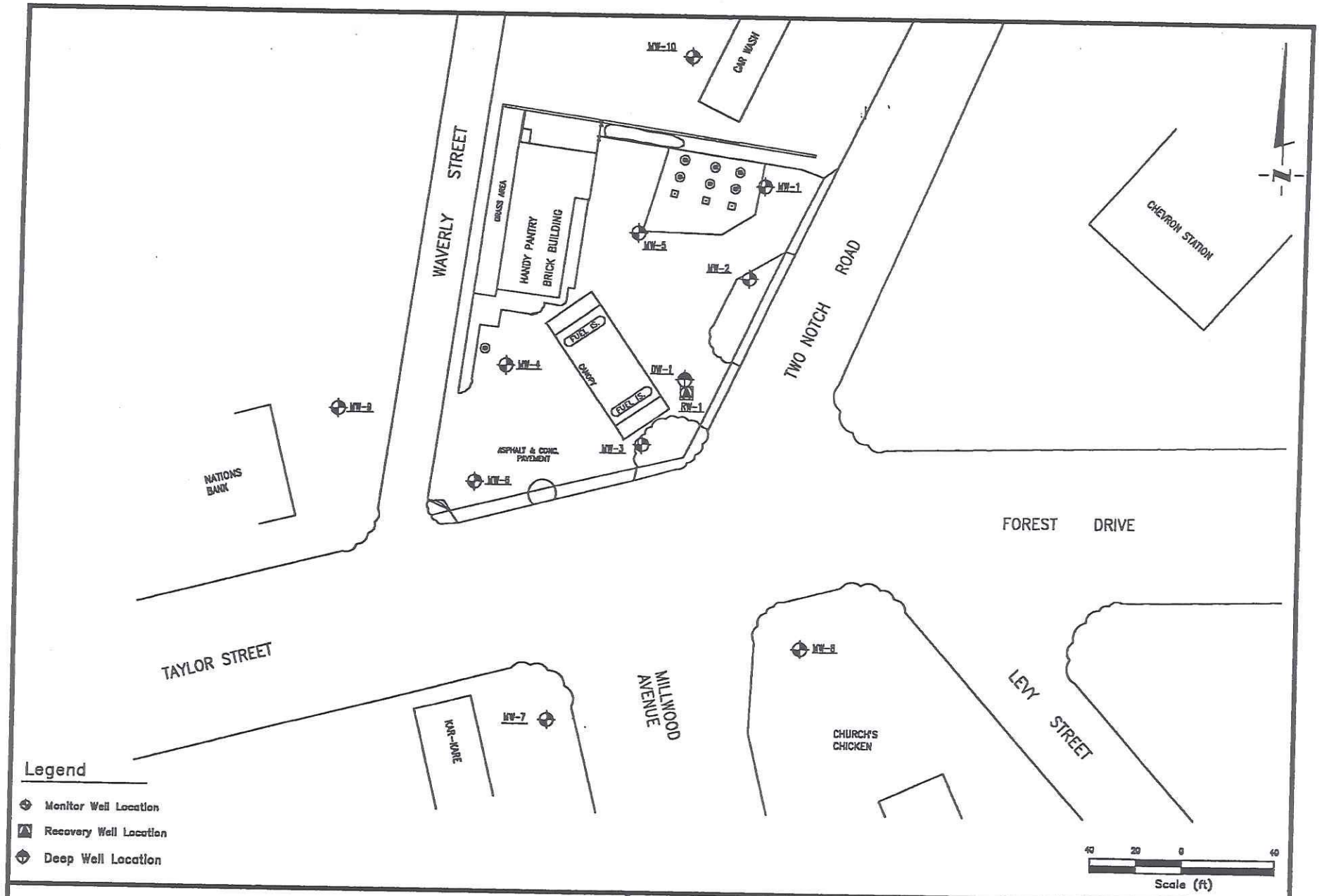
Field Screening Test Results

Cloud's Chevron
1600 Two Notch Road, Columbia, SC
SCDHEC Site ID #7777

Midlands Environmental Consultants, Inc.

JOB NO. 96-125
DATE March 15, 1997
SHEET 20

* Note - Some well numbers were later changed.



SPATCO ENVIRONMENTAL
400 ARBOR LAKE DRIVE
SUITE A-800
COLUMBIA, SOUTH CAROLINA

Figure 2 Site Plan Showing Monitor Well Locations

Handy Pantry Facility
Two Notch & Taylor Streets
Columbia, S.C.

GWPD SITE ID# 07584

W.O. # 9-2798

* Note - these wells were later renamed or replaced.

Clouds Chevron (UST # 07777 & # 12352)
University Mart (UST # 07584)

Table 7

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
MW-1	17-27																								
11/20/1992					1120	491	607	2300	1960	108															
10/6/1993					1920	180	2010	590	731	151															
3/12/1997			19.58		801	256	523	1753	1600	173			8.7												
11/18/2003		93.89	21.45		<1	1.3	<1	1.6	<1	<5	<0.02														
4/19/2005			22.89		<1	<1	<1	<1	<1	<5	<0.02	<1	<5	56.4	<1	<10	<5	<10	<100	<1	45.4				
11/16/2005			20.89		<1	<1	<1	<1	<1	<5	<0.02			<25	<5	<25	<5	<25	<100	<5	<25				
6/29/2006			17.98		1	6.6	2.5	19	<1	4.4	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/14/2007			17.25		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/18/2010			13.30		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			Dry		Dry																				
MW-2	20-30																								
11/20/1992					12200	41600	4160	21600	2000	383															
10/6/1993					12300	43400	4410	7350	8380	940															
3/12/1997			22.27		16000	37700	3440	19170	9860	640			310												
11/18/2003		94.70	23.30		17900	34600	3630	17000	6150	<250	108														
4/19/2005			24.08		4230	9910	1250	8540	4910	1410	<0.02	<1	211	11000	114	<10	319	1650	<100	<1	1380				
11/16/2005			23.30		5900	11000	1800	12000	3200	570	39			2800	<130	<630	250	<630	<2500	<130	<630				
6/29/2006			22.91		12000	22000	2100	13800	1700	460	94			1700	50	<40	210	<20	<40	<20	<20				
8/21/2007			19.80		5.8	13.2	<5	<10	10	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
8/12/2010			23.00		<5	<5	<5	56.2	164	10.8	0.061	11.8		178	<10	<50	22.1	<100	<200	<10	<100				
5/9/2013			25.50		140	280	56	460	380	54	0.066	<25		200J	9.2J	<500	18J	<500	<5000	<500	140J				
MW-3	19-29																								
10/6/1993					49300	72100	7370	38700	2E+05	940															
3/11/1997			21.93	0.77	Not sampled- Free Product																				
10/27/2003		94.45	23.44		11300	72500	3980	20800	20200	870	66.1														
2/8/2005			30.04	6.74	Not sampled- Free Product																				
4/19/2005			24.13	0.43	5620	14200	2940	7530	10900	910	<0.02	<5	1050	15200	120	<50	810	2490	<500	<5	1200				
11/16/2005			23.30	0.19	15000	27000	3500	19000	37000	1500	230			12000	540	<1300	1100	<1300	<5000	<250	<1300				
6/29/2006			24.88	3.58	Not sampled- Free Product																				
8/21/2007			16.50		5.5	14.2	<5	<10	<5	<5	70.5			<100	<10	<50	<5	<100	<200	<10	<100				
3/3/2008			23.20		9950	16500	657	8790	66100	537	229			8610	1760	<2500	1330	<5000	<10000	<500	<5000				
10/20/2008			23.00		<50	<50	<50	105	1890	713	6.2			2210	<100	<500	<50	<1000	<2000	<100	<1000				
1/18/2010			18.60		170 J	333	<250	470 J	4260	254	42.2	<250		<5000	<500	<2500	<250	<5000	<10000	<500	<5000				
3/17/2010					244	590	35.1J	1140	1540	91.1		27.9 J		<1000	160	<500	75.2	<100	<2000	<100	448 J				
8/12/2010			25.20		<50	<50	<50	39	1300	<50	2.8	<50		<1000	<100	<500	<50	<1000	<2000	<100	<100				
5/9/2013			23.98		3000	7400	260J	4500	3300	260J	2.6	<500		2000J	340J	<10000	140J	<10000	<100000	<10000	1300J				

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
MW-4	18-28																								
11/20/1992					32.7	30	6.8	83	246	<1															
10/6/1993					<1	<1	<1	<1	<1	<1															
3/12/1997			20.98		68.1	2.8	10.8	129.1	165	17.7															
11/18/2003		94.85	21.29		<1	1.8	<1	2.8	1.2	<5	0.15														
4/19/2005			22.89		<1	<1	<1	<1	2.6	<5	<0.02	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10				
11/16/2005			21.53		<1	<1	<1	<1	7.9	<5	0.074			<25	<5	<25	<5	<25	<100	<5	<25				
6/29/2006			26.24		1.4	7.8	2.4	17	2.3	2.1	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/14/2007			20.10		30.9	<5	<5	<10	10	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/3/2008			46.30		<5	<5	<5	<10	36.4	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/20/2008			21.90		<5	<5	<5	<10	10.8	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/18/2010			21.00		<5	<5	<5	<10	5.4	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			23.00		<5	<5	<5	<5	3.7J	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-5	16-26																								
1/29/1993					7150	13600	5420	14600	3040																
10/6/1993					9450	39000	4690	24000	9910	1220															
3/12/1997			22.29		6380	35300	3920	21950	<1	896		290													
10/27/2003		95.26	22.92		779	968	336	2020	89.5	1240	1.62														
4/19/2005			23.58		1140	4790	1940	10400	13	570	2.81	<1	289	920	<1	<10	<5	558	<100	<1	<10				
11/16/2005			23.09		<100	3600	2300	8300	<100	710	0.84			<2500	<500	<2500	<500	<2500	<10000	<500	<2500				
6/29/2006			23.34		670	3600	<1	9800	<1	510	3.6			580	<1	<20	<1	<10	<20	<10	<10				
3/3/2008			15.70		<5	<5	<5	<10	91.9	8.8	<0.02			<100	<10	<50	<5	<100	275	<10	<100				
1/18/2010			18.40		<50	<50	<50	30.5 J	946	<50	0.2	<50		<1000	<100	<500	<50	<1000	<2000	<100	<1000				
5/9/2013			Dry		Dry																				
MW-6	20-30																								
11/18/2003		94.96	23.55		13.2	3.8	<1	66.5	<1	<5	<0.02														
4/19/2005			24.30		16.1	1.5	<1	119	<1	7.1	<0.02	<1	6	391	<1	<10	<5	104	<100	<1	38.5				
11/16/2005			22.74		13	<1	<1	60	<1	<5	<0.02			<25	<5	<25	<5	<25	<100	<5	<25				
6/29/2006			24.09		970	190	160	525	3700	210	2.4			1000	33	<200	87	<100	<200	<100	<100				
8/21/2007			24.51		4620	11000	2290	15600	1480	775	68.9			3190	<100	<500	234	<1000	<2000	<100	<1000				
3/3/2008			23.55		137	<125	<125	<250	4440	<125	0.97			<2500	<250	<1250	126	<2500	<5000	<250	<2500				
10/20/2008			25.60		<100	<100	<100	<200	2560	<100	0.16			<2000	<200	<1000	<100	<2000	<4000	<200	<2000				
1/18/2010			23.70		<5	<5	<5	<10	119	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
8/12/2010			22.70		<5	<5	<5	<10	23.1	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			25.80		2.8J	<5	3.6J	3.3J	70	<5	<0.02	<5		<100	<10	<100	0.93J	<100	<1000	<100	<100				
5/9/13 DUP					2.4J	<25	<25	<25	68	<25	<0.02	<25		<500	<50	<500	<50	<500	<5000	<500	<500				
MW-7	20-30																								
11/18/2003		95.93	23.59		<1	<1	<1	<1	<1	<5	<0.02														
4/19/2005			24.52		<1	<1	<1	<1	<1	<5	<0.02	<1	9	<10	<1	<10	<5	<10	<100	<1	<10				
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02			<25	<5	<25	<5	<25	<100	<5	<25				
6/29/2006			24.29		<1	<1	<1	<3	<1	<1	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/14/2007					<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/3/2008			25.10		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/20/2008			24.90		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/18/2010			23.60		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			24.78		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
MW-8	18.5-28	(Well is old MECI # MW-15)																							
3/17/1997			19.55		<1	<1	<1	<1	<1	<1															
11/18/2003		94.79	20.28		<1	<1	<1	<1	<1	<5	<0.02														
4/19/2005			21.90		<1	<1	<1	<1	<1	<5	<0.02	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10				
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02			<25	<5	<25	<5	<25	<100	<5	<25				
6/29/2006			20.28		<1	1.1	1.1	3.7	<1	1.4	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/21/2007			19.50		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/3/2008			21.80		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/21/2008			21.50		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/18/2010			20.15		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			23.19		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-9	20-30	(Well is old MECI # MW-5A)																							
3/12/1997			22.90		6850	26500	3180	17920	2040	687			47												
11/18/2003		92.30	22.75	0.01	Not sampled- Free Product																				
4/19/2005			23.54		2280	9010	773	5230	34.3	900	<0.02	<1	29	3950	17.3	<10	120	463	<100	<1	130				
11/16/2005					3100	9800	2100	11000	<10	1000	0.15			<250	<50	<250	71	<250	<1000	<50	<250				
7/11/2006			28.93	0.28	Not sampled- Free Product																				
8/12/2010			21.80		32.9	171	18.2	743	<5	106	0.12	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			23.00		4100	27000	2500	19000	150J	960J	5	<1000		4600J	<2000	<20000	<2000	<20000	<200000	<20000	<20000				
5/9/13 DUP					3400	21000	2100	16000	100J	600J	4	<1000		1600J	<2000	<20000	<2000	<20000	<200000	<20000	<20000				
MW-10	18-28																								
11/18/2003		85.98	17.44	0.10	Not sampled- Free Product																				
2/8/2005			18.98	1.13																					
4/19/2005			18.52	0.79	6200	23800	3320	33200	890	1440	<0.02	422	<5	22400	300	<200	2280	4180	<2000	<20	834				
11/16/2005			18.14	0.07	12000	17000	2700	13000	540	990	0.23			<630	230	<630	1700	<630	<2500	<130	<630				
8/14/2007			12.91		11300	29500	2420	12700	106	681	0.1			<20000	118	<250	1130	<500	<1000	<50	<500				
3/3/2008			21.00	1.60	Not sampled- Free Product																				
10/21/2008			19.10		7870	23000	2180	11400	<1000	<1000	0.24			<20000	<2000	<10000	<1000	<20000	<40000	<2000	<20000				
1/25/2010			17.20		143	1650	412	3980	<50	559	<0.02	<50		<1000	<100	<500	<50	<1000	<2000	<100	<1000				
8/12/2010			17.60		289	1930	141	2220	<50	180	<0.02	<50		<1000	<100	<500	<50	<1000	<2000	<100	<1000				
5/9/2013			18.14		740J	7800	<2500	15000	<2500	950J	<0.02	<2500		<50000	<5000	<50000	<5000	<50000	<500000	<50000	<50000				
MW-11	(TD 30')																								
3/12/1997			19.60		<1	11.7	10.5	61.6	<1	6.06															
11/18/2003		88.46	19.57		28.4	46.4	1.2	9.3	<1	<5	<0.02														
4/19/2005			20.17		34.5	20	2	8	<1	<5	<0.02	<1	<5	1540	<1	<10	<5	176	<100	<1	26.5				
11/16/2005					<25	230	<25	<25	<25	<130	<0.02														
7/11/2006			20.49		43	35	4.5	22.6	<1	6.8	<0.02			2500	<1	<20	<1	<10	<20	<10	110				
8/14/2007			23.30		149	225	16.6	68.2	<10	13.2	<0.02			529	<20	<100	12.8	<200	<400	<20	<200				
3/11/2008			21.50		18.5	<5	<5	<10	76.8	<5	<0.02			487	<10	<50	<5	<100	<200	<10	<100				
10/21/2008			21.50		30.9	<5	7.4	<10	<5	<5	<0.02			2330	<10	<50	<5	<100	550	<10	118				
1/18/2010			19.40		<5	<5	<5	4.7 J	17.5	<5	<0.02	<5		143	<10	<50	<5	<100	<200	<10	<100				
8/12/2010			19.50		<5	<5	<5	<10	<5	5.8	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			20.56		7.6	2.4J	6.2	2.8J	17	<5	<0.02	<5		180	<10	<100	<10	<100	<1000	<100	15J				

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
MW-12	(TD 24.65')																								
3/12/1997			4.79		1.23	4.42	3.51	24.72	<1	30.7															
11/18/2003		72.80	4.75		5400	125	489	203	682	<50	0.04														
4/19/2005			5.25		8550	4000	1460	2640	69	314	0.10	<1	<5	9840	91.3	<10	816	730	<100	<1	191				
11/16/2005					25	230	25	25	25	130	0.02														
7/13/2006					<1	8.2	2.1	11	<1	6.8	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/14/2007			5.23		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/11/2008			6.60		<5	<5	<5	<10	28.3	<5	<0.02			635	<10	<50	64	<100	<200	<10	<100				
10/21/2008			6.30		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/18/2010			4.70		4.8 J	13.8	4.8 J	41.9	25.9	24.1	<0.02	<5		421	16.5	<50	54	<100	<200	<10	36.6 J				
8/12/2010			5.10		94.5	10.4	32.7	8.6	4.8J	17.6	<0.02	<50		150	<100	<50	9.5	<100	<200	<10	<100				
5/9/2013			5.50		1.7J	<5	11	<5	5.6	4.7J	<0.02	<5		370	1.5J	<100	14	<100	<1000	<100	19J				
MW-13	(TD 30.10')																								
3/12/1997			12.22		<1	3.32	1.87	16.82	<1	9.39															
11/18/2003		80.44	12.18		120	<1	17	43	8	<5	<0.02														
4/19/2005			12.05		<1	<1	<1	<1	<1	<5	<0.02	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10				
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/11/2006			13.05		<1	4.1	1.3	8.2	<1	9.3	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/14/2007			12.71		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/11/2008			13.85		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/21/2008			14.10		15.1	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	499	<10	<100				
1/18/2010			11.80		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	12.7	<50	<5	<100	<200	<10	<100				
5/9/2013			13.13		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-15	15-25																								
11/18/2003		86.44	17.58	0.03	Not sampled- Free Product																				
2/8/2005			18.34	0.03	Not sampled- Free Product																				
4/19/2005			18.14		565	1950	617	7360	5.6	859	<0.02	<1	<5	957	<1	<10	<5	192	<100	<1	36.3				
11/16/2005					210	520	230	720	<1	190	<0.02														
8/14/2007			18.10		371	198	129	343	10.5	124	<0.02			3350	<10	<50	31.1	<100	<200	<10	159				
3/11/2008			19.50		372	7970	2090	10800	<100	1150	<0.02			2350	<200	<1000	<100	<2000	<4000	<200	<2000				
10/21/2008			19.00		312	3260	764	5790	<100	621	<0.02			<2000	<200	<1000	<100	<2000	<4000	<200	<2000				
1/18/2010			16.80		10.8 J	243	347	1710	<25	238	<0.02	<25		<500	<50	<250	<25	<500	<1000	<50	<500				
8/11/2010			17.40		26.1	81.6	159	456	<10	174	<0.02	<10		143J	<20	<100	<10	<200	<400	<20	<200				
5/9/2013			18.63	0.23	Not sampled- Free Product																				
MW-16	15-25																								
11/18/2003		88.19	18.95		436	300	66	244	<10	<50	<0.02														
4/21/2005			19.60		<1	1.6	<1	7.7	<1	<5	<0.02	<1	<5	171	<1	<10	<5	16.7	<100	<1	<10				
11/16/2005					<1	16	5	36	<1	31	<0.02														
7/11/2006			19.50	0.02	Not sampled- Free Product																				
8/14/2007			25.47		12200	34200	3270	21300	4110	1220	5.4			<20000	<2000	<10000	2220	<20000	<40000	<2000	<20000				
3/3/2008			20.00		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/22/2008			21.00		5.3	122	40.4	332	<5	162	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/19/2010			18.60		<5	1.8 J	<5	13.3	<5	5.5	<0.02	<5		139	<10	<50	<5	<100	<200	<10	<100				
8/12/2010			19.10		<5	<5	<5	3.5J	<5	5.1	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			19.99		<5	<5	<5	<5	<5	<5	<0.02	<5		65J	<10	<100	<10	<100	<1000	<100	<100				

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
MW-17	20-30	(Well is old MECI # MW-4A)																							
3/12/1997			23.03		24	10	77.8	451	28.7	141			20.1												
11/18/2003		92.45	23.74	0.65	Not sampled- Free Product																				
2/8/2005			24.42																						
4/21/2005			24.20		4720	32600	4440	23700	2.2	620	<0.02	<1	48	13800	<1	<10	55.1	1260	<100	<1	97.8				
11/16/2005			23.85	0.02	3500	28000	3600	20000	<200	1800	<0.02														
7/11/2006			24.42	0.04	Not sampled- Free Product																				
8/14/2007			23.82		9310	31000	2480	14500	<250	1080	0.5			<5000	<500	<2500	<250	<5000	<10000	<500	<5000				
3/3/2008			25.70	0.20	Not sampled- Free Product																				
10/22/2008			25.70		2250	24800	3580	32100	<1000	2370	0.39			<20000	<2000	<10000	<1000	<20000	<40000	<2000	<20000				
1/19/2010			23.10		873	6200	455	11400	<250	784	0.17	<250		9780	<500	<2500	<250	<5000	<10000	<500	<5000				
8/11/2010			23.40		27.4	904	179	5860	<50	991	<0.02	<50		<1000	<100	<500	<50	<1000	<2000	<100	<1000				
5/9/2013			24.36		1400	26000	2500	23000	<1000	1000	0.19	<1000		9400J	<2000	<20000	<2000	<20000	<200000	<20000	<20000				
MW-18	20-30																								
10/29/2003		94.81	25.72	0.13	Not sampled- Free Product																				
12/30/2003			25.72	0.24	Not sampled- Free Product																				
2/8/2005			26.76	0.31	Not sampled- Free Product																				
4/20/2005			26.28	0.02	6910	17400	2530	13800	8920	1580	11.2	<10	131	28800	759	<10	2040	4900	<100	<1	1170				
11/16/2005			26.00	0.03	18000	37000	3200	17000	6400	1300	1.6														
8/16/2007			25.84		9080	21000	1700	16000	4170	869	5			15800	<500	<2500	1930	<5000	<10000	<500	<5000				
3/3/2008			24.90	0.10	Not sampled- Free Product																				
10/20/2008			27.70		9470	23600	3060	17200	4270	1770	6.3			<20000	<2000	<10000	1740	<20000	<40000	<2000	<20000				
1/18/2010			25.10		187	746	108	3800	199	796	0.64	<50		1410	154	<500	229	<1000	<2000	<100	<1000				
8/11/2010			24.70		1150	2990	116	10300	991	684	2.4	<50		6530	189	<500	576	<1000	<2000	<100	433 J				
5/10/2013			26.75	0.04	Not sampled- Free Product																				
MW-19	20-30	(Well is old MECI # MW-2A)																							
3/12/1997			25.16		3480	6160	2150	10450	<DL	800			190												
10/29/2003		93.96	24.59	0.02	Not sampled- Free Product																				
4/20/2005			25.00		18200	63600	2980	16300	962	2290	24.1	<10	85	9730	607	<10	2910	4040	<100	<1	1740				
11/16/2005					23000	48000	3600	20000	4200	1300	1.7														
7/11/2006			25.89	0.19	Not sampled- Free Product																				
8/21/2007			25.43		17600	46700	2590	16300	5770	869	35.3			<10000	<1000	<5000	861	<10000	<20000	<1000	<10000				
3/3/2008			26.62	0.34	Not sampled- Free Product																				
10/20/2008			25.50		6680	24300	2540	20700	1750	1650	40.5			<25000	<2500	<12500	<1250	<25000	<50000	<2500	<25000				
1/19/2010			24.50		164	2520	235	7070	153	1750	13.2	<100		<2000	<200	<1000	74.4 J	<2000	<4000	<200	<2000				
8/12/2010			24.40		485	2650	245	7760	194	970	2	<100		1490J	<200	<1000	<100	<2000	<4000	<200	<2000				
5/10/2013			25.92	0.12	Not sampled- Free Product																				
MW-20	15-25																								
3/11/1997			23.75	0.20	Not sampled- Free Product																				
10/29/2003		94.12	23.05		24200	38600	2760	12800	6300	1050	<0.02														
4/20/2005			23.51		12800	23400	1630	12400	18000	1430	<0.02	<10	222	14600	641	<100	2200	2950	<1000	<10	3920				
11/16/2005					19000	36000	3200	18000	7200	1400	<0.02														
6/29/2006			22.76		18000	32000	3500	17600	3000	1400	0.061			3500	530	<1000	2300	<500	<1000	<500	<500				
10/20/2008			27.70		2710	19700	1730	13100	198	1090	<0.02			6100	<200	<1000	171	<2000	<4000	<200	<2000				
1/18/2010			22.10		217	2220	40.5	3490	47.0 J	102	0.1	<100		2620	261	<1000	<100	<2000	<4000	<200	<2000				
8/12/2010			24.00		412	2930	728	8820	88.7	817	0.068	<100		2850	<200	<1000	<100	<2000	<4000	<200	<2000				
5/10/2013			Dry		Dry																				

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
MW-21	15-25	(Well is Old MECI MW-1A)																							
3/12/1997			20.83		40.8	158	256	2531	54.9	127			6.3												
10/29/2003			21.03		18.9	240	537	3830	<1	116	<0.02														
4/20/2005					Destroyed																				
MW-22	20-30																								
11/25/2003		94.25	22.36		30000	48200	6550	31900	1560	3380	<0.02														
2/8/2005			23.28	0.03																					
4/20/2005			22.78		800	3640	126	760	1800	148	0.04	<20	<5	5540	788	<200	2420	872	<2000	<20	484				
11/16/2005					24000	39000	5000	27000	780	4600	<0.02														
6/29/2006			21.54		16000	44000	5700	28600	<250	2300	<0.02			17000	<250	<5000	400	<2500	<5000	<2500	<2500				
8/21/2007			21.20		7710	28200	1960	11000	<1250	<1250	<0.02			<25000	<2500	<12500	<1250	<25000	<50000	<25000	<25000				
3/3/2008			22.65		4480	34900	2660	13800	<1000	<1000	<0.02			<20000	<2000	<10000	<1000	<20000	<40000	<2000	<20000				
10/20/2008			22.50		2750	30600	5440	27900	<1000	2510	0.022			<20000	<2000	<10000	<1000	<20000	<40000	<2000	<20000				
1/20/2010					1100	8580	1650	21800	<250	215 J	<0.02	<250		<5000	662	<2500	<250	<5000	<10000	<500	<5000				
8/16/2010			22.50		582	5710	1010	12800	<250	326	<0.02	<250		<5000	<500	<2500	<250	<5000	<10000	<500	<5000				
5/10/2013			25.90	sheen	3300	17000	2900	20000	<1000	640J	<0.02	<1000		6000J	130J	<20000	370J	<20000	<200000	<20000	<20000				
5/10/13 DUP				sheen	3200	17000	3000	20000	<1000	760J	<0.02	<1000		6200J	130J	<20000	410J	<20000	<200000	<20000	<20000				
MW-23	20-30																								
11/25/2003		94.43	24.82		43000	85500	4140	85000	5800	1140	3.51														
4/20/2005			25.32		1770	1250	195	1650	1390	140	<0.02	<10	26	5210	83	<10	314	777	<100	<1	<10				
11/16/2005					8100	19000	1800	9700	1600	<1000	1.3														
6/29/2006			21.79		2100	5700	410	3800	230	220	0.21			4600	<50	<1000	100	<500	<1000	<500	<500				
8/21/2007			26.40		958	3560	251	1480	<250	<250	<0.02			<5000	<500	<2500	<250	<5000	<10000	<500	<5000				
3/3/2008			27.70		9840	29400	<2500	13300	<2500	2810	0.3			<50000	<5000	<25000	<2500	<50000	<100000	<5000	<50000				
10/20/2008			22.10		9740	26000	2940	18000	1550	1490	0.47			<20000	<2000	<10000	1370	<20000	<40000	<2000	<20000				
1/19/2010			24.90		17	73.5	8.9 J	391	17.3	58.4	<0.02	<10		285	<20	<100	6.8 J	<200	<400	<20	<200				
8/12/2010			24.30		546	1030	31.4	1790	268	259	0.056	<5		2450	56.5	<50	177	<100	<200	<10	<100				
5/10/2013			26.11	0.06	Not sampled																				
MW-24	20-30																								
11/25/2003		93.94	23.88		35000	37600	2760	12300	7750	595	168														
4/20/2005			24.35		1340	1520	98	1730	610	66.5	26.3	<5	123	4890	60	<10	449	1150	<100	<1	<10				
8/21/2007			46.20		<5	6.1	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/3/2008			25.90		<5	13.8	<5	18.7	25.1	<5	<0.02			<100	<10	<50	6.8	<100	<200	<10	<100				
10/20/2008			26.00		<5	17.2	<5	16.2	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/18/2010			20.50		1.7 J	2.4 J	<5	4.1 J	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	3980	<10	<100				
8/12/2010			24.40		22.2	20.7	9.1	35.7	8.4	5.8	<0.02	<5		73.1	<10	<50	2.8J	<100	<200	<10	<100				
5/10/2013					Not located																				
MW-25	(TD 25.6')																								
10/29/2003		93.09	21.23		10300	37400	3300	17600	80	1080	<0.02														
4/20/2005			21.89		6900	41800	7800	45600	17.7	3180	<0.02	<1	106	<10	<1	<10	154	<10	<100	<1	<10				
11/16/2005					1600	6200	850	4400	17	260	<0.02														
6/29/2006			20.70		1400	11000	2300	17400	<100	1200	<0.02			7900	<100	<2000	<100	<1000	<2000	<1000	<1000				
3/3/2008			27.00		<500	9370	3370	19900	94.6	1130	0.24			6950	<10	<50	19.7	<100	<200	<10	<100				
10/20/2008			21.80		<250	2260	2080	15000	<250	1090	<0.02			<5000	<500	<2500	<250	<5000	<10000	<500	<5000				
1/19/2010			20.10		<25	89.3	165	1620	<25	158	<0.02	<25		<500	<50	<250	<25	<500	<1000	<50	<500				
8/16/2010			21.40		69.6	3730	1700	11700	<12.5	1080	<0.02	<12.5		1120	<25	<125	<12.5	<250	<500	<25	<250				
5/10/2013			22.25	sheen	<5000	3000J	1900J	23000	<5000	<5000	<0.02	<5000		<100000	<10000	<100000	<10000	<100000	<100000	<100000	<100000				
5/10/13 DUP				sheen	<5000	2800J	2000J	22000	<5000	<5000	<0.02	<5000		<100000	<10000	<100000	<10000	<100000	<100000	<100000	<100000				

MW ID	Screened Interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
MW-26	(TD 30')																								
11/25/2003		95.96	20.50		<1	<1	<1	<1	<1	<5	<0.02														
4/21/2005			23.36		<1	<1	<1	<1	<1	<5	<0.02	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10				
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
6/29/2006			22.68		<1	<1	<1	<3	<1	<1	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/21/2007			18.26		7	15.7	<5	<10	<5	5.1	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/3/2008			24.10		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/20/2010			22.30		2.3 J	2.6 J	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
8/16/2010			22.20		<5	<5	<5	<10	<5	3.2 J	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013					Not sampled- under parked car																				
MW-27	15-30																								
4/20/2005		91.40	17.02		<1	<1	<1	<1	<1	<5	11.1	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10	4.85	61.2	0.556	<0.026
8/21/2007			16.20		2670	10000	840	4840	<50	300	<0.02			<1000	<100	<500	105	<1000	<2000	<100	<1000				
3/3/2008			16.30		<5	<5	<5	11.5	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/20/2008			17.50		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	454	<10	<100				
1/18/2010			14.30		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			16.70		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-28	15-30																								
4/20/2005		91.46	18.87		<1	<1	<1	<1	<1	<5	5.17	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10	2.54	33	0.087	<0.026
11/16/2005					360	970	96	490	<50	<250	<0.02														
6/29/2006			18.42		10	44	8.7	72	<1	35	<0.02			91	<1	<20	<1	<10	<20	<10	<10				
8/15/2007			18.53		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/3/2008			19.30		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/20/2008			20.10		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	269	<10	<100				
1/18/2010			Dry		Dry																				
5/10/2013			18.60		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-29	15-30																								
4/20/2005		91.09	19.06		<1	<1	<1	<1	<1	<5	<0.02	<1	86	<10	<1	<10	<5	<10	<100	<1	<10	2.64	21.4	0.068	<0.026
11/16/2005					<100	<100	<100	<100	<100	3500	<0.02														
6/29/2006			19.57		2.6	18	5.8	44	<1	13	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/15/2007			29.33		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/3/2008			20.09		<5	10	6	37.5	<5	6.9	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/20/2008			19.70		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	111	<200	<10	<100				
1/18/2010			16.70		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			19.00		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-30	15-30																								
4/20/2005		92.77	22.86		<1	<1	<1	<1	<1	<5	<0.02	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10	1.49	48.8	0.102	<0.026
11/16/2005					<1	<1	<1	<1	<1	<5	0.11														
6/29/2006			23.34		2.8	28	21	129	<1	50	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/21/2007			22.90		5.3	19.4	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/3/2008			24.20		<5	5.7	<5	11.4	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/20/2008			23.95		<5	14.6	5	38.7	<5	11.1	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/18/2010			21.30		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			23.44		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
MW-31	20-35																								
4/20/2005		95.20	26.51		227	251	261	450	2.2	82.9	<0.02	<1	<5	1100	<1	<10	<5	329	<100	<1	<10	<0.1	<1	12.8	<0.026
11/16/2005					20	53	21	260	<1	51	<0.02														
6/29/2006			27.14		100	280	2	380	<1	<2	<0.02			1600	<1	<20	<1	<10	<20	<10	<10				
3/11/2008			28.15		91.3	97.9	298	586	<10	222	<0.02			2030	<20	<100	<10	<200	<400	<20	<200				
1/20/2010			25.20		20.2	15.3	275	55.9	<10	146	<0.02	<10		369	<20	<100	<10	<200	<400	<20	<200				
8/11/2010			25.90		<5	<5	3.0 J	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			27.20		57	90	520	250	12J	210	<0.02	2.4J		510	<50	<500	2.1J	<500	<5000	<500	<500				
MW-32	15-30																								
4/21/2005		92.87	23.66		264	740	406	2440	<5	176	<0.02	6.5	<5	3220	<5	<50	<25	347	<500	<5	202	0.12	21.9	0.923	<0.026
11/16/2005					400	14000	520	18000	<5	170	0.088														
6/29/2006			23.51		410	850	370	2180	<10	160	<0.02			4500	<10	<200	<10	<100	<200	<100	<100				
8/21/2007			22.91		174	1210	216	2920	<25	88.2	<0.02			784	<50	<250	<25	<500	<1000	<50	<500				
10/20/2008			24.15		296	911	512	2570	<25	510	<0.02			1860	<50	<250	<25	<500	<1000	<50	<500				
1/18/2010			21.80		6.4	19.1	23.3	67.1	<5	21.9	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
8/11/2010			22.70		<5	<5	1.2 J	5.9 J	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			23.90		8.8	4.3J	24	20	<5	18	<0.02	<5		200	<10	<100	<10	<100	<1000	<100	<100				
MW-33	20-35																								
4/20/2005		93.84	25.27		3860	7820	938	4660	25.6	164	<0.02	<1	27	13100	65.5	<10	392	1190	<100	<1	<10	0.3	24.2	9.99	<0.026
11/16/2005					410	1600	290	1400	50	<100	<0.02														
6/29/2006			25.71		5500	18000	1900	12400	72	650	<0.02			9100	<50	<1000	170	<500	<1000	<500	<500				
8/21/2007			25.50		821	3870	238	4610	<100	280	<0.02			3710	<200	<1000	<100	<2000	<4000	<200	<2000				
3/3/2008			26.85		1080	3750	644	5860	<100	340	<0.02			7970	<200	<1000	<100	<2000	<4000	<200	<2000				
10/20/2008			24.00		2570	11000	1310	8420	<100	473	<0.02			5190	<200	<1000	<100	<2000	<4000	<200	<2000				
1/18/2010			24.10		2.0 J	4.3 J	<5	9.3 J	<5	<5	<0.02	<5		180	<10	<50	<5	<100	<200	<10	<100				
8/11/2010			24.40		3.1 J	4.6 J	<5	2.8 J	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			25.70		520	7200	1500	7200	<500	410J	<0.02	<500		3200J	<1000	<10000	<1000	<10000	<100000	<10000	<10000				
MW-34	20-35																								
4/20/2005		94.77	26.11		2020	9180	1840	10300	<1	1060	<0.02	<1	<5	<10	<1	<10	34.1	779	<100	<1	<10	<0.1	5.85	1.69	<0.026
11/16/2005					250	870	180	1700	<10	360	0.16														
6/29/2006			26.55		1900	12000	1500	7200	<1	400	0.18			5400	<1	<20	47	<10	<20	<10	<10				
8/21/2007			26.27		263	2710	570	2700	<100	231	<0.02			<2000	<200	<1000	<100	<2000	<4000	<200	<2000				
3/6/2008			27.65		1490	14500	1880	8250	<500	803	<0.02			<10000	<1000	<5000	<500	<10000	<20000	<1000	<10000				
10/20/2008			27.35		648	5930	1350	5870	<250	622	<0.02			<5000	<500	<2500	<250	<5000	<10000	<500	<5000				
1/18/2010			24.90		100	166	130	886	<10	<10	<0.02	<10		710	<20	<100	6.5 J	<200	<400	<20	341				
8/11/2010			25.20		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			26.58		17J	150	130	360	<25	100	<0.02	<25		65J	<50	<500	<50	<500	<5000	<500	46J				
MW-35	20-35																								
4/20/2005		93.71	25.14		4090	4060	296	1590	1730	238	0.03	<10	36	11400	286	<100	1200	2010	<1000	<10	536	4.62	2.01	5.3	<0.026
11/16/2005					12000	22000	3200	15000	1300	1200	3.2														
7/11/2006			25.60	0.57	Not sampled- Free Product																				
8/21/2007			25.53		15800	13500	1960	9300	3120	1330	3.7			137000	<1000	<5000	2340	<10000	<20000	<1000	<10000				
3/6/2008			26.10		14500	18200	2180	15100	2500	1260	0.91			19800	<1000	<5000	2030	<10000	<20000	<1000	<10000				
10/20/2008			26.70		13100	12500	1660	8830	1770	1460	0.96			12700	<1000	<5000	1360	<10000	<20000	<1000	<10000				
1/18/2010			23.90		4020	7160	608	3590	382 J	354 J	0.44	<500		13600	1310	<5000	351 J	<10000	<20000	<1000	<10000				
3/17/2010					37.4	24	<5	285	<5	35.4		<5		<100	<10	<50	<5	<100	<200	<10	<100				
8/11/2010			24.40		27.9	185	62.7	386	<5	58.1	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			25.73		4400	2000	1700	3500	300	580	0.15	96J		5300	51J	<5000	270J	<5000	<50000	<5000	<5000				

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
MW-36	20-35																								
4/20/2005		93.89	24.96		302	621	165	427	3.7	29.4	0.48	<1	<5	2000	<1	<10	<5	326	<100	<1	<10	<0.1	20.5	4.63	<0.026
11/16/2005					140	310	320	1400	<1	120	<0.02														
6/29/2006			25.28		110	540	730	4300	<1	280	<0.02			5400	<1	<20	<1	<10	<20	<10	<10				
8/21/2007			24.85		38.2	26.5	103	280	<5	87.1	<0.02			587	<10	<50	<5	<100	<200	<10	<100				
3/3/2008			24.90		<100	<100	273	247	<100	<100	<0.02			<2000	<200	<1000	<100	<2000	<4000	<200	<2000				
10/20/2008			26.05		35.8	136	397	320	<10	238	<0.02			2400	<20	<100	<10	<200	<400	<20	<200				
1/18/2010			23.70		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
8/11/2010			24.20		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			25.50		18J	<25	120	<25	<25	69	<0.02	<25		160J	<50	<500	<50	<500	<5000	<500	<500				
MW-37	20-35																								
4/20/2005		93.78	25.25		764	1750	780	1870	<1	158	2.01	<1	<5	1420	2.4	<10	14.2	1100	<100	<1	<10	<0.1	1.88	8.11	<0.026
11/16/2005					360	360	44	170	160	15	0.097														
6/29/2006			25.78		410	1900	1300	2550	<20	390	0.025			1700	<20	<400	<20	<200	<400	<200	<200				
8/21/2007			25.53		135	808	888	2280	<50	352	<0.02			<1000	<100	<500	<50	<1000	<2000	<100	<1000				
3/6/2008			26.90		519	625	1380	673	<250	502	<0.02			<5000	<500	<2500	<250	<5000	<10000	<500	<5000				
10/20/2008			26.80		454	459	1130	728	<50	609	<0.02			2370	<100	<500	<50	<1000	<2000	<100	<1000				
1/18/2010			24.01		353	417	325	794	20.4 J	75.1	<0.02	<25		2400	<50	<250	<25	<500	<1000	<50	<500				
8/16/2010			24.40		<5	2.3 J	5.3	18.2	<5	4.2 J	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			25.85		240	34	270	240	11J	220	<0.02	5.7J		850	<50	<500	8.8J	<500	<5000	<500	44J				
MW-38	20-35																								
4/20/2005		95.53	26.78		<1	<1	<1	<1	<1	<5	<0.02	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10	3.47	5.02	1.03	<0.026
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/11/2006			27.20		1.8	23	5.8	31.7	<1	8.2	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/13/2007					<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/3/2008			28.30		<5	22.9	7.4	44.3	<5	11.6	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/20/2008			28.20		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/20/2010			25.30		<5	2.6 J	<5	10.3	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			27.24		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-39	20-35																								
4/20/2005		96.19	27.65		3680	23200	3050	16800	66	2120	<0.02	<20	121	2180	<20	<200	<100	1920	<2000	<20	<200	<0.1	16.9	<0.05	<0.026
11/16/2005					3100	17000	2600	13000	<25	830	0.29														
7/11/2006			27.92		1500	19000	2000	14300	<200	1400	0.19			<2000	<200	<4000	<200	15000	<4000	<2000	<2000				
8/13/2007					678	10300	1320	8320	<500	683	0.13			<10000	<1000	<5000	<500	<1000	<20000	<1000	<10000				
3/6/2008			29.45		515	10200	1980	12500	<500	1140	<0.02			14000	<1000	<5000	<500	<10000	<20000	<1000	<10000				
10/20/2008			29.35		506	11400	1940	10900	<500	944	<0.02			<10000	<1000	<5000	<500	<10000	<20000	<1000	<10000				
1/20/2010			26.50		59.6 J	2400	486	4810	<100	330	<0.02	<100		3000	<200	<1000	<100	<2000	<4000	<200	<2000				
8/16/2010					<5	19.5	16.3	92.7	<5	14.8	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			28.15		13J	1300	460	4200	<250	330	<0.02	<250		<5000	<500	<5000	<500	<5000	<50000	<5000	<5000				
MW-40	20-35																								
4/20/2005		95.69	27.31		1940	7660	3880	5220	1.8	1140	<0.02	<1	10	630	17.7	<10	183	1290	1130	<1	<10	<0.1	1.28	0.493	<0.026
11/16/2005					840	740	690	1900	<1	500	0.22														
7/11/2006			27.88		2000	15000	1300	8900	<1	630	0.32			6100	<1	<20	71	80	<20	<10	<10				
8/13/2007					757	8340	685	6180	<500	<500	0.14			<10000	<1000	<5000	<500	<10000	<20000	<1000	<10000				
10/20/2008			29.10		1010	16000	3920	27200	<1000	2630	<0.02			<20000	<2000	<10000	<1000	<20000	<40000	<2000	<20000				
1/20/2010			25.90		<500	504	<500	<1000	<500	<500	<0.02	<500		<10000	<1000	<5000	<500	<10000	<20000	<1000	<10000				
3/17/2010					7.7 J	339	111	870	<25	40.6		<25		<500	<50	<250	<25	<500	<1000	<50	<500				
8/16/2010			27.30		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			27.89		290J	2900	650	7100	<500	530	<0.02	<500		<10000	<1000	<100000	<1000	<10000	<100000	<10000	<10000				

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
MW-41	20-35																								
4/20/2005		94.85	26.68		869	8580	462	2370	<1	182	1.98	<1	<5	<10	1.6	<10	19.3	130	<100	<1	<10	0.11	70	0.947	<0.026
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/11/2006			27.31		110	700	160	860	<1	93	<0.02			190	<1	<20	<1	<10	<20	<10	<10				
8/15/2007			25.70		586	<25	88.2	<50	93.2	56.1	0.096			913	<50	<250	57.4	<500	<1000	<50	<500				
3/6/2008			28.60		809	1620	1380	1900	20.7	483	<0.02			<5000	<500	<2500	<250	<5000	<10000	<500	<5000				
10/20/2008			28.60		1160	834	1460	1760	<50	608	<0.02			3520	<100	<500	57.8	<1000	<2000	<1000	<1000				
1/20/2010			25.30		4.6 J	3.4 J	2.5 J	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
8/16/2010			26.20		168	74.5	200	162	10.5	161	<0.02	<5		319	<10	<50	12.2	<100	<200	<10	<100				
5/10/2013			27.89		260J	<1000	1100	<1000	<1000	420J	<0.02	<1000		<20000	<2000	<20000	<2000	<20000	<200000	<20000	<20000				
MW-42	20-35																								
4/20/2005		95.81	27.53		16	2460	546	2980	<1	124	1.15	<1	<5	<10	<1	<10	<5	82.4	<100	<1	<10	0.54	7.05	0.476	<0.026
11/16/2005					<1	<1	<1	<1	<1	5.4	<0.02														
7/11/2006			29.98		3.2	860	480	2900	<1	270	<0.02			360	<1	<20	<1	<10	<20	<10	<10				
8/13/2007					<50	718	432	3680	<50	293	<0.02			<1000	<100	<500	<50	<1000	<2000	<100	<1000				
3/6/2008			29.30		<10	91.8	185	565	<10	154	<0.02			284	<20	<100	<10	<200	<400	<20	<200				
10/20/2008			29.30		<10	110	303	835	<10	282	<0.02			627	<20	<100	<10	<200	<400	<20	<200				
1/20/2010			26.10		<5	<5	<5	12.2	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
8/16/2010			27.00		<5	<5	16.6	39.2	<5	21.4	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			28.00		<25	<25	36	<25	<25	60	<0.02	<25		<500	<50	<500	<50	<500	<5000	<500	<500				
MW-43	20-40																								
3/24/2005		95.15			<1	<1	<1	<1	<1	<5		<1													
4/21/2005			26.28		<1	<1	<1	<1	<1	<5	<0.02	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10	4.09	1.92	<0.05	<0.026
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/11/2006			26.61		1.1	11	2.4	12.9	<1	6.7	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/21/2007			26.45		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	1140	<10	<100				
3/6/2008			27.80		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/20/2008			27.70		<5	<5	<5	11.4	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/19/2010			24.80		11	30.1	1.8 J	21.4	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
8/11/2010			25.00		<5	<5	<5	<10	<5	3.5 J	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			26.73		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-44	16-31																								
3/24/2005		94.57			<1	<1	<1	<1	<1	<5		<1													
4/21/2005			25.03		<1	<1	<1	<1	<1	<5	<0.02	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10	4.09	<1	0.212	<0.026
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/11/2006			25.29		<1	3.6	<1	5.5	<1	2	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/14/2007			24.88		<5	5.8	<5	19.2	<5	6.4	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/6/2008			26.50		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/22/2008			26.30		<5	<5	<5	15.7	<5	7.8	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/19/2010			23.10		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			25.31		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-45	15-30																								
4/21/2005		92.51	23.39		<1	<1	<1	<1	<1	<5	<0.02	<1	12	<10	<1	<10	<5	<10	<100	<1	<10	6.14	13.6	<0.05	<0.026
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/11/2006			24.72		<1	2.9	<1	4.4	<1	2.1	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/14/2007			23.41		<5	5.2	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/6/2008			25.10		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/22/2008			24.90		<5	<5	<5	16.3	<5	15.8	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/19/2010			22.20		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			23.87		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
MW-46	20-35																								
4/21/2005		94.50	25.71		<1	<1	<1	<1	<1	<5	<0.02	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10	5.64	<1	1.22	<0.026
11/16/2005					<1	12	<1	<1	<1	5.2	<0.02														
7/11/2006			25.96		<1	2	<1	2.2	<1	5.6	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/14/2007			25.48		5.1	12	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/6/2008			25.00		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/22/2008			27.10		<5	<5	<5	13.8	<5	7.5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/19/2010			24.40		6.1	<5	<5	3.9 J	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			26.10		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-47	20-35																								
4/21/2005		92.44	23.61		5.8	<1	<1	7.5	<1	<5	<0.02	<1	<5	3710	<1	<10	<5	369	<100	<1	54.2	4.58	6.15	0.056	<0.026
11/16/2005					<1	14	<1	<1	<1	<5	2.4														
7/11/2006			23.91		<1	3.1	<1	4.2	<1	5.6	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/14/2007			23.40		7.9	18	13.1	254	<5	374	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/6/2008			25.00		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/22/2008			25.00		<5	23.8	8.2	95.6	<5	36.5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/19/2010			22.50		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
8/11/2010			22.70		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013					Not located																				
MW-48	15-30																								
4/21/2005		89.95	20.75		<1	<1	<1	<1	<1	<5	<0.02	<1	7	49.9	<1	<10	<5	<10	<100	<1	<10	8.85	126	<0.05	<0.026
11/16/2005					<1	<1	<1	<1	<1	<5	1.6														
7/11/2006			20.90		<1	3.9	<1	4.8	<1	1.4	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/14/2007			20.40		9.5	16.2	<5	22.2	<5	46.3	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/6/2008			21.50		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/22/2008			29.05		<5	13.5	5.1	60.1	<5	29	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/20/2010			19.70		<5	4.6 J	1.2 J	13.4	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			21.00		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-49	15-30																								
4/21/2005		88.18	18.39		<1	<1	<1	<1	<1	<5	<0.02	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10	18.4	61	<0.05	<0.026
11/16/2005					<1	18	<1	<1	<1	<5	0.33														
7/11/2006			18.56		<1	2.3	<1	2.4	<1	5.6	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/14/2007			18.40		<5	6	<5	51.1	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/6/2008			19.80		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/22/2008			19.60		<5	5.6	<5	23.9	<5	13.6	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/19/2010			Dry		Dry																				
5/9/2013			18.50		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-50	15-30																								
4/21/2005		84.09	15.15		<1	<1	<1	<1	<1	<5	<0.02	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10	0.67	51.5	<0.05	<0.026
11/16/2005					<1	13	<1	<1	<1	<5	<0.02														
7/11/2006			14.72		<1	2.2	<1	4.5	<1	1.3	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/14/2007			15.43		<5	7.7	<5	<10	<5	23.5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/6/2008			16.70		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/22/2008			17.40		<5	21.7	17.5	171	<5	262	<0.02			<100	<10	<50	<5	155	<200	<10	<100				
1/19/2010					Inaccessible																				
5/9/2013			15.82		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
MW-51	20-35																								
4/21/2005		93.91	24.66		<1	<1	<1	<1	<1	<5	<0.02	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10	4.52	1.7	<0.05	<0.026
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/11/2006			24.81		<1	1.3	<1	3.6	<1	5.9	<0.02			13	<1	<20	<1	<10	<20	<10	<10				
8/14/2007			24.22		23.9	52.1	<5	13.6	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/11/2008			25.50		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/21/2008			26.00		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/19/2010			24.50		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			25.15		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-52	15-30																								
4/21/2005			21.88		<1	<1	<1	<1	<1	<5	<0.02	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10	4.74	4.14	0.821	<0.026
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/11/2006			22.22		<1	1.7	<1	3.2	<1	2	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/14/2007			21.89		11.6	24.1	<5	<10	14.5	<5	0.3			<100	<10	<50	<5	<100	<200	<10	<100				
1/19/2010			Dry		Dry																				
5/9/2013			Dry		Not sampled- well obstructed at 20.80'																				
MW-53	5-20																								
4/21/2005		79.60	11.55		1.3	<1	<1	<1	<1	<5	<0.02	<1	<5	533	<1	<10	<5	75.9	<100	<1	19.9	1.48	14.6	3.01	<0.026
11/16/2005					<1	<1	<1	<1	<1	<5	0.73														
7/11/2006			11.92		<1	29	29	193	<1	42	<0.02			100	<1	<20	<1	<10	<20	<10	11				
8/14/2007			11.45		8.3	16.9	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/11/2008			12.40		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/21/2008			12.70		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/19/2010			10.90		5.9	89.4	25.7	311	<5	138	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
8/11/2010			11.01		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			11.73		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-54	5-20																								
4/21/2005		77.58	12.31		139	<1	<1	2.8	14.8	<5	<0.02	<1	60	263	5.2	<10	29	17.5	<100	<1	<10	<0.1	24.6	<0.05	1.53
11/16/2005					970	2900	460	2200	1500	1100	2.7														
7/11/2006					650	5.1	1.3	11.9	23	4.9	<0.02			700	<1	<20	63	90	<20	<10	<10				
8/14/2007			12.14		557	<25	<25	<50	<25	46.5	<0.02			<500	<50	<250	59.1	<500	<1000	<50	<500				
3/11/2008			12.30		150	<5	<5	<10	19.5	9.7	<0.02			478	<10	<50	38.3	<100	<200	<10	<100				
10/21/2008			12.80		152	<5	<5	<10	16.2	19.1	<0.02			615	<10	<50	33.9	<100	<200	<10	<100				
1/19/2010					4.6 J	<5	<5	<10	9.7	4.5 J	<0.02	<5		153	13.6	<50	21.8	<100	<200	<10	<100				
8/17/2010			11.08		<5	2.0 J	<5	<10	6.9	<5	0.11	<5		<100	<10	<50	11.4	<100	<200	<10	<100				
5/9/2013			11.84		<5	<5	<5	<5	12	<5	<0.02	<5		110	2.0J	<100	20	<100	35J	<100	14J				
MW-55	4-14																								
4/21/2005		71.22	4.88		213	<1	5.8	<1	329	16.9	<0.02	18.6	<5	724	11.2	<10	63.4	59.2	<100	<1	129	<0.1	19.9	1.68	<0.026
11/16/2005					440	<1	27	<1	410	39	0.11														
7/11/2006					130	3.4	18	4.4	190	19	<0.02			610	8.3	<20	55	<10	<20	<10	<10				
8/14/2007			3.93		544	11.9	24.8	<10	369	46.3	<0.02			1080	14.8	<50	84.7	<100	<200	<10	<100				
3/11/2008			4.43		<5	<5	<5	<10	145	6	<0.02			285	<10	<50	34.5	<100	<200	<10	<100				
10/21/2008			4.80		<5	<5	<5	<10	72.7	6.3	<0.02			114	<10	<50	11.4	<100	<200	<10	<100				
1/19/2010			2.50		6.2	2.4 J	<5	3.2 J	33.5	6.4	<0.02	<5		<100	<10	<50	4.1 J	<100	<200	<10	<100				
8/11/2010			3.60		88	<5	25.6	<10	191	25.3	<0.02	1.4 J		574	<10	<50	17.7	<100	<200	<10	<100				
5/9/2013			4.03		0.31J	<5	3.6J	<5	24	4.1J	<0.02	<5		94J	0.85J	<100	5.3J	<100	<1000	<100	8.4J				

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
MW-56	5-20																								
3/22/2005		76.39			<1	<1	<1	<1	<1	<5															
11/16/2005					76	<1	<1	<1	<1	5.4	<0.02														
4/21/2005			8.90		<1	<1	<1	<1	<1	<5	<0.02	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10	4.25	36.4	<0.05	0.076
7/13/2006					<1	2.4	<1	2.2	<1	5.3	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/14/2007			9.13		<5	6.2	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/11/2008			9.55		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/21/2008			9.90		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/19/2010			7.50		<5	<5	<5	<10	<5	4.0 J	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			9.20		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-57	4-14																								
3/22/2005		67.20			2500	1900	360	1400	970	<50															
4/21/2005			1.41		8390	5400	1170	4390	1590	240	0.05	<1	<5	<10	129	<10	786	344	<100	<1	<10	<0.1	5.21	2.22	2.62
11/16/2005					12000	12000	2000	8200	2000	<1000	3.3														
7/13/2006					8900	8300	1300	4500	1300	290	0.033			5100	110	<200	820	<100	<200	<100	<100				
8/14/2007			15.60		7570	10600	1270	5250	1010	489	0.098			5410	<500	<2500	679	<5000	<10000	<500	<5000				
10/21/2008			1.70		9390	10500	1650	6690	1210	681	<0.02			9120	<500	<2500	833	<5000	<10000	<500	<5000				
1/19/2010					6390	6700	1180	4570	746	517	0.089	<500		<10000	<1000	<5000	386 J	<10000	<20000	<1000	<10000				
3/17/2010					4100	3440	791	2960	461	172 J		<250		<5000	<500	<2500	211 J	<5000	<10000	<500	<5000				
8/11/2010			24.40		<5	<5	<5	4.0 J	<5	3.8 J	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013					Not located																				
MW-58	4-19																								
4/21/2005		76.37	10.65		5920	162	380	159	442	218	<0.02	<1	17	9900	<1	<10	480	288	<100	<1	<10	<0.1	65	2.76	0.293
11/16/2005					5300	110	960	160	630	490	2														
7/13/2006					5800	87	480	228	490	300	<0.02			5200	67	<200	490	<100	<200	<100	120				
3/11/2008			7.10		13.4	<5	63.2	<10	34.5	24	<0.02			310	<10	<50	44.4	<100	<200	<10	<100				
10/21/2008			7.70		1890	28.3	161	64.9	452	776	<0.02			104000	49.2	<50	400	<100	<200	<10	245				
1/19/2010			5.30		4.3 J	<10	2.4 J	<20	199	36.3	<0.02	<10		2960	20.5	<100	226	<200	<400	<20	<200				
8/11/2010			7.00		<5	<5	1.7 J	<10	76.4	<5	<0.02	<5		1170	7.1 J	<50	51.6	<100	<200	<10	112				
5/9/2013			7.10		4.8J	<25	20J	<25	93	11J	<0.02	<25		1800	15J	<500	130	<500	<5000	<500	100J				
MW-59	2-17																								
3/22/2005		68.02			<1	<1	<1	<1	<1	<5															
4/21/2005			4.64		<1	<1	<1	<1	<1	<5	<0.02	<1	22	<10	<1	<10	<5	<10	<100	<1	<10	1.37	21.5	<0.05	<0.026
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/13/2006					<1	2.4	<1	3.8	<1	5.5	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/14/2007			5.29		12	11.8	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/11/2008			4.80		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/21/2008			5.50		<5	9.2	<5	<10	<5	5.6	<0.02			<100	<10	<50	<5	<100	855	<10	<100				
1/19/2010			4.50		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
8/16/2010			5.90		<5	<5	<5	<10	<5	<5	0.057	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			5.22		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-60	4-14																								
4/21/2005		67.94	5.29		<1	<1	<1	<1	<1	<5	<0.02	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10	0.32	18.2	<0.05	0.033
3/11/2008			5.80		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/21/2008			6.80		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/19/2010			5.30		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			5.70		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
MW-61	20-35																								
5/17/2005		91.00	21.25		<1	<1	<1	<1	<1	<5															
7/14/2005														<10	<10	<20	<5	<10	<20	<10	<10				
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/11/2006			20.89		<1	6.7	1.9	11.1	<1	3.8	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/15/2007					<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/6/2008			23.05		<5	<5	<5	<10	<5	<5	<0.02			102	<10	<50	<5	<100	<200	<10	<100				
1/19/2010					Inaccessible																				
5/9/2013					Not located																				
MW-62	20-35																								
5/17/2005		94.05	24.99		<1	<1	<1	<1	<1	<5	<0.02														
7/14/2005														<10	<10	<20	<5	<10	<20	<10	<10				
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/11/2006			24.49		<1	<1	1.1	6.4	<1	1.6	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/15/2007			25.40		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/6/2008			26.20		<5	<5	<5	<10	<5	<5	<0.02			162	<10	<50	<5	<100	<200	<10	<100				
10/21/2008			27.10		13.9	<5	<5	<10	<5	13.1	<0.02			209	<10	<50	<5	<100	<200	<10	<100				
1/20/2010			23.60		2.4 J	<5	<5	<10	<5	2.9 J	<0.02	<5		141	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			25.45		6.2J	<25	<25	<25	2.1J	9.6J	<0.02	<25		440J	<50	<500	<50	<500	<5000	<500	<500				
MW-63	20-35																								
5/17/2005		94.65	26.41		<1	<1	<1	<1	<1	<5	<0.02														
7/14/2005														<10	<10	<20	<5	<10	<20	<10	<10				
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/11/2006			25.78		<1	3.8	<1	5.4	<1	6	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/15/2007			26.00		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/6/2008			27.05		<5	5.2	6.8	23	<5	13.2	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/21/2008			28.50		5.5	<5	<5	<10	<5	8	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/20/2010			23.80		<5	<5	<5	<10	<5	<5	0.15	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			25.72		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-64	20-35																								
5/17/2005		94.36	26.74		2460	76.6	382	48.8	444	151	0.025														
7/14/2005														1300	23	<20	100	<10	<20	<10	100				
11/16/2005					390	13	51	<1	100	56	<0.02														
7/11/2006			27.08		1600	53	330	68	180	170	<0.02			2200	28	<200	130	1100	<200	<100	<100				
8/15/2007			27.90		8.8	65.8	34.4	113	<5	14.4	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/6/2008			28.50		4080	731	920	<1000	<500	<500	<0.02			15200	59.4	<50	<500	<100	<200	<10	192				
10/21/2008			28.10		5320	1860	1040	1300	1650	851	0.36			10500	159	<50	654	<100	429	<10	550				
1/20/2010			25.20		3240	2020	195	1250	1060	350	0.13	12.6		4010	111	<100	783	<200	<400	<20	1180				
3/17/2010					225	16.4	<10	84.3	108	21.1		<10		361	<20	<100	39.4	<200	<400	<20	<200				
8/16/2010			26.00		1410	1130	228	724	195	185	0.16	<100		3110	<200	<1000	87.3	<2000	<4000	<200	<2000				
5/10/2013					Not located																				

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
MW-65	20-35																								
5/17/2005		94.04	26.46		2860	2610	1760	1720	43.7	745	0.26											0.35	25	4	
7/14/2005														1100	<100	<200	45	<100	<200	<100	<100				
11/16/2005					140	31	78	88	6	45	<0.02														
8/15/2007			26.94		48.4	<5	21.3	<10	8.7	19	<0.02			344	<10	<50	16.6	<100	<200	<10	<100				
3/6/2008			28.10		1580	505	1500	<1000	25.5	<500	<0.02			3010	11.1	<50	58.9	<100	<200	<10	<100				
10/21/2008			29.30		1630	626	1510	609	72.1	757	<0.02			10600	<100	<500	94.3	<1000	<2000	<100	<1000				
1/20/2010			24.80		748	530	21.6 J	274	40.7 J	<50	<0.02	<50		2570	137	<500	35.5 J	<1000	<2000	<100	<1000				
3/17/2010					<5	<5	<5	2.8 J	4.8 J	3.9 J		<5		88 J	<10	<50	5	<100	<200	<10	<100				
8/16/2010			26.00		420	398	234	262	16.4 J	168	<0.02	<25		648	<50	<250	21.3 J	<500	<1000	<50	<500				
5/10/2013			Dry		Dry																				
MW-66	20-35																								
5/17/2005		95.25	27.50		3.8	2.3	5.2	318	<1	80.1	<0.02											5.1	33	1.2	
7/14/2005														<10	<10	<20	<5	<10	<20	<10	<10				
11/16/2005					<1	<1	<1	27	<1	8.6	<0.02														
7/11/2006			28.09		1.7	7.7	2.5	12.8	<1	7.5	<0.02			14	<1	<20	<1	<10	<20	<10	<10				
8/15/2007					<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/3/2008			29.35		<5	9.2	49.7	59.9	<5	25.8	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/21/2008			29.40		<5	8.9	113	24.2	<5	56.9	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/20/2010			21.90		<5	<5	28.2	3.9 J	<5	53.2	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
8/16/2010			27.10		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013					Not located																				
MW-67	20-35																								
5/17/2005		96.10	27.72		<1	<1	<1	2.6	<1	<5	<0.02														
7/14/2005														<10	<10	<20	<5	<10	<20	<10	<10				
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/11/2006			28.21		<1	11	3.2	20.2	<1	7.6	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/13/2007					<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/3/2008			29.40		<5	10.2	<5	25	<5	8.1	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/21/2008			28.10		<5	<5	<5	<10	<5	15.2	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/20/2010			25.80		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			28.07		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-68	20-35																								
5/18/2005		94.02	26.46		6.6	<1	<1	<1	<1	<5	<0.02														
7/14/2005														<10	<10	<20	<5	<10	<20	<10	<10				
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/11/2006			26.81		<1	11	3	18.2	<1	6	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/15/2007			27.00		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/3/2008			28.10		<5	<5	<5	12.2	<5	6.8	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/21/2008			28.70		165	<5	<5	317	<5	58.6	<0.02			327	<10	<50	<5	222	<200	<10	<100				
1/20/2010			24.80		5.3	<5	<5	<10	<5	3.9 J	0.16	<5		178	<10	<50	<5	<100	<200	<10	<100				
8/16/2010			26.30		<5	<5	<5	<10	<5	<5	0.092	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013					Not located																				

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
MW-69	20-35																								
5/18/2005		94.36	26.85		<1	<1	<1	<1	<1	<5	<0.02											3.4	15	<0.5	
7/14/2005														<10	<10	<20	<5	<10	<20	<10	<10				
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/11/2006			27.18		<1	4.2	1.2	7.1	<1	3.4	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/15/2007			27.40		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/3/2008			28.75		<5	<5	<5	16.8	<5	7.1	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/21/2008			29.10		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/20/2010			25.30		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
8/16/2010			25.90		<5	<5	<5	5.2 J	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
10/13/2011	MW Abandoned				MW Abandoned																				
MW-70	20-35																								
5/18/2005		95.49	27.30		<1	<1	<1	<1	<1	<5	<0.02														
7/14/2005														<10	<10	<20	<5	<10	<20	<10	<10				
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/11/2006			25.88		<1	7.2	1.9	11.8	<1	4.4	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/15/2007			27.40		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/6/2008			29.20		<5	10.1	15.9	50.3	<5	33.4	<0.02			<100	<10	<50	<5	<100	290	<10	<100				
10/21/2008			22.50		<5	<5	<5	<10	<5	7.1	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/20/2010			24.80		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			26.80		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
MW-5aR	18-28																								
10/27/2003	(MW-5a)		20.00		376	960	510	2560	<1	89.8	<0.02														
11/25/2003	(MW-5a Abandoned)				Well Abandoned																				
4/20/2005	MW-5a	94.18	22.68		2250	3100	1500	7740	2500	796	<0.02	<20	17	5120	1430	<200	3240	1100	<2000	<20	608				
11/16/2005					27000	31000	2500	14000	9900	1000	0.19														
6/29/2006			21.51		23000	30000	2500	13600	2700	780	<0.02			<1000	1200	<2000	3200	<1000	<2000	<1000	<1000				
8/21/2007			22.35		66.6	236	13.4	332	<10	75.6	<0.02			<200	<20	<100	<10	<200	<400	<20	<200				
3/3/2008			22.65		4750	10500	971	7290	332	522	<0.02			<2000	280	<1000	650	<2000	<4000	<200	<2000				
10/20/2008			22.50		11200	19000	2200	13100	554	1070	<0.02			<10000	<1000	<5000	1010	<10000	<20000	<1000	<10000				
1/18/2010			21.00		9070	18300	944	9700	331 J	661	<0.02	<500		<10000	<1000	<5000	499 J	<10000	<20000	<1000	<10000				
3/17/2010					3720	8860	445	5450	<250	479		<250		<5000	<500	<2500	150 J	<5000	<10000	<500	<5000				
8/16/2010			21.20		2120	6600	716	6060	<500	466 J	<0.02	<500		<10000	<1000	<5000	<500	<10000	<20000	<1000	<10000				
5/10/2013			23.45		9200	1000	1400	4400	160J	810	<0.02	<500		1300J	<1000	<10000	510J	<10000	<100000	<10000	<10000				
RW-1R																									
10/29/2003	(RW-1)		22.63	0.01	Not sampled- Free Product																				
11/25/2003	(RW-1 Abandoned)				RW-1 Well Abandoned																				
4/20/2005	9-29	93.66	24.69		9700	17000	2800	7150	3100	932	4.32	<20	50	14500	1080	<200	3840	3320	<2000	<20	1470				
11/16/2005					1600	<10	230	<10	130	14	0.54														
6/29/2006			25.67		16000	25000	1700	10400	2600	710	4.5			11000	<25	<500	2000	510	<500	<250	<2000				
8/21/2007			22.45		3450	27900	1630	15600	<500	964	<0.02			17300	<1000	<5000	<500	<10000	<20000	<1000	<10000				
3/6/2008			26.60		509	591	53.2	720	264	82.5	<0.02			1420	<50	<250	96.7	<500	<1000	<50	<500				
1/18/2010			24.10		<5	1.9 J	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013					Not located																				

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
PW-1R	45-50																								
10/29/2003	(PW-1)		28.60		3230	90	343	924	1850	290	<0.02														
11/25/2003	(PW-1 Abandoned)				PW-1 Well Abandoned																				
4/20/2005		93.75	25.16		2740	2640	732	2460	2040	250	<0.02	<1	<5	8380	171	<10	636	1210	<100	<1	<10				
11/16/2005					8300	6800	1800	8100	290	770	7.6														
6/29/2006			24.61		2500	2700	39	1710	1300	160	0.082			9500	<10	<200	360	<100	<200	<100	1300				
3/6/2008			25.50		14300	28600	2450	16200	944	766	3.4			<5000	<500	<2500	1180	<5000	<10000	<500	<5000				
10/20/2008					13400	31700	1890	14300	<1000	1230	5.7			<20000	<2000	<10000	<1000	<20000	76900	<2000	<20000				
1/18/2010			23.50		4.3 J	20.1	2.6 J	54.7	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			25.20	0.03	Not sampled- Free Product																				
DW-1	65-70	(Well is old MECI # PW-1)																							
3/26/1993					128	117	29	129	<1	<1															
10/27/2003		94.66	45.44		<1	4.1	1.7	9	<1	<5	<0.02														
4/20/2005			45.38		<1	<1	<1	<1	<1	<5	<0.02	<1	<5	<10	<1	<10	17.4	<10	<100	<1	<10				
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
6/29/2006			49.50		1.9	2.6	<1	8.5	<1	22	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/21/2007			26.00		<5	6	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/3/2008			47.25		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/20/2008					<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/19/2010			46.40		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			46.70		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
DW-2	70-75	(Well is old MECI # MW-17D)																							
3/12/1997			44.18		11.1	27.3	6.58	28	40.7	4.16			230												
10/27/2003		94.02	44.67		2	1.6	<1	1.6	4.6	<5	<0.02														
4/20/2005			44.55		3.1	6.7	1.1	5.8	4.8	<5	<0.02	<1	<5	<10	<1	<10	<5	<10	<100	<1	<10				
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
6/29/2006			45.23		27	78	16	117	3.3	20	0.15			<10	<1	<20	<1	<10	<20	<10	<10				
8/21/2007			22.60		6.1	16.9	<5	10.2	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/6/2008			47.20		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	298	<10	<100				
10/20/2008			46.90		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	357	<10	<100				
1/19/2010			45.50		<5	<5	<5	10.9	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			26.04		<5	<5	<5	<5	12	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
DW-3	47-52																								
12/30/2003		93.75	24.54		7160	5320	1130	2660	2260	256	0.05	<1													
4/20/2005			25.27		6350	4600	265	2400	5350	86.7	1.08	<1	<5	11700	360	<10	1430	<10	<100	<1	1810				
11/16/2005					350	360	64	220	230	<5	0.06														
8/21/2007			21.60		8170	31000	1900	11200	62	895	<0.02			6100	<100	<500	380	<1000	<2000	<100	<1000				
3/6/2008			46.70		<5	22.6	<5	28.1	<5	<5	<0.02			<100	<10	<50	<5	<100	298	<10	<100				
10/20/2008			26.45		22	91.8	9.6	97.4	<5	16.8	<0.02			<100	<10	<50	<5	<100	398	<10	<100				
1/19/2010			24.80		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
8/12/2010			24.50		1810	3870	451	2440	211 J	178	0.22	<5		3820 J	34.8	<50	118	<100	<200	<10	190				
5/10/2013			25.24		2600	19000	2200	10000	<1000	620J	0.18	<1000		3600J	<2000	<20000	<2000	<20000	<200000	<20000	<20000				
DW-4	105-110																								
4/21/2005		93.79	42.68		74	380	102	524	11.5	48	1.46	9.5	<5	150	<5	<50	<25	<50	<500	<5	<50	0.75	17.5	<0.05	<0.026
6/29/2006			45.69		<1	<1	<1	2.3	110	6	<0.02			520	<1	<20	57	<10	<20	<10	<10				
10/20/2008			27.50		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	453	<10	<100				
1/19/2010					Inaccessible																				
8/12/2010			31.70		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			0.10		0.23J	<5	<5	<5	12	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
DW-5	65-70																								
4/21/2005		93.74	43.77		2.8	6.4	1.4	1.8	<1	<5	<0.02	1.9	<5	<10	<1	<10	<5	<10	<100	<1	<10	0.44	80.3	<0.05	<0.026
11/16/2005					99	240	160	600	<1	89	6.1														
6/29/2006			12.43		8	97	28	149	<1	77	<0.02			32	<1	<20	<1	<10	<20	<10	<10				
8/21/2007			45.80		<5	6	<5	170	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/6/2008			45.70		34.5	184	58	514	6.2	113	<0.02			<100	<10	<50	5.2	<100	<200	<10	<100				
10/20/2008			46.50		<5	73.5	22.2	209	18.9	63.5	<0.02			<100	<10	<50	10.1	<100	<200	<10	<100				
1/19/2010			20.10		3950	7520	271	4340	329	317	0.55	1.4 J		1360	41	<50	325	<100	<200	<10	280				
8/11/2010			45.10		3.3 J	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			45.76		5000	<250	<250	2000	920	180J	0.2	<250		3100J	77J	<5000	500	<5000	<50000	<5000	<5000				
DW-6	65-70																								
4/20/2005		95.90	46.38		<1	3.2	<1	3.2	<1	<5	0.11	<1	23	<10	<1	<10	<5	<10	<100	<1	<10	0.36	37.5	<0.05	<0.026
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/11/2006			46.81		1.5	9.3	2.6	17.3	<1	9.7	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/13/2007					<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/6/2008			47.75		<5	6.4	<5	17.3	<5	10.5	<0.02			<100	<10	<50	<5	<100	203	<10	<100				
10/21/2008			48.30		<5	<5	<5	14.6	<5	9.1	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/19/2010			46.80		<5	2.3 J	<5	5.7 J	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
8/16/2010			22.00		<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/10/2013			47.36		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
DW-7	50-55																								
4/21/2005		72.79	24.71		87	69.4	11.2	33.1	17.2	8	<0.02	<1	8	<10	3.3	<10	14.5	35.8	<100	<1	<10	0.51	35	<0.05	<0.026
11/16/2005					40	<2	<2	<2	20	<10	0.14														
7/13/2006					3.5	8.9	2.8	12.8	2	5.8	<0.02			20	<1	<20	2.1	<10	<20	<10	<10				
8/14/2007			23.30		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/11/2008			26.35		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/21/2008			28.80		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/19/2010			25.70		2.1 J	16.5	3.0 J	36.1	<5	25.6	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
8/11/2010			25.40		<5	<5	<5	<10	2.6 J	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			26.19		0.39J	<5	<5	<5	1.1J	<5	<0.02	<5		17J	<10	<100	0.66J	<100	<1000	<100	<100				
DW-8	50-55																								
4/21/2005		68.63	21.21		<1	<1	<1	<1	<1	<5	<0.02	<1	34	<10	<1	<10	<5	<10	<100	<1	<10	0.72	87.1	<0.05	<0.026
11/16/2005					<1	<1	<1	<1	<1	<5	<0.02														
7/13/2006					1.4	5.3	1.4	6.4	<1	2	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
8/14/2007			22.30		6.4	9.3	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
3/11/2008			22.90		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/21/2008			23.60		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/19/2010			22.00		<5	<5	<5	<10	<5	3.2 J	<0.02	<5		<100	<10	<50	<5	<100	483	<10	<100				
5/9/2013			21.53		<5	4.2J	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
DW-9	60-65																								
5/17/2005		76.47	28.78		6.8	1.5	<1	<1	<1	<5															
11/16/2005					<1	5	<1	<1	<1	<5	<0.02														
7/13/2006					1.5	4.1	1.7	5.9	<1	5.7	<0.02			<10	<1	<20	<1	<10	<20	<10	<10				
3/11/2008			27.00		<5	<5	<5	<10	<5	<5	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
10/21/2008			27.70		<5	<5	<5	<10	<5	6.4	<0.02			<100	<10	<50	<5	<100	<200	<10	<100				
1/19/2010			26.40		<5	<5	<5	2.9 J	<5	2.9 J	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
8/11/2010					<5	<5	<5	<10	<5	<5	<0.02	<5		<100	<10	<50	<5	<100	<200	<10	<100				
5/9/2013			26.80		<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				

MW ID	Screened interval	TOC Elevation	GW Depth	FP Thickness	Benzene	Toluene	Ethylbenzene	Xylene	MtBE	Naphthalene	EDB	1,2 DCA	Lead	TAA	TAME	TBF	DIPE	ETBA	Ethanol	ETBE	TBA	NO3 mg/l	SO4 mg/l	Fe mg/l	CH4 mg/l
SW-1																									
11/18/2003					<1	<1	<1	<1	1	<5															
4/21/2005					200	38.1	11.7	28.8	143	<5	<0.02	4.7	<5	422	11	<10	67.2	38.9	<100	<1	37				
6/2/2005	**(sample labeled ST-1)**				390	110	31	67	140	5.3															
11/16/2005					370	110	41	100	160	9	<0.02														
7/13/2006					780	1000	190	710	470	52	<0.02			2600	31	<100	190	<50	<100	<50	<50				
8/15/2007					133	36.2	13.1	68.7	97.2	9.2	<0.02			669	<10	<50	68.8	<100	<200	<10	<100				
3/11/2008					420	43.9	35.2	68.4	84.5	7.2	<0.02			614	<10	<50	67.1	<100	<200	<10	<100				
10/21/2008					229	22.9	22.2	38.9	54.3	19.8	<0.02			367	<20	<100	42.9	<200	<1000	<20	442				
1/19/2010					464	135	66	143	123	17.4	<0.02	<5		1180	10.9	<50	80	<100	<200	<10	84.2 J				
8/16/2010					324	39.4	53.5	158	86.5	17.6	<0.02	<12.5		653	<250	<125	35	<250	<500	<25	<250				
5/9/2013					130	2.8	23	36	17	6.5	<0.02	<1		340	2.6J	<100	25	<100	<1000	<100	23J				
Trip Blank																									
5/9/13 1331					<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
5/9/13 1420					<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
5/10/2013					<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
Field Blank																									
5/9/2013					<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				
5/10/2013					<5	<5	<5	<5	<5	<5	<0.02	<5		<100	<10	<100	<10	<100	<1000	<100	<100				

Table 8

New Monitoring Well Numbering System

New Force & Associates MW No.	Old Midlands Environmental Consultants MW No.	Old Kimbrell & Associates MW No.	General Property Location	Comments
MW-1	Replaced MW-1	--	Providence Hosp. Parking Lot	
MW-2	Replaced MW-2	--	Providence Hosp. Parking Lot	
MW-3	Replaced MW-3	--	Providence Hosp. Parking Lot	
MW-4	Replaced MW-4	--	Providence Hosp. Parking Lot	
MW-5	Replaced MW-5	--	Providence Hosp. Parking Lot	
MW-6	Replaced MW-8	--	Providence Hosp. Parking Lot	
MW-7	Replaced MW-9 & MW-10	--	Providence Hosp. Parking Lot	
MW-8	Replaced MW-15	--	Providence Hosp. Parking Lot	
MW-9	MW-5A	MW-8	Church's Fried Chicken	Free Product on 11/18/03
MW-10	--	MW-1a	Church's Fried Chicken	Free Product on 11/18/03
MW-11	MW-11	--	Gonzales Garden Apts.	
MW-12	MW-12	--	NAPA Auto	
MW-13	MW-13	--	NAPA Auto	
MW-14	MW-14	--	Suddeth's Towing	Not Located
MW-15	--	MW-2a	Church's Fried Chicken	Free Product on 11/18/03
MW-16	--	MW-6a	Kar-Kare Auto.	11/18/03
MW-17	MW-4A	MW-7	Kar-Kare Auto.	Free Product on 11/18/03
MW-18	--	MW-3a	Bank of America	Free Product on 10/29/03
MW-19	MW-2A	MW-6	Fast Point	Free Product on 10/29/03
MW-20	MW-3A	MW-5	Fast Point	
MW-21	MW-1A	MW-4a	Car Wash	
MW-22	--	Replaced MW-5a	Fast Point	
MW-23	--	Replaced MW-4	Fast Point	
MW-24	--	Replaced MW-3	Fast Point	
MW-25	--	--	Car Wash	Sampled as PW-2
MW-26	MW-10	--	Providence Hosp. Parking Lot	
DMW-1	Replaced PW-1	--	Providence Hosp. Parking Lot	
DMW-2	Replaced MW-17D	--	Providence Hosp. Parking Lot	
DMW-3	--	Replaced PW-1	Fast Point	
- (Not Located)	MW-16	--	Donahue Auto	Not Located
- (Not Located)	--	MW-3	Fast Point	Not Located
-	--	MW-5a	Fast Point	Abandoned 11/25/03
-	--	PW-1	Fast Point	Abandoned 11/25/03
-	--	RW-1 4" diameter	Fast Point	Abandoned 11/25/03
-	MW-15	-	Providence Hosp. Parking Lot	Abandoned 11/25/03

* Note - some well numbers may have changed.

DL = 5 ppb

TABLE 9
SOIL ANALYTICAL RESULTS
CLOUD'S CHEVRON SERVICE STATION
COLUMBIA, SOUTH CAROLINA
MECI PROJECT NUMBER 96-125
SCDHEC SITE ID NUMBER 07777

DL = 660 ppb

Boring Number	Sample Date	Depth (feet)	Benzene (ug/kg)	Toluene (ug/kg)	Ethylbenzene (ug/kg)	Xylenes (ug/kg)	Total BTEX (ug/kg)	Naphthalene (ug/kg)	TPH 3550 (mg/kg)	TPH 5030 (mg/kg	TOC mg/kg	Benzo (a) anthracene (ug/kg)	Benzo (b) fluoranthene (ug/kg)
GPS-1	2/16/97	16-17	432	BDL	BDL	BDL	432	142	BDL	BDL	NT	BDL	BDL
GPS-2	2/16/97	16-17	BDL	14600	15200	89000	118800	17700	8050	1110	NT	BDL	BDL
GPS-3	2/16/97	16-17	BDL	27000	42400	248000	317400	16300	BDL	3890	NT	BDL	BDL
GPS-4	2/16/97	16-17	170	4380	6670	43400	54620	3450	BDL	613	NT	BDL	BDL
GPS-5	2/16/97	16-17	1190	27400	19000	99500	147090	9460	1100	14500	NT	BDL	BDL
GPS-6	2/20/97	16-17	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL	BDL
GPS-7	2/20/97	16-17	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL	BDL
GPS-8	2/20/97	16-17	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL	BDL
GPS-9	2/20/97	16-17	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL	BDL
GPS-10	2/20/97	16-17	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL	BDL
MW-1	11/18/92	19-21	2050	1330	1390	5530.0	10300	NT	NT	3.29	NT	NT	NT
MW-2	11/18/92	24-26	1050	2740	512	2750	7052	NT	NT	2.4	NT	NT	NT
MW-3	11/18/92	19-21	979	1820	935	4980	8714	NT	NT	3.09	NT	NT	NT
MW-4	11/18/92	19-21	BDL	13.6	9.3	59.8	88.7	NT	NT	BDL	NT	NT	NT
MW-5	11/18/92	24-26	40200	94600	56300	251000	442100	NT	NT	131	NT	NT	NT
MW-6	11/18/92	19-21	BDL	BDL	BDL	BDL	BDL	NT	NT	BDL	NT	NT	NT
TW-6	11/18/92	24-26	38.1	855	604	1840	3337.10	NT	NT	0.86	NT	NT	NT
TW-8	11/18/92	24-20	43.7	444.0	544.0	578	1609.70	NT	NT	0.53	NT	NT	NT
MW-10	3/6/97	13-15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL	BDL
MW-11	3/3/97	18-20	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL	BDL
MW-12	3/3/97	8-10	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL	BDL
MW-13	3/6/97	13-15	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL	BDL
MW-14	3/6/97	18-20	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL	BDL
MW-15	3/6/97	18-20	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	NT	BDL	BDL
MW-16	3/6/97	18-20	NT	NT	NT	NT	NT	NT	NT	NT	424	BDL	BDL
MW-17D	3/6/97	18-20	100	123	509	3530	4262	16500	243	296	NT	1490	1430

Notes:
1. BDL = Below Sample Detection Limit
2. mg/kg = milligrams per kilogram
3. ug/kg = micrograms per kilogram
4. TPH = Total Petroleum Hydrocarbons (Method 5030 and 3550)
5. Analytical Results for Water Samples from Wells Dated in 1992 were Obtained From SCDHEC Files.
6. NT= Not Tested

See Figure 17.

* Note- some well numbers may have changed.

TABLE 10
SOIL ANALYTICAL RESULTS- 8 RCRA METALS
CLOUD'S CHEVRON SERVICE STATION
COLUMBIA, SOUTH CAROLINA
MECI PROJECT NUMBER 96-125
SCDHEC SITE ID NUMBER 07777

Boring Number	Sample Date	Depth (feet)	Mercury (mg/kg)	Arsenic (mg/kg)	Lead (mg/kg)	Selenium (mg/kg)	Barium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Silver (mg/kg)
MW-10	3/6/97	13-15	BDL	1.8	1.3	BDL	7.09	BDL	8.81	BDL
MW-11	3/6/97	18-20	BDL	0.76	1.8	BDL	4.98	BDL	3.52	BDL
MW-12	3/6/97	8-10	BDL	0.54	2.5	BDL	7.24	BDL	5.77	BDL
MW-13	3/6/97	13-15	BDL	8.5	3.3	1.4	13.3	BDL	18	BDL
MW-14	3/6/97	18-20	BDL	0.62	19.6	BDL	23.4	BDL	3.79	BDL
MW-15	3/6/97	18-20	BDL	BDL	2.1	0.52	2.62	BDL	2.56	BDL
MW-17	3/6/97	18-20	BDL	BDL	4.7	BDL	10.6	BDL	4.02	BDL

Notes: 1. BDL = Below Sample Detection Limit
2. mg/kg = milligrams per kilogram

Discuss the horizontal and vertical extent of CoC in the soil:

Based on the field screening and laboratory analytical reports, soils impacted at the site occur from approximately 15 feet below the surface grade to the top of the water table, which averages 18 to 25 feet below the surface. Soils with the highest concentrations of contaminants were found in borings MW-3a, MW-4a, and MW-5a. Boring MW-4a and MW-5a were proximate to the source area of the release at a distance of approximately 20-30 feet. Boring MW-3a is located approximately 80 feet west of the source area.

F. Chemicals of Concern – Groundwater Detection Limit for Soils < 2.00 ug/Kg

Provide well installation in the table below.

MW Number	Installation Date	Development Date	Sampling Date
MW-1a	03-30-99	03-30-99	06-11-00
MW-2a	03-31-99	03-31-99	06-11-00
MW-3a	03-31-99	03-31-99	Not Sampled
MW-4a	04-02-99	04-02-99	06-11-00
MW-5a	04-05-99	04-05-99	Not Sampled
MW-6a	04-05-99	04-05-99	06-11-00
MW-2	Unknown	Unknown	Not Sampled
MW-3	Unknown	Unknown	Not Sampled
MW-4	Unknown	Unknown	Not Sampled
MW-5	Unknown	Unknown	Not Sampled
MW-6	Unknown	Unknown	Not Sampled
MW-8	Unknown	Unknown	Not Sampled

Enter the soil analytical data for each monitoring well for all CoC in the table below.

TABLE 11

CoC	MW-1a	MW-2a	MW-3a	MW-4a	MW-5a	MW-6a
Depth of Sample (ft.)	18	20	20	20	20	20
Benzene	BDL	BDL	BDL	5.38	BDL	BDL
Toluene	BDL	BDL	.0057	71.4	.0028	BDL
Ethylbenzene	BDL	BDL	BDL	28.0	.0022	BDL
Xylenes	BDL	BDL	.0081	146.0	.0032	BDL
Total BTEX	BDL	BDL	.0138	250.78	.0082	BDL
Naphthalene	BDL	BDL	BDL	12.6	.01	BDL
Benzo(a)anthracene	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)flouranthene	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)flouranthene	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	BDL	BDL	BDL	BDL	BDL	BDL
Dibenz(a,h)anthracene	BDL	BDL	BDL	BDL	BDL	BDL
Lead	NT	NT	NT	NT	NT	NT
EDB	NT	NT	NT	NT	NT	NT

See Figure 15

CoC	RBSL	MW-1a	MW-2a	MW-3a	MW-4a	MW-5a	MW-6a
Lead	Site Specific	130.	27,000.	----	66.	NA	45.
Nitrates	NA	8,200.	14,000.	----	8,400.	NA	4,400.
Sulfates	NA	96,000.	250,000.	----	140,000.	NA	62,000.

Additional Comments: All analytical data for groundwater results are reported in parts per billion (ug/L). Monitoring well MW-5a was not accessible because of a layer of concrete covering the well manhole which stemmed from concrete resurfacing at the subject site.

G. Aquifer Characteristics

Hydraulic Conductivity: The hydraulic conductivity at the subject site ranges from 5.06×10^{-7} cm/sec. to 1.91×10^{-6} cm/sec.

Hydraulic Gradient: The hydraulic gradient at the subject site was determined to be 2.1 ft per 300 ft. or 0.007 ft/ft.

Porosity: The effective porosity at the site has been estimated to be 35% based on the results of a sieve analysis of soil collected from boring MW-5a.

Estimated Seepage Velocity: The estimated seepage velocity at the site ranges from 0.12 ft./yr. to 0.40 ft./yr.

The slug test data and the corresponding graphs are presented in Appendix D.

Table 12
PID Field Readings
Handy Pantry #65 & Clouds Chevron
Columbia, SC - USTs #07584 & #07777

Sample	Date	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	Water Sample PID
SB-1	02/08/05	0.0	0.0	0.0	0.0	13.6	436											436
SB-2	02/08/05	0.0	0.0	1.4	2.0	45.6	370											370
SB-3	02/08/05	0.0	0.8	1.3	3	10.6	17.1											17.1
SB-4	02/08/05	0.0	0.0	0.0	0.0	0.0	0.0	0.0										0.0
SB-5	02/08/05	0.0	0.0	0.0	4.5	6.8	2.3											2.3
SB-6	02/08/05	0.0	0.0	0.0	0.0	0.0	0.0											0.0
SB-7	02/08/05	1.8	2.4	5.0	26	126	211											211
SB-8	02/09/05	1.2	2.7	6.0	19.2	26.9	32.4	40.1										32.4
SB-9	02/09/05	0.5	3.1	6.2	12.1	12.4	26.9											26.9
SB-10	02/09/05	0.2	0.3	0.9	5.1	6.0	8.8											8.8
SB-11	02/09/05	1.3	2.1	2.9	62.6	222	232											232
SB-12	02/09/05	2.5	5.1	5.7	57.5	39.4	19.4											19.4
SB-13	02/09/05	0.3	0.6	1.2	1.8	9.7	13.5											13.5
SB-14	02/09/05	1.3	2.5	5.3	11.2	22.1	46	0.0										45.5
SB-15	02/10/05	0.5	3.2	5.2	8.0	9.2	21.3											21.3
SB-16	02/10/05	1.4	2.4	2.7	4.6	3.0	5.1	129.0										11.9
SB-17	02/10/05	0.0	0.0	1.2	1.0	1.2	2.3	0.0										2.0
SB-18	02/10/05	0.0	0.8	2.4	2.4	2.5	6.0	152										152
SB-19	02/10/05	0.0	0.0	10.8	53.4	10.2	60.2	7.2										60.2
SB-20	02/10/05	0.0	0.0	6.4	20.4	35.1	40.3	2.3										19.4
SB-21	02/10/05	0.0	1.2	1.6	8.3	18.6	40.2	63.4										63.4
SB-22	02/11/05	0.0	0.0	1.2	4.9	10.3	31.2	90.2										90.2
SB-23	02/11/05	3.4	12.3	85.2	6.2	275	353	196										196
SB-24	02/11/05	1.2	4.9	6.4	10.3	18.6	35.4	818										818
SB-25	02/11/05	0.0	1.1	8.3	22.7	387	402											402
SB-26	02/11/05	1.3	15.2	109	115	232	173	60.1										60.1
SB-27	02/15/05	0.0	0.0	0.9	12.5	53.9	102	303										303
SB-28	02/15/05	0.0	0.0	3.3	31.9	41.2	92.1	397										397
SB-29	02/15/05	0.0	0.0	1.2	12.1	34.6	76.2	356										356
SB-30	02/15/05	0.0	0.0	5.6	25.9	31.4	77.7	418										75
SB-31	02/15/05	0.0	1.8	3.2	10.1	50.0	18.8											12.8
SB-32	02/15/05	0.0	0.0	0.0	0.0	4.4	14.8											10.8
SB-33	02/15/05	0.0	0.0	21.2	81.9	542	28.7											127
SB-34	02/15/05	0.0	0.0	0.0	43.5	40.4												245
SB-35	02/16/05	0.0	0.0	0.0	21.6	122												122
SB-36	02/16/05	0.0	0.0	47.9	58.0	1.2												1.2
SB-37	02/16/05	0.0	0.0	3.4	14.2	6.1												6.1
SB-38	02/16/05	0.0	0.0	0.0														0.0
SB-39	02/16/05	0.0	0.0	0.0	0.0	0.0	6.2	0.0										6.2
SB-40	02/16/05	0.0	0.0	0.0	0.0	0.0	0.0											0.0
SB-41	02/16/05	0.0	0.0	0.0	0.0	13.4	2.8											10.4
SB-42	02/16/05	0.0	0.0	0.0	1.2	20.6	80.4	303										303
SB-43	02/16/05	0.0	0.0	0.0	6.3	91.4	80.4	274										274
SB-44	02/16/05	0.0	0.0	0.0	1.4	6.3	21	101										54.2
SB-45	02/16/05	0.0	0.0	0.0	3.9	6.2	95.1											95.1
SB-46	02/17/05	0.0	0.0	0.0	0.0	6.2	7.4	378										378
SB-47	02/17/05	0.0	0.0	0.0	10.1	44.7	13.2	630										23.6

Sample Date 4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 Water Sample PID

See Figure 6

Sample Date 4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 Water Sample PID

Sample	Date	4	8	12	16	20	24	28	32	36	40	44	48	52	56	60	64	Water Sample PID
SB-48	02/17/05	0.0	0.0	0.0	0.0	2.7	6.3	27.9										4.7
SB-49	02/17/05	0.0	0.0	0.0	0.0	0.0	0.0	4.0										4.0
SB-50	02/17/05	0.0	0.0	0.0	0.0	0.0	0.0											0.0
SB-51	02/17/05	0.0	0.0	0.0	0.0	0.0	0.0											0.0
SB-52	02/17/05	0.0	4.6	94.7	60.7	12.3												12.3
SB-53	02/17/05	0.0	0.0	0.0	0.0	0.0												0.0
SB-54	02/17/05	0.0	0.0	0.0	0.0	0.0	0.0											0.0
SB-55	02/17/05	0.0	0.0	0.0	0.0	0.0	1.2	2.3										1.5
SB-56	02/22/05	0.0	0.0	0.0	0.0	1.2	3.4	5.3										4.5
SB-57	02/22/05	0.0	0.0	10.2	12.5	22.5	29.2	914										914
SB-58	02/22/05	0.0	0.0	0.0	3.2	5.6	7.9	12.7										12.7
SB-59	02/22/05	0.0	0.0	0.0	1.4	4.6	7.2	10.1										10.1
SB-60	02/22/05	0.0	0.0	0.0	0.0	1.1	1.2	2.3										2.3
SB-61	02/22/05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0									0.0
SB-62	02/22/05	0.0	0.0	0.0	0.0	5.1	6.8	37.9										37.9
SB-63	02/22/05	0.0	0.0	0.0	0.0	0.0	0.0											0.0
SB-64	02/23/04	0.0	1.5	8.1	10.8	15.6	41.4	1015										1841
SB-65	02/23/04	0.0	0.0	1.3	3.4	8.4	18.8	60.7										83.1
SB-66	02/23/04	0.0	0.0	0.0	1.2	2.5												2.5
SB-67	02/23/04	4.1	6.2	14.5														6.2
SB-68	02/23/04	4.0	4.4	13.9														6.0
SB-69	02/23/04	0.8	5.0	3.2														3.2
SB-70	02/23/04	3.5	5.9	13.7														13.7
SB-71	02/23/04	1.2	0.0	13.7														13.7
SB-72	02/23/04	0.0	0.0	0.0	0.0	5.6	12.4	104										104
SB-73	02/23/04	0.0	0.0	0.0	1.2	4.2	6.4	6.5										6.5
SB-74	02/23/04	0.0	0.0	0.0	0.0	1.2	5.2	36.8										36.8
SB-75	02/23/04	0.0	0.0	0.0	0.0	0.0	0.5	3.2										1.4
SB-76	02/23/04	0.0	0.0	0.0	0.0	0.0	6.2	7.4										7.4
SB-77	02/23/04	0.0	0.0	2.7	6.3	12.0	25.1	105										105
SB-78	02/23/04	0.0	0.0	0.0	4.5	7.9	62.3	205										184
SB-79	02/24/05	0.0	0.0	0.0	0.0	0.0	0.0	0.0										0.0
WS-1	02/24/05																	31 ft
WS-2	02/24/05																	26 ft
WS-3	02/24/05																	24 ft
WS-4	02/24/05																	14 ft
WS-5	02/24/05																	14 ft
WS-6	02/24/05																	24 ft
WS-7	02/24/05																	28 ft
WS-8	02/24/05																	28 ft
WS-9	02/24/05																	28 ft
WS-10	02/24/05																	14 ft dry
WS-10a	02/24/05																	16 ft
DSB-1	02/24/05	4.3	6.5	8.6	12.4	20.1	60.7	387	1923	1975	1342	1219	987	875	912	443	195	

WS borings are direct-push groundwater samples only

See Figure 6

Table 13
BTEX and PNA Analytical Results (mg/kg)
Handy Pantry #65 & Clouds Chevron
Columbia, SC - USTs #07584 & #07777

Sample	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Naphthalene
RBSL		*0.007*	*1.45*	*1.15*	*14.5*	*0.036*
MW-57	03/21/05	**0.120**	0.064	0.011	0.038	<0.004
MW-58	03/22/05	**0.481**	0.008	0.054	0.023	0.032
MW-56	03/21/05	<0.001	<0.001	<0.001	<0.001	<0.004
MW-54	03/22/05	**0.015**	<0.002	<0.002	<0.002	<0.006
MW-53	03/22/05	**0.017**	<0.002	<0.002	<0.002	<0.005
MW-52	03/23/05	<0.002	<0.002	<0.002	<0.002	<0.004
MW-45	03/24/05	<0.002	<0.002	<0.002	<0.002	<0.004
MW-43	03/24/05	<0.002	<0.002	<0.002	<0.002	<0.004
MW-47	03/31/05	<0.002	<0.002	<0.002	<0.002	<0.004
MW-49	03/31/05	<0.002	<0.002	<0.002	<0.002	<0.004
MW-28	03/31/05	<0.002	<0.002	<0.002	<0.002	<0.004
MW-33	03/30/05	**0.818**	**2.400**	0.292	1.450	**<0.192**
MW-32	03/30/05	**0.017**	0.331	0.553	1.920	**0.876**
MW-35	03/30/05	**0.032**	0.081	0.058	0.144	0.015
MW-36	03/30/05	**0.020**	0.053	0.025	0.100	**0.112**
MW-34	04/01/05	**<0.074**	0.466	0.174	0.954	**<0.185**
MW-37	04/01/05	**0.100**	0.066	0.072	0.111	0.035
MW-38	04/04/05	<0.002	<0.002	<0.002	<0.002	<0.005
MW-39	04/04/05	<0.002	0.006	<0.002	0.005	0.010
MW-41	04/04/05	**0.121**	0.660	0.172	0.693	**0.073**

Sample Date Benzene Toluene Ethylbenzene Xylene Naphthalene

See figure 7

Table 14
Groundwater Field Parameter Measurements
Handy Pantry #65 & Clouds Chevron
Columbia, SC - USTs #07584 & #07777

Well Number	Date	Dissolved oxygen mg/l	pH	Temperature Degrees Celcius	Conductivity us/cm
MW-1	11/18/03	NA	5.3	23.5	101
	04/19/05	3.1	5.4	18.1	183
MW-2	11/18/03	NA	5.2	23.8	95
	04/19/05	3.2	4.8	19.0	125
MW-3	10/27/03	NA	7.1	22.6	134
	04/19/05	1.1	4.9	17.1	845
MW-4	11/18/03	NA	5.6	24.7	114
	04/19/05	3.6	6.0	19.1	246
MW-5	10/27/03	NA	7.9	21.8	184
	04/19/05	2.9	6.0	19.8	84
MW-6	11/18/03	NA	5.1	24.5	124
	04/19/05	2.0	5.4	20.0	762
MW-7	11/18/03	NA	4.9	24.3	105
	04/19/05	3.4	5.8	20.1	146
MW-8	11/18/03	NA	4.9	24.6	85
	04/19/05	4.0	7.0	19.5	113
MW-9	11/18/03	LPH	LPH	LPH	LPH
	04/19/05	1.8	5.2	20.2	794
MW-10	11/18/03	LPH	LPH	LPH	LPH
	04/19/05	1.3	5.1	20.1	1243
MW-11	11/18/03	NA	4.8	22.8	65
	04/19/05	2.4	7.2	20.8	346
MW-12	11/18/03	NA	5.5	25.7	229
	04/21/05	3.2	6.4	19.4	107
MW-13	11/18/03	NA	4.6	23.8	192
	04/21/05	3.6	6.0	18.3	336

MW Date Dissolved Oxygen (mg/l) pH Temperature (°C) Conductivity (µs/cm)

MW Date Dissolved Oxygen(mg/l) pH Temperature °C Conductivity µs/cm

Well Number	Date	Dissolved oxygen mg/l	pH	Temperature Degrees Celcius	Conductivity us/cm
MW-15	11/18/03	LPH	LPH	LPH	LPH
	04/19/05	1.4	5.4	17.9	813
MW-16	11/18/03	NA	6.9	23.1	353
	04/21/05	1.8	5.1	18.6	722
MW-17	11/18/03	LPH	LPH	LPH	LPH
	04/21/05	1.4	4.9	19.2	694
MW-18	10/29/03	LPH	LPH	LPH	LPH
	04/20/05	1.0	5.2	19.6	988
MW-19	10/29/03	LPH	LPH	LPH	LPH
	04/20/05	1.2	5.1	19.6	617
MW-20	10/29/03	NA	4.7	21.1	568
	04/20/05	3.6	6.3	18.4	139
MW-21	10/29/03	NA	5.5	20.2	580
	04/20/05	Destroyed	Destroyed	Destroyed	Destroyed
MW-22	11/25/03	NA	5.5	23.1	255
	04/20/05	4.1	6.8	18.3	97
MW-23	11/25/03	NA	5.5	23.1	97
	04/20/05	2.9	6.5	19.6	86
MW-24	11/25/03	NA	4.7	24.3	102
	04/20/05	3.2	6.4	20.1	72
MW-25	10/29/03	NA	6.1	19.6	589
	04/20/05	2.4	6.0	18.4	804
MW-26	11/25/03	NA	4.5	24.1	89
	04/21/05	2.4	6.2	19.2	83
MW-5a	11/25/03	NA	6.7	22.9	95
MW-5aR	04/20/05	3.4	5.2	18.3	143
PW-1	10/29/03	NA	5.9	21.2	571
PW-1R	04/20/05	3.2	5.3	19.2	119
RW-1	10/29/03	LPH	LPH	LPH	LPH
RW-1R	04/20/05	2.0	6.0	18.1	72
MW-27	04/20/05	3.1	6.4	18.4	94
MW-28	04/20/05	3.6	7	19.1	105
MW-29	04/20/05	3.7	7.4	18.4	83
MW-30	04/20/05	3.1	6.3	17.8	41

MW Date Dissolved Oxygen mg/l pH Temperature °C Conductivity µs/cm

Well Number	Date	Dissolved oxygen mg/l	pH	Temperature Degrees Celcius	Conductivity us/cm
MW-31	04/20/05	3.0	6.4	16.1	125
MW-32	04/21/05	2.8	6.9	18.4	215
MW-33	04/20/05	2.9	6.4	19.2	106
MW-34	04/20/05	3.1	7.1	18.3	113
MW-35	04/20/05	3.4	7.3	19.4	162
MW-36	04/20/05	3.8	6.1	20.1	168
MW-37	04/20/05	3.9	6	18.1	149
MW-38	04/20/05	2.4	6.7	20.0	131
MW-39	04/20/05	3.1	6.0	18.3	189
MW-40	04/20/05	3.0	6.7	17.9	174
MW-41	04/20/05	3.3	6.3	19.4	93
MW-42	04/20/05	3.0	6.3	19.3	62
MW-43	04/21/05	2.6	6.1	19.7	110
MW-44	04/21/05	2.8	6.7	18.6	234
MW-45	04/21/05	2.4	6.2	19.4	185
MW-46	04/21/05	3.0	6.3	18.3	106
MW-47	04/21/05	3.2	6.9	18.1	115
MW-48	04/21/05	2.5	7.0	18.5	245
MW-49	04/21/05	3.0	6.1	19.8	210
MW-50	04/21/05	3.1	6.4	18.7	116
MW-51	04/21/05	3.1	6.7	20.1	84
MW-52	04/21/05	3.0	6.5	18.8	135
MW-53	04/21/05	3.4	6.5	18.9	72
MW-54	04/21/05	2.9	6.7	18.1	64
MW-55	04/21/05	2.8	6.4	18.9	74
MW-56	04/21/05	3.4	6.3	19.2	81
MW-57	04/21/05	2.0	6.2	18.4	76
MW-58	04/21/05	2.1	6.1	19.1	84
MW-59	04/21/05	3.6	6.3	18.3	115
MW-60	04/21/05	3.6	6.4	17.2	96

MW Date Dissolved Oxygen mg/l pH Temperature °C Conductivity µs/cm

Well Number	Date	Dissolved oxygen mg/l	pH	Temperature Degrees Celcius	Conductivity us/cm
DW-1	10/27/03	NA	10.9	21.0	1150
	04/20/05	3.1	7.8	18.3	484
DW-2	10/27/03	NA	9.7	20.7	147
	04/20/05	3.0	7.9	16.9	42
DW-3	12/30/03	NA	10.8	22.1	1232
	04/20/05	1.4	7.7	18.1	796
DW-4	04/21/05	2.9	6.3	18.6	142
DW-5	04/21/05	3.1	6.3	18.7	64
DW-6	04/20/05	3.6	6.4	19.0	52
DW-7	04/21/05	2.9	6	19.3	144
DW-8	04/21/05	4.0	5.7	19.1	131
Creek	11/18/03	NA	NA	NA	NA
SW-1	04/21/05	1.9	5.1	22.4	319
DW-9	05/17/05	5.0	6.6	22.2	68
MW-61	05/17/05	4.0	5.3	24.6	142
MW-62	05/17/05	3.9	4.8	24.2	398
MW-63	05/17/05	4.1	5.1	23.5	169
MW-64	05/17/05	2.9	5.6	23.9	143
MW-65	05/17/05	2.0	5.4	24.8	217
MW-66	05/17/05	3.2	5.9	24.2	29
MW-67	05/17/05	4.1	5.3	25.0	68
MW-68	05/18/05	3.9	6.2	25.4	112
MW-69	05/18/05	2.4	5.7	27.1	85
MW-70	05/18/05	3.5	5.9	26.4	69

Note: 1) The temperature was measured in degrees Celcius
2) NA - Not available

Table 15 Water Level Data, Handy Pantry – Taylor St.
Columbia, South Carolina.

Well Number	Measured Total Depth	Measuring Point Elevation	Date Measured 2/7/92		Date Measured 7/28/93		Date Measured 8/5/93		Date Measured 8/26/93	
			DTW	WTE	DTW	WTE	DTW	WTE	DTW	WTE
MW–1	36.0	295.12	22.03	273.09	20.70	274.42	20.85	274.27	21.18	273.94
MW–2	33.0	295.41	22.70	272.71	21.50	273.91	21.64	273.77	21.96	273.45
MW–3	30.0	296.24	24.58	271.66	23.40	272.84	23.58	272.66	23.92	272.32
MW–4	34.0	296.98	25.45	271.53	24.30	272.68	24.56	272.42	24.88	272.10
MW–5	23.0	296.40	––	––	––	––	22.64	273.76	23.00	273.40
MW–6	29.0	296.22	––	––	––	––	23.77	272.45	24.14	272.08
MW–7	29.2	294.77	––	––	––	––	22.43	272.34	22.79	271.98
MW–8	29.4	294.50	––	––	––	––	22.13	272.37	22.45	272.05
MW–9	30.0	296.69	––	––	––	––	24.24	272.45	24.64	272.05
MW–10	28.0	294.90	––	––	––	––	20.38	274.52	20.73	274.17
RW–1	29.0	295.22	––	––	––	––	22.24	272.98	22.62	272.60
DW–1	50.0	295.30	––	––	––	––	24.79	270.51	––	––

These results correspond to well locations in Figure 21.

Notes: Measuring Point Elevations Estimated from USGS Topographic Map
Fluid Levels Measured with Hydrocarbon Interface Probe
Measuring Point Elevation is Top of Well Casing
DTW – Depth to Water
WTE – Water Table Elevation

Table 16

Ground–Water Sample Laboratory Analytical Results.
Handy Pantry Site, Taylor St., Columbia, S.C.

	Ground–Water Sample Identification										
	2/7/92 MW–1	2/7/92 MW–2	2/7/92 MW–3	2/7/92 MW–4	8/5/93 MW–5	8/5/93 MW–6	8/5/93 MW–7	8/5/93 MW–8	8/5/93 MW–9	8/5/93 RW–1	8/5/93 DW–1
EPA Method 602	(parts per billion – ug/l)										
Benzene	300	2,600	8,900	860	150	4,400	BDL	14,000	BDL	1,000	450
Toluene	2,100	2,800	19,000	4,500	9,500	17,000	200	32,000	BDL	1,600	BDL
Ethylbenzene	450	1,100	1,300	1,600	4,600	4,000	1,600	4,000	18	2,400	BDL
Xylenes	2,800	7,500	14,000	14,000	19,000	18,000	6,500	18,000	54	8,300	58
Total BTEX	5,650	14,000	43,200	20,960	33,250	43,400	8,300	68,000	72	13,300	508
MTBE	NA	NA	NA	NA	350	BDL	BDL	BDL	BDL	6,100	6

Notes: BDL – Below Detectible Limits of the Analytical Laboratory
NA – Not Analyzed

These results correspond to well locations in Figure 21

Table 17 Soil Vapor Extraction Test Data

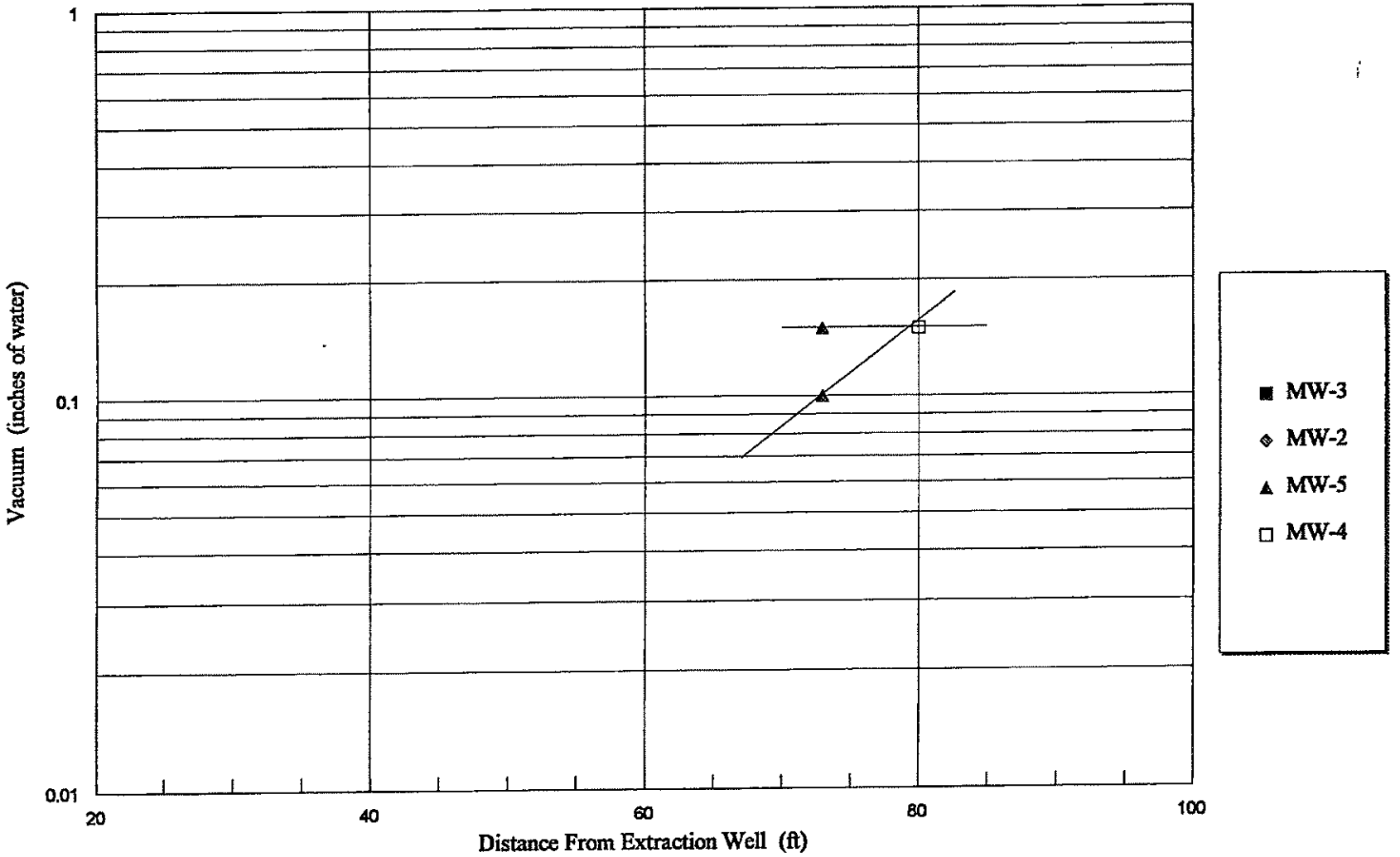
Site: Handy Pantry Facility – Taylor St., Columbia

Extraction Well: RW–1 Date: 8/27/93

				Distance to Extraction Well (ft) :			51'	29'	80'	73'
Time	E. Time (min)	Vacuum ("H20)	Flow (FPM)	Explos (%LEL)	OVA (PPM)	Sample ID	MW–2 ("H20)	MW–3 ("H20)	MW–4 ("H20)	MW–5 ("H20)
04:00	0		205				0	0	0	0
04:15	15		500			AS–1	0	0	0	0
04:45	45		700			AS–2	0	0	0.15	0.10
05:00	60		900			AS–3	0	0	0.15	0.15
05:15	75		1100			AS–4	0	0	0.15	0.10
05:35	95		1300			AS–5	0	0	0.15	0.10

Soil Vapor Extraction Data

Handy Pantry Facility, Two Notch, Columbia, S.C.



Estimate of Hydrocarbon Vapor Removal Rate
Handy Pantry Facility, Two Notch & Taylor Streets
Columbia, South Carolina

{adjusted from API Pub. No. 4410, Sept 1985}

$$Vr\ \{lb/hr\} = (Vc\ \{mg/m^3\})\ (2.2 \times 10^{-6}\ lb/mg)\ (Q\{cfm\})\ (28.3 \times 10^{-3}\ m^3/cfm)\ (60\ m/hr)$$

Where: Vr = Volatile Organics Removal Rate in pounds per hour
Vc = Total Volatile Petroleum Hydrocarbons in mg per cubic meter
Q = Air Flow Rate in cubic feet per min

$$Q = ((F\{ft/min\})\ (r\{ft\})(r\{ft\})(3.1416))\ (60\{min\})$$

Where: F = Air Velocity in feet per minute
R = Radius of Vacuum Extraction Equipment Pipe

Air Velocity = F = 500
Diameter of SVE Pipe = 0.17
R = 0.08333
Q = 654.50

Vc = 0.2

Calculated Removal Rate

Vr =	0.0005	lb/hr
Vr =	0.01	lb/day

Estimate of Hydrocarbon Vapor Removal Rate
Handy Pantry Facility, Two Notch & Taylor Streets
Columbia, South Carolina

{adjusted from API Pub. No. 4410, Sept 1985}

$$Vr\ \{lb/hr\} = (Vc\ \{mg/m^3\})\ (2.2 \times 10^{-6}\ lb/mg)\ (Q\{cfm\})\ (28.3 \times 10^{-3}\ m^3/cfm)\ (60\ m/hr)$$

Where: Vr = Volatile Organics Removal Rate in pounds per hour
Vc = Total Volatile Petroleum Hydrocarbons in mg per cubic meter
Q = Air Flow Rate in cubic feet per min

$$Q = ((F\{ft/min\})\ (r\{ft\})(r\{ft\})(3.1416))\ (60\{min\})$$

Where: F = Air Velocity in feet per minute
R = Radius of Vacuum Extraction Equipment Pipe

Air Velocity = F = 700
Diameter of SVE Pipe = 0.17 R = 0.08333
Q = 916.30

Vc = 1.7

Calculated Removal Rate

Vr =	0.0058	lb/hr
Vr =	0.14	lb/day

Estimate of Hydrocarbon Vapor Removal Rate
Handy Pantry Facility, Two Notch & Taylor Streets
Columbia, South Carolina

{adjusted from API Pub. No. 4410, Sept 1985}

$$Vr\ \{lb/hr\} = (Vc\ \{mg/m^3\})\ (2.2 \times 10^{-6}\ lb/mg)\ (Q\{cfm\})\ (28.3 \times 10^{-3}\ m^3/cfm)\ (60\ m/hr)$$

Where: Vr = Volatile Organics Removal Rate in pounds per hour
Vc = Total Volatile Petroleum Hydrocarbons in mg per cubic meter
Q = Air Flow Rate in cubic feet per min

$$Q = ((F\{ft/min\})\ (r\{ft\})(r\{ft\})(3.1416))\ (60\{min\})$$

Where: F = Air Velocity in feet per minute
R = Radius of Vacuum Extraction Equipment Pipe

Air Velocity = F = 900
Diameter of SVE Pipe = 0.17
R = 0.08333
Q = 1178.10

Vc = 1.6

Calculated Removal Rate

Vr =	0.007	lb/hr
Vr =	0.17	lb/day

Estimate of Hydrocarbon Vapor Removal Rate
Handy Pantry Facility, Two Notch & Taylor Streets
Columbia, South Carolina

{adjusted from API Pub. No. 4410, Sept 1985}

$$Vr\ \{lb/hr\} = (Vc\ \{mg/m^3\})\ (2.2 \times 10^{-6}\ lb/mg)\ (Q\{cfm\})\ (28.3 \times 10^{-3}\ m^3/cfm)\ (60\ m/hr)$$

Where: Vr = Volatile Organics Removal Rate in pounds per hour
Vc = Total Volatile Petroleum Hydrocarbons in mg per cubic meter
Q = Air Flow Rate in cubic feet per min

$$Q = ((F\{ft/min\})\ (r\{ft\})(r\{ft\})(3.1416))\ (60\{min\})$$

Where: F = Air Velocity in feet per minute
R = Radius of Vacuum Extraction Equipment Pipe

Air Velocity = F = **1300**
Diameter of SVE Pipe = 0.17 R = 0.08333
Q = **1701.70**

Vc = 8.1

Calculated Removal Rate

Vr = 0.0515 lb/hr

Vr = 1.24 lb/day

Smith Monitoring Maintenance Engineering, Inc.

GRAIN-SIZE DISTRIBUTION TEST REPORT

Project: Cloud's Chevron - Columbia
MEC Job Number: 96-125
Site Number 7777
Soil Description:
White clayey medium sand

Date: 16-Mar-97
Sample No.: MW-11 (28'-30')
Wt Wet 95.36
Wt Dry 80.50
Moisture% 18.46%

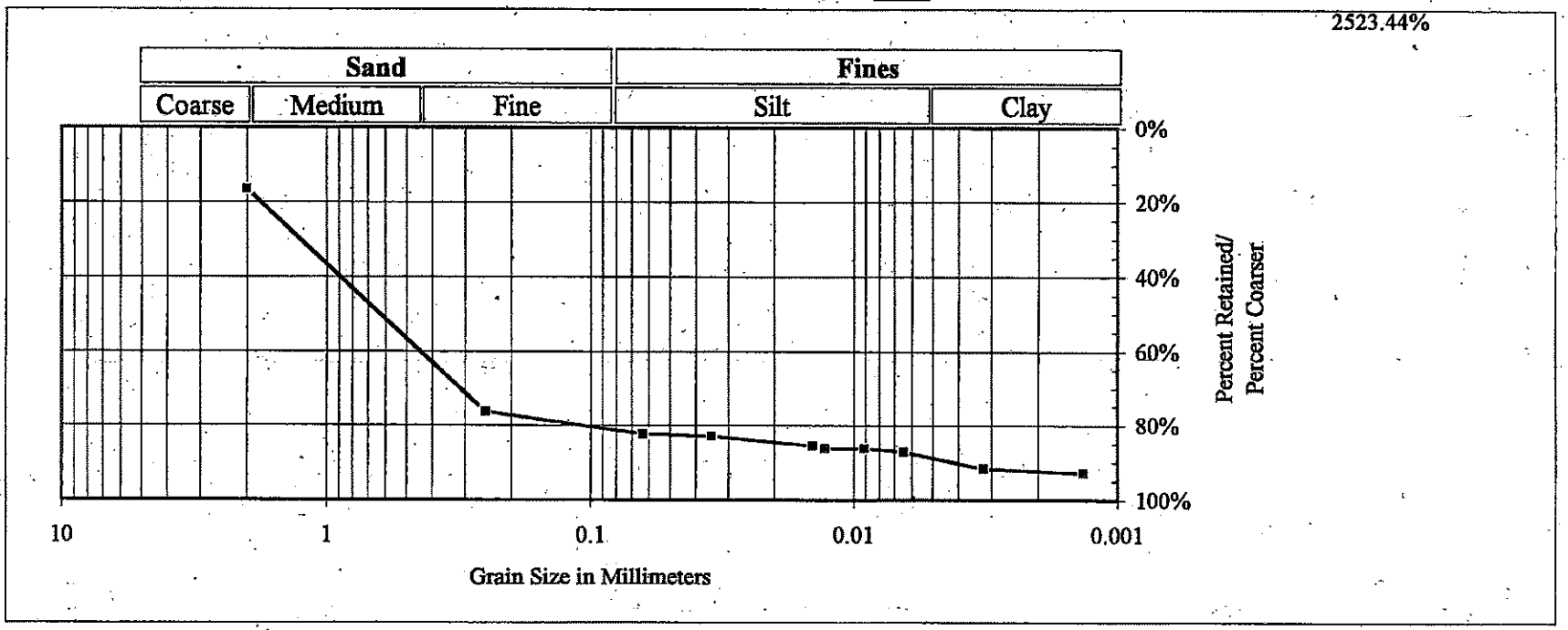
SIEVE ANALYSIS

Sieve Number	Grain Size, mm	Cum. % Retained	Mass Retained, g
10	2	16.51%	13.29
60	0.25	76.43%	48.24
230	0.063	82.39%	4.79

HYDROMETER READINGS

Sp. Gravity 1.0045

Sample Interval	Hydrometer Reading	L1 cm	L cm	D mm	Percent Coarser
2	1.0116	7.4	13.2	0.035	82.99%
12	1.0105	7.7	13.5	0.014	85.62%
15	1.0102	7.8	13.6	0.013	86.34%
30	1.0102	7.8	13.6	0.009	86.34%
60	1.0098	7.9	13.7	0.006	87.30%
250	1.0080	8.4	14.2	0.003	91.61%
1440	1.0075	8.5	14.3	0.001	92.81%
					2523.44%



145 Merrill Avenue Decatur, Georgia 30030

Smith Monitoring Maintenance Engineering, Inc.

GRAIN-SIZE DISTRIBUTION TEST REPORT

Project:	Cloud's Chevron - Columbia	Date:	16-Mar-97
MEC Job Number:	96-125	Sample No.:	MW-12 (18'-20')
Site Number	7777	Wt Wet	81.09
Soil Description:		Wt Dry	58.33
Red silty clay		Moisture%	39.02%

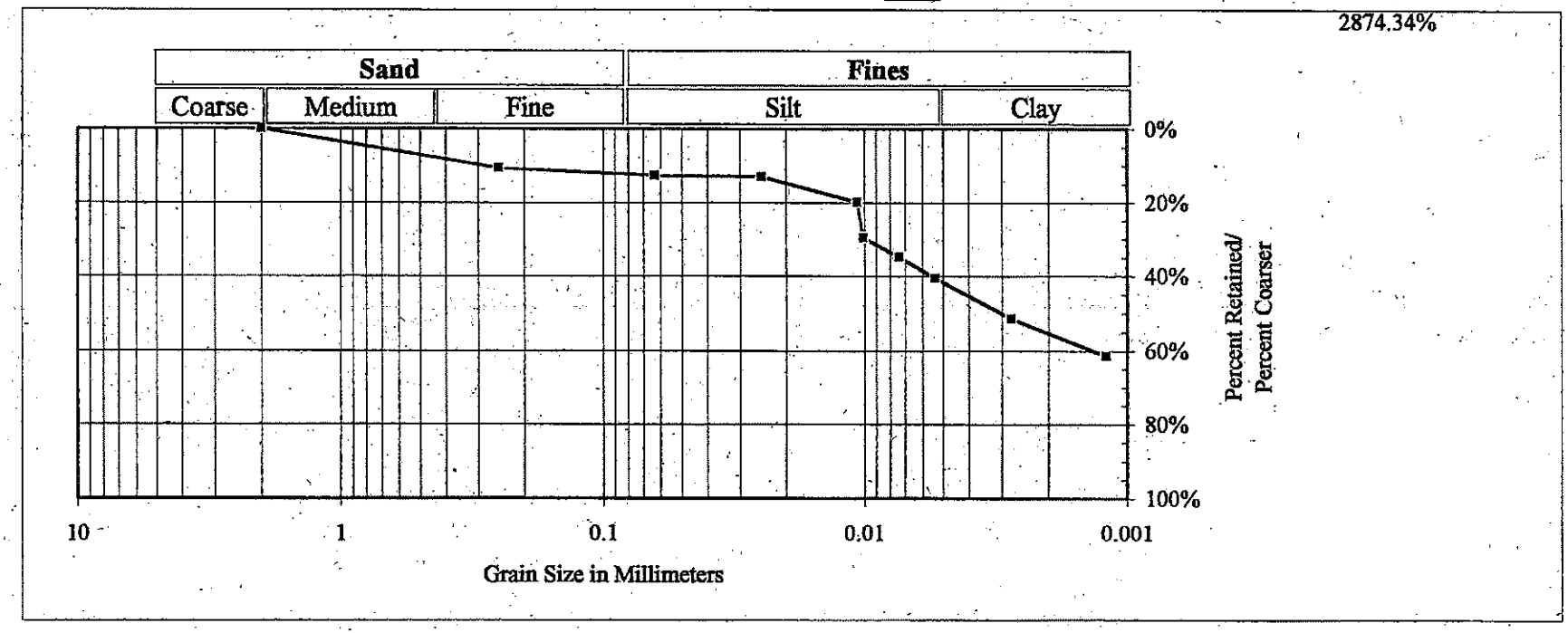
SIEVE ANALYSIS

Sieve Number	Grain Size, mm	Cum. % Retained	Mass Retained, g
10	2	0.03%	0.02
60	0.25	10.80%	6.28
230	0.063	12.72%	1.12

HYDROMETER READINGS

Sp. Gravity 1.0045

Sample Interval	Hydrometer Reading	L1 cm	L cm	D mm	Percent Coarser
2	1.0360	1.0	6.8	0.025	13.00%
12	1.0335	1.6	7.4	0.011	19.91%
15	1.0300	2.6	8.4	0.010	29.57%
30	1.0281	3.1	8.9	0.007	34.82%
60	1.0260	3.6	9.4	0.005	40.62%
250	1.0221	4.7	10.4	0.003	51.39%
1440	1.0185	5.6	11.4	0.001	61.33%
					2874.34%



145 Merrill Avenue Decatur, Georgia 30030

D H E C
PROMOTE PROTECT PROSPER

Summary of Slug Test
Division of Underground Storage Tank Management

Site Data

UST Permit #: _____ County: Richland

Facility Name: Eastpoint #24

Slug Data

See Appendix D Table _____ Figure _____ for a list of all data measurements. [water level logs, etc. (complete as appropriate)].

Water Level Recovery Data was measured by Water Level Meter
[Hermit Data Logger, Manually with Water Level Indicator, etc. (list method)].

Complete the following table for each well tested.

COMPLETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Slug Test Conducted in Well(s) Number	MW-2a	MW-5a		
Initial Rise/Drawdown in Well (feet)	18.12	22.01		
Radius of Well Casing (feet)	.08	.08		
Effective Radius of Well (feet)	.33	.33		
Static Saturated Aquifer Thickness (feet)	28	28		
Length of Well Screen (feet)	10	10		
Static Height of Water Column in Well (ft)	10	6		

Calculations

See Appendix D Table _____ Figure _____ for calculations (complete as appropriate).

The method for aquifer calculations was Bouwer-Rice (i.e. Bouwer-Rice, Cooper, etc.).

Calculated values by well were as follows:

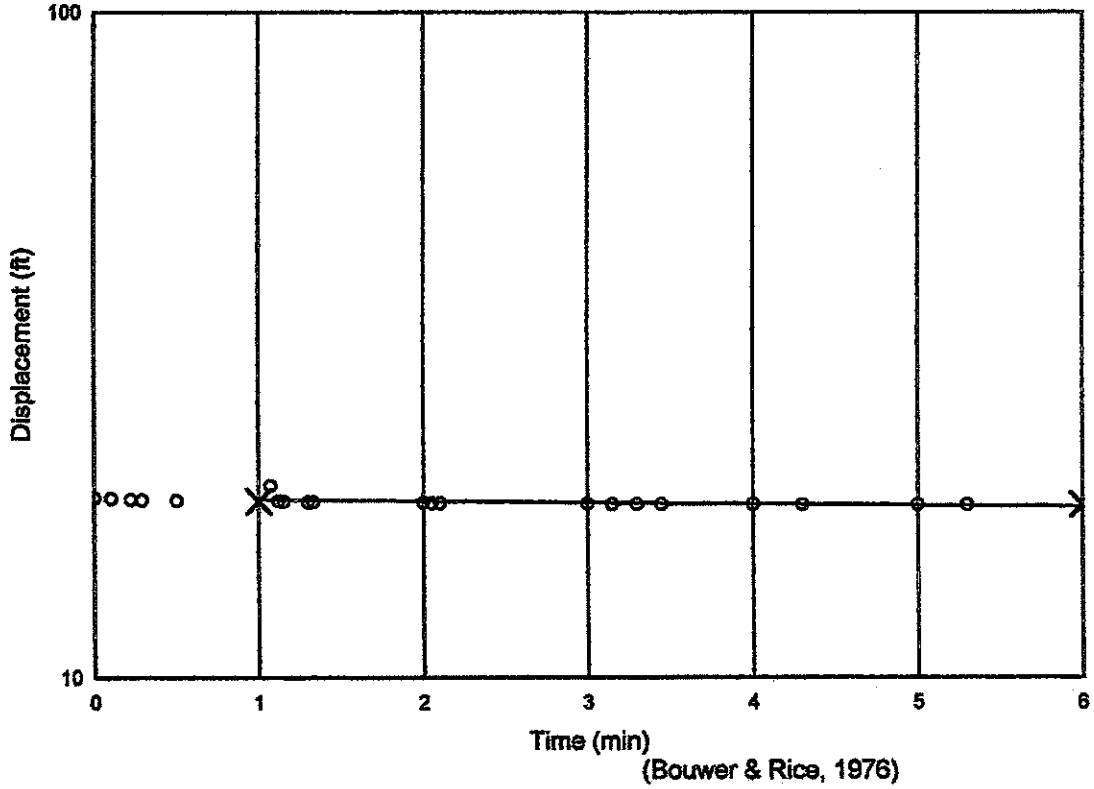
Slug Test Conducted in Well(s) Number	MW-2a	MW-5a	
Hydraulic Conductivity	1.91x10-6	5.60x10-7 cm/sec	

Thickness of the aquifer used to calculate hydraulic conductivity was 28.0 feet.

The aquifer is _____ confined _____ semi-confined X water table (check as appropriate).

The estimated seepage velocity is 0.012 to 0.040 feet per year based on a hydraulic conductivity of 1.91x10-6 to 5.60x10-7, a hydraulic gradient of .007 ft/ft, and a porosity of 35 percent for clayey sand soil (list type i.e., silty sand ,clay, etc).

Rising Head Slug Test
Fastpoint #24 MW-2a



(Bouwer & Rice, 1976)

Rising head test

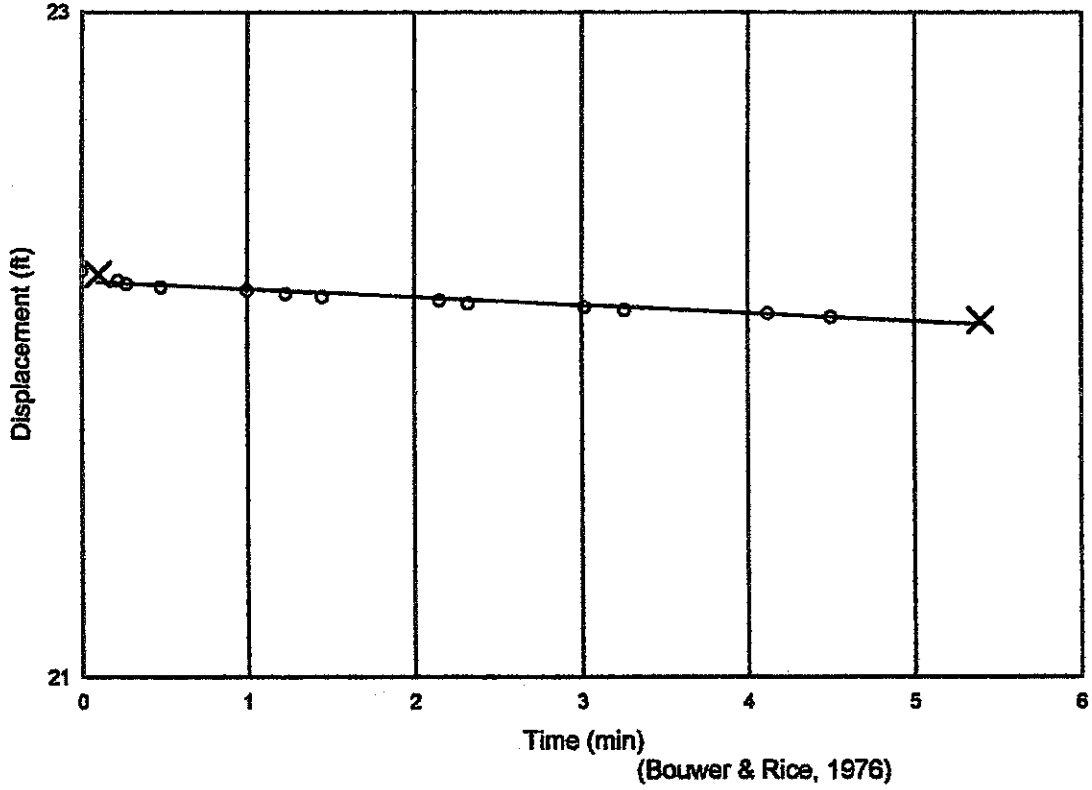
INPUT PARAMETERS
Raw data time unit is min
Raw data length unit is ft
b = 28.00 ft
H = 10.00 ft
L = 10.00 ft
rw = 0.33 ft
rc = 0.08 ft

CALCULATED PARAMETERS
Corr. coeff. = -5.30E-001
Yt = 18.37 ft
t = 2.10E+000 min

OUTPUT PARAMETERS
K = 1.91E-006 cm/sec

Fastpoint #24, Columbia, SC							
Rising Head Slug Test							
MW-2a							
Date: 5-18-99							
				Selected	Selected	Rescaled	
				Time	Draw	(t-t0)	Draw
Time (min.)				(min)	(ft)	(min)	(ft)
0.05	19.1			0.05	19.1	0	19.1
0.2	18.95			0.2	18.95	0.15	18.95
0.31	18.8			0.31	18.8	0.26	18.8
0.36	18.75			0.36	18.75	0.31	18.75
0.48	18.72			0.48	18.72	0.43	18.72
0.5	18.63			0.5	18.63	0.45	18.63
1	18.58			1	18.58	0.95	18.58
1.1	18.55			1.1	18.55	1.05	18.55
1.22	18.5			1.22	18.5	1.17	18.5
1.29	18.45			1.29	18.45	1.24	18.45
1.5	18.43			1.5	18.43	1.45	18.43
2	18.4			2	18.4	1.95	18.4
2.07	19.39			2.07	19.39	2.02	19.39
2.12	18.38			2.12	18.38	2.07	18.38
2.15	18.35			2.15	18.35	2.1	18.35
2.3	18.33			2.3	18.33	2.25	18.33
2.33	18.32			2.33	18.32	2.28	18.32
3	18.29			3	18.29	2.95	18.29
3.05	18.27			3.05	18.27	3	18.27
3.1	18.26			3.1	18.26	3.05	18.26
4	18.22			4	18.22	3.95	18.22
4.15	18.2			4.15	18.2	4.1	18.2
4.3	18.19			4.3	18.19	4.25	18.19
4.45	18.18			4.45	18.18	4.4	18.18
5	18.18			5	18.18	4.95	18.18
5.3	18.16			5.3	18.16	5.25	18.16
6	18.15			6	18.15	5.95	18.15
6.3	18.15			6.3	18.15	6.25	18.15
7	18.15			7	18.15	6.95	18.15

Rising Head Slug Test
Fastpoint #24 MW-5a



(Bouwer & Rice, 1976)

Rising head test

INPUT PARAMETERS
Raw data time unit is min
Raw data length unit is ft
b = 28.00 ft
H = 6.00 ft
L = 6.00 ft
rw = 0.33 ft
rc = 0.08 ft

CALCULATED PARAMETERS
Corr. coeff. = -9.71E-001
Yt = 22.13 ft
t = 1.45E+000 min

OUTPUT PARAMETERS
K = 5.60E-007 cm/sec

Fastpoint #24, Columbia, SC							
Rising Head Slug Test							
MW-5a							
Date: 5-18-99				Selected	Selected	Rescaled	
				Time	Draw	(t-t0)	Draw
Time	Draw			(min)	(ft)	(min)	(ft)
0.37	22.25			0.37	22.25	0	22.2
0.49	22.24			0.49	22.24	0.1	22.19
0.55	22.21			0.55	22.21	0.22	22.17
1	22.2			1	22.2	0.27	22.16
1.1	22.19			1.1	22.19	0.48	22.15
1.22	22.17			1.22	22.17	1	22.14
1.27	22.16			1.27	22.16	1.23	22.13
1.48	22.15			1.48	22.15	1.45	22.12
2	22.14			2	22.14	2.15	22.11
2.23	22.13			2.23	22.13	2.32	22.1
2.45	22.12			2.45	22.12	3.02	22.09
3.15	22.11			3.15	22.11	3.26	22.08
3.32	22.1			3.32	22.1	4.12	22.07
4.02	22.09			4.02	22.09	4.5	22.06
4.26	22.08			4.26	22.08	5.4	22.05
5.12	22.07			5.12	22.07		
5.5	22.06			5.5	22.06		
6.4	22.05			6.4	22.05		

Well Number	Type of Material Exposed to Screened Interval	Hydraulic Conductivity (K) (cm/sec)
MW-1A	UNKNOWN	2.87×10^{-4}
MW-2A	UNKNOWN	5.48×10^{-4}
MW-3	Sandy CLAY	6.96×10^{-5}
MW-5	Sandy CLAY	3.33×10^{-5}
MW-5A	UNKNOWN	8.09×10^{-4}
MW-11	Sandy CLAY	1.73×10^{-4}
MW-12	Silty Sand & Silty CLAY	8.50×10^{-5}
MW-14	SAND	8.24×10^{-6}
MW-16	Sandy CLAY	9.50×10^{-7}
MW-17D	Silty CLAY	7.73×10^{-7}

Notes:

Field tests were reduced and the hydraulic conductivities computed using techniques described in NAVFAC Soil Mechanics Design Manual 7.1, May, 1982, Condition A and Condition C (Condition C used on MW-17D).

Soil descriptions from SCDHEC files.
Calculations are included in Appendix B.

6.4 GROUNDWATER MOVEMENT

Groundwater movement is often related to topography, lithology, elevation of recharge and discharge areas and man-made influences. Referenced groundwater elevations were determined by measuring the top of the monitoring well casing relative to a nearby datum elevation (see Figure 2) measuring the water level in the monitoring well, and computing the reference elevation of the groundwater at the time of measurement.

Directions of groundwater flow were interpolated between monitoring wells by comparing the groundwater elevations at those locations considering the factors listed above. Groundwater levels typically fluctuate with seasonal and rainfall variations.

SUMMARY of SLUG TEST (page 1 of 3)

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)

Site Data

SITE ID # 7777 COUNTY Richland

FACILITY NAME Cloud's Chevron

SLUG DATA

See Appendix _____ Table _____ Figure _____ for a list of all data measurements.
(water level logs, etc.)(Complete as appropriate).
Water Level Recovery Data was measured by ORS Interface Probe .
(Hermit Data Logger, Manually with Water Level Indicator, etc.)(List Method)
Complete the following table for each well tested.
COMPLETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Slug Test Conducted in well(s) number	MW-1A	MW-2A	MW-3	MW-5
Initial Rise/Drawdown in well (feet)	0.09	1.86	1.77	0.65
Radius of well casing (feet)	0.083	0.083	0.083	0.083
Effective Radius of Well (feet)	0.33	0.33	0.35	0.35
Static Saturated Aquifer Thickness (feet)	7.31	3.59	3.46	5.97
Length of Well Screen (feet)	10	10	15	15
Static Height of Water Column in Well (ft)	20.69	25.41	22.04	22.53

Calculations

See Appendix _____ Table _____ Figure _____ for calculations
The method for aquifer calculations was NAVFAC
Calculated values by well were as follows:

Slug Test Conducted in Well(s) number	MW-1A	MW-2A	MW-3	MW-5	
Hydraulic Conductivity	2.87E-04	5.48E-04	6.96E-05	3.33E-05	cm/sec

Thickness of the aquifer used to calculate hydraulic conductivity was N/A feet.
The aquifer is _____ confined _____ semi-confined _____ water table (Check as Appropriate).
SEE SHEET 3
The estimated seepage velocity is _____ feet per year based on a hydraulic conductivity of _____ cm/sec, a hydraulic gradient of _____ ft/ft, and a porosity of _____ percent for _____ soil.

SUMMARY of SLUG TEST

SUMMARY of SLUG TEST (page 2 of 3)

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)

Site Data

SITE ID # 7777 COUNTY Richland

FACILITY NAME Cloud's Chevron

SLUG DATA

See Appendix _____ Table _____ Figure _____ for a list of all data measurements.
(water level logs, etc.)(Complete as appropriate).
Water Level Recovery Data was measured by ORS Interface Probe .
(Hermit Data Logger, Manually with Water Level Indicator, etc..)(List Method)
Complete the following table for each well tested.
COMPLETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Slug Test Conducted in well(s) number	MW-5A	MW-11	MW-12	MW-14
Initial Rise/Drawdown in well (feet)	0.08	0.43	0.1	0.1
Radius of well casing (feet)	0.083	0.083	0.083	0.083
Effective Radius of Well (feet)	0.33	0.33	0.33	0.33
Static Saturated Aquifer Thickness (feet)	6.14	10.02	24.9	14.41
Length of Well Screen (feet)	5	15	15	15
Static Height of Water Column in Well (ft)	23.26	19.98	5.1	15.59

Calculations

See Appendix _____ Table _____ Figure _____ for calculations
The method for aquifer calculations was NAVFAC
Calculated values by well were as follows:

Slug Test Conducted in Well(s) number	MW-5A	MW-11	MW-12	MW-14	
Hydraulic Conductivity	8.09E-04	1.73E-04	8.50E-05	8.24E-06	cm/sec

Thickness of the aquifer used to calculate hydraulic conductivity was N/A feet.
The aquifer is _____ confined _____ semi-confined _____ water table (Check as Appropriate).
SEE SHEET 3
The estimated seepage velocity is _____ feet per year based on a hydraulic conductivity of _____ cm/sec, a hydraulic gradient of _____ ft/ft, and a porosity of _____ percent for _____ soil.

SUMMARY of SLUG TEST

SUMMARY of SLUG TEST (page 3 of 3)

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)

Site Data

SITE ID # 7777 COUNTY Richland

FACILITY NAME Cloud's Chevron

SLUG DATA

See Appendix _____ Table _____ Figure _____ for a list of all data measurements.
(water level logs, etc.)(Complete as appropriate).
Water Level Recovery Data was measured by ORS Interface Probe .
(Hermit Data Logger, Manually with Water Level Indicator, etc..)(List Method)
Complete the following table for each well tested.
COMPLETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Slug Test Conducted in well(s) number	MW-16	MW-17D		
Initial Rise/Drawdown in well (feet)	2.09	4.62		
Radius of well casing (feet)	0.083	0.083		
Effective Radius of Well (feet)	0.33	0.33		
Static Saturated Aquifer Thickness (feet)	11.83	14.36		
Length of Well Screen (feet)	15	15		
Static Height of Water Column in Well (ft)	18.17	44.64		

Calculations

See Appendix _____ Table _____ Figure _____ for calculations
The method for aquifer calculations was NAVFAC
Calculated values by well were as follows:

Slug Test Conducted in Well(s) number	MW-16	MW-17D			
Hydraulic Conductivity	9.50E-07	7.73E-07			cm/sec

Thickness of the aquifer used to calculate hydraulic conductivity was N/A feet.
The aquifer is _____ confined _____ semi-confined X water table (Check as Appropriate).
* Enter Values in Shaded Areas Only
The estimated seepage velocity is 72.94 feet per year based on a hydraulic conductivity of 2.01E-04 cm/sec, a hydraulic gradient of 1.40E-02 ft/ft, and a porosity of 4 percent for Sandy CLAY soil.

SUMMARY of SLUG TEST

Groundwater Seepage Velocity Calculations

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)

Site Data

SITE ID # 7777 Richland

FACILITY NAME Cloud's Chevron

Hydraulic Conductivity (average)

Hydraulic Conductivity Average = 2.01E-04 cm/sec

5.71E-01 ft./day

3.96E-04 ft./min

Groundwater Seepage Velocity

V = (Ki)/(Ne)
(ft./day)

* Enter Values in Shaded Areas Only

where:

K = Hydraulic Conductivity (ft./day)
I = Hydraulic Gradient (ft./ft.)
Ne = Effective Permeability

K = 5.71E-01 ft./day
I = 1.00E-02 ft./ft.
Ne = 0.04

V = **1.43E-01** ft./day **52.10** ft./year

Groundwater Seepage Velocity Calculations

Inflow for Type II Well MW-1A

Inflow Permeability Calculation

Cloud's Chevron

Test Performed: 4/9/97

MW-1A

Type II (Uncased Well)

Static: 20.69 ft

*Enter Values in Shaded Areas Only

Time (min)	Depth	delta H	Ht/Ho
0.50	20.78	0.09	1.00
1.00	20.77	0.08	0.89
2.00	20.75	0.06	0.67
4.00	20.73	0.04	0.44
7.00	20.71	0.02	0.22
9.50	20.70	0.01	0.11

Information from data and plot of Ht/H0 vs time

Bore Hole Diameter:	8	in
Total Depth of Well:	28	ft
Stand Pipe Area:	50.27	in^2
	0.35	ft^2

Coordinates from Graph for Slope Calc:

H1/Ho:	1	
t1:	0.5	min
H2/Ho:	0.89	
t2:	1	min

H1:	0.09	H2:	0.08
t1:	0.50	t2:	1.00
Radius	R:	4.00	in
Radius	R:	0.33	ft
Depth	D:	7.31	ft
	R/D:	0.046	
	D/R:	21.93	

Shape Factor Determination Value: 0.99 *

*This value is used in conjunction with Figure 13 of Reference [1] to obtain the shape factor.

Shape Factor S: 0.1

Coeff. of Permeability (K):

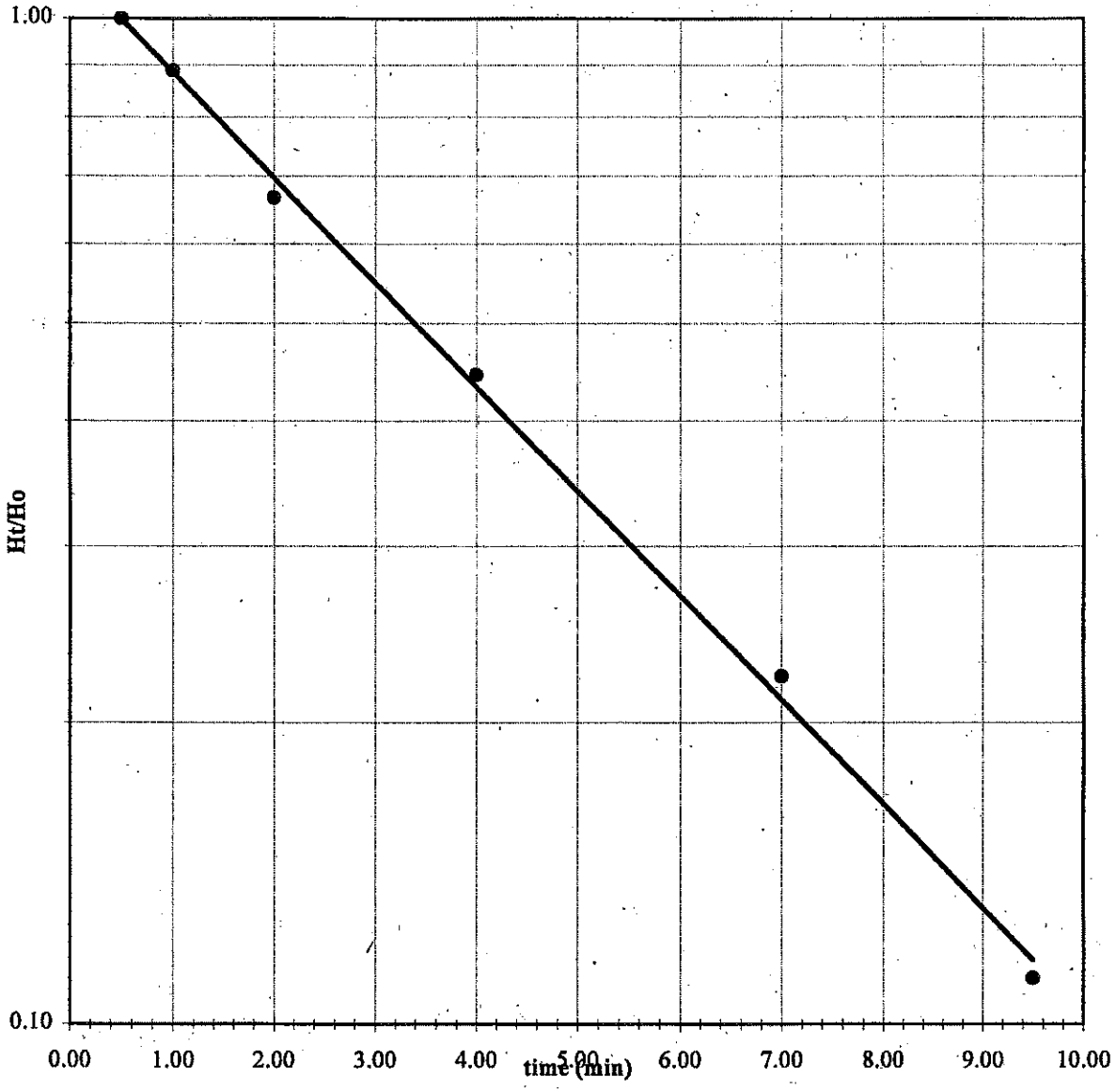
5.64E-04 ft/min

8.13E-01 ft/day

2.87E-04 cm/sec

Ref [1]: Naval Fac. Engr. Command, Design Manual 7.01, soil Mechanics

Inflow for Type II Well MW-1A



Midlands Environmental Consultants Inc.

Inflow for Type II Well MW-2A

Inflow Permeability Calculation

Cloud's Chevron

Test Performed: 4/9/97

MW-2A

Type II (Uncased Well)

Static: 25.41 ft

*Enter Values in Shaded Areas Only

Time (min)	Depth	delta H	Ht/Ho
0.50	27.27	1.86	1.00
1.00	27.05	1.64	0.88
2.00	26.68	1.27	0.68
3.50	26.15	0.74	0.40
4.50	25.82	0.41	0.22
5.50	25.70	0.29	0.16
6.50	25.60	0.19	0.10

Information from data and plot of Ht/H0 vs time

Bore Hole Diameter:	8	in
Total Depth of Well:	29	ft
Stand Pipe Area:	50.27	in^2
	0.35	ft^2

Coordinates from Graph for Slope Calc:

H1/Ho:	0.88	
t1:	1	min
H2/Ho:	0.16	
t2:	5.5	min

H1:	1.64	H2:	0.30
t1:	1.00	t2:	5.50
Radius	R:	4.00	in
Radius	R:	0.33	ft
Depth	D:	3.59	ft
	R/D:	0.093	
	D/R:	10.77	

Shape Factor Determination Value: 0.73 *

*This value is used in conjunction with Figure 13 of Reference [1] to obtain the shape factor.

Shape Factor S: 1.6

Coeff. of Permeability (K):

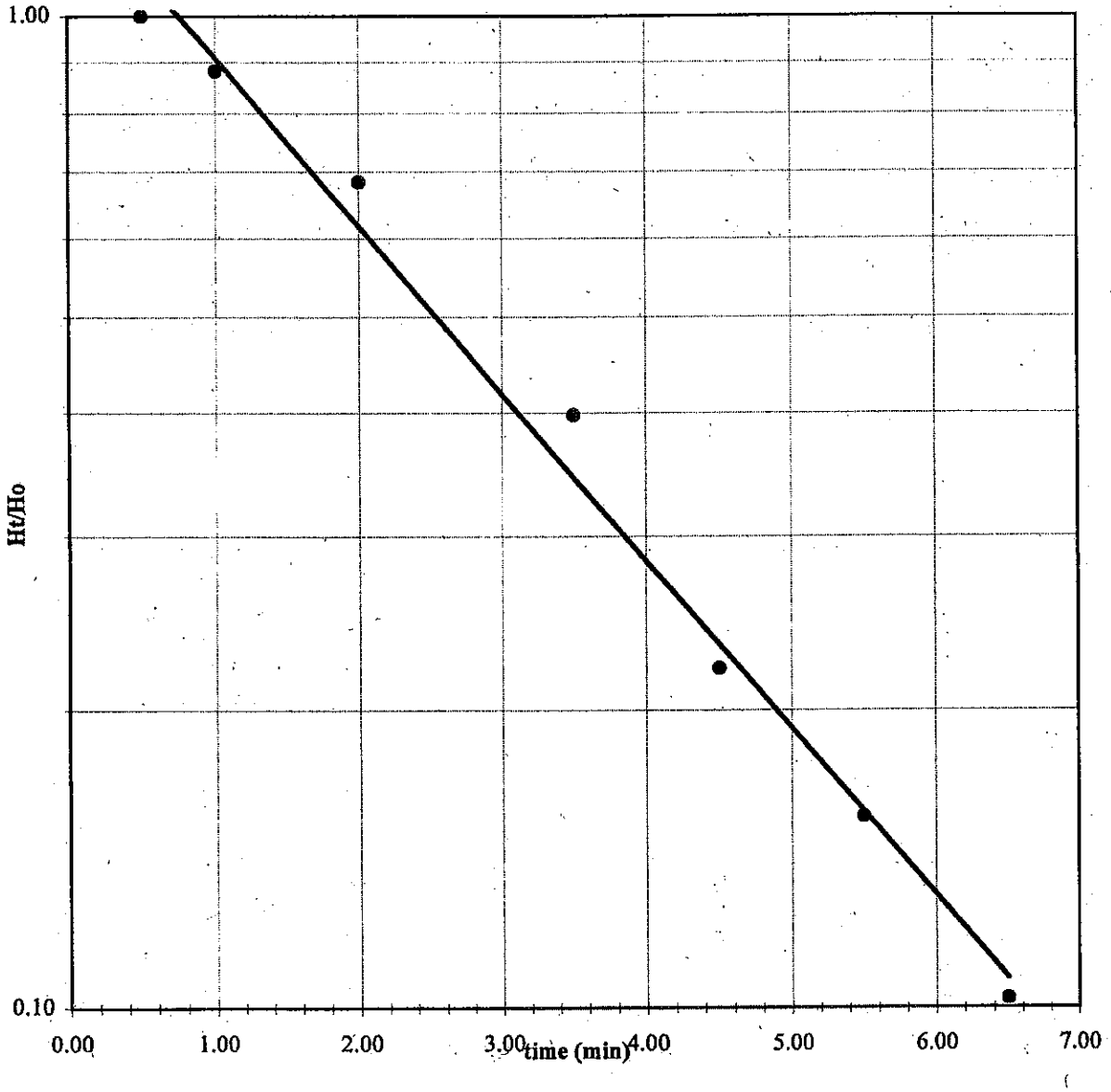
1.08E-03 ft/min

1.55E+00 ft/day

5.48E-04 cm/sec

Ref [1]: Naval Fac. Engr. Command, Design Manual 7.01, soil Mechanics

Inflow for Type II Well MW-2A



Midlands Environmental Consultants, Inc.

Inflow for Type II Well MW-3

Inflow Permeability Calculation

Cloud's Chevron

Test Performed: 4/9/97

MW-3

Type II (Uncased Well)

Static: 22.04 ft

*Enter Values in Shaded Areas Only

Time (min)	Depth	delta H	Ht/Ho
2.00	23.81	1.77	1.00
3.00	23.69	1.65	0.93
4.00	23.59	1.55	0.88
6.00	23.41	1.37	0.77
9.00	23.19	1.15	0.65
14.00	22.88	0.84	0.47
39.00	22.38	0.34	0.19

Information from data and plot of Ht/H0 vs time

Bore Hole Diameter:	8.5	in
Total Depth of Well:	25.5	ft
Stand Pipe Area:	56.75	in^2
	0.39	ft^2

Coordinates from Graph for Slope Calc:

H1/Ho:	0.93	
t1:	3	min
H2/Ho:	0.19	
t2:	39	min

H1:	1.65	H2:	0.34
t1:	3.00	t2:	39.00
Radius	R:	4.25	in
Radius	R:	0.35	ft
Depth	D:	3.46	ft
	R/D:	0.102	
	D/R:	9.77	

Shape Factor Determination Value: 0.71 *

*This value is used in conjunction with Figure 13 of Reference [1] to obtain the shape factor.

Shape Factor S: 1.7

Coeff. of Permeability (K):

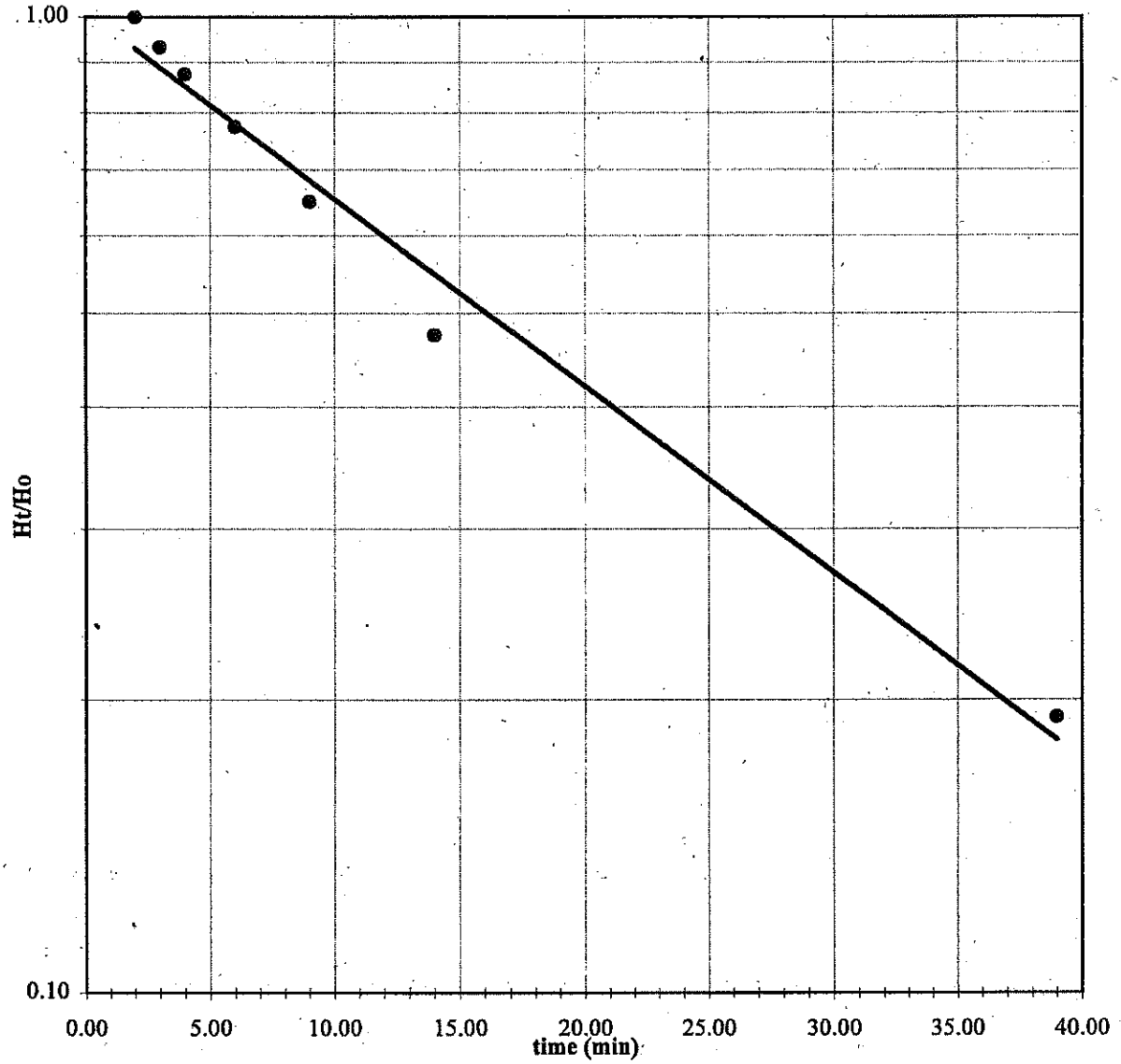
1.37E-04 ft/min

1.97E-01 ft/day

6.96E-05 cm/sec

Ref [1]: Naval Fac. Engr. Command, Design Manual 7.01, soil Mechanics

Inflow for Type II Well MW-3



Midlands Environmental Consultants Inc.

Inflow for Type II Well MW-5

Inflow Permeability Calculation

Cloud's Chevron

Test Performed: 4/9/97

MW-5

Type II (Uncased Well)

Static: 22.53 ft

*Enter Values in Shaded Areas Only

Time (min)	Depth	delta H	Ht/Ho
1.00	23.18	0.65	1.00
2.00	23.10	0.57	0.88
3.00	23.05	0.52	0.80
5.00	22.98	0.45	0.69
25.00	22.72	0.19	0.29
41.00	22.66	0.13	0.20
65.00	22.61	0.08	0.12

Information from data and plot of Ht/H0 vs time

Bore Hole Diameter:	8.5	in
Total Depth of Well:	28.5	ft
Stand Pipe Area:	56.75	in^2
	0.39	ft^2

Coordinates from Graph for Slope Calc:

H1/Ho:	0.69	
t1:	5	min
H2/Ho:	0.2	
t2:	41	min

H1:	0.45	H2:	0.13
t1:	5.00	t2:	41.00
Radius R:	4.25	in	
Radius R:	0.35	ft	
Depth D:	5.97	ft	
R/D:	0.059		
D/R:	16.86		

Shape Factor Determination Value: 0.95 *

*This value is used in conjunction with Figure 13 of Reference [1] to obtain the shape factor.

Shape Factor S: 0.5

Coeff. of Permeability (K):

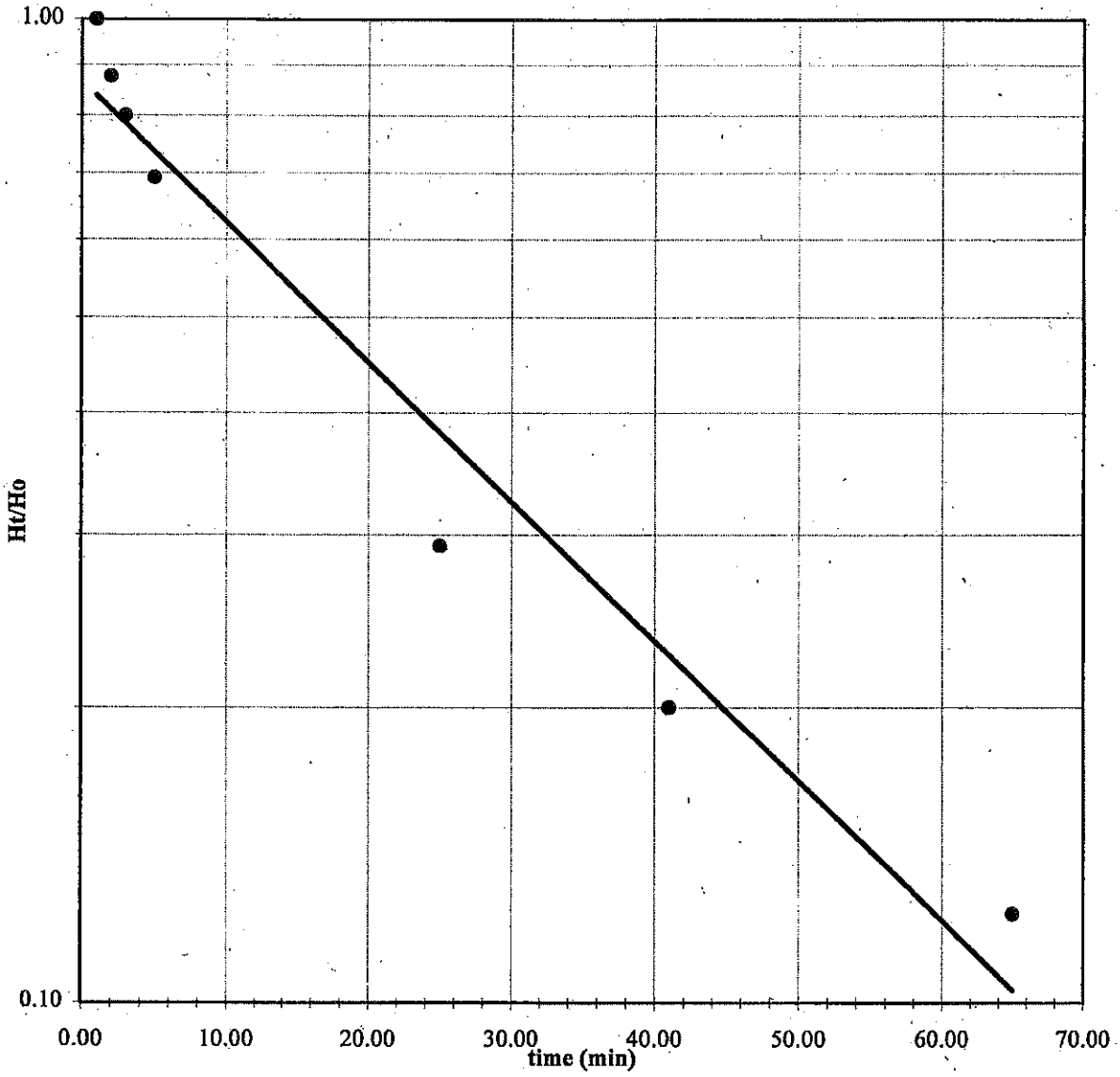
6.56E-05 ft/min

9.45E-02 ft/day

3.33E-05 cm/sec

Ref [1]: Naval Fac. Engr. Command, Design Manual 7.01, soil Mechanics

Inflow for Type II Well MW-5



Midlands Environmental Consultants Inc.

Inflow for Type II Well MW-5A

Inflow Permeability Calculation

Cloud's Chevron

Test Performed: 4/9/97

MW-5A

Type II (Uncased Well)

Static: 23.26 ft

*Enter Values in Shaded Areas Only

Time (min)	Depth	delta H	Ht/Ho
0.50	23.34	0.08	1.00
1.00	23.30	0.04	0.50
1.50	23.28	0.02	0.25
2.00	23.27	0.01	0.12

Information from data and plot of Ht/H0 vs time

Bore Hole Diameter:	8	in
Total Depth of Well:	29.4	ft
Stand Pipe Area:	50.27	in^2
	0.35	ft^2

Coordinates from Graph for Slope Calc:

H1/Ho:	1	
t1:	0.5	min
H2/Ho:	0.12	
t2:	2	min

H1:	0.08	H2:	0.01
t1:	0.50	t2:	2.00

Radius	R:	4.00	in
Radius	R:	0.33	ft
Depth	D:	6.14	ft
	R/D:	0.054	
	D/R:	18.42	

Shape Factor Determination Value: 0.99 *

*This value is used in conjunction with Figure 13 of Reference [1] to obtain the shape factor.

Shape Factor S: 0.1

Coeff. of Permeability (K):

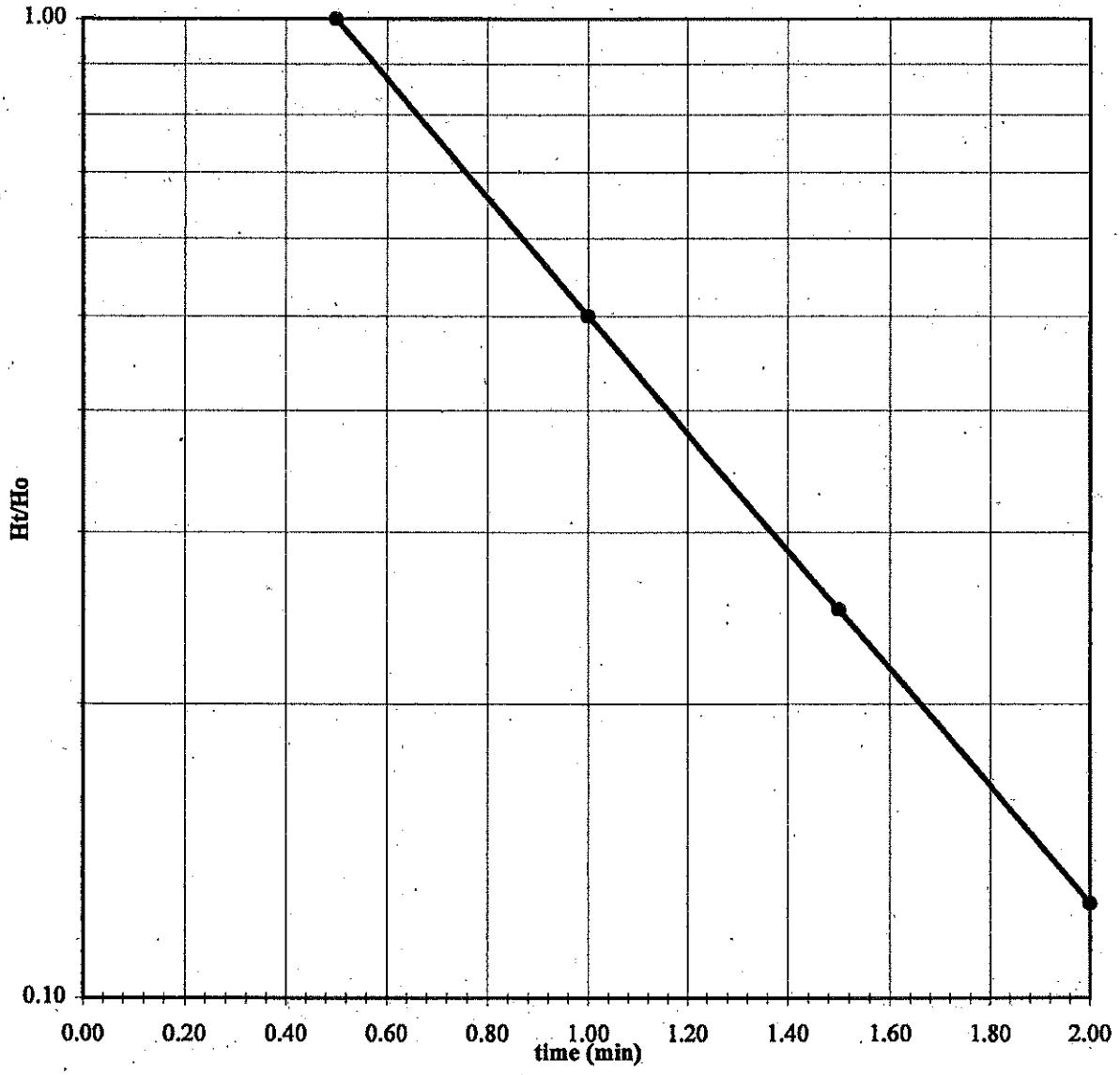
1.59E-03 ft/min

2.29E+00 ft/day

8.09E-04 cm/sec

Ref [1]: Naval Fac. Engr. Command, Design Manual 7.01, soil Mechanics

Inflow for Type II Well MW-5A



Midlands Environmental Consultants, Inc.

Inflow for Type II Well MW-11

Inflow Permeability Calculation

Cloud's Chevron

Test Performed: 4/9/97

MW-11

Type II (Uncased Well)

Static: 19.98 ft

*Enter Values in Shaded Areas Only

Time (min)	Depth	delta H	Ht/Ho
0.50	20.41	0.43	1.00
1.00	20.31	0.33	0.77
1.50	20.18	0.20	0.47
2.00	20.10	0.12	0.28
2.50	20.09	0.11	0.26
4.00	20.06	0.08	0.19
5.00	20.05	0.07	0.16

Information from data and plot of Ht/H0 vs time

Bore Hole Diameter:	8	in
Total Depth of Well:	30	ft
Stand Pipe Area:	50.27	in^2
	0.35	ft^2

Coordinates from Graph for Slope Calc:

H1/Ho:	0.77	
t1:	1	min
H2/Ho:	0.16	
t2:	5	min

H1:	0.33	H2:	0.07
t1:	1.00	t2:	5.00
Radius R:	4.00	in	
Radius R:	0.33	ft	
Depth D:	10.02	ft	
R/D:	0.033		
D/R:	30.06		

Shape Factor Determination Value: 0.98 *

*This value is used in conjunction with Figure 13 of Reference [1] to obtain the shape factor.

Shape Factor S: 0.4

Coeff. of Permeability (K):

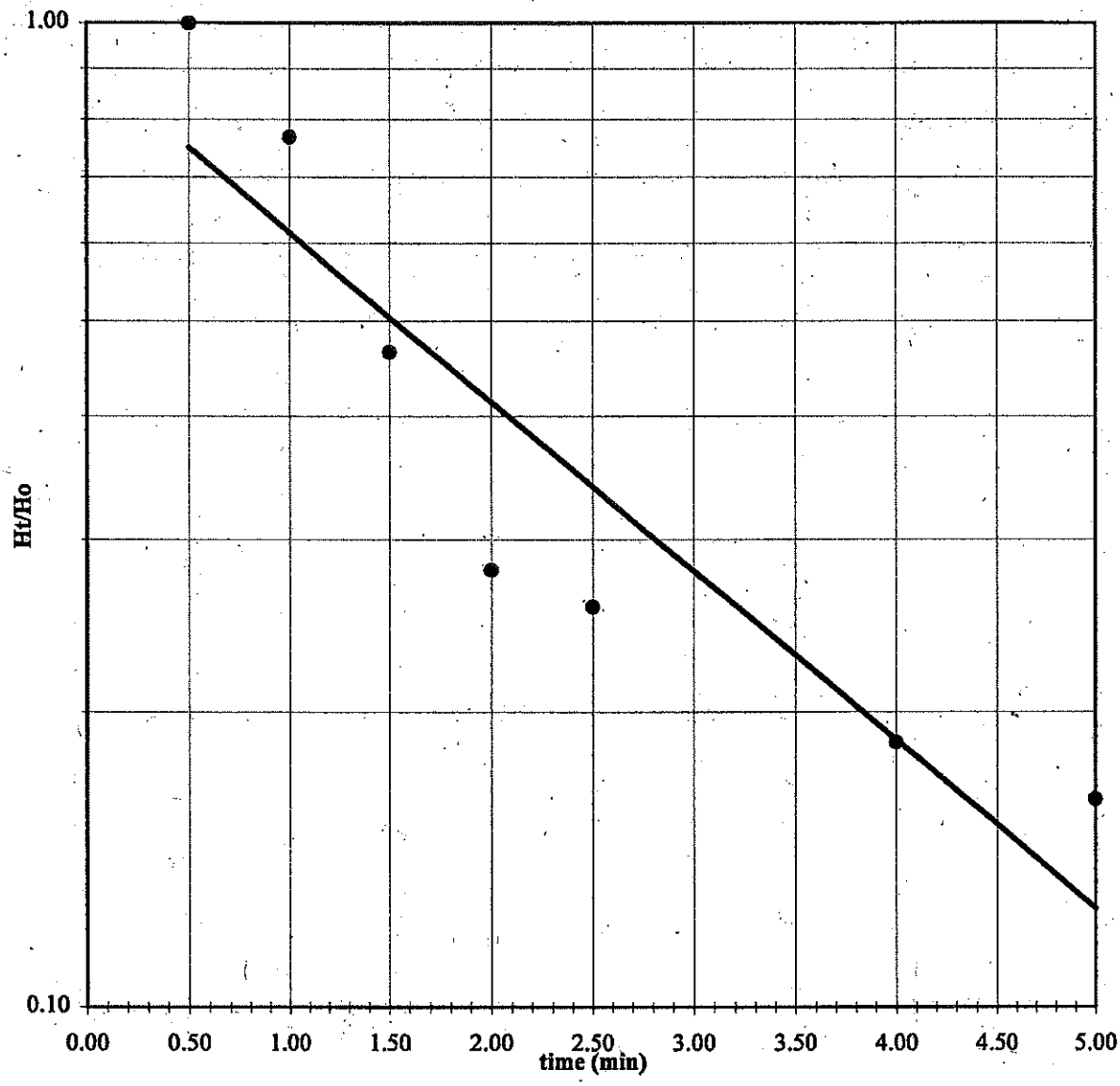
3.41E-04 ft/min

4.91E-01 ft/day

1.73E-04 cm/sec

Ref [1]: Naval Fac. Engr. Command, Design Manual 7.01, soil Mechanics

Inflow for Type II Well MW-11



Midlands Environmental Consultants, Inc.

Inflow for Type II Well MW-12

Inflow Permeability Calculation

Cloud's Chevron

Test Performed: 4/9/97

MW-12

Type II (Uncased Well)

Static: 5.1 ft

*Enter Values in Shaded Areas Only

Time (min)	Depth	delta H	Ht/Ho
1.00	5.20	0.10	1.00
1.50	5.15	0.05	0.50
2.00*	5.13	0.03	0.30
2.50	5.12	0.02	0.20
3.00	5.11	0.01	0.10

Information from data and plot of Ht/H0 vs time

Bore Hole Diameter:	8	in
Total Depth of Well:	30	ft
Stand Pipe Area:	50.27	in^2
	0.35	ft^2

Coordinates from Graph for Slope Calc:

H1/Ho:	0.3	
t1:	2	min
H2/Ho:	0.1	
t2:	3	min

H1:	0.03	H2:	0.01
t1:	2.00	t2:	3.00
Radius	R:	4.00	in
Radius	R:	0.33	ft
Depth	D:	24.90	ft
	R/D:	0.013	
	D/R:	74.70	

Shape Factor Determination Value: 1.00 *

*This value is used in conjunction with Figure 13 of Reference [1] to obtain the shape factor.

Shape Factor S: 0.1

Coeff. of Permeability (K):

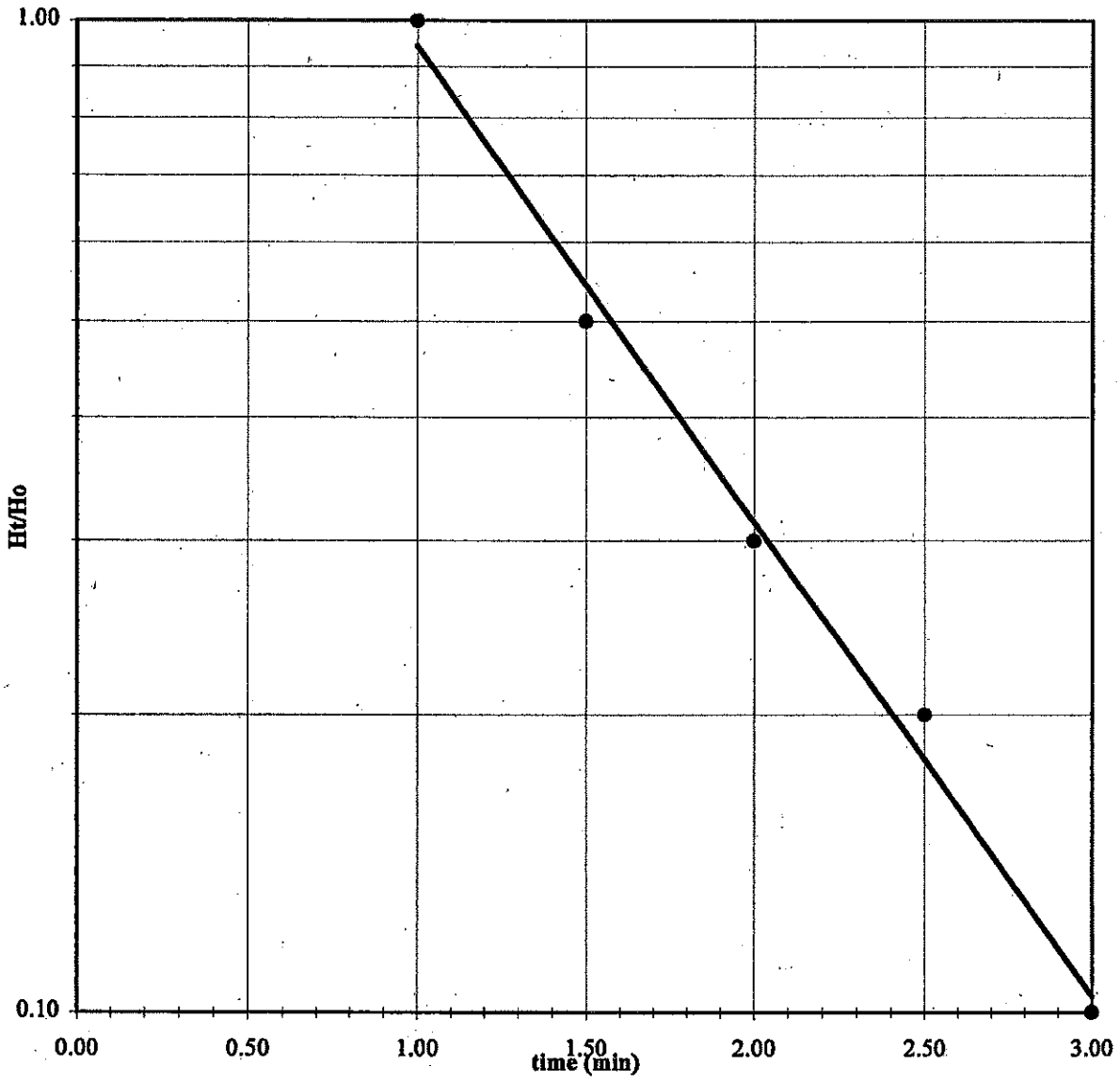
1.67E-04 ft/min

2.41E-01 ft/day

8.50E-05 cm/sec

Ref [1]: Naval Fac. Engr. Command, Design Manual 7.01, soil Mechanics

Inflow for Type II Well MW-12



Midlands Environmental Consultants, Inc.

Inflow for Type II Well MW-14

Inflow Permeability Calculation

Cloud's Chevron

Test Performed: 4/9/97

MW-14

Type II (Uncased Well)

Static: 15.59 ft

*Enter Values in Shaded Areas Only

Time (min)	Depth	delta H	Ht/Ho
0.25	15.69	0.10	1.00
1.50	15.67	0.08	0.80
5.00	15.66	0.07	0.70
8.00	15.65	0.06	0.60
29.50	15.62	0.03	0.30
55.00	15.61	0.02	0.20

Information from data and plot of Ht/H0 vs time

Bore Hole Diameter:	8	in
Total Depth of Well:	30	ft
Stand Pipe Area:	50.27	in^2
	0.35	ft^2

Coordinates from Graph for Slope Calc:

H1/Ho:	0.8	
t1:	1.5	min
H2/Ho:	0.2	
t2:	55	min

H1:	0.08	H2:	0.02	
t1:	1.50	t2:	55.00	
Radius	R:	4.00	in	
Radius	R:	0.33	ft	
Depth	D:	14.41	ft	
	R/D:	0.023		
	D/R:	43.23		

Shape Factor Determination Value: 1.00 *

*This value is used in conjunction with Figure 13 of Reference [1] to obtain the shape factor.

Shape Factor S: 0.1

Coeff. of Permeability (K):

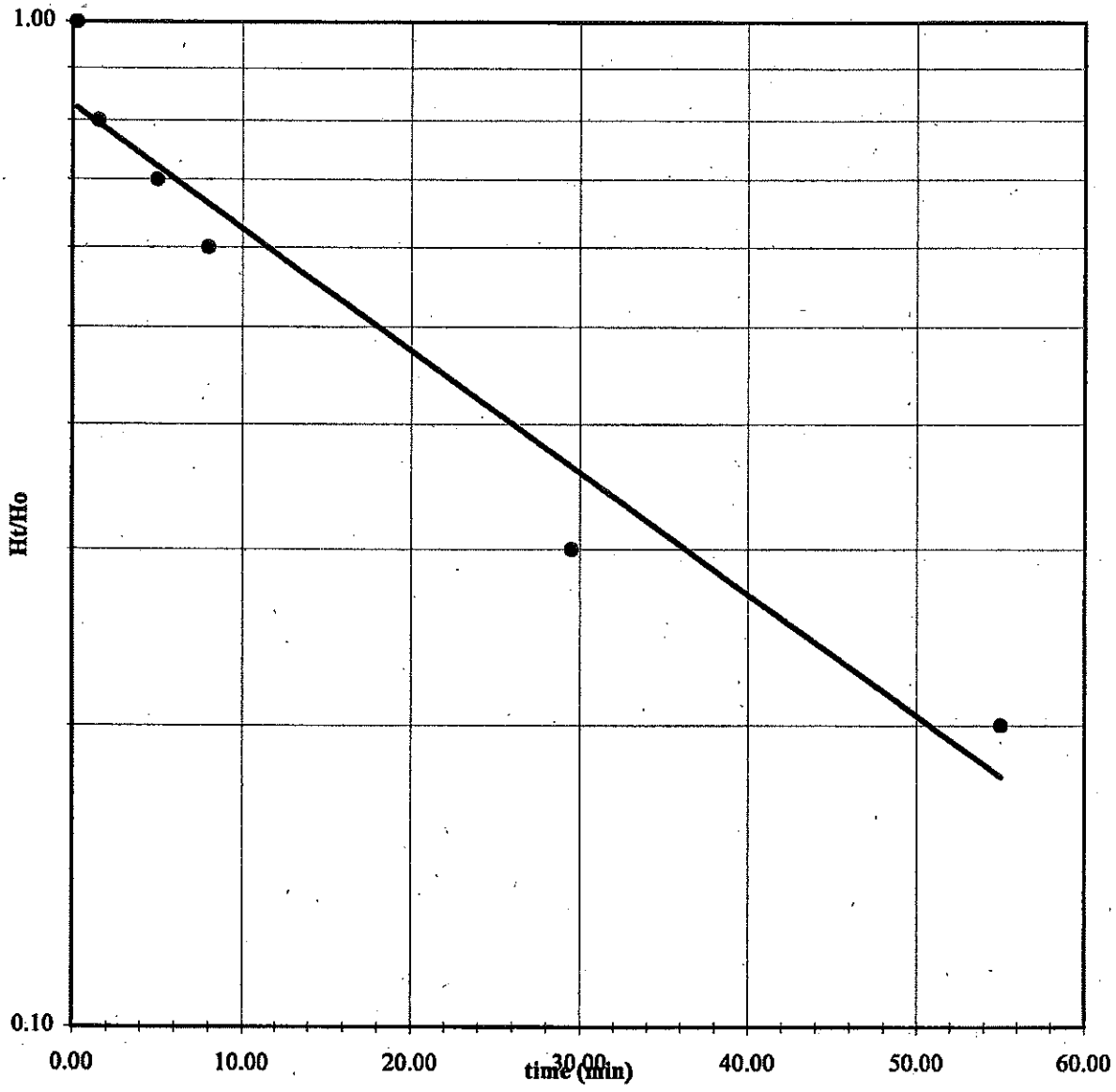
1.62E-05 ft/min

2.33E-02 ft/day

8.24E-06 cm/sec

Ref [1]: Naval Fac. Engr. Command, Design Manual 7.01, soil Mechanics

Inflow for Type II Well MW-14



Midlands Environmental Consultants, Inc.

Inflow for Type II Well MW-16

Inflow Permeability Calculation

Cloud's Chevron

Test Performed: 4/9/97

MW-16

Type II (Uncased Well)

Static: 18.17 ft

*Enter Values in Shaded Areas Only

Time (min)	Depth	delta H	Ht/Ho
0.50	20.26	2.09	1.00
1.00	20.22	2.05	0.98
3.00	20.18	2.01	0.96
22.00	20.09	1.92	0.92
77.00	19.82	1.65	0.79
116.00	19.53	1.36	0.65
940.00	18.63	0.46	0.22

Information from data and plot of Ht/H0 vs time

Bore Hole Diameter:	8	in
Total Depth of Well:	30	ft
Stand Pipe Area:	50.27	in^2
	0.35	ft^2

Coordinates from Graph for Slope Calc:

H1/Ho:	0.92	
t1:	22	min
H2/Ho:	0.22	
t2:	940	min

H1:	1.92	H2:	0.46
t1:	22.00	t2:	940.00
Radius	R:	4.00	in
Radius	R:	0.33	ft
Depth	D:	11.83	ft
	R/D:	0.028	
	D/R:	35.49	

Shape Factor Determination Value: 0.90 *

*This value is used in conjunction with Figure 13 of Reference [1] to obtain the shape factor.

Shape Factor S: 1.5

Coeff. of Permeability (K):

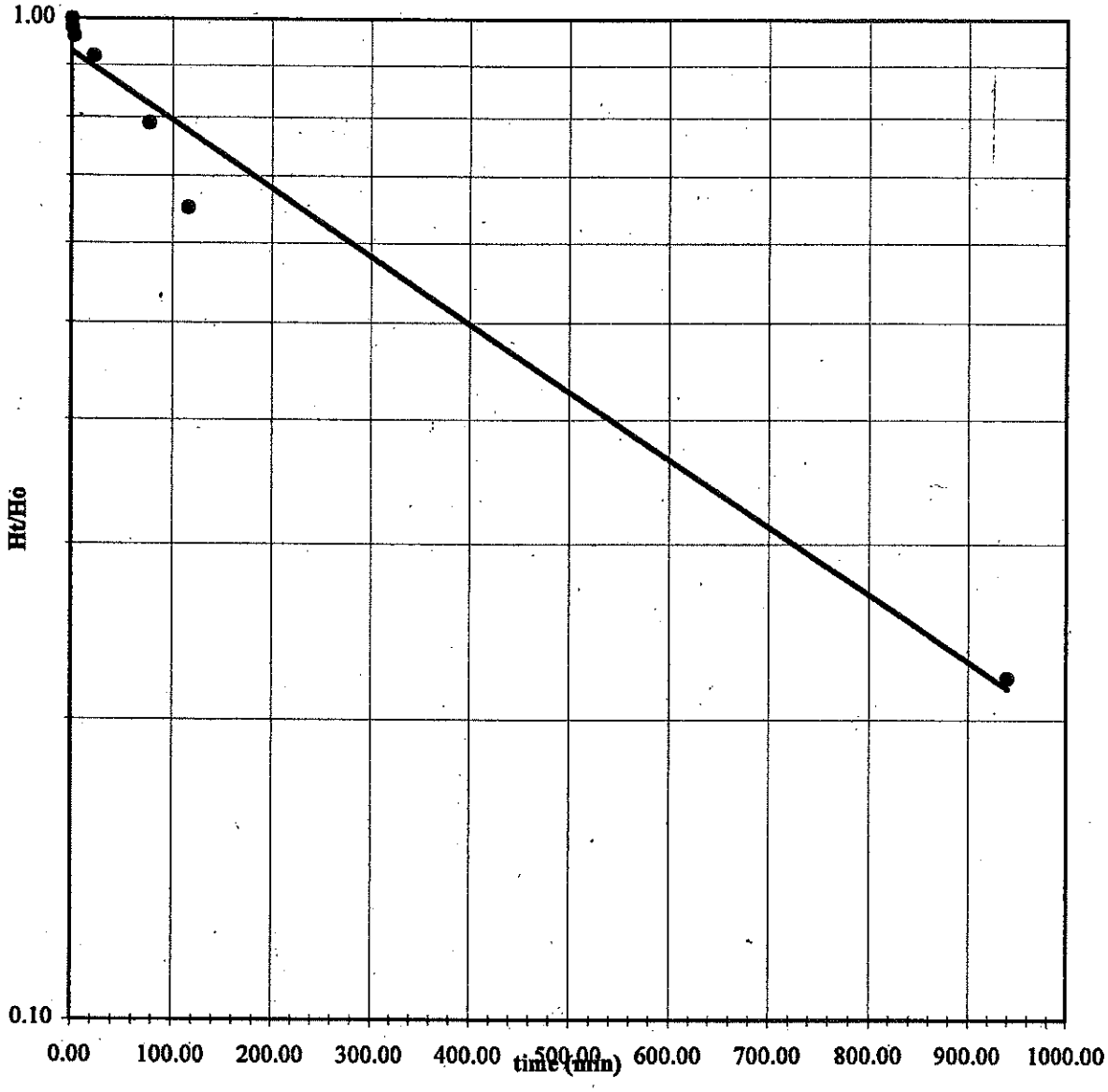
1.87E-06 ft/min

2.69E-03 ft/day

9.50E-07 cm/sec

Ref [1]: Naval Fac. Engr. Command, Design Manual 7.01, soil Mechanics

Inflow for Type II Well MW-16



Midlands Environmental Consultants, Inc.

Inflow for Type III Well MW-17D

Inflow Permeability Calculation

Cloud's Chevron

Test Performed: 4/16/97

MW-17D

Static: 44.64 ft

Time (min)	Depth	delta H	H_t/H_o
1.00	49.26	4.62	1.00
2.00	49.22	4.58	0.99
4.00	49.18	4.54	0.98
7.00	49.12	4.48	0.97
17.00	48.88	4.24	0.92
37.00	48.48	3.84	0.83
132.00	47.11	2.47	0.53

*Enter Values in Shaded Areas Only

Information from data and plot of Ht/H0 vs time

Diameter of Intake:	4	in
Length of Intake (L):	8	ft
Diameter of Standpipe:	2	in

Coordinates from Graph for Slope Calc:

H_1/H_o:	0.98	
t_1:	4	min
H_2/H_o:	0.53	
t_2:	132	min

H_1:	4.53	H_2:	2.45
t_1:	4.00	t_2:	132.00

Intake Radius:	2.00	in
Intake Radius (rint):	0.17	ft
Standpipe Radius:	1.00	in
Standpipe Radius (rsp):	0.083	ft

Calc1=	0.000434	$(rsp^2)/2L$
Calc2=	1.681241	ln(L/rint)
Calc3=	0.26695	$\ln(H_1/H_2)$
Calc4=	128	(t_2-t_1)

K=Calc1*Calc2*(Calc3/Calc4)

Coeff. of Permeability (K):

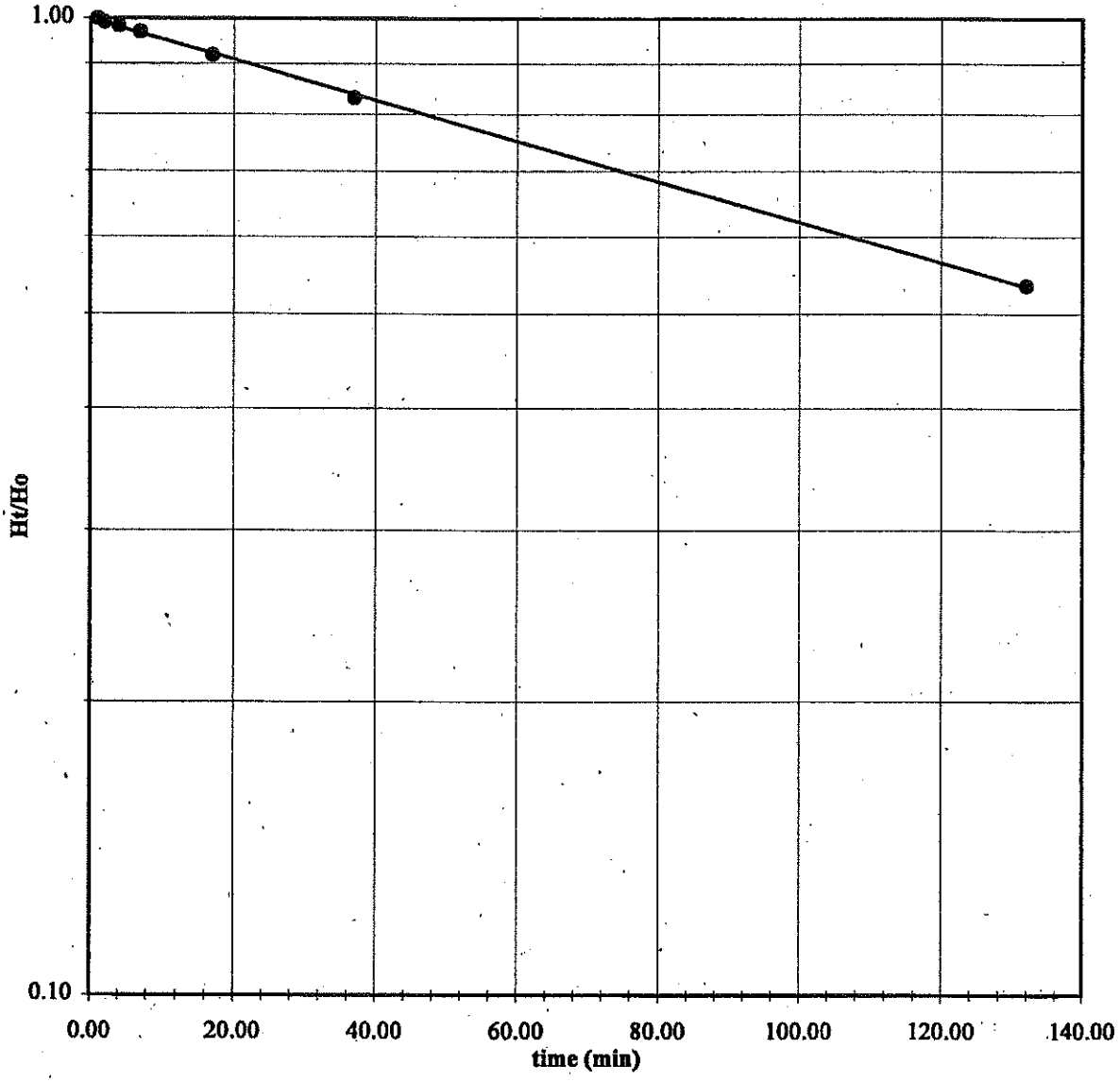
1.52E-06 ft/min

2.19E-03 ft/day

7.73E-07 cm/sec

Naval Fac. Engr. Command, Design Manuel 7.01, Soil Mechanics: Condition C

Inflow for Type III Well MW-17D



Midlands Environmental Consultants, Inc.

DHEC
PROMOTE PROTECT PROSPER

Summary of Slug Test
Division of Underground Storage Tank Management

Site Data

UST Permit #: 07584 + 07777 County: RICHLAND

Facility Name: _____

Slug Data

See Appendix 4 Table _____ Figure _____ for a list of all data measurements. [water level logs, etc. (complete as appropriate)].

Water Level Recovery Data was measured by _____
[Hermit Data Logger, Manually with Water Level Indicator, etc. (list method)].

Complete the following table for each well tested.

COMPLETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Slug Test Conducted in Well(s) Number	MW-12	MW-42	DW-6	DW-7
Initial Rise/Drawdown in Well (feet)	10.55	5.71	18.02	22.93
Radius of Well Casing (feet)	0.083	0.083	0.083	0.083
Effective Radius of Well (feet)	0.3	0.3	0.3	0.3
Static Saturated Aquifer Thickness (feet)	19.75	7.47	23.62	30.29
Length of Well Screen (feet)	20	15	5	5
Static Height of Water Column in Well (ft)	5.25	27.53	46.38	24.71

Calculations

See Appendix 4 Table _____ Figure _____ for calculations (complete as appropriate).

The method for aquifer calculations was BOUWER + RICE (i.e. Bouwer-Rice, Cooper, etc.).

Calculated values by well were as follows:

Slug Test Conducted in Well(s) Number	MW-12	MW-42	DW-6	DW-7
Hydraulic Conductivity FT/DAY	0.00431	0.0161	0.0000306	0.00258

Thickness of the aquifer used to calculate hydraulic conductivity was (13.61 SHALLOW) (26.96 DEEP) AVG feet.

The aquifer is _____ confined _____ semi-confined V water table (check as appropriate).

The estimated seepage velocity is AVG 0.0004 FT/DAY SHALLOW OR 0.145 FT/YR / DEEP 0.00009 FT/DAY OR 0.0135 FT/YR feet per year based on a hydraulic conductivity of AVG SHALLOW 0.0102 FT/DAY DEEP 0.0013 FT/DAY, a hydraulic gradient of AVG SHALLOW 0.007 FT/FT DEEP 0.0037 FT/FT, and porosity of SHALLOW 18% DEEP 13% percent for SHALLOW CLAYEY SAND DEEP SANDY CLAY soil (list type i.e., silty sand ,clay, etc).

SEE REPORT FOR INDIVIDUAL SEEPAGE VELOCITIES

Slug Test Analysis

Site Name:	Clouds Chevron
Location:	Columbia, SC
Test Date:	4/21/05
Client:	SCDHEC
Project Number:	C-04-12-009

Well Label:	DW-7
Aquifer Thickness:	30.29 feet
Screen Length:	5. feet
Casing Radius:	6.917e-003 feet
Effective Radius:	2.5e-002 feet
Static Water Level:	24.71 feet
Water Table to Screen Bottom:	30.29 feet
Anisotropy Ratio:	1.
Time Adjustment:	0. Seconds

Test starts with trial 0
There are 27 time and drawdown measurements
Maximum head is 22.93 feet
Minimum head is 0. feet

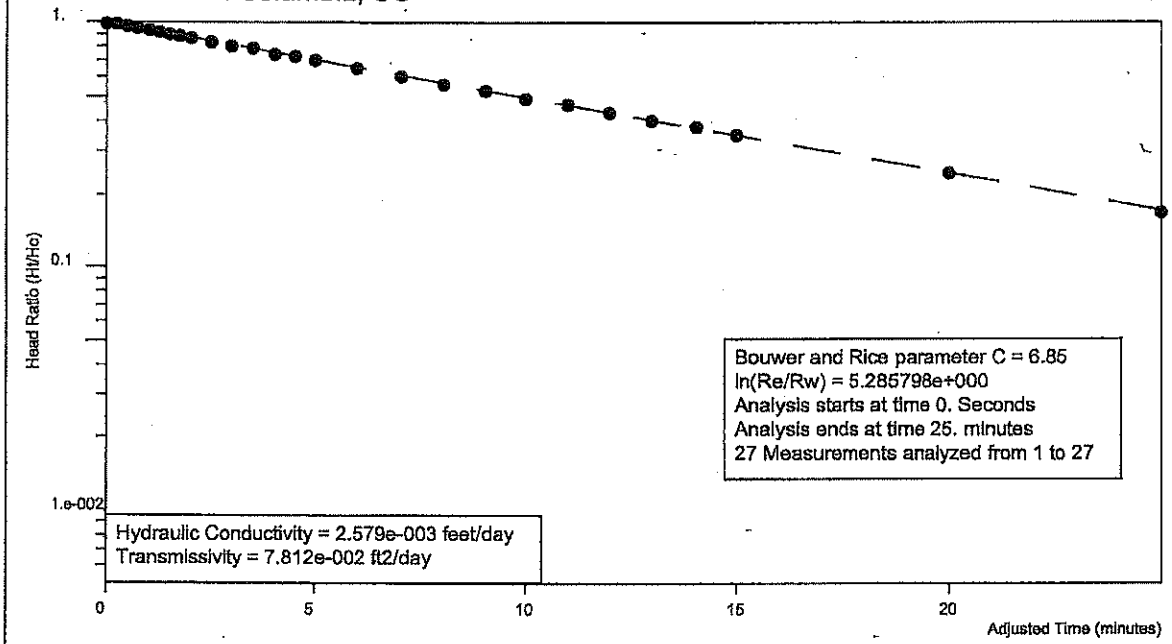
Trial	Time (minutes)	Adjusted Time (minutes)	Drawdown (feet)	Head (feet)	Head Ratio
1	0.	0.	47.64	22.93	1.
2	0.25	0.25	47.32	22.61	0.986
3	0.5	0.5	46.96	22.25	0.9703
4	0.75	0.75	46.65	21.94	0.9568
5	1.	1.	46.31	21.6	0.942
6	1.25	1.25	45.87	21.16	0.9228
7	1.5	1.5	45.44	20.73	0.9041
8	1.75	1.75	45.13	20.42	0.8905
9	2.	2.	44.74	20.03	0.8735
10	2.5	2.5	44.03	19.32	0.8426
11	3.	3.	43.27	18.56	0.8094
12	3.5	3.5	42.7	17.99	0.7846
13	4.	4.	41.89	17.18	0.7492
14	4.5	4.5	41.41	16.7	0.7283
15	5.	5.	40.82	16.11	0.7026
16	6.	6.	39.72	15.01	0.6546
17	7.	7.	38.64	13.93	0.6075
18	8.	8.	37.61	12.9	0.5626
19	9.	9.	36.85	12.14	0.5294
20	10.	10.	36.07	11.36	0.4954
21	11.	11.	35.3	10.59	0.4618
22	12.	12.	34.6	9.89	0.4313
23	13.	13.	33.9	9.19	0.4008
24	14.	14.	33.3	8.59	0.3746
25	15.	15.	32.71	8.	0.3489
26	20.	20.	30.36	5.65	0.2464
27	25.	25.	28.57	3.86	0.1683

Slug Test Analysis 4/21/05

Clouds Chevron Columbia, SC

Bouwer and Rice Graph

DW-7



Project Number: C-04-12-009 for SCDHEC

Analysis by Starpoint Software

Ho is 22.93 feet at 0. Seconds

Bouwer and Rice Automatic Parameter Estimation

Slug Test Analysis

Site Name:	Clouds Chevron
Location:	Columbia, SC
Test Date:	4/21/05
Client:	SCDHEC
Project Number:	C-04-12-009

Well Label:	DW-7
Aquifer Thickness:	30.29 feet
Screen Length:	5. feet
Casing Radius:	6.917e-003 feet
Effective Radius:	2.5e-002 feet
Bouwer and Rice Parameter C	6.85
Radius of Influence of Test	4.938 feet

Trial	Adjusted Time (minutes)	Head (feet)	Head Ratio	Hyd. Con. (feet/day)	Flow to Well (Gallons/Day)
1	0.	22.93	1.	–	
2	0.25	22.61	0.986	2.047e-003	2.058
3	0.5	22.25	0.9703	2.192e-003	2.169
4	0.75	21.94	0.9568	2.143e-003	2.09
5	1.	21.6	0.942	2.176e-003	2.09
6	1.25	21.16	0.9228	2.34e-003	2.202
7	1.5	20.73	0.9041	2.449e-003	2.257
8	1.75	20.42	0.8905	2.412e-003	2.19
9	2.	20.03	0.8735	2.462e-003	2.192
10	2.5	19.32	0.8426	2.495e-003	2.143
11	3.	18.56	0.8094	2.566e-003	2.118
12	3.5	17.99	0.7846	2.524e-003	2.019
13	4.	17.18	0.7492	2.628e-003	2.007
14	4.5	16.7	0.7283	2.565e-003	1.905
15	5.	16.11	0.7026	2.571e-003	1.841
16	6.	15.01	0.6546	2.572e-003	1.716
17	7.	13.93	0.6075	2.593e-003	1.606
18	8.	12.9	0.5626	2.618e-003	1.502
19	9.	12.14	0.5294	2.573e-003	1.389
20	10.	11.36	0.4954	2.558e-003	1.292
21	11.	10.59	0.4618	2.557e-003	1.204
22	12.	9.89	0.4313	2.552e-003	1.122
23	13.	9.19	0.4008	2.561e-003	1.046
24	14.	8.59	0.3746	2.554e-003	0.9753
25	15.	8.	0.3489	2.556e-003	0.9092
26	20.	5.65	0.2464	2.55e-003	0.6407
27	25.	3.86	0.1683	2.595e-003	0.4454

Arithmetic Means:

Hydraulic Conductivity	2.477e-003 feet/day
Transmissivity	7.504e-002 ft2/day

Geometric Means:

Hydraulic Conductivity	2.472e-003 feet/day
Transmissivity	7.487e-002 ft2/day

Sensitivity Analysis:

Hydraulic Conductivity	2.562e-003 feet/day

Transmissivity	7.759e-002 ft2/day

PUMP TEST FIELD DATA REPORT

PROJECT NO.: C-009		PUMP GPM:	
DATE: 4/21/05		PUMPING WELL Y N	#
TEST PERFORMED BY: RR		OBSERVATION WELL (3) N	# DW-7

TIME (MIN)	WATER LEVEL (FEET)
0	47.14
0.25	47.32
0.50	46.96
0.75	46.65
1.00	46.31
1.25	45.87
1.50	45.44
1.75	45.13
2.00	44.74
2.50	44.03
3.00	43.27
3.50	42.70
4.00	41.89
4.50	41.41
5.00	40.82
6.00	39.72
7.00	38.64
8.00	37.61
9.00	36.85
10.00	36.07
11.00	35.30
12.00	34.60
13.00	33.90
14.00	33.030
15.00	32.71
20.00	30.36
25.00	28.57
30.00	
35.00	
40.00	
45.00	
50.00	
55.00	
60.00	
75.00	
90.00	
105.00	
120.00	
150.00	
180.00	
210.00	
240.00	
270.00	
300.00	
330.00	
360.00	
390.00	
420.00	
450.00	
480.00	
510.00	
540.00	
570.00	
600.00	
630.00	
660.00	
690.00	
720.00	
750.00	
780.00	
840.00	
900.00	
960.00	
1020.00	
1080.00	
1140.00	
1200.00	
1260.00	
1320.00	
1380.00	
1440.00	

NOTES:

80% 29.91

Slug Test Analysis

Site Name:	Clouds Chevron
Location:	Columbia, SC
Test Date:	4/21/05
Client:	SCDHEC
Project Number:	C-04-12-009

Well Label:	MW-12
Aquifer Thickness:	19.75 feet
Screen Length:	20. feet
Casing Radius:	6.917e-003 feet
Effective Radius:	2.5e-002 feet
Static Water Level:	5.25 feet
Water Table to Screen Bottom:	19.75 feet
Anisotropy Ratio:	1.
Time Adjustment:	0. Seconds

Test starts with trial 0
There are 23 time and drawdown measurements
Maximum head is 10.55 feet
Minimum head is -5.25 feet

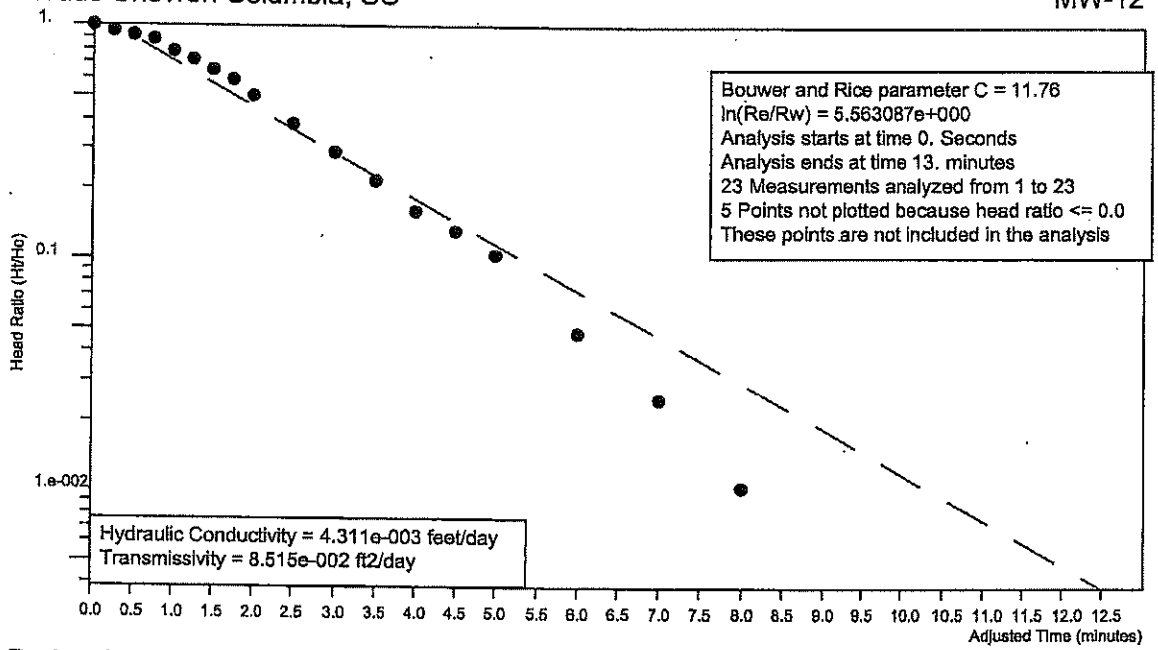
Trial	Time (minutes)	Adjusted Time (minutes)	Drawdown (feet)	Head (feet)	Head Ratio
1	0.	0.	15.8	10.55	1.
2	0.25	0.25	15.21	9.96	0.9441
3	0.5	0.5	14.83	9.58	0.9081
4	0.75	0.75	14.45	9.2	0.872
5	1.	1.	13.4	8.15	0.7725
6	1.25	1.25	12.85	7.6	0.7204
7	1.5	1.5	12.11	6.86	0.6502
8	1.75	1.75	11.44	6.19	0.5867
9	2.	2.	10.59	5.34	0.5062
10	2.5	2.5	9.24	3.99	0.3782
11	3.	3.	8.28	3.03	0.2872
12	3.5	3.5	7.56	2.31	0.219
13	4.	4.	6.97	1.72	0.163
14	4.5	4.5	6.66	1.41	0.1336
15	5.	5.	6.36	1.11	0.1052
16	6.	6.	5.76	0.51	4.834e-002
17	7.	7.	5.51	0.26	2.464e-002
18	8.	8.	5.36	0.11	1.043e-002
19	9.	9.	5.29	4.e-002	3.791e-003
20	10.	10.	5.24	-1.e-002	-9.479e-004
21	11.	11.	5.19	-6.e-002	-5.687e-003
22	12.	12.	5.17	-8.e-002	-7.583e-003
23	13.	13.	0.	-5.25	-0.4976

Slug Test Analysis 4/21/05

Clouds Chevron Columbia, SC

Bouwer and Rice Graph

MW-12



Project Number: C-04-12-009 for SCDHEC

Analysis by Starpoint Software

Ho is 10.55 feet at 0. Seconds

Bouwer and Rice Automatic Parameter Estimation

Slug Test Analysis

Site Name:	Clouds Chevron
Location:	Columbia, SC
Test Date:	4/21/05
Client:	SCDHEC
Project Number:	C-04-12-009

Well Label:	MW-12
Aquifer Thickness:	19.75 feet
Screen Length:	20. feet
Casing Radius:	6.917e-003 feet
Effective Radius:	2.5e-002 feet
Bouwer and Rice Parameter C	11.76
Radius of Influence of Test	6.516 feet

Trial	Adjusted Time (minutes)	Head (feet)	Head Ratio	Hyd. Con. (feet/day)	Flow to Well (Gallons/Day)
1	0.	10.55	1.	--	
2	0.25	9.96	0.9441	2.233e-003	3.759
3	0.5	9.58	0.9081	1.872e-003	3.03
4	0.75	9.2	0.872	1.771e-003	2.754
5	1.	8.15	0.7725	2.504e-003	3.449
6	1.25	7.6	0.7204	2.546e-003	3.269
7	1.5	6.86	0.6502	2.784e-003	3.227
8	1.75	6.19	0.5867	2.956e-003	3.092
9	2.	5.34	0.5062	3.303e-003	2.981
10	2.5	3.99	0.3782	3.774e-003	2.544
11	3.	3.03	0.2872	4.035e-003	2.066
12	3.5	2.31	0.219	4.21e-003	1.643
13	4.	1.72	0.163	4.4e-003	1.279
14	4.5	1.41	0.1336	4.339e-003	1.034
15	5.	1.11	0.1052	4.369e-003	0.8196
16	6.	0.51	4.834e-002	4.899e-003	0.4222
17	7.	0.26	2.464e-002	5.133e-003	0.2255
18	8.	0.11	1.043e-002	5.534e-003	0.1029
19	9.	4.e-002	3.791e-003	6.01e-003	4.062e-002
20	10.	-1.e-002	-9.479e-004	--	
21	11.	-6.e-002	-5.687e-003	--	
22	12.	-8.e-002	-7.583e-003	--	
23	13.	-5.25	-0.4976	--	

Arithmetic Means:

Hydraulic Conductivity	3.704e-003 feet/day
Transmissivity	7.315e-002 ft2/day

Geometric Means:

Hydraulic Conductivity	3.485e-003 feet/day
Transmissivity	6.882e-002 ft2/day

Sensitivity Analysis:

Hydraulic Conductivity	3.619e-003 feet/day
Transmissivity	7.147e-002 ft2/day

PUMP TEST FIELD DATA REPORT

PROJECT NO.: C-009		PUMP GPM:	
DATE: 4/21/05		PUMPING WELL Y N	#
TEST PERFORMED BY: RR		OBSERVATION WELL (Y) N	# MW-12

TIME (MIN)	WATER LEVEL (FEET)
0	15.90
0.25	15.21
0.50	14.83
0.75	14.45
1.00	13.40
1.25	12.85
1.50	12.11
1.75	11.44
2.00	10.59
2.50	9.27
3.00	8.28
3.50	7.56
4.00	6.97
4.50	6.66
5.00	6.36
6.00	5.76
7.00	5.51
8.00	5.36
9.00	5.29
10.00	5.24
11.00	5.19
12.00	5.17
13.00	5.16
14.00	
15.00	
20.00	
25.00	
30.00	
35.00	
40.00	
45.00	
50.00	
55.00	
60.00	
75.00	
90.00	
105.00	
120.00	
150.00	
180.00	
210.00	
240.00	
270.00	
300.00	
330.00	
360.00	
390.00	
420.00	
450.00	
480.00	
510.00	
540.00	
570.00	
600.00	
630.00	
660.00	
690.00	
720.00	
750.00	
780.00	
840.00	
900.00	
960.00	
1020.00	
1080.00	
1140.00	
1200.00	
1260.00	
1320.00	
1380.00	
1440.00	

NOTES:

Slug Test Analysis

Site Name:	Handy Pantry #65
Location:	Columbia, SC
Test Date:	4/20/05
Client:	SCDHEC
Project Number:	C-04-12-008

Well Label:	MW-42
Aquifer Thickness:	7.47 feet
Screen Length:	15. feet
Casing Radius:	6.917e-003 feet
Effective Radius:	2.5e-002 feet
Static Water Level:	27.53 feet
Water Table to Screen Bottom:	7.47 feet
Anisotropy Ratio:	1.
Time Adjustment:	0. Seconds

Test starts with trial 0
There are 25 time and drawdown measurements
Maximum head is 5.71 feet
Minimum head is -0.19 feet

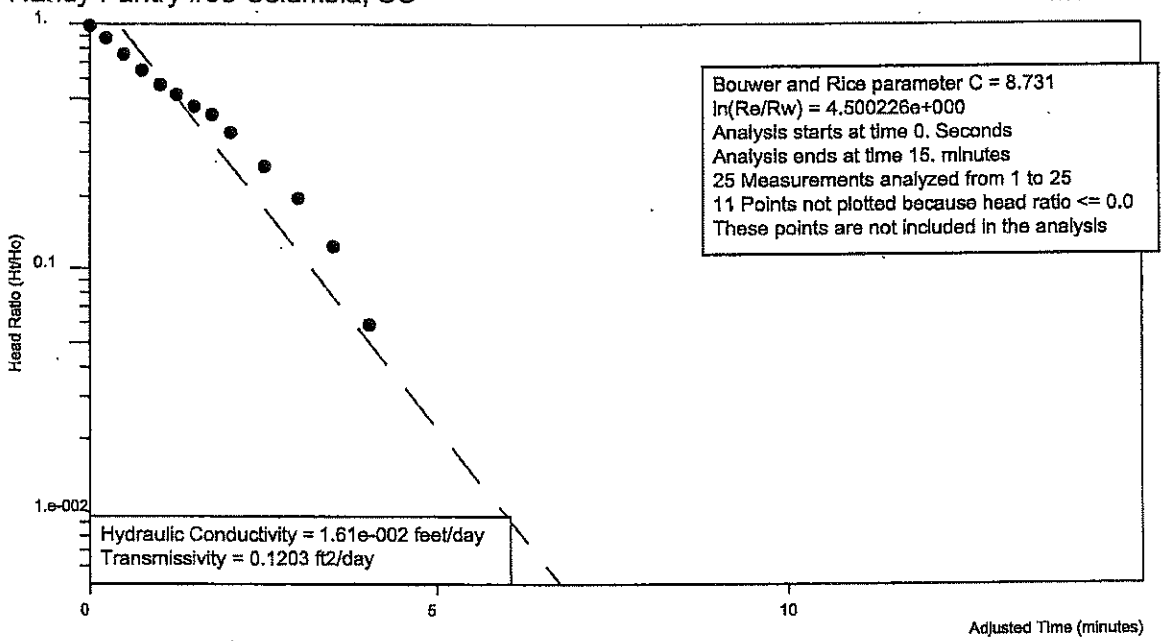
Trial	Time (minutes)	Adjusted Time (minutes)	Drawdown (feet)	Head (feet)	Head Ratio
1	0.	0.	33.24	5.71	1.
2	0.25	0.25	32.54	5.01	0.8774
3	0.5	0.5	31.89	4.36	0.7636
4	0.75	0.75	31.29	3.76	0.6585
5	1.	1.	30.79	3.26	0.5709
6	1.25	1.25	30.49	2.96	0.5184
7	1.5	1.5	30.19	2.66	0.4658
8	1.75	1.75	29.98	2.45	0.4291
9	2.	2.	29.61	2.08	0.3643
10	2.5	2.5	29.04	1.51	0.2644
11	3.	3.	28.64	1.11	0.1944
12	3.5	3.5	28.24	0.71	0.1243
13	4.	4.	27.87	0.34	5.954e-002
14	4.5	4.5	27.58	5.e-002	8.757e-003
15	5.	5.	27.41	-0.12	-2.102e-002
16	6.	6.	27.36	-0.17	-2.977e-002
17	7.	7.	27.34	-0.19	-3.327e-002
18	8.	8.	27.34	-0.19	-3.327e-002
19	9.	9.	27.34	-0.19	-3.327e-002
20	10.	10.	27.34	-0.19	-3.327e-002
21	11.	11.	27.34	-0.19	-3.327e-002
22	12.	12.	27.34	-0.19	-3.327e-002
23	13.	13.	27.34	-0.19	-3.327e-002
24	14.	14.	27.34	-0.19	-3.327e-002
25	15.	15.	27.34	-0.19	-3.327e-002

Slug Test Analysis 4/20/05

Handy Pantry #65 Columbia, SC

Bouwer and Rice Graph

MW-42



Project Number: C-04-12-008 for SCDHEC

Analysis by Starpoint Software

Ho is 5.71 feet at 0. Seconds

Bouwer and Rice Automatic Parameter Estimation

Slug Test Analysis

Site Name:	Handy Pantry #65
Location:	Columbia, SC
Test Date:	4/20/05
Client:	SCDHEC
Project Number:	C-04-12-008

Well Label:	MW-42
Aquifer Thickness:	7.47 feet
Screen Length:	15. feet
Casing Radius:	6.917e-003 feet
Effective Radius:	2.5e-002 feet
Bouwer and Rice Parameter C	8.731
Radius of Influence of Test	2.251 feet

Trial	Adjusted Time (minutes)	Head (feet)	Head Ratio	Hyd. Con. (feet/day)	Flow to Well (Gallons/Day)
1	0.	5.71	1.	–	
2	0.25	5.01	0.8774	1.086e-002	8.52
3	0.5	4.36	0.7636	1.12e-002	7.647
4	0.75	3.76	0.6585	1.156e-002	6.809
5	1.	3.26	0.5709	1.163e-002	5.94
6	1.25	2.96	0.5184	1.091e-002	5.058
7	1.5	2.66	0.4658	1.057e-002	4.404
8	1.75	2.45	0.4291	1.003e-002	3.851
9	2.	2.08	0.3643	1.048e-002	3.414
10	2.5	1.51	0.2644	1.104e-002	2.612
11	3.	1.11	0.1944	1.133e-002	1.97
12	3.5	0.71	0.1243	1.236e-002	1.375
13	4.	0.34	5.954e-002	1.463e-002	0.7795
14	4.5	5.e-002	8.757e-003	2.185e-002	0.1711
15	5.	-0.12	-2.102e-002	–	
16	6.	-0.17	-2.977e-002	–	
17	7.	-0.19	-3.327e-002	–	
18	8.	-0.19	-3.327e-002	–	
19	9.	-0.19	-3.327e-002	–	
20	10.	-0.19	-3.327e-002	–	
21	11.	-0.19	-3.327e-002	–	
22	12.	-0.19	-3.327e-002	–	
23	13.	-0.19	-3.327e-002	–	
24	14.	-0.19	-3.327e-002	–	
25	15.	-0.19	-3.327e-002	–	

Arithmetic Means:

Hydraulic Conductivity	1.219e-002 feet/day
Transmissivity	9.104e-002 ft2/day

Geometric Means:

Hydraulic Conductivity	1.192e-002 feet/day
Transmissivity	8.903e-002 ft2/day

Sensitivity Analysis:

Hydraulic Conductivity	1.159e-002 feet/day
Transmissivity	8.655e-002 ft2/day

PUMP TEST FIELD DATA REPORT

PROJECT NO.: C-009	PUMP GPM:	
DATE: 4/20/05	PUMPING WELL Y N	#
TEST PERFORMED BY: RR/DM	OBSERVATION WELL (Y) N	# MW-42

TIME (MIN)	WATER LEVEL (FEET)
0	~~33.74~~
0.25	32.54
0.50	31.89
0.75	31.29
1.00	30.79
1.25	30.49
1.50	30.19
1.75	29.98
2.00	29.61
2.50	~~29.30~~ 29.04
3.00	28.64
3.50	28.24
4.00	27.87
4.50	27.58
5.00	27.41
6.00	27.36
7.00	27.34
8.00	27.34
9.00	27.34
10.00	27.34
11.00	27.34
12.00	27.34
13.00	27.34
14.00	27.34
15.00	27.34
20.00	
25.00	
30.00	
35.00	
40.00	
45.00	
50.00	
55.00	
60.00	
75.00	
90.00	
105.00	
120.00	
150.00	
180.00	
210.00	
240.00	
270.00	
300.00	
330.00	
360.00	
390.00	
420.00	
450.00	
480.00	
510.00	
540.00	
570.00	
600.00	
630.00	
660.00	
690.00	
720.00	
750.00	
780.00	
840.00	
900.00	
960.00	
1020.00	
1080.00	
1140.00	
1200.00	
1260.00	
1320.00	
1380.00	
1440.00	

NOTES:

Slug Test Analysis

Site Name:	Handy Pantry #65
Location:	Columbia, SC
Test Date:	4/20/05
Client:	SCDHEC
Project Number:	C-04-12-008

Well Label:	DW-6
Aquifer Thickness:	23.62 feet
Screen Length:	5. feet
Casing Radius:	6.917e-003 feet
Effective Radius:	2.5e-002 feet
Static Water Level:	46.38 feet
Water Table to Screen Bottom:	23.62 feet
Anisotropy Ratio:	1.
Time Adjustment:	0. Seconds

Test starts with trial 0
There are 40 time and drawdown measurements
Maximum head is 18.02 feet
Minimum head is 0. feet

Trial	Time (minutes)	Adjusted Time (minutes)	Drawdown (feet)	Head (feet)	Head Ratio
1	0.	0.	64.4	18.02	1.
2	0.25	0.25	64.35	17.97	0.9972
3	0.5	0.5	64.33	17.95	0.9961
4	0.75	0.75	64.32	17.94	0.9956
5	1.	1.	64.32	17.94	0.9956
6	1.25	1.25	64.31	17.93	0.995
7	1.5	1.5	64.3	17.92	0.9945
8	1.75	1.75	64.3	17.92	0.9945
9	2.	2.	64.29	17.91	0.9939
10	2.5	2.5	64.28	17.9	0.9933
11	3.	3.	64.27	17.89	0.9928
12	3.5	3.5	64.26	17.88	0.9922
13	4.	4.	64.26	17.88	0.9922
14	4.5	4.5	64.25	17.87	0.9917
15	5.	5.	64.25	17.87	0.9917
16	6.	6.	64.23	17.85	0.9906
17	7.	7.	64.21	17.83	0.9895
18	8.	8.	64.21	17.83	0.9895
19	9.	9.	64.19	17.81	0.9883
20	10.	10.	64.18	17.8	0.9878
21	11.	11.	64.17	17.79	0.9872
22	12.	12.	64.17	17.79	0.9872
23	13.	13.	64.16	17.78	0.9867
24	14.	14.	64.15	17.77	0.9861
25	15.	15.	64.14	17.76	0.9856
26	20.	20.	64.06	17.68	0.9811
27	25.	25.	63.99	17.61	0.9772
28	30.	30.	63.92	17.54	0.9734
29	35.	35.	63.85	17.47	0.9695
30	40.	40.	63.79	17.41	0.9661
31	45.	45.	63.74	17.36	0.9634
32	50.	50.	63.69	17.31	0.9606
33	55.	55.	63.62	17.24	0.9567
34	60.	60.	63.55	17.17	0.9528

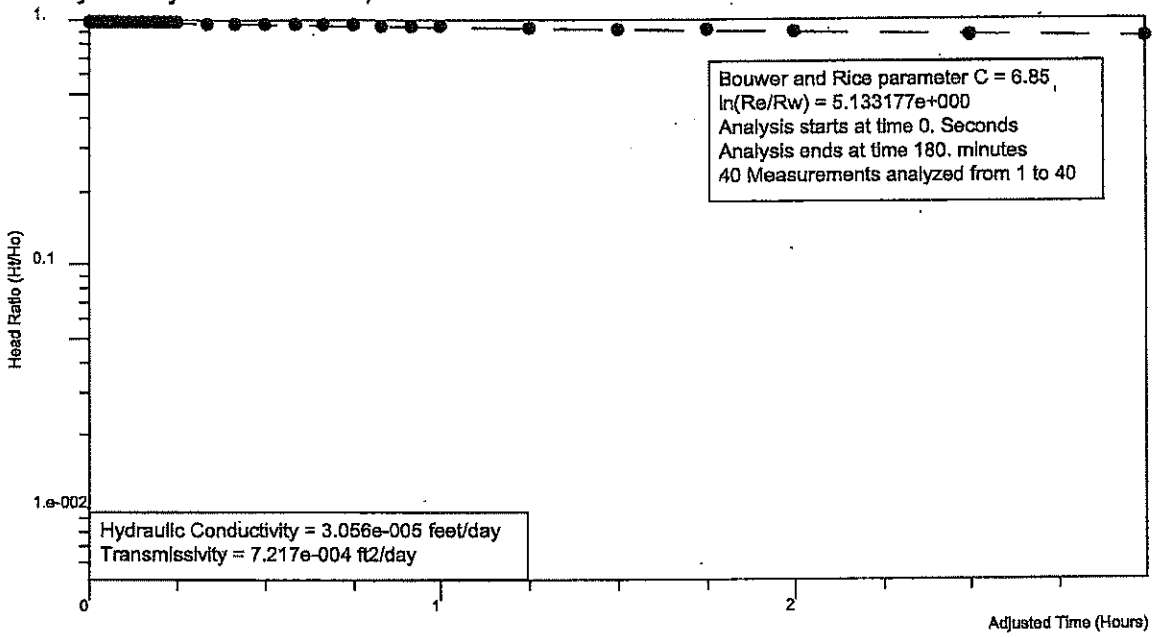
35	75.	75.	63.31	16.93	0.9395
36	90.	90.	63.07	16.69	0.9262
37	105.	105.	62.83	16.45	0.9129
38	120.	120.	62.59	16.21	0.8996
39	150.	150.	62.11	15.73	0.8729
40	180.	180.	61.63	15.25	0.8463

Slug Test Analysis 4/20/05

Handy Pantry #65 Columbia, SC

Bouwer and Rice Graph

DW-6



Project Number: C-04-12-008 for SCDHEC

Analysis by Starpoint Software

Ho is 18.02 feet at 0. Seconds

Bouwer and Rice Automatic Parameter Estimation

Slug Test Analysis

Site Name:	Handy Pantry #65
Location:	Columbia, SC
Test Date:	4/20/05
Client:	SCDHEC
Project Number:	C-04-12-008

Well Label:	DW-6
Aquifer Thickness:	23.62 feet
Screen Length:	5. feet
Casing Radius:	6.917e-003 feet
Effective Radius:	2.5e-002 feet
Bouwer and Rice Parameter C	6.85
Radius of Influence of Test	4.239 feet

Trial	Adjusted Time (minutes)	Head (feet)	Head Ratio	Hyd. Con. (feet/day)	Flow to Well (Gallons/Day)
1	0.	18.02	1.	–	
2	0.25	17.97	0.9972	3.93e-004	0.3233
3	0.5	17.95	0.9961	2.753e-004	0.2262
4	0.75	17.94	0.9956	2.098e-004	0.1723
5	1.	17.94	0.9956	1.573e-004	0.1292
6	1.25	17.93	0.995	1.416e-004	0.1163
7	1.5	17.92	0.9945	1.312e-004	0.1076
8	1.75	17.92	0.9945	1.124e-004	9.225e-002
9	2.	17.91	0.9939	1.083e-004	8.877e-002
10	2.5	17.9	0.9933	9.451e-005	7.745e-002
11	3.	17.89	0.9928	8.535e-005	6.99e-002
12	3.5	17.88	0.9922	7.88e-005	6.451e-002
13	4.	17.88	0.9922	6.895e-005	5.644e-002
14	4.5	17.87	0.9917	6.569e-005	5.374e-002
15	5.	17.87	0.9917	5.912e-005	4.837e-002
16	6.	17.85	0.9906	5.587e-005	4.565e-002
17	7.	17.83	0.9895	5.355e-005	4.371e-002
18	8.	17.83	0.9895	4.685e-005	3.825e-002
19	9.	17.81	0.9883	4.606e-005	3.755e-002
20	10.	17.8	0.9878	4.344e-005	3.54e-002
21	11.	17.79	0.9872	4.13e-005	3.363e-002
22	12.	17.79	0.9872	3.785e-005	3.083e-002
23	13.	17.78	0.9867	3.647e-005	2.969e-002
24	14.	17.77	0.9861	3.529e-005	2.871e-002
25	15.	17.76	0.9856	3.426e-005	2.786e-002
26	20.	17.68	0.9811	3.368e-005	2.726e-002
27	25.	17.61	0.9772	3.256e-005	2.625e-002
28	30.	17.54	0.9734	3.182e-005	2.556e-002
29	35.	17.47	0.9695	3.132e-005	2.505e-002
30	40.	17.41	0.9661	3.044e-005	2.427e-002
31	45.	17.36	0.9634	2.932e-005	2.33e-002
32	50.	17.31	0.9606	2.843e-005	2.253e-002
33	55.	17.24	0.9567	2.845e-005	2.246e-002
34	60.	17.17	0.9528	2.848e-005	2.239e-002
35	75.	16.93	0.9395	2.942e-005	2.28e-002
36	90.	16.69	0.9262	3.013e-005	2.302e-002
37	105.	16.45	0.9129	3.07e-005	2.312e-002
38	120.	16.21	0.8996	3.119e-005	2.315e-002

39	150.	15.73	0.8729	3.204e-005	2.307e-002
40	180.	15.25	0.8463	3.279e-005	2.289e-002

Arithmetic Means:

Hydraulic Conductivity	7.367e-005 feet/day
Transmissivity	1.74e-003 ft2/day

Geometric Means:

Hydraulic Conductivity	5.452e-005 feet/day
Transmissivity	1.288e-003 ft2/day

Sensitivity Analysis:

Hydraulic Conductivity	3.143e-005 feet/day
Transmissivity	7.423e-004 ft2/day

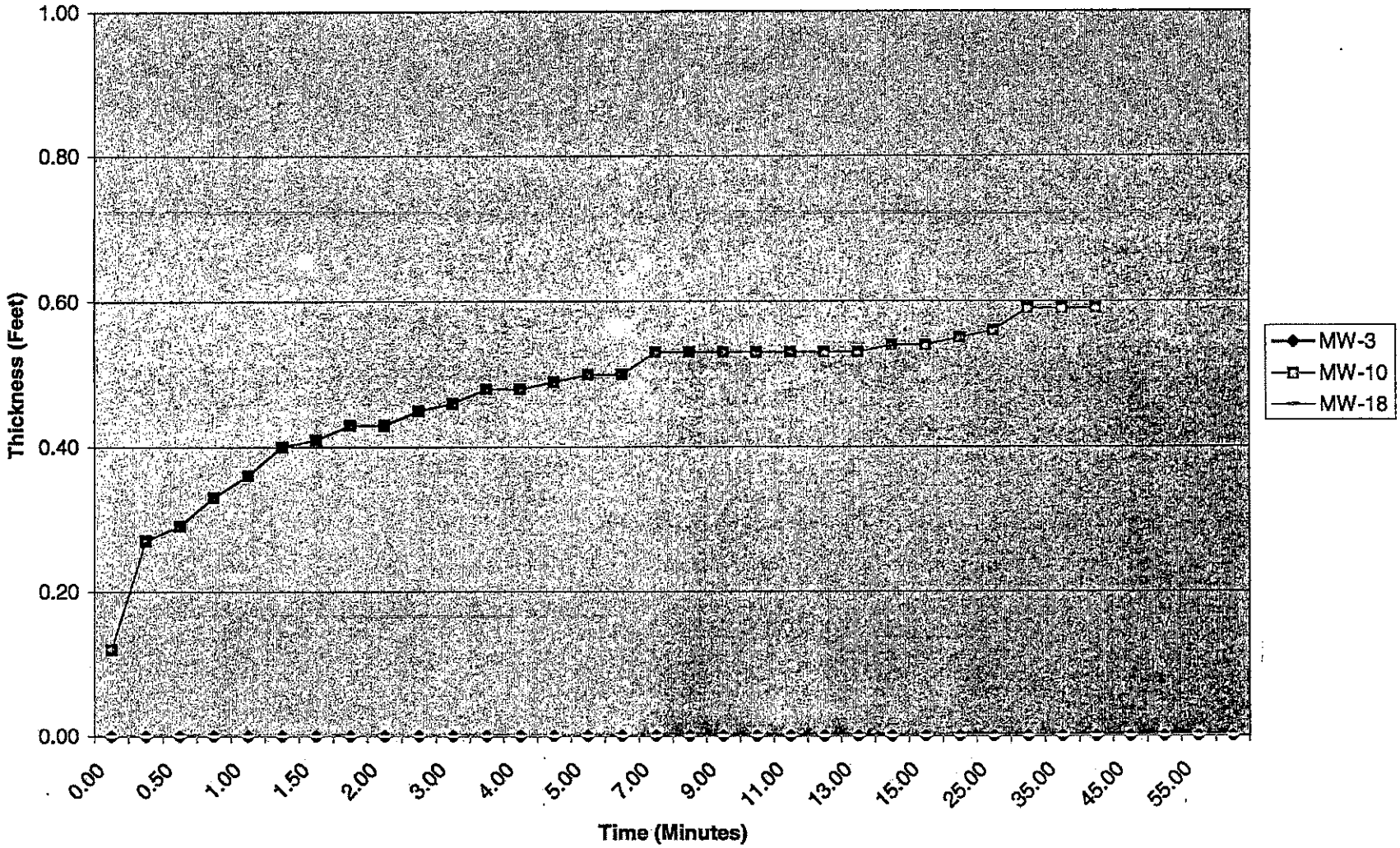
PUMP TEST FIELD DATA REPORT

PROJECT NO. C-009	PUMP GPM:	
DATE: 4/20/05	PUMPING WELL Y N	#
TEST PERFORMED BY: RR	OBSERVATION WELL (Y) N	~~#~~ DW-6

TIME (MIN)	WATER LEVEL (FEET)
0	64.40
0.25	64.35
0.50	64.33
0.75	64.32
1.00	64.32
1.25	64.31
1.50	64.30
1.75	64.30
2.00	64.29
2.50	64.28
3.00	64.27
3.50	64.26
4.00	64.26
4.50	64.25
5.00	64.25
6.00	64.23
7.00	64.21
8.00	64.21
9.00	64.19
10.00	64.18
11.00	64.17
12.00	64.17
13.00	64.16
14.00	64.15
15.00	64.14
20.00	64.06
25.00	63.99
30.00	63.92
35.00	63.85
40.00	63.79
45.00	63.74
50.00	63.69
55.00	63.62
60.00	63.55
75.00	63.31
90.00	63.07
105.00	62.83
120.00	62.59
150.00	62.11
180.00	61.63
210.00	
240.00	
270.00	
300.00	
330.00	
360.00	
390.00	
420.00	
450.00	
480.00	
510.00	
540.00	
570.00	
600.00	
630.00	
660.00	
690.00	
720.00	
750.00	
780.00	
840.00	
900.00	
960.00	
1020.00	
1080.00	
1140.00	
1200.00	
1260.00	
1320.00	
1380.00	
1440.00	

NOTES:

Product Recovery Test C-04-12-009



Product Recovery Test MW-3

Time	Water level	Product Level	Product Thickness
0.00	25.50	0.00	25.50
0.25	25.38	0.00	25.38
0.50	25.29	0.00	25.29
0.75	25.21	0.00	25.21
1.00	25.10	0.00	25.10
1.25	25.02	0.00	25.02
1.50	24.94	0.00	24.94
1.75	24.85	0.00	24.85
2.00	24.78	0.00	24.78
2.50	24.66	0.00	24.66
3.00	24.54	0.00	24.54
3.50	24.42	0.00	24.42
4.00	24.31	0.00	24.31
4.50	24.23	0.00	24.23
5.00	24.15	0.00	24.15
6.00	24.00	0.00	24.00
7.00	23.89	0.00	23.89
8.00	23.83	0.00	23.83
9.00	23.77	0.00	23.77
10.00	23.71	0.00	23.71
11.00	23.67	0.00	23.67
12.00	23.62	0.00	23.62
13.00	23.58	0.00	23.58
14.00	23.54	0.00	23.54
15.00	23.52	0.00	23.52
20.00	23.46	0.00	23.46
25.00	23.44	0.00	23.44
30.00	23.42	0.00	23.42
35.00	23.41	0.00	23.41
40.00	23.41	0.00	23.41
45.00	23.40	0.00	23.40
50.00	23.40	0.00	23.40
55.00	23.40	0.00	23.40
60.00	23.40	0.00	23.40

Product Recovery Test MW-10

Time	Water level	Product Level	Product Thickness
0.00	18.03	17.91	0.12
0.25	18.13	17.86	0.27
0.50	18.15	17.86	0.29
0.75	18.18	17.85	0.33
1.00	18.20	17.84	0.36
1.25	18.23	17.83	0.40
1.50	18.24	17.83	0.41
1.75	18.26	17.83	0.43
2.00	18.26	17.83	0.43
2.50	18.27	17.82	0.45
3.00	18.29	17.83	0.46
3.50	18.30	17.82	0.48
4.00	18.30	17.82	0.48
4.50	18.31	17.82	0.49
5.00	18.32	17.82	0.50
6.00	18.32	17.82	0.50
7.00	18.34	17.81	0.53
8.00	18.34	17.81	0.53
9.00	18.34	17.81	0.53
10.00	18.34	17.81	0.53
11.00	18.34	17.81	0.53
12.00	18.34	17.81	0.53
13.00	18.34	17.81	0.53
14.00	18.35	17.81	0.54
15.00	18.35	17.81	0.54
20.00	18.35	17.80	0.55
25.00	18.35	17.79	0.56
30.00	18.37	17.78	0.59
35.00	18.37	17.78	0.59
40.00	18.38	17.79	0.59

Product Recovery Test MW-18

Time	Water level	Product Level	Product Thickness
0.00	26.36	0.00	26.36
0.25	26.36	0.00	26.36
0.50	26.36	0.00	26.36
0.75	26.35	0.00	26.35
1.00	26.35	0.00	26.35
1.25	26.35	0.00	26.35
1.50	26.35	0.00	26.35
1.75	26.35	0.00	26.35
2.00	26.35	0.00	26.35
2.50	26.34	0.00	26.34
3.00	26.34	0.00	26.34
3.50	26.34	0.00	26.34
4.00	26.34	0.00	26.34
4.50	26.34	0.00	26.34
5.00	26.34	0.00	26.34
6.00	26.34	0.00	26.34
7.00	26.34	0.00	26.34
8.00	26.34	0.00	26.34
9.00	26.34	0.00	26.34
10.00	26.34	0.00	26.34
11.00	26.34	0.00	26.34
12.00	26.34	0.00	26.34
13.00	26.34	0.00	26.34
14.00	26.34	0.00	26.34
15.00	26.33	0.00	26.33
20.00	26.33	0.00	26.33
25.00	26.33	0.00	26.33
30.00	26.32	0.00	26.32
35.00	26.32	0.00	26.32
40.00	26.32	0.00	26.32
45.00	26.31	0.00	26.31
50.00	26.31	0.00	26.31
55.00	26.31	0.00	26.31
60.00	26.30	0.00	26.30

PUMP TEST FIELD DATA REPORT

PROJECT NO.: C-009		PUMP GPM:	
DATE: 4/19/05		PUMPING WELL Y N	#
TEST PERFORMED BY: RR		OBSERVATION WELL (Y) N	# MW-3

TIME (MIN)	WATER LEVEL (FEET) Product
0	25.50
0.25	25.38
0.50	25.29
0.75	25.21
1.00	25.10
1.25	25.02
1.50	24.94
1.75	24.85
2.00	24.76
2.50	24.66
3.00	24.54
3.50	24.42
4.00	24.31
4.50	24.23
5.00	24.15
6.00	24.06
7.00	23.89
8.00	23.93
9.00	~~23.71~~ 23.77
10.00	23.71
11.00	23.67
12.00	23.62
13.00	23.58
14.00	23.54
15.00	23.52
20.00	23.46
25.00	23.44
30.00	23.42
35.00	23.41
40.00	23.41
45.00	23.40
50.00	~~23.40~~ 23.40
55.00	23.40
60.00	23.40
75.00	
90.00	
105.00	
120.00	
150.00	
180.00	
210.00	
240.00	
270.00	
300.00	
330.00	
360.00	
390.00	
420.00	
450.00	
480.00	
510.00	
540.00	
570.00	
600.00	
630.00	
660.00	
690.00	
720.00	
750.00	
780.00	
840.00	
900.00	
960.00	
1020.00	
1080.00	
1140.00	
1200.00	
1260.00	
1320.00	
1380.00	
1440.00	

H_2O / Product

NOTES:

LPH 23.70 WTR 24.13

PUMP TEST FIELD DATA REPORT

PROJECT NO.: C-009		PUMP GPM:	
DATE: 4/19/05		PUMPING WELL Y N	#
TEST PERFORMED BY: RR		OBSERVATION WELL Y N	#MW-10

TIME (MIN)	WATER LEVEL (FEET)						
0	18.03/17.91	8.00	18.34/17.81	90.00		600.00	
0.25	18.13/17.86	9.00	18.34/17.81	105.00		630.00	
0.50	18.15/17.86	10.00	18.34/17.81	120.00		660.00	
0.75	18.18/17.85	11.00	18.34/17.81	150.00		690.00	
1.00	18.20/17.84	12.00	18.34/17.81	180.00		720.00	
1.25	18.23/17.83	13.00	18.34/17.81	210.00		750.00	
1.50	18.24/17.83	14.00	18.35/17.81	240.00		780.00	
1.75	18.26/17.83	15.00	18.35/17.81	270.00		840.00	
2.00	18.26/17.83	20.00	18.35/17.80	300.00		900.00	
2.50	18.27/17.82	25.00	18.35/17.79	330.00		960.00	
3.00	18.29/17.83	30.00	18.37/17.78	360.00		1020.00	
3.50	18.30/17.82	35.00	18.37/17.78	390.00		1080.00	
4.00	18.30/17.82	40.00	18.38/17.79	420.00		1140.00	
4.50	18.32/17.82	45.00		450.00		1200.00	
5.00	18.32/17.82	50.00		480.00		1260.00	
6.00	18.32/17.82	55.00		510.00		1320.00	
7.00	18.34/17.81	60.00		540.00		1380.00	
		75.00		570.00		1440.00	

NOTES:

LPH 17.73 Hvo 18.52

PUMP TEST FIELD DATA REPORT

PROJECT NO.: C-008		PUMP GPM:	
DATE: 4/19/05		PUMPING WELL Y N	#
TEST PERFORMED BY: RR		OBSERVATION WELL Y N	# MW-18

TIME (MIN)	WATER LEVEL (FEET)
0	26.36
0.25	26.36
0.50	26.36
0.75	26.35
1.00	26.35
1.25	26.35
1.50	26.35
1.75	26.35
2.00	26.35
2.50	26.34
3.00	26.34
3.50	
4.00	
4.50	
5.00	
6.00	
7.00	

Product

8.00	26.34
9.00	
10.00	
11.00	
12.00	
13.00	
14.00	
15.00	26.33
20.00	26.33
25.00	26.33
30.00	26.32
35.00	26.32
40.00	26.32
45.00	26.31
50.00	26.31
55.00	26.31
60.00	26.30
75.00	

90.00	
105.00	
120.00	
150.00	
180.00	
210.00	
240.00	
270.00	
300.00	
330.00	
360.00	
390.00	
420.00	
450.00	
480.00	
510.00	
540.00	
570.00	

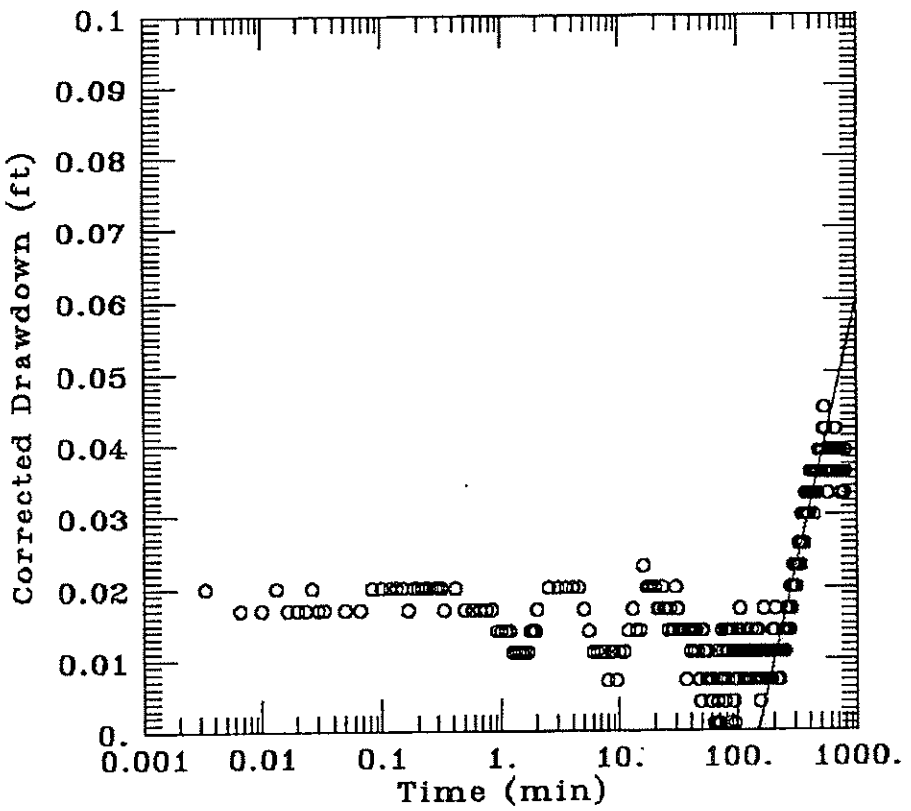
600.00	
630.00	
660.00	
690.00	
720.00	
750.00	
780.00	
840.00	
900.00	
960.00	
1020.00	
1080.00	
1140.00	
1200.00	
1260.00	
1320.00	
1380.00	
1440.00	

NOTES:

GW 26.26 H2O 26.28

SPATCO Environmental	Client: Handy Pantry
Project No.: 9-2798	Location: Taylor St, Columbia S.C.

Handy Pantry, Pumping Test Data, MW-2



DATA SET:
hptntmw2.dat
11/11/93

AQUIFER TYPE:
Unconfined
SOLUTION METHOD:
Cooper-Jacob
TEST DATE:
8/26/93

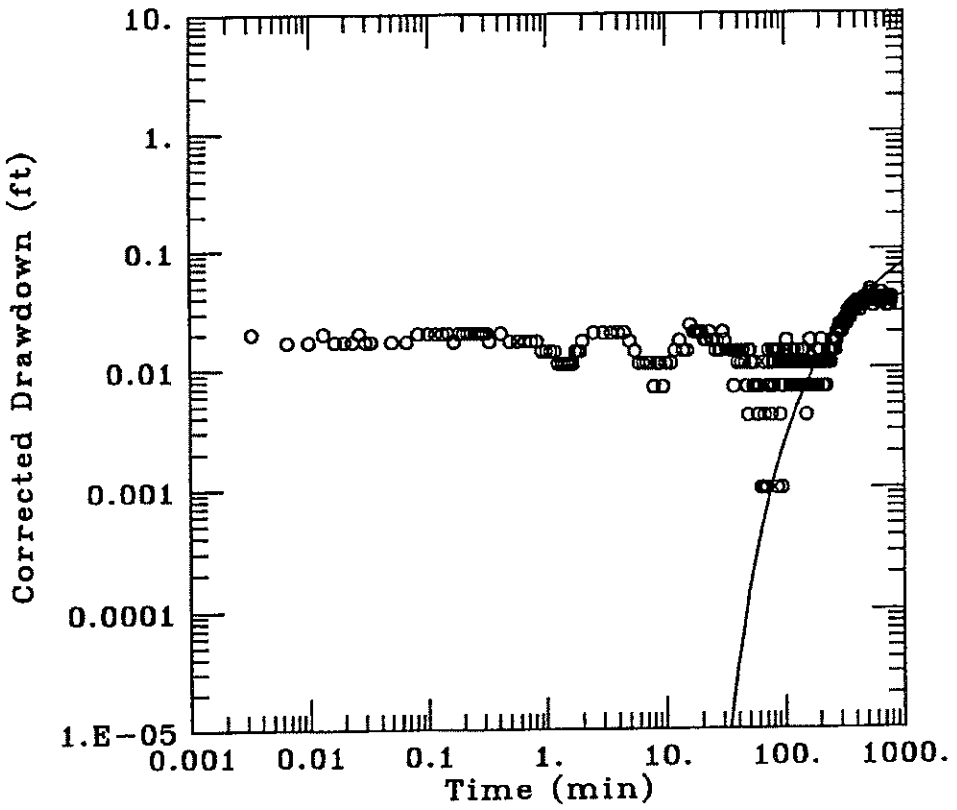
ESTIMATED PARAMETERS:
T = 0.1707 ft^2/min
S = 0.01789

TEST DATA:
Q = 0.06684 ft^3/min
r = 56. ft
b = 17.38 ft

<<

SPATCO Environmental	Client: Handy Pantry
Project No.: 9-2798	Location: Taylor St, Columbia S.C.

Handy Pantry, Pumping Test Data, MW-2



DATA SET:
hptntmw2.dat
10/25/93

AQUIFER TYPE:
Unconfined
SOLUTION METHOD:
Theis
TEST DATE:
8/26/93

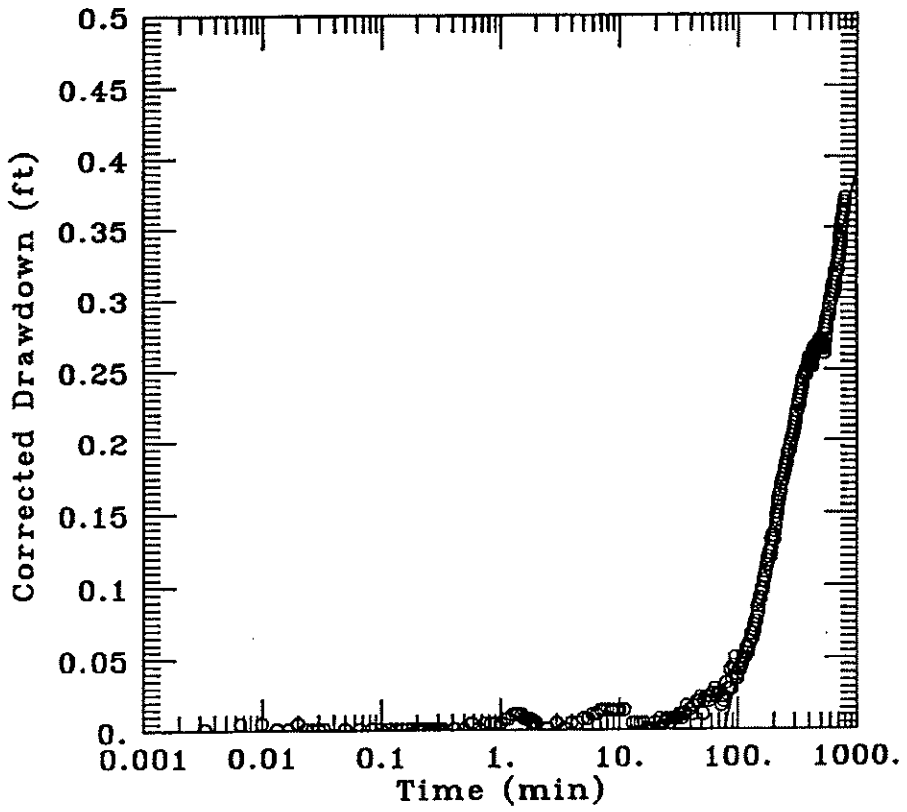
ESTIMATED PARAMETERS:
T = 0.08345 ft^2/min
S = 0.0201

TEST DATA:
Q = 0.06684 ft^3/min
r = 56. ft
b = 17.38 ft

<<

SPATCO Environmental	Client: Handy Pantry
Project No.: 9-2798	Location: Taylor St, Columbia S.C.

Handy Pantry, Pumping Test Data, MW-3



DATA SET:
hptntmw3.dat
10/08/93

AQUIFER TYPE:
Unconfined
SOLUTION METHOD:
Cooper-Jacob
TEST DATE:
8/26/93

ESTIMATED PARAMETERS:
T = 0.0349 ft^2/min
S = 0.01048

TEST DATA:
Q = 0.06684 ft^3/min
r = 24. ft
b = 17.38 ft

<<

<<

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health
and Environmental Control

September 15, 1999
Revised March 16, 2010

SC Department of Health and Environmental Control (SC DHEC)

ENVIRONMENTAL REMEDIATION PROCUREMENT PROCEDURES

Environmental Remediation Projects

Definitions

Definitions of Terms used in these procedures:

1. **Assessment** means the process of collecting environmental data for the purpose of determining the extent, severity and potential for migration of chemicals of concern, and may include the interpretation of data and/or the determination and evaluation of potential risks posed by said chemicals of concern to human health and/or the environment.

2. **Corrective Action** means those activities conducted to reduce or eliminate concentrations of chemicals of concern. These activities may include, but are not limited to removal of free product or contaminated soil; vapor extraction; in-situ and ex-situ ground-water treatment; installation of caps, slurry walls or liners; bioremediation; and intrinsic processes.

3. **Defined Scope of Work** means any assessment or corrective actions where the requirements and specifications are outlined.

4. **Environmental Remediation** means any activity necessary to assess and/or perform corrective action on soils, ground water and surface waters affected by chemicals of concern.

Purpose: These procedures are hereby established to effectively and efficiently procure services for environmental remediation projects.

Scope: These procedures apply to the direct procurement of environmental remediation services by DHEC, as authorized by the federal Resource Conservation & Recovery Act, (RCRA), the State Underground Petroleum Environmental Response Bank (SUPERB) Act, and the South Carolina Hazardous Waste Management Act (SCHWMA), Under these authorities, DHEC is authorized to procure environmental remediation services to investigate and cleanup releases to the environment. In the SUPERB program, UST site owners or operators have the option to utilize the services procured directly by DHEC or to obtain services independently. These procedures do not affect payment from the SUPERB account to UST owners or operators or contractors retained by UST owners or operators.

For any amendments to an environmental remediation project, DHEC shall negotiate a change order with the successful offeror. A change order modifies one or more of the following: scope, time, or cost. All documentation regarding the solicitations, including change orders will be maintained in the procurement file.

I. PROCEDURES FOR PROJECTS WHERE THE SCOPE OF WORK IS DEFINED.

Competitive solicitations shall apply to projects with **defined** scope, where the requirements and specifications are outlined, and where DHEC determines that the competitive solicitation method is the most practicable or advantageous to the State. DHEC shall determine when the activities are sufficiently defined. These projects normally fall within the Underground Storage Tank and Drycleaning programs where the source and nature of the contamination are known. DHEC shall award contracts for environmental remediation services based on competitive solicitations for small purchases (up to $50,000.00), and for solicitations greater than $50,000.00, DHEC shall use the competitive sealed bidding, multi-step competitive sealed bidding, or competitive sealed proposal process. For contracts that have been established using the competitive solicitation process, additional projects similar in scope may be added as long as the contract is still in effect and the vendor agrees to the additional work at the prices quoted in the original contract. Separate vendor lists for underground storage tank remediation and drycleaning remediation may be retained given there are certification requirements for each program that are established by statute and/or regulation.

A. SMALL PURCHASES (up to $50,000.00). These procedures apply to the procurement of environmental remediation services not predicted to exceed $50,000.00. These procurements shall not be artificially divided so as to constitute a small purchase under this section. In estimating the total dollar amount to determine one of the bidding categories, the amount shall include any shipping, handling, packaging and installation charges, excluding S.C. Sales Tax. Any award made under the Small Purchases process is not grievable under Section IV of these procedures. Once a contract is established using one of the four Small Purchase category procedures outlined below, additional projects similar in scope can be added as long as the contract is still in effect and the

vendor agrees to the additional work at the prices quoted in the original contract and the total dollar amount for that category is not exceeded.

Competition requirements for categories-small purchases:

1.	Purchases not in excess of $2,500.	*One quote (verbal or written) and a statement that the price is Fair and Reasonable.*
2.	Purchases from $2,501 to $10,000.	*Written solicitations sent to at least 3 qualified offerors.*
3.	Purchases from $10,001 to $50,000.	*Written solicitations advertised at least once in SCBO.*

B. COMPETITIVE SEALED BIDDING. Contracts predicted to exceed $50,000.00 with defined scope where the requirements and specifications are outlined may be awarded by the competitive sealed bidding method. A written single invitation for bid may be issued for projects that can be grouped together and competitively bid. The invitation for bid should be issued in an efficient and economical manner and advertised in the *South Carolina Business Opportunities (SCBO)* publication. The invitation for bid should include the specifications and the requirements and all contractual terms and conditions applicable to the procurement. The invitation for bid should be processed in accordance with the following procedures.

(1) **Notice**. Adequate notice of the invitation for bid shall be given to the listed sources with a reasonable time prior to the date set forth therein for the opening of bids.

(2) **Receipt and Safeguarding of Bids.** All bids (including modifications) received prior to the time of opening shall be kept secure and unopened in a locked box or safe.

(3) **Bid Opening.** Bids shall be opened publicly in the presence of one or more witnesses at the time and place designated in the invitation for bids. The amount of each bid, and such other relevant information as may be specified by regulation, together with the name of each bidder, shall be tabulated. The tabulation shall be made open to the public for inspection at the time.

(4) **Bid Acceptance and Bid Evaluation.** Bids shall be accepted unconditionally without alteration or correction, except as otherwise authorized in these procedures. The invitation for bids shall set forth the evaluation process to be used.

(5) **Correction, Withdrawal of Bids, or Cancellation of Awards.** Correction or withdrawal of inadvertently erroneous bids before bid opening, withdrawal of inadvertently erroneous bids after award, or cancellation and re-award of awards or contracts after award but prior to performance, may be permitted in accordance with these procedures. After bid opening, no changes in bid prices or other provisions of bid prejudicial to the best interest of the State or fair competition shall be permitted. To maintain the integrity of the competitive sealed bidding system, a bidder shall not be permitted to correct a bid mistake after bid opening that would cause such bidder to have the low bid unless the mistake in the judgment of the procurement officer is clearly evident from examining the bid document; for example, extension of unit prices or errors in addition. All decisions to permit the correction or withdrawal of bids, or to cancel awards, or contracts after award

but prior to performance shall be supported by a written determination of appropriateness made by the DHEC Director of Procurement Services. Each written determination must document that fact that the bidder's or offeror's mistake is clearly evident and that correction of said error shall not affect actual unit rates included in the bid.

(6) **Tie Bids.** If two or more bidders are tied in price while otherwise meeting all of the required conditions, awards are determined as follows:

(a) If there is a South Carolina firm tied with an out-of-state firm, the award must be made automatically to the South Carolina firm.

(b) Tie bids involving South Carolina firms must be resolved in favor of the South Carolina firm located in the same taxing jurisdiction as the project location.

(c) Tie bids involving South Carolina firms in the same taxing jurisdiction as the project location must be resolved by the flip of a coin in the office of the DHEC Director of Procurement Services witnessed by all interested parties. The same procedures shall apply where both firms are outside the taxing jurisdiction of the project location.

(7) **Award.** Notice of award of a contract to the lowest responsive and responsible bidder whose bid meets the requirements set forth in the invitation for bids shall be given by posting such notice at a location specified in the invitation for bids. The invitation for bids and the posted notice must contain a statement of a bidder's right for grievance outlined in Section IV of these procedures and the date and location of posting must be announced at the bid opening. The notice will be posted at the following web address: http://www.procurement.sc.gov.

(8) **Negotiations After Unsuccessful Competitive Bidding.** When bids that are received pursuant to an invitation for bids under Section II. A of these procedures are unreasonable, or the low bid exceeds available funds as certified by the appropriate fiscal officer, and it is determined in writing by the DHEC Director of Procurement Services, or his designee, that time or other circumstances may not permit the delay required to resolicit competitive sealed bids, a contract may be negotiated pursuant to this section, provided that:

(a) each responsible bidder who submitted a bid under the original solicitation is notified of the determination and is given reasonable opportunity to negotiate;

(b) the negotiated price is lower than the lowest rejected bid by any responsible and responsive bidder under the original solicitation;

(c) the negotiated price is the lowest negotiated price offered by any responsible and responsive offeror.

C. REQUEST FOR QUALIFICATIONS

(1) **Condition for Use.** When it is considered initially impractical to prepare a purchase description to support an award based on price, a request for qualifications may be issued requesting submission of unpriced offers to be followed by an invitation for bids limited to those bidders whose offers have been qualified under the criteria set forth in the first solicitation.

(2) **Request for Qualifications.** Prior to soliciting bids, the authorized DHEC procurement officer may issue a request for qualifications from prospective offerors. Such a request shall contain, at a minimum, the general scope of work, a description of the environmental remediation equipment, the processes or services to be solicited by the competitive sealed bid, the deadline for submitting

information and how prospective offerors may apply for consideration. The request shall require information only on qualifications, experience, and ability to perform the requirements of the contract.

(3) **Public Notice.** Adequate public notice of the request for qualifications shall be given with a reasonable time period prior to the date established for the submission of the required information. Such notice shall include the advertisement in the *South Carolina Business Opportunities (SCBO)* publication under the category of **Environmental Remediation.**

(4) **Selection and Ranking.** After receipt of the responses to the request for qualifications from prospective offerors, the perspective offerors shall be ranked from most qualified on the basis of the information provided. Bids shall then be solicited from at least the top two prospective offerors by means of a competitive sealed bid. The failure of a prospective offeror to be selected normally is not grounds for grievance under Section IV of these procedures. However, if a letter of concern is submitted, only information contained in the bid and response packages will be considered.

(5) The steps outlined in Section I. B., Competitive Sealed Bidding procedures, Paragraphs (2) through (8) apply.

D. COMPETITIVE SEALED PROPOSALS

The request for qualifications procedures described above or the procedures outlined below may be used with the competitive sealed proposal method.

(1) **Conditions for Use.** When the DHEC Chief of Staff or his designee determines in writing that the use of the competitive sealed bidding process outlined in B and C of these procedures alone are either not practicable or not advantageous to the State, a contract may be entered into by competitive sealed proposal subject to the provisions of these procedures. Proposals shall be advertised in SCBO.

(2) **Evaluation Factors.** The request for proposals shall state the relative importance of the factors to be considered in evaluating proposals but shall not require a numerical weighting for each factor. Price may, but need not be an initial evaluation factor.

(3) **Discussion with Responsive Offerors.** Discussions may be conducted with prospective offerors who submit proposals for the purpose of clarification to assure full understanding of the requirements of the request for proposals. All offerors, whose proposals, in DHEC's sole judgment, needed clarification shall be accorded such an opportunity.

(4) **Selection and Ranking.** Proposals shall be evaluated using only the criteria stated in the request for proposals and adhering to any weighting that has been previously assigned. Once the evaluation is complete, all responsive offerors shall be ranked from the most advantageous to the least advantageous to the State, considering only the evaluation factors stated in the request for proposals. If price is an initial evaluation factor, awards shall be made in accordance with (5) below. If price is not an initial evaluation factor, negotiations shall be conducted with the top ranked offeror for the performance of the contract at a price which, in the sole opinion of DHEC, is fair and reasonable to the State. Should the procurement official be unable to negotiate a contract at a price which, in the sole opinion of DHEC, is fair and reasonable to the State, negotiations shall be formally terminated with the top ranked responsive offeror and negotiation commenced with the second most advantageous responsive offeror, and then the third and so on until a satisfactory

contract has been negotiated. In conducting negotiations, there must be no disclosure of any information derived from proposals submitted by competing offerors.

(5) **Award.** Award must be made to the responsive offeror whose proposal is determined in writing to be the most advantageous to the State, taking into consideration price and the evaluation factors set forth in the request for proposals, unless DHEC determines to use one of the options provided in (6) below. The contract file shall contain the basis on which the award is made and must be sufficient to satisfy an external audit. The notice will be posted at the following web address: http://www.scdhec.net/procurement.

(6) **Other.** If, after following the procedures set forth in (4) and (5) above, a contract is not able to be negotiated, the scope of the request for proposals may be changed in an effort to reduce the cost a fair and reasonable amount, and all responsive offerors must be allowed to submit their best and final offers. Where the price was an initial evaluation factor, the DHEC procurement official, may in his sole discretion, proceed in any of the following indicated below:

(a) negotiate price with the highest scoring offeror. If a satisfactory price cannot be agreed upon, price negotiations may be conducted, in the sole discretion of DHEC with the second, and then the third, and so on, ranked offerors to such level of ranking as determined by DHEC in its sole discretion; or

(b) negotiate with the highest-ranking offeror on matters affecting the scope of the contract, so long as the overall nature of intent of the contract is not changed. If a satisfactory contract cannot be negotiated with the highest ranking offeror, negotiations may be conducted, in the sole discretion of DHEC, with the second, and then the third, and so on, to such level of ranking as determined by DHEC in its sole discretion; or

(c) change the scope of the request for proposals and give all responsive offerors an opportunity to submit their best and final offers.

II. PROCEDURES FOR PROJECTS WHERE THE SCOPE OF WORK IS NOT DEFINED

When the project is of such complexity that the scope of the environmental remediation activity is difficult to or not defined, then DHEC shall use the following procedures. These involve projects where the source and nature of the contamination is not known or easily determined, which typically would be encountered at sites funded by the HWCF.

A. Selection Committee. DHEC shall establish its own environmental remediation selection committee, hereinafter referred to as the Complex Projects Selection Committee, which shall be composed of those individuals whom the Assistant Bureau Chief determines to be qualified to make an informed decision as to the most competent and qualified firm for the proposed services. The Director of Procurement Services or his qualified and responsible designee shall sit as a permanent member of the Complex Projects Selection Committee for the purpose of coordinating and accounting for the committee's work. To assist the committee in the selection of firms to be employed for significant or highly technical projects and to facilitate prompt selections, the committee may invite the State Engineer or his designee to sit as a nonvoting member of the committee.

B. Advertisement of Project Description. The selection committee shall be responsible for (a) developing a description of the proposed contract, (b) enumerating all required environmental remediation activities, and (c) preparing a formal invitation to firms for submission of information. The invitation shall include, but not be limited to, the project title, the general scope of work, and a description of the corrective action required for the project, the submission deadline, and how interested firms may apply for consideration. The number of persons or firms to be selected shall be specified in the invitation. The invitation shall be formally advertised in the *South Carolina Business Opportunities (SCBO)* publication under the category of **Environmental Remediation.**

C. Response to Invitation. The date for submission of information from interested persons or firms in response to an invitation shall be not less than fifteen days after publication of the invitation. Interested environmental remediation contractors shall be required to respond to the invitation with the submission of a current and accurate Federal Standard Form 254 and 255 or such similar information which DHEC may require (including Federal Standard Form 330 in lieu of 254 and 255).

D. Interviews and Interested Firms. Following receipt of information from all interested persons and firms, the selection committee shall hold interviews with at least five persons or firms who have responded to the committee's advertisement and who are deemed most qualified on the basis of information available prior to the interviews. If fewer than five firms have responded to the advertisement, the committee shall hold interviews with those that did respond. The committee's determination as to who will be interviewed shall be in writing and shall be based upon its review and evaluation of all submitted materials. The written report of the committee shall specifically list the names of all persons and firms that responded to the advertisement and enumerate the criteria the committee used in selecting those to be interviewed. The purpose of the interview shall be to provide such further information as may be required by the committee to fully acquaint it with the relative qualifications of the several interested firms.

E. Selection of the Best Qualified. The selection committee shall evaluate each of the persons or firms interviewed in view of their:

(1) past performance;
(2) the ability of professional personnel;
(3) willingness to meet time and budget requirements;
(4) location;
(5) recent, current, and projected workloads;
(6) creativity and insight related to the project; and
(7) related experience on similar projects.

Based upon these evaluation criteria, the committee shall select the persons or firms who, in its judgment, are the best qualified. The list of persons or firms will be used by DHEC depending on the requirements of the project. The committee's report of the chosen persons or firms shall be in writing and shall include data substantiating its determinations. Depending on the circumstance, DHEC will consider costs in the evaluation of all offerors.

F. Notice of Selection. When DHEC determines that the selection report is final, written notification of the selection shall be immediately sent to all those who responded to the selection committee's invitation to submit information. The list of selected sources shall be effective for a period of one year. No later than thirty (30) days prior to the expiration date of the list, the selection

committee may exercise an option either to cancel the list and issue a new solicitation or extend the term of the list for additional one year periods up to a total of five years. When appropriate. DHEC reserves the right to solicit for additional firms at any time during the effective period of the list of selected sources. When DHEC determines there is a need to add additional firms to the list of offerors, DHEC shall issue a new solicitation using the same selection criteria and interview process established when the original list was developed. Those firms on the original list need not respond since they have already been through the selection process. DHEC shall maintain both solicitations as separate procurements. Also, when appropriate, DHEC reserves the right to delete offerors from the list of selected sources for cause. Whenever a deletion is made, the selection committee may select the next best-qualified offeror from the remaining offerors on the original list of selected sources. The failure of a prospective offeror to be selected normally is not grounds for grievance under Section IV of these procedures. However, if a letter of concern is submitted, only information contained in the bid and response packages will be considered.

G. Negotiations with a Qualified Offeror. If the scope of a project is of such complexity, of immediate nature, or of such an unknown quantity that the use of the other procurement methods is either not practicable or not advantageous to the State, then DHEC shall negotiate with the best-qualified person or firm. DHEC reserves the right to select the best qualified person or firm depending on the general scope of the project. Where "best qualified" is the primary factor and cost is secondary, DHEC shall negotiate the cost with the best-qualified person or firm. If no agreement is reached, negotiations shall commence in the same manner with the next best-qualified person or firm until a satisfactory contract is negotiated. If the nature of the project is such that the "best qualified" is not the primary factor, or is unable to be determined, but price is the primary factor, then DHEC may request pricing from all qualified persons or firms on the list for the purpose of negotiating a contract. If no agreement is reached with one of the original listed offerors, the selection committee may select additional persons for firms from the remaining pool of interviewees. If unsuccessful with the remaining pool of interviewees, the selection committee may contact additional firms for interviews using the same selection criteria established when the original list was developed. The successful interviewees will be added to the list.

III. OTHER PROCUREMENT METHODS FOR USE WITH ENVIRONMENTAL REMEDIATION PROJECTS

A. Sole Source Procurement: A contract for an environmental remediation project may be awarded without competition when the DHEC Chief of Staff, or his designee, determines in writing that there is only one source for the required project. Written documentation must include the determination and the basis for the proposed sole source procurement and why no other vendor is suitable. In cases of reasonable doubt, competition shall be solicited. All sole source procurements will be reported quarterly to the Materials Management Office under the Office of General Services, which is directed by the Budget and Control Board.

B. Emergency Procurement. The DHEC Chief of Staff may approve emergency procurements for an environmental remediation project only when there exists an immediate threat to public health, welfare, critical economy and efficiency, or safety under emergency conditions, provided that such

emergency procurements shall be made with as much competition as is practicable under the circumstances. The Program Area has the authority to determine the course of action to proceed in an emergency situation. Within three working days, the Program Area will provide DHEC Procurement Services with a written determination of the basis for the emergency and the selection of the particular contractor. All documentation, including the DHEC Chief of Staff's approval, shall be maintained in the purchasing file. All emergency procurements will also be reported quarterly to the Materials Management Office.

IV. GRIEVANCE PROCEDURES FOR ENVIRONMENTAL REMEDIATION SOLICITATIONS DURING THE SOLICITATION PHASE

The following grievance procedures are provided.

A. Solicitation of a Contract. Subject to conditions set forth in these procedures, any prospective bidder who is aggrieved in connection with the solicitation of a contract for environmental remediation shall submit a letter of concern to the DHEC procurement officer responsible for the solicitation within fifteen calendar days of the date of issuance of the Invitation for Sealed Bids or the Request for Proposals, whichever is applicable, or any amendment thereto if the amendment is at issue. A grievance shall be in writing and shall set forth the grounds of the grievance and the relief requested with enough particularity to give notice of the issues to be decided. A fax of the letter, followed by a post marked signed original letter is acceptable. After the Director of Procurement Services, or his designee, has been notified, DHEC may attempt to informally resolve the dispute. If the dispute cannot be resolved, the Director of Procurement Services will determine whether the dispute merits altering the solicitation and will provide a written response within five working days of the receipt of the letter.

B. Award of a Contract. Any actual bidder who is aggrieved in connection with the award of a contract shall submit a letter of concern to the DHEC procurement officer responsible for the solicitation within seven calendar days of the award publication date. Processes are the same as above.

C. Secondary Review and Decision. If the bidder is not satisfied with the decision rendered by the Director of Procurement Services, the bidder shall notify the Director of the Bureau of Business Management in writing within ten calendar days of the date of the written response from the Director of Procurement Services. The Director of the Bureau of Business Management will conduct a review and provide a written response within five working days. The decision of the Director of the Bureau of Business Management shall be final and conclusive. If the aggrieved is not satisfied with the decision rendered in A or B above and this section, and wishes to pursue legal action, the aggrieved, or his legal representative, shall notify in writing the DHEC Chief of Staff within ten calendar days of the date of the written response from the Director of the Bureau of Business Management.

D. Notice of Decision. A copy of all decisions under this section shall be mailed or otherwise furnished immediately to the aggrieved party and any other party intervening.

E. Stay of Procurement during Grievances. In the event of a timely grievance under subsections A. or B. above, DHEC shall not proceed further with the solicitation or award of the contract until a decision is rendered by the Director of Procurement Services. However, the solicitation or award of an aggrieved contract will not be stayed if the Director of Procurement Services makes a written determination that the solicitation or award of the contract without delay is necessary to protect the best interests of the State.

V. GRIEVANCE PROCEDURES FOR CONTRACT DISPUTES AND BREACH OF CONTRACT CONTROVERSIES REGARDING ENVIRONMENTAL REMEDIATION PROJECTS DURING THE CONTRACT IMPLEMENTATION PHASE

A. Applicability. These procedures apply to controversies between DHEC, the site owner or operator, and/or a contractor or subcontractor when the subcontractor is the real party in interest, which arise under or by virtue of a contract for environmental remediation including, but not limited to controversies based upon breach of contract, misrepresentation, mistake, or other cause for contract modification or recension. These procedures constitute the exclusive means of resolving a controversy between DHEC, the site owner or operator, and/or a contractor or subcontractor concerning a contract solicited and awarded under the provisions of these procedures.

B. Complaint against DHEC Program Management. Site owner or operator, and/or a contractor or subcontractor when the subcontractor is the real party in interest has 30 days after the discovery of a contract dispute or controversy to notify in writing the DHEC Project Manager or the Director of the respective program within the Bureau of Land and Waste Management of the identification of the dispute or controversy. The Bureau of Land and Waste Management has 45 days to review and attempt to informally resolve the dispute or controversy. If the contract controversy cannot be mutually resolved, the Assistant Bureau Chief of the Bureau of Land and Waste Management will provide a written, informal determination to the site owner or operator, and/or a contractor or subcontractor when the subcontractor is the real party in interest.

C. Informal Review and Decision. If the complainant is not satisfied with the decision made by the Assistant Bureau Chief, the complainant should address the issues in writing, within 15 calendar days of the date of the letter, to the Director of Procurement Services for resolution. The request for resolution to the Director of Procurement Services must be in writing and set forth the general nature of the controversy and the relief requested with enough particularity to give notice of the issues to be decided.

D. Duty and Authority to Attempt to Settle Contract Controversies - Director of Procurement Services. The Director of Procurement Services will provide a written acknowledgment to the complainant and the Assistant Bureau Chief of the Bureau of Land and Waste Management within 5 calendar days of the receipt of the complaint. The Director of Procurement Services, or his representative, shall attempt to mediate a settlement by mutual agreement by the two parties. If a mediation agreement is not approved by both of the complainants and the Assistant Bureau Chief of the Bureau of Land and Waste Management, the Director of

Procurement Services will provide a written determination within 10 days of the rejection by either party in the dispute.

E. Secondary Review and Decision. If, the complainant is not satisfied with the determination made by the Director of Procurement Services, the complainant should address the issues in writing, within 15 calendar days of the date of the letter, to the Director of the Bureau of Business Management for an administrative review and final resolution. The Director of the Bureau of Business Management will conduct a review and issue a written response to the complainant and the Assistant Bureau Chief of Land and Waste Management within 15 calendar days after receipt of the complaint. The decision shall state the reasons for the final determination. The decision rendered by the Director of the Bureau of Business Management shall be final and conclusive. If the complainant is not satisfied with the decision rendered in B, C, or D above and this section, and wishes to pursue legal action, the complainant, or his legal representative, shall notify in writing the DHEC Chief of Staff within 15 calendar days of the date of the written response from the Director of the Bureau of Business Management.

F. Complaints made by DHEC Concerning Contractor Performance. For complaints against a contractor for lack of performance, the DHEC Project Manager will make informal complaints directly to the contractor in an attempt to resolve the problems as quickly as possible. If the complaint is not resolved, the Director of the respective program within the Bureau of Land and Waste Management, in consultation with the Assistant Bureau Chief of Land and Waste Management, will make a written, informal complaint of the dispute or controversy, with supporting documentation, directly to the Director of Procurement Services for formal processing. The Director of Procurement Services, or his representative, shall attempt to mediate a settlement by mutual agreement by the two parties. If a mediation agreement is not approved by both of the complainants and Assistant Bureau Chief of the Bureau of Land and Waste Management, the Director of Procurement Services will provide a written determination within 15 calendar days of the rejection by either party in the dispute. If the contractor is not satisfied with the determination provided by the Director of Procurement Services, the contractor should follow the procedures outlined in E above.

G. Complaints Requiring Immediate Resolution. For complaints of a serious nature that may have an immediate impact on the health of associated individuals or lead to immediate economic losses, the Assistant Bureau Chief of the Bureau of Land and Waste Management has the authority to make this determination with consultation with the Director of Procurement Services or his representative and alter the times and procedures to remedy the immediate threat. The Assistant Bureau Chief of the Bureau of Land and Waste Management will provide written documentation to the Director of Procurement Services within 3 working days of the action taken as well as the rationale. DHEC reserves the right to alter the processing days to meet any unexpected contingencies.

Susan

Bid Amendment

	State of South Carolina Invitation for Bid Amendment - 1	Solicitation Number: Date Issued: Procurement Officer: Phone: E-Mail Address:	5400007095 January 13, 2014 E. Madison Winslow E. Madison Winslow 803-898-3487 winsloem@dhec.sc.gov

DESCRIPTION: **UST Corrective Action, UST # 07584, # 07777, # 12352 - Columbia, South Carolina**

USING GOVERNMENTAL UNIT: **South Carolina Department of Health and Environmental Control**

The Term "Offer" Means Your "Bid" or "Proposal". Solicitation Number & Opening Date must appear on package exterior. See "Submitting Your Offer" provision.

SUBMIT YOUR SEALED OFFER TO EITHER OF THE FOLLOWING ADDRESSES:

MAILING ADDRESS:	**OPENING / PHYSICAL ADDRESS:**
DHEC – Division of Procurement Services Bureau of Business Management 2600 Bull Street Columbia, S.C. 29201	DHEC – Division of Procurement Services - Bureau of Business Management Columbia Mills Building – 4th Floor 301 Gervais Street Columbia, S.C. 29201 **See Section II.A - Public Opening Information – DHEC Clause**

SUBMIT OFFER BY (Opening Date/Time): **January 28, 2014/2:30 pm ET** (See "Deadline For Submission Of Offer" provision)

QUESTIONS MUST BE RECEIVED BY: **DEADLINE HAS PASSED** (See "Questions From Offerors" provision)

NUMBER OF COPIES TO BE SUBMITTED: **1**

CONFERENCE TYPE: **Not Applicable** DATE & TIME: (As appropriate, see "Conferences - Pre-Bid/Proposal" & "Site Visit" provisions)	LOCATION: **Not Applicable**

AWARD & AMENDMENTS	Award will be posted on **February 4, 2014**. The award, this solicitation, any amendments, and any related notices will be posted at the following web address: http://www.procurement.sc.gov

You must submit a signed copy of this form with Your Offer. By submitting a bid or proposal, You agree to be bound by the terms of the Solicitation. You agree to hold Your Offer open for a minimum of thirty (30) calendar days after the Opening Date. (See "Signing Your Offer" and "Electronic Signature" provisions.)

NAME OF OFFEROR (full legal name of business submitting the offer)		Any award issued will be issued to, and the contract will be formed with, the entity identified as the Offeror. The entity named as the offeror must be a single and distinct legal entity. Do not use the name of a branch office or a division of a larger entity if the branch or division is not a separate legal entity, i.e., a separate corporation, partnership, sole proprietorship, etc.
AUTHORIZED SIGNATURE (Person must be authorized to submit binding offer to contract on behalf of Offeror.)		TAXPAYER IDENTIFICATION NO. (See "Taxpayer Identification Number" provision)
TITLE (business title of person signing above)		STATE VENDOR NO. (Register to Obtain S.C. Vendor No. at www.procurement.sc.gov)
PRINTED NAME (printed name of person signing above)	DATE SIGNED	STATE OF INCORPORATION (If you are a corporation, identify the state of incorporation.)

OFFEROR'S TYPE OF ENTITY: (Check one) (See "Signing Your Offer" provision.)

___ Sole Proprietorship ___ Partnership ___ Other_____

___ Corporate entity (not tax-exempt) ___ Corporation (tax-exempt) ___ Government entity (federal, state, or local)

UST DOCKETING

PAGE TWO

(Return Page Two with Your Offer)

HOME OFFICE ADDRESS (Address for offeror's home office / principal place of business)	NOTICE ADDRESS (Address to which all procurement and contract related notices should be sent.) (See "Notice" clause)
	_____ Area Code - _____ Number - Extension Facsimile _____ E-mail Address

PAYMENT ADDRESS (Address to which payments will be sent.) (See "Payment" clause)	ORDER ADDRESS (Address to which purchase orders will be sent) (See "Purchase Orders and "Contract Documents" clauses)
____Payment Address same as Home Office Address ____Payment Address same as Notice Address **(check only one)**	____Order Address same as Home Office Address ____Order Address same as Notice Address **(check only one)**

ACKNOWLEDGMENT OF AMENDMENTS

Offerors acknowledges receipt of amendments by indicating amendment number and its date of issue. (See "Amendments to Solicitation" Provision)

Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date	Amendment No.	Amendment Issue Date

DISCOUNT FOR PROMPT PAYMENT (See "Discount for Prompt Payment" clause)	10 Calendar Days (%)	20 Calendar Days (%)	30 Calendar Days (%)	____Calendar Days (%)

End of PAGE TWO

AMENDMENTS TO SOLICITATION (JAN 2004)
(a) The Solicitation may be amended at any time prior to opening. All actual and prospective Offerors should monitor the following web site for the issuance of Amendments: www.procurement.sc.gov (b) Offerors shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date in the space provided for this purpose on Page Two, (3) by letter, or (4) by submitting a bid that indicates in some way that the bidder received the amendment. (c) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged. [02-2A005-1]

Amendment Number Three
Solicitation 5400007095

Questions and Answers

1. **Question:** How much SUPERB Fund monies have been spent on each of the referenced sites to date?

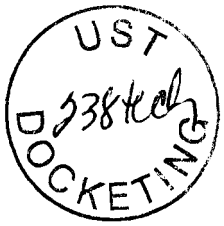
   Answer: For UST # 07584, Release 1, $304,138.94 in SUPERB funds have been spent.
   For UST # 07584, Release 2, $188,793.66 in SUPERB funds have been spent.
   For UST # 07777, $364,711.80 in SUPERB funds have been spent.
   For UST # 12352, $200,851.65 in SUPERB funds have been spent.

2. **Question:** What is the SUPERB available balance for completing the solicited corrective action?

   Answer: $1 million is available for each site per release from the SUPERB account.

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

MEMORANDUM



Date: February 4, 2014

To: E. Madison Winslow, Procurement Manager
Bureau of Business Management

From: Larry G. Sorrell, Manager
Financial Section
Underground Storage Tank Management Division

Subject: Bid Award, IFB-5400007095
UST Permit # 07584, University Mart
UST Permit # 07777, Cloud's Chevron
UST Permit # 12352, Cloud's Chevron
Richland County

The UST Management Division has reviewed the responses to the solicitation. The low bid of $540,000.00 was submitted by Crawford Environmental Services, Inc. As the proposed corrective action methodology can be permitted in South Carolina and the estimated time frame is protective of human health, the UST Management Division recommends immediate award of the contract to Crawford Environmental Services, Inc. in accordance with the solicitation.

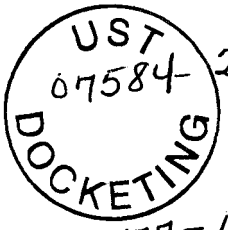
In the description section of the purchase order, please refer to site names and UST permit numbers.

Please forward a copy of the purchase order to me for UST distribution.

cc: Technical Files
Lee Monts, Manager, Corrective Action Section
Susan Fulmer, P.G., Project Manager, Corrective Action Section

CRAWFORD
ENVIRONMENTAL SERVICES





239 tech
07777 - 173 tech
12352 - 108 tech

March 20, 2014

Ms. Susan Fulmer, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management
SCDHEC
2600 Bull Street
Columbia, SC 29201

RE: QAPP Contractor Addendum – Initial Monitoring Report
Cloud's Chevron & University Mart
1600 Two Notch Road, Columbia, SC
UST Permits: #07584, 07777 and 12352
CES Number: Pending

Dear Ms. Fulmer

As we have discussed, attached please find the Quality Assurance Project Plan Addendum (Initial Monitoring Event) for the referenced facility prepared by Crawford Environmental Services, Inc. (CES). CES has completed the site check (March 10, 2014), the assessment plan and contractors addendum to the Master QAPP for the Groundwater Assessment to be performed at the above noted facility.

Should you have any questions or comments regarding the attached, please feel free to contact me at 540-798-4205 or by email at ccrawford@crawfordenvironmental.com.

Best Regards,
CRAWFORD ENVIRONMENTAL SERVICES, INC.

Charles F. Crawford, III
President
SC Rehabilitation Contractor Number: 0388

Attachments:

Appendix A:	Quality Assurance Program Plan (Contractor's Addendum) 26 pages
Appendix B:	Chain of Custody Template 1 page
Appendix C:	Groundwater Assessment Plan 1 page
Appendix D:	Site Figures 2 pages

CRAWFORD
ENVIRONMENTAL
SERVICES

APPENDIX A:

QAPP Contractor Addendum

CRAWFORD ENVIRONMENTAL SERVICES

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For
Handy Pantry #65 / University Mart and Cloud's Chevron
UST Permit #: 07584, 07777 and 12352

1600 Two Notch Road, Columbia, SC

Prepared by:

Charles F. Crawford, III
Crawford Environmental Services
15 Church Ave., SW
Roanoke, VA 24015
SCDHEC Site Rehabilitation Contractor Certification Number: UCC-0388

Approvals

Susan Fulmer SC DHEC Project Manager	_____ Signature	Date	_____
Charles F. Crawford, III Site Rehabilitation Contractor	Charles F. Crawford III Signature	Date	03.19.14
Daniel J. Fisher Project Verifier	_____ Signature	Date	03.19.14
Ashley Amick Laboratory Director Access Analytical Inc.	_____ Signature	Date	03.20.14
Mehmet Yildrim Laboratory Director Analytical Environmental Services Inc.,	_____ Signature	Date	03.20.14

A2 Table of Contents

A3 Distribution 3
A4 Project Organization 4
A5 Problem Definition/Background 7
A6 Project/Task Description 7
A7 Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs) 8
A8 Training and Certificates 8
A9 Documents and Records 10

Section B Measurement/Data Acquisition 11

B1 Sampling Process/Experimental Design 11
B2 Sampling Methods 11
B3 Sample Handling and Custody 15
B4 Analytical Methods 16
B5 Quality Control Requirements 19
B6 Field Instrument and Equipment Testing, Inspection and Maintenance 19
B7 Instrument Calibration and Frequency 21
B8 Inspection/Acceptance Requirements for Supplies and Consumables 22
B9 Data Acquisition Requirements (Non-Direct Measurements) 23
B10 Data Management 24

Section C Assessment and Oversight 25

C1 Assessment and Response Actions 25
C2 Reports and Management 26

Section D Data Validation and Usability 26

A3 Distribution List

Name	Title	Organization/Address	Telephone Number	Fax Number	Email Address
Susan Fulmer	SC DHEC Technical Project Manager	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-898-0614	803-896-6245	fulmersb@dhec.sc.gov
Charles F. Crawford	Site Rehabilitation Contractor	Crawford Environmental Services 104 Corporate Blvd. Suite 412 West Columbia, SC 29169	540-798-4205	540-343-6259	ccrawford@crawfordenvironmental.com
Daniel J. Fisher	Project QA/QC Manager and Project Verifier	Crawford Environmental Services 15 Church Ave., SW Roanoke, VA 24011	540-798-5068	540-343-6259	dfisher@crawfordenvironmental.com
Daniel J. Fisher	Project Manager	Crawford Environmental Services 104 Corporate Blvd. Suite 412 West Columbia, SC 29169	540-798-5068	540-343-6259	dfisher@crawfordenvironmental.com
William C. Ewing	Field Manager/ Certified Well Driller	Crawford Environmental Services 104 Corporate Blvd. Suite 412 West Columbia, SC 29169	803-708-0079	803-708-8137	bewing@crawfordenvironmental.com
Ashley Amick	Laboratory Director	Access Analytical, Inc. (AA) 7478 Carlisle Street Irmo, SC 29063	803-781-4243	803-781-4303	aamick@axs-inc.com
Mehmet Yildrim	Laboratory Director	Analytical Environmental (AES) Services Inc. 3785 Presidential Pkwy Atlanta, GA 30340	770-457-8177	770-457-8188	myildrim@aesatlanta.com

Table 1A Addendum Distribution List

A4 Project Organization

Role from the UST Master QAPP	Name of person in this Role for this Project	Organization/Address	Telephone Number	Fax Number	Email Address
Project Manager	Susan Fulmer	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-898-0614	803-896-6245	fulmersb@dhec.sc.gov
Site Rehabilitation Contractor	Charles F. Crawford	Crawford Environmental Services 104 Corporate Blvd. Suite 412 West Columbia, SC 29169	540-798-4205	540-343-6259	ccrawford@crawfordenvironmental.com
Project Manger	Daniel J. Fisher	Crawford Environmental Services 104 Corporate Blvd. Suite 412 West Columbia, SC 29169	540-798-5068	540-343-6259	dfisher@crawfordenvironmental.com
Analytical Laboratory Director	Ashley Amick	Access Analytical, Inc. (AA) 7478 Carlisle Street Irmo, SC 29063	803-781-4243	803-781-4303	aamick@axs-inc.com
Analytical Laboratory Director	Mehmet Yildrim	Analytical Environmental (AES) Services Inc. 3785 Presidential Pkwy Atlanta, GA 30340	770-457-8177	770-457-8188	myildrim@aesatlanta.com
Field Manager/ Certified Well Driller	William C. Ewing	Crawford Environmental Services 104 Corporate Blvd. Suite 412 West Columbia, SC 29169	803-708-0079	803-708-8137	bewing@crawfordenvironmental.com
Project QA/QC Manager and Project Verifier	Daniel J. Fisher	Crawford Environmental Services 15 Church Ave., SW Roanoke, VA 24011	540-798-5068	540-343-6259	dfisher@crawfordenvironmental.com
Disposal Subcontractor	Vanessa Tremblay	Waste Management 1850 Parkway Place – Suite 600 Marietta GA 30067	803-735-0808	877-446-1079	vtrembly@wm.com

Table 2A Addendum Role Identification and Contact Information

The responsibilities of the participants are as follows:

1. **UST Management Project Manager** – The UST Management Project Manager (UST Project Manager) is responsible for direct oversight of the contractor conducting this assessment. The UST Project Manager performs the review of the plan and the report associated with this assessment. These reviews include verification and analysis of data submitted to the UST Management Division by the Site Rehabilitation Contractor. The UST Project Manager is responsible for the review of and approval of the site specific QAPP to ensure compliance with the Master QAPP. The UST Project Manager also is responsible for validating data.

2. **Site Rehabilitation Contractor** – The Site Rehabilitation Contractor is an independent contractor responsible for managing and coordinating field and office activities needed for this assessment.

3. **Project Manager** – The Project Manager is a representative of the Site Rehabilitation Contractor responsible for the day to day oversight of activities needed to complete this assessment. The Project

Manager is responsible for the submission of plans, updates and reports associated with this assessment.

4. Laboratory Analytical Director – The Laboratory Analytical Director represents the Analytical Laboratory that will receive the soil and water samples from the Site Rehabilitation Contractor, performs the requested analyses and provides an analytical report.

5. Field Manager – The Field Manager is a representative of the Site Rehabilitation Contractor responsible for the oversight of the contractor technicians and field activities. The Field Manager is responsible for the review / QA of field activities to ensure compliance with the UST Master QAPP and contractor health and safety plans.

6. Project QA/QC Manager and Project Verifier – The Project QA/QC Manager and Project Verifier is a representative of the Site Rehabilitation Contractor responsible for the oversight of project activities to ensure quality control is in compliance with the UST Master QAPP.

7. Disposal Contractor – The Disposal Contractor is a subcontractor, chosen by the Site Rehabilitation Contractor, which will receive the industry derived waste created during the implementation of this assessment. The Disposal Contractor is responsible for the review of manifests to ensure the disposal is in compliance with the UST Master QAPP.

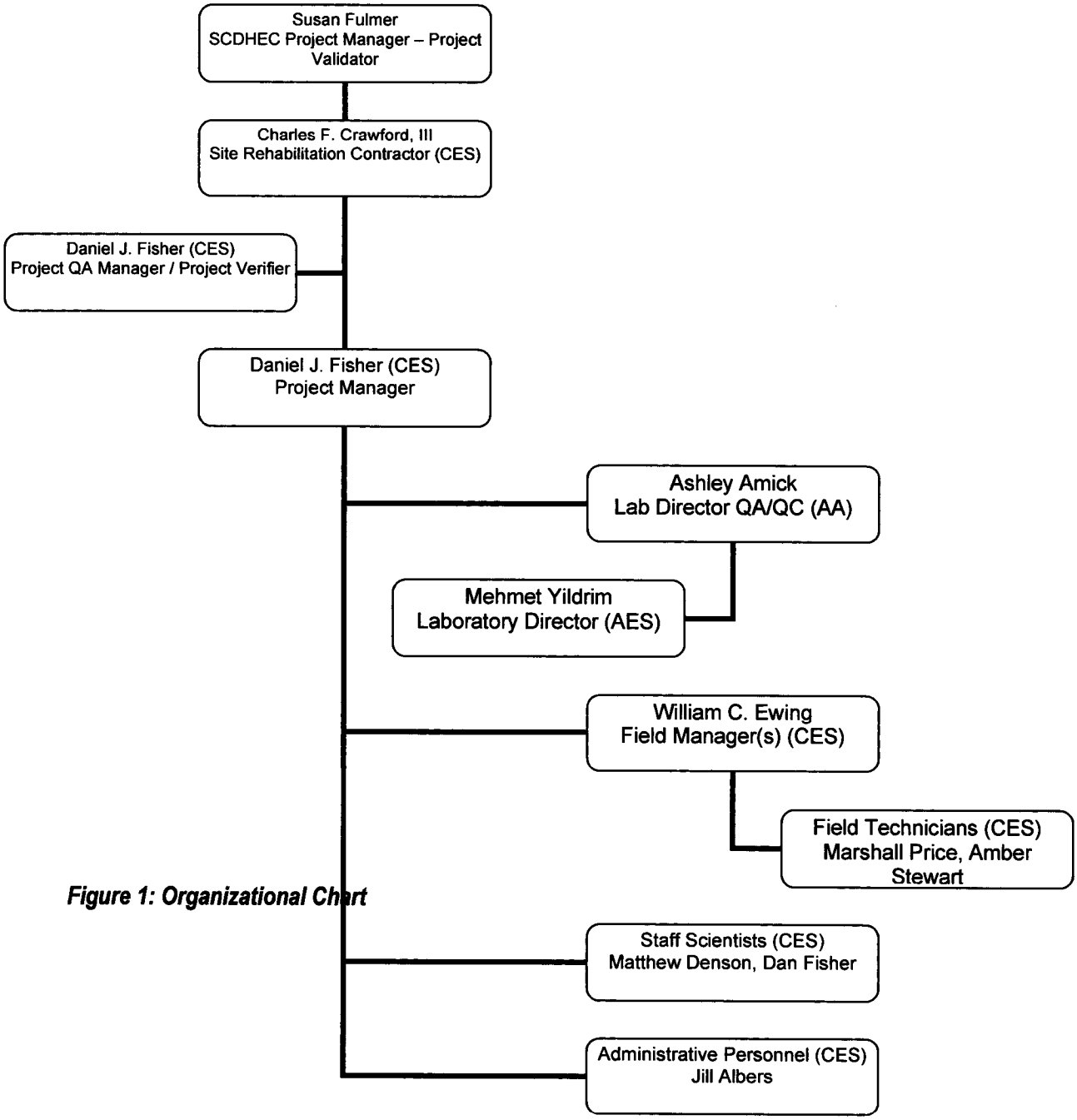


Figure 1: Organizational Chart

A5 Problem Definition/Background

Discuss the background (as much as is known) of the site and appropriate historical information, and why this site is being assessed. According to SCDHEC and contractor records an IGWA, Tier 1, Tier II, Corrective Action and several groundwater sampling events were previously completed at this facility. During the previous assessments, several groundwater monitoring wells yielded dissolved-phase concentrations of Chemicals of Concern (CoCs) in exceedance of the risk based screening limits and maximum contaminant limits (RBSLs/MCLs). Refer to Appendix C for site specifics and history.

Please answer the following: Does this project fall under UST or Brownfields area?
UST Area.

A6 Project/Task Description

1. **Summarize what is known about the work to be done. This can be a short sentence indicating what the Scope of this project is (see Master QAPP Section A6).**

    -Complete a Groundwater Assessment
        -Refer to the Groundwater Sampling Plan (Appendix C) for details and specifics regarding items included in this assessment.
        -Refer to the included Figures (Appendix D) for details and specifics regarding the locations of monitoring wells.

2. **The work will begin within:**
    a. Mobilization / Sample collection and laboratory analysis: 1-2 weeks
    b. De-mobilization and clean-up:1 week
    c. Report preparation: 1 week; should additional samples be required to achieve 90% valid samples, the project may be extended. The SCDHEC project manger will be contacted via email or telephone if project requires an extension for any reason.

3. **Are there any time or resource constraints? Include those factors that may interfere with the tentative schedule.** Laboratory equipment failures may cause up to a two week delay. Property access issues due to their inherent unpredictability, may cause a delay that will exceed the initial timeframe given for this project. Inclement weather conditions also may cause project delays. No resource constraints are anticipated.

A7 Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs)

Please refer to Appendix D of this QAPP for shallow and deep monitoring well locations. The assessment boundaries are limited to the area necessary to complete this initial groundwater assessment. SCDHEC will be notified during the assessment regarding any accessibility issues.

A8 Training and Certificates

Required training and licenses:

Title/Job	Name	Training Required	Date training received	Type of License	License Number
CRAWFORD ENVIRONMENTAL SERVICES, INC. (Last Updated March 2014)					
Site Rehabilitation Contractor	Charles F. Crawford	OSHA HASWOPER	-	Class A General Contractor	2705076157
Senior Project Geologist	B. Thomas Houghton	-	-	S.C.P.G.	2343
Project Manager	Daniel J. Fisher	OSHA HASWOPER	December 2013 (OSHA)	-	-
Staff Scientist	Matthew Denson	OSHA HASWOPER	March 2014 (OSHA)	-	-
Staff Scientist	Daniel J. Fisher	OSHA HASWOPER	December 2013 (OSHA)	N/A	N/A
Administrative	Jill A. Albers	-	-	-	-
Field Manager	William C. Ewing	OSHA HASWOPER	December 2013 (OSHA)	SCLLR Class B Drilling License	1505
Field Technician	Marshall Price	OSHA HASWOPER	December 2013 (OSHA)		
Subcontractors (Labs / Surveyors)					
Lab Director (AA)	Ashley Amick	N/A	N/A	SC Certified Lab	32575001
Lab Director (AES)	Mehmet Yildrim	N/A	N/A	SC Certified Lab	98016003

Table 3A Required Training and Licenses

Daniel J. Fisher of CES is responsible for ensuring that personnel participating in this project receive the proper training. All personnel training records will be stored at the Corporate office located at 15 Church Avenue, SW in Roanoke, VA 24011.

It is understood that training records will be produced if requested by SC DHEC.

The Following Laboratory(ies) will be used for this Project:

Commercial Lab(s)

Full Name of the Contractor performing Lab Analyses: Analytical Environmental Services Inc.
Name of Lab Director: Mehmet Yildrim (QA/QC Ashley Amick- Access Analytical inc.)
SCDHEC Certification Number: SC Cert #: 98016003
Parameters this Lab/Contractor will analyze for this project:
BTEX, naphthalene, MTBE via US EPA method 8260B and TBA, TAA and TAME via US EPA method 8260-Oxy

Please note: SC DHEC may require that the contractor submit some or all of the Laboratory's SOPs as part of this QAPP.

A9 Documents and Records

Personnel will receive the most current version of the QAPP Addendum via: (Check all that apply)

__X__US Mail ____Courier __X__Hand delivered

Personnel will receive the QAPP via US Mail, Email, or by downloading from the CES internal network. Notification of updates to the Master QAPP will be through email from the contractor. CES personnel can access the QAPP by downloading through the internal network system.

Record	Produced By	Hardcopy/ Electronic	Storage Location For how long?	Archival
Field Data Sheets/ Sampling logs	Environmental Contractor	Electronic	At Contractor Office Electronic for 5 Years	Included in Report
Laboratory Data	Laboratory Contractor	Electronic	At Laboratory Electronic for 25 Years	See Lab Archive plan
Weekly Update	Environmental Contractor	Electronic	At Contractors Office Electronic copy for 5 years	Included in Report
Monitoring Report	Environmental Contractor	Electronic/ Hard Copy	At Contractors Office Electronic copy for 5 years	Electronic Copy
Correspondence	Environmental Contractor/ SCDHEC/ Subcontractors	Electronic/ Hard Copy	At Contractors Office Electronic copy for 5 years	Electronic Copy
Invoices	Environmental Contractor	Electronic/ Hard Copy	At Contractors Office Electronic copy for 5 years	Electronic Copy
Manifests	Environmental Contractor	Electronic/ Hard Copy	At Contractors Office Electronic copy for 5 years	Electronic Copy
Figures	Environmental Contractor	Electronic/ Hard Copy	At Contractors Office Electronic copy for 5 years	Electronic Copy
Surveys	Environmental Contractor/ Comprehensive Survey Subcontractor	Electronic/ Hard Copy	At Contractors Office Electronic copy for 5 years	Electronic Copy
Disposal Manifests	Environmental Contractor/ Disposal Subcontractor	Electronic/ Hard Copy	At Contractors Office Electronic copy for 5 years	Electronic Copy

Table 4A Record Identification, Storage, and Disposal

CRAWFORD ENVIRONMENTAL SERVICES

Section B Measurement/Data Acquisition

B1 Sampling Process/Experimental Design

Site Check	QAPP Submitted	ACA Approved	GW Sampled	Report Submitted	Details
NTP+10	**NTP+15**	**NTP+30**	**D+15**	**D+30**	

Table 5A Sampling Activities
NTP = Notice to Proceed
D= Directive
Up to a total of:

0 Soil Samples
83 Water Samples

may be submitted for laboratory analysis.

Groundwater samples will be analyzed for the following:
BTEX, naphthalene, MTBE via US EPA method 8260B and TBA, TAA and TAME via EPA method SW-846 8260-Oxy

Field blanks and duplicates will be taken for groundwater samples (1 per every 20 samples collected). Trip blanks will be taken for every 20 samples and/or per every cooler used during the assessment.

The contractor will follow sampling protocols as outlined in the UST QAPP. These totals are anticipated to be maximums. The actual number of samples collected and submitted for laboratory analysis will be dependent upon the effort required to complete the scope of work.

***Estimate* the number of samples of each matrix that are expected to be collected:**
Note: numbers provided are intended as a maximum probable under the current plan

Field Blank	**0**
Trip Blank	**0**
Total Soil Samples	**0**
Soil sample field and trip blanks will be represented by water samples.	
Groundwater from Field Screening (FS)	**0**
Groundwater from Monitoring Well Sampling (MWS)	**70**
Water from water wells	**0**
Water from surface features	**1**
Field Blanks (FS)	**0**
Field Blanks (MWS)	**4**
Trip Blanks (FS)	**0**
Trip Blanks (GWS)	**4**
Duplicates (FS)	**0**
Duplicates (GWS)	**4**
Total (FS)	**0**
Total (GWS)	**70**
Total (Other)	**13**
TOTAL	**83**

FS = Field Screening GWS= Groundwater Sampling

If any of the above are circled please indicate how will it be done and the equipment needed. Sample collection that results in groundwater chemical analysis will include depth to water, depth to product, and groundwater quality indicators. Sampling will include gauging the depth to water and/or depth to free product utilizing an electronic water level indicator or similar device capable of recording the water level or thickness of any free product to an accuracy of 0.01 feet. Measurements of groundwater quality indicators (pH, temperature, D.O. turbidity and specific conductivity) will be recorded during sampling to ensure that groundwater quality is representative of the formation prior to collection of samples. Groundwater samples will be collected from a monitoring well by manual bailing using disposable polyethylene bailers. One sample will be collected from each monitoring well beginning with the wells on the outside perimeter of the contamination plume and working from the wells exhibiting the lowest CoC's to the highest CoC's. Sample duplicates will be collected per every 20 samples. For sample collection the bailer will be slowly lowered into the well until the top of the bailer has penetrated the water table surface, and slowly removed once full. Purge waters will be containerized on site and disposed of properly. The sample containers will then be placed in a cooler and delivered to AA laboratories.

Will Sampling Equipment have to be cleaned and decontaminated or is everything disposable? Decontamination procedures will be the responsibility of the CES Field Technicians; ultimately reviewed and approved by the Field Manager. As outlined in Appendix A of the UST Guidance Document " QAPP Revision 1", all reusable sampling equipment will be stainless steel or constructed of a material that is compatible with the specified analysis and will be cleaned prior to and following the collection of each sample. Disposable bailers, string and gloves will be utilized for sample collection and will be disposed of after use.

If sampling equipment must be cleaned please give a detailed description of how this is done and the disposal of by-products from the cleaning and decontamination. pH, specific conductance, dissolved oxygen, and temperature meters [parameter devices] and water meter probes [sampling equipment] will be decontaminated between monitoring wells. In the field, parameter meter probes will be decontaminated utilizing deionized water. Each meter will be rinsed and then allowed to air dry. Decontamination waste from the cleaning processes will be contained and disposed of with the associated IDW for the site.

Sampling equipment and/or instruments will be decontaminated by washing with a laboratory-grade detergent such as Alconox, rinsed with tap water and then rinsed with analyte free water. If the equipment is not used immediately, it will be covered in plastic and stored in a clean, dry place. If required by UST Project Manager, verification of the effectiveness of the decontamination procedure will be acquired through equipment rinsate samples.

Identify any equipment and support facilities needed. This may include such things as Fed-ex to ship the samples, a Geoprobe, field analysis done by another contractor (who must be certified), and electricity to run sampling equipment.
Access Analytical will be the laboratory and is responsible for shipment of all samples (via Federal Express) to the subcontracted laboratory of AES.

Address the actions to be taken when problems occur in the field, and the person responsible for taking corrective action and how the corrective action will be documented.

Failure	Response	Documentation	Individual Responsible
Equipment Failure (Drilling) {Ie. Drill rig, concrete}	Contact CES project manager. Use alternative equipment if available. Initiate field repairs if possible	Identify failure. Log date, time and equipment.	Field Manager William C. Ewing 803-708-0079
Equipment Failure (sampling) {ie. Parameter meters, pump failure, calibration error}	Contact CES project manager. Use alternative equipment if available. Initiate field repairs if possible.	Identify failure. Log date, time and equipment.	Field Manager William C. Ewing 803-708-0079
Loss or delay of lab samples	Resample	Notice by Access of lost or delayed samples	Access Analytical Ashley Amick 803-781-4243
Drilling Refusal (Rock)	Contact CES project manager. Contact SCDHEC project manager	Log location, time and depth.	Field Manager William C. Ewing 803-708-0079
Drilling Issue (utility line impact etc.)	Contact CES project Manager, Contact Palmetto Utilities Protection Service.	Log location, time and depth.	Field Manager William C. Ewing 803-708-0079
Passive Diffusion Bag deployment / sampling failure	Redeploy. Use alternate method if applicable.	Log location, time and equipment.	Field Manager William C. Ewing 803-708-0079
Snap collector deployment failure.	Redeploy. Use alternate method if applicable.	Log location, time and equipment.	Field Manager William C. Ewing 803-708-0079
Lost samples in the lab	Resample	Email from lab to CES project manager and QA/ project verifier	Access Analytical Ashley Amick 803-781-4243
Sample failure (hold time limit exceeded/temperature limit exceeded	Contact CES project manager	Email from lab to CES project manager and QA/ project verifier	Access Analytical Ashley Amick 803-781-4243

Table 6A Field Corrective Action

B3 Sample Handling and Custody

1. ***How will the samples get from the Site to the Lab to ensure holding requirements are met?*** Samples will be delivered to Access Analytical by CES personnel within 24-72 hours of sample collection. Access Analytical will then ship the samples via Federal Express to AES. Temperature and condition of the samples will be verified upon arrival at both Access Analytical and AES.

2. ***How will the contactors cool the samples and keep the samples cool?*** Sample containers will be maintained in a refrigerator or cooler filled with ice until they are shipped. Appropriate shipping containers for samples include insulated polypropylene or aluminum-clad coolers. The coolers should contain ice in a sealed container or other cooling source to maintain a temperature of 6°C in the container and to prevent degradation of the samples

3. ***How will the lab determine the temperature of the samples upon receipt? Will they be using a temperature blank?*** Project laboratories will use a certified thermometer to determine at-receipt sample temperatures. The temperature will be recorded on the chain-of-custody, temperature blanks will be used.

4. ***Where will the samples be stored in the Lab once they are received?*** Samples to be shipped for analysis will be handled and packaged in a manner that maintains a complete chain-of-custody record and prevents damage during shipment. All samples will be transported to the laboratory directly or by a commercial carrier. When using a commercial carrier, a custody seal will be used to preserve the integrity of the sample from the time it is collected until the container is opened in the laboratory. Samples received at project laboratories will be kept in secure refrigerators.

5. ***Describe the chain of custody procedure and attach a copy of each chain of custody that will be used. If a Chain of Custody SOP exists from the Lab and the Contractor is willing to adhere to it, then this may be attached.*** A chain-of-custody record supplied by the contracted laboratory will be used to document and track possession of the samples. The chain-of-custody record will be sent with each sample shipment from the field to the laboratory and will serve as a record for the receipt of samples by the laboratory. Copies of the chain-of custodies are included as Appendix E.

B4 Analytical Methods

1. ***Identify the SOPs which will be used to analyze the samples, the method which the SOP references and the equipment or instrumentation that is needed:***

Parameter	SOP ID*	Method Referenced	Equipment	Comments
pH	Section 2.10	SM 4500 H+B	HACH SenseION 156 HANNA HI	Refer section 2.10 CES SOP
Specific Conductance	Section 2.10	SM2510B	HACH SenseION 156 HANNA HI	Refer section 2.10 CES SOP
Temperature	Section 2.10	SM2550B	HACH SenseION 156 HANNA HI	Refer section 2.10 CES SOP
Dissolved Oxygen	Section 2.10	SM4500-O-G	HACH SenseION 156 HANNA HI	Refer section 2.10 CES SOP
Turbidity	Section 2.10	Method 8237	HACH DR-820	Refer section 2.10 CES SOP
BTEX, naphthalene, and MTBE	OA 11010	EPA Method 8260B	AES QAP p.195	AES SOP OA 11010 APDX III CES SOP
TAA, TAME and TBA	OA 11010	EPA Method 8260-Oxy	AES QAP p.195	AES SOP OA 11010 APDX III CES SOP

Table 7A Analytical SOPs and Referenced Methods

- **This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key.**

Abbreviation	Lab Identification of this SOP	Full Name of the SOP
Section 2.10	CES SOP Section 2.10	State Lead Tier II Assessment Program: Standard Operating Procedure & Quality Assurance/Quality Control
OA 11010	AES SOP OA-11010	Analytical Environmental Services Standard Operating Procedure for Volatile Organic Compound by EPA SW-846 Method 8260B/5030/5035
OA 13002	AES SOP OA-13002	Analytical Environmental Services Standard Operating Procedure Determination of Metals in Water, Soils and Wastes by ICPBY EPA SW-846 Method 6010C and Prep Methods 3010A/3050B/SM3030C
OA 11007	AES SOP OA-11007	Analytical Environmental Services Standard Operating Procedure for 1,2-Dibromoethane (EDB) and 1,2-Bibromo-3-chloropropane (DBCP) by EPA SW-846 Method 8011
AES QAP Section 9.0	AES QAP Rev 15	Access Analytical, Inc. & Analytical Environmental Services (AES) Comprehensive Quality Assurance Plan (Revision 15): Section 9.0 Calibration Procedures and Frequency

Table 8A: SOP Abbreviation Key

2. Identify procedures to follow when failures occur, identify the individual responsible for corrective action and appropriate documentation:

Failure	Response	Documented Where?	Individual Responsible
Equipment Failure (drilling equipment) i.e. drill rig, concrete saw, etc.	Contact CES Project Manager	Record problem, use alternate method / equipment if available / applicable or reschedule field activities after equipment is repaired	CES Project Manager Daniel J. Fisher 540-798-5068
Equipment Failure (sampling equipment) i.e. passive diffusion bags, parameter meters	Contact CES Project Manager	Record problem, use alternate method if applicable/ available or reschedule field activities after equipment is repaired.	CES Project Manager Daniel J. Fisher 540-798-5068
QC Failure	Contact CES Project Manager	Notification/Documentation via email, noted in laboratory report	CES Project Manager Daniel J. Fisher 540-798-5068
Sample accident in transit	Contact CES Project Manager	Notification/Documentation via email, noted in laboratory report	Laboratory Director (AA) Ashley Amick 803-781-4243
Sample accident in lab	Contact CES Project Manager	Notification/Documentation via email, noted in laboratory report	Laboratory Director (AA) Ashley Amick 803-781-4243
Insufficient sample for analysis or repeat analysis	Contact CES Project Manager	Notification/Documentation via email, noted in laboratory report	Laboratory Director (AA) Ashley Amick 803-781-4243
Analytical Errors	Contact CES Project Manager	Notification/Documentation via email, noted in laboratory report.	CES Project Manager Daniel J. Fisher 540-798-5068
CoC or Sample Receiving Issues	Contact CES Project Manager	Notification/Documentation via email, noted in laboratory report.	CES Project Manager Daniel J. Fisher 540-798-5068
On-Time delivery	Contact CES Project Manager	Notification/Documentation via email, noted in laboratory report.	CES Project Manager Daniel J. Fisher 540-798-5068

Table 9A Corrective Action Procedures

3. **Identify sample disposal procedures.**

Analysis	Matrix	Schedule for disposal	Method for disposal	Comments
Turbidity	Groundwater	As Generated	If applicable, a portable granulated carbon filter will be used. 55 gallon drum on site	A&D Environmental Services
DO	Groundwater	As Generated	If applicable, a portable granulated carbon filter will be used. 55 gallon drum on site	A&D Environmental Services
Specific Conductance	Groundwater	As Generated	If applicable, a portable granulated carbon filter will be used. 55 gallon drum on site	A&D Environmental Services
pH	Groundwater	As Generated	If applicable, a portable granulated carbon filter will be used. 55 gallon drum on site	A&D Environmental Services
Lab	All	As Generated	See AES SOP WM 17001	Analytical Environmental Services Inc.

Table 10A Sample Disposal

4. **Provide SOPs for the Kerr Method or the Ferrous Iron Method if these are parameters for this study. This can be attached or written here. If attached please note that it is an attachment and where it is located (if applicable).** N/A

B5 Quality Control Requirements:

All QC will follow the requirements laid out in Section B5 of the UST Programmatic QAPP.

B6 Field Instrument and Equipment Testing, Inspection and Maintenance

1. **Identify all field and laboratory equipment needing periodic maintenance, the schedule for this, and the person responsible. Not the availability and location of spare parts.**

Instrument	Serial Number	Type of Maintenance	Frequency	Parts needed/Location	Person responsible
HACH SenselON 156 Parameter Meter (ph, Con, temp, DO)	8228266	Check batteries, check buffer solutions, calibration, factory check, clean/change probe(s)	Monthly, change out daily as needed	Columbia Office, Supply Cabinet	CES Project Manager Daniel J. Fisher 540-798-5068
HACH Colorimeter (turbidity)	010420015672	Check batteries, check buffer solutions, calibration, factory check,	Monthly, change out daily as needed	Columbia Office, Supply Cabinet	CES Project Manager Daniel J. Fisher 540-798-5068
HANNA HI 991001 Parameter Meter (pH, Temp)	182298	Check batteries, check buffer solutions, calibration, factory check, clean/change probe(s)	Monthly, change out daily as needed	Columbia Office, Supply Cabinet	CES Project Manager Daniel J. Fisher 540-798-5068
HANNA Dissolved Oxygen Meter	9142	Check batteries, check buffer solutions, calibration, factory check, clean/change probe(s)	Monthly, change out daily as needed	Columbia Office, Supply Cabinet	CES Project Manager Daniel J. Fisher 540-798-5068
KECK Water Level Indicator	2185	Check batteries, clean probe	Weekly	Columbia Office, Supply Cabinet	CES Project Manager Daniel J. Fisher 540-798-5068
KECK Oil Interface Probe	2011	Check batteries, clean probe	Weekly	Columbia Office, Supply Cabinet	CES Project Manager Daniel J. Fisher 540-798-5068
Solonist Water Level Indicator	004602	Check batteries, clean probe	Weekly	Columbia Office, Supply Cabinet	CES Project Manager Daniel J. Fisher 540-798-5068
Laboratory Equipment	P. 195 AES QAP Apdx III Equipment List	p.122 AES QAP Section 10.0	AES QAP Section 10.0	AES QAP Section 10.0	Laboratory Personnel

Table 11A Instrument and Equipment Maintenance

2. Identify the testing criteria for each lab or field instrument that is used to ensure the equipment is performing properly. Indicate how deficiencies, if found, will be resolved, re-inspections performed, and effectiveness of corrective action determined and documented. Give the person responsible for this:

Instrument/Equipment & Serial Number	Type of Inspection	Requirement	Individual Responsible	Resolution of Deficiencies
HACH SenseION 156 Parameter Meter (ph, Con, temp, DO)	Calibration	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	Use another meter
HACH Colorimeter (turbidity)	Calibration	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	Use another meter
HANNA HI 991001 Parameter Meter (pH, Temp)	Calibration	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	Use another meter
HANNA Dissolved Oxygen Meter	Calibration	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	Use another meter
KECK Water Level Indicator	Preparatory Check	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	Use another meter
KECK Oil Interface Probe	Preparatory Check	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	Use another meter
Solonist Water Level Indicator	Preparatory Check	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	Use another meter
Laboratory Equipment	p.116 AES QAP Section 9.0	p.116 AES QAP Section 9.0	Laboratory Personnel	AES QAP Section 9.0

Table 12A Instrument and Equipment Inspection

CRAWFORD ENVIRONMENTAL SERVICES

B7 Instrument Calibration and Frequency

1. **Identify equipment, tools, and instruments for field or lab work that should be calibrated and the frequency.**
2. **Describe how the calibrations should be performed and documented, indicating test criteria and standards or certified equipment.**
3. **Identify how deficiencies should be resolved and documented. Identify the person responsible for corrective action.**

Instrument	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA	SOP Reference*
HACH SenseION 156 Parameter Meter (ph, Con, temp, DO)	See CES SOP Section 2.10	See CES SOP Section 2.10, pg 11, Daily Before Use	See CES SOP Section 2.10	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	See CES SOP Section 2.10
HACH Colorimeter (turbidity)	See CES SOP Section 2.10	See CES SOP Section 2.10, pg 11, Daily Before Use	See CES SOP Section 2.10	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	See CES SOP Section 2.10
HANNA HI 991001 Parameter Meter (pH, Temp)	See CES SOP Section 2.10	See CES SOP Section 2.10, pg 11, Daily Before Use	See CES SOP Section 2.10	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	See CES SOP Section 2.10
HANNA Dissolved Oxygen Meter	See CES SOP Section 2.10	See CES SOP Section 2.10, pg 11, Daily Before Use	See CES SOP Section 2.10	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	See CES SOP Section 2.10
KECK Water Level Indicator	See CES SOP Section 2.10	See CES SOP Section 2.10, pg 11, Daily Before Use	See CES SOP Section 2.10	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	See CES SOP Section 2.10
KECK Oil Interface Probe	See CES SOP Section 2.10	See CES SOP Section 2.10, pg 11, Daily Before Use	See CES SOP Section 2.10	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	See CES SOP Section 2.10
Solonist Water Level Indicator	See CES SOP Section 2.10	See CES SOP Section 2.10, pg 11, Daily Before Use	See CES SOP Section 2.10	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	See CES SOP Section 2.10
Laboratory Equipment	See-AES QAP Section 9.0	See-AES QAP Section 9.0	See-AES QAP Section 9.0	See-AES QAP Section 9.0	Laboratory Personnel	See-AES QAP Section 9.0

Table 13A Instrument Calibration Criteria and Corrective Action

*** This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key.**

B8 Inspection/Acceptance Requirements for Supplies and Consumables

1. Identify critical supplies and consumables for field and laboratory, noting supply source, acceptance criteria, and procedures for tracking, storing and retrieving these materials.
2. Identify the individual(s) responsible for this.

Item	Vendor	Acceptance criteria	Handling/Storage Conditions	Person responsible for inspection and tracking.
pH Buffer Solution	Fisher	Within expiration date	Cool. Dry cabinet	Daniel J. Fisher CES Project Manager 540-798-5068
Specific Conductivity Standard	Fisher	Within expiration date	Cool, dry cabinet	Daniel J. Fisher CES Project Manager 540-798-5068
Nitrile Gloves	Clearwater	Sealed	Cool, dry room	Daniel J. Fisher CES Project Manager 540-798-5068
Batteries	Any	Sealed	Cool, dry cabinet	William C. Ewing Field Manager 803-708-0079
Bailers	Clearwater	Sealed (individually)	Cool, dry room	William C. Ewing Field Manager 803-708-0079
Bottles	Access Analytical	Sealed	Cool, dry room	William C. Ewing Field Manager 803-708-0079
Nylon String	Clearwater	Sealed	Cool,dry room	William C. Ewing Field Manager 803-708-0079
Coolers	Access Analytical	Sealed	Cool,dry room	William C. Ewing Field Manager 803-708-0079
Laboratory Equipment	AES	AES QAP Section 11.0	AES QAP Section 11.0	Laboratory Personnel (AES) & (AA)

Table 14A List of Consumables and Acceptance Criteria

B9 Data Acquisition Requirements (Non-Direct Measurements)

1. Identify data sources, for example, computer databases or literature files, or models that should be accessed or used.
2. Describe the intended use of this information and the rationale for their selection, i.e., its relevance to project.
3. Indicate the acceptance criteria for these data sources and/or models.

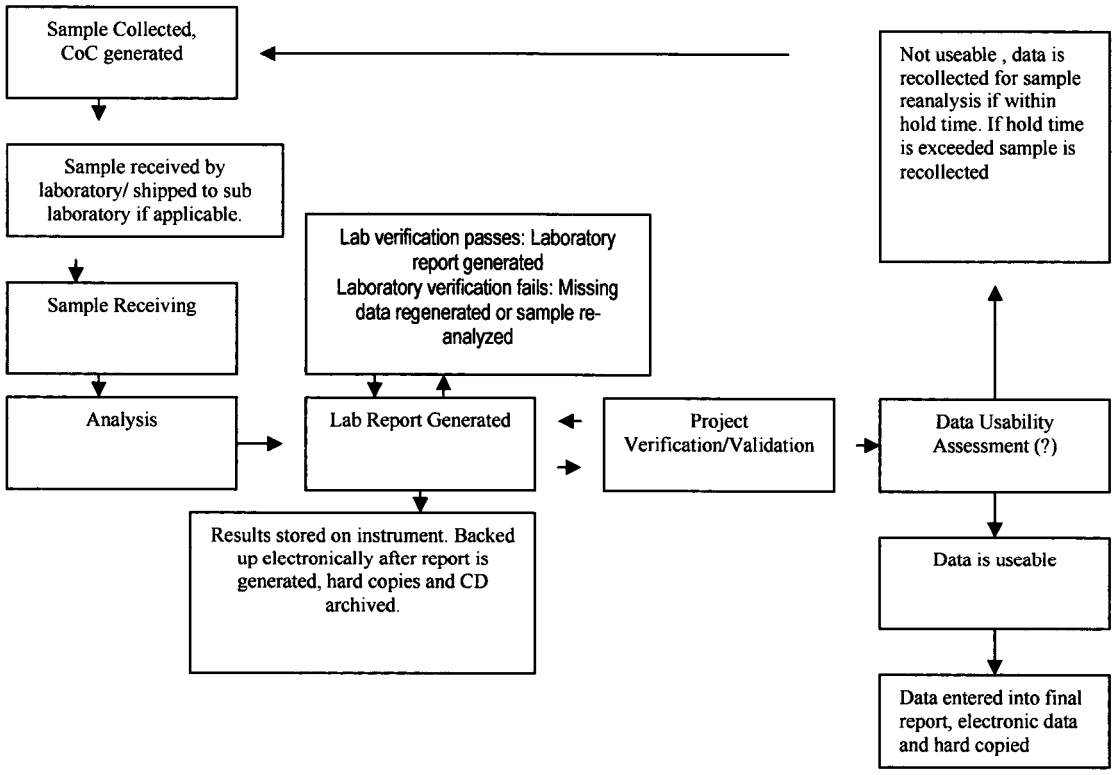
Data Source	Used for	Justification for use in this project	Comments
Previous Assessment and Corrective Action documentation	Remedial efforts performed to date; historic groundwater elevations, historic chemical concentrations, historic well construction logs, historic surveys, historic diagrams, historic topography, historic boring data.	Effectiveness of remedial strategy implemented at the site, evaluate corrective action data collected; determining well screen intervals, total depths, construction details, property access, and historic summary tables.	

Table 15A Non-Direct Measurements

4. Identify key resources/support facilities needed. Not applicable.

B10 Data Management

Describe the data management scheme from field to final use and storage.



1. **How does the lab and field staff ensure that no unauthorized changes are made to the chain of custody, sampling notebooks, laboratory notebooks and computer records?** Field data is kept in a dedicated notebook with no pages removed. All data (reports from the lab, field notes, drafts and final reports) are saved on the internal company server. Original field data hard copies are filed into relevant project folders and archived in filing cabinets. Report data, to include tables and figures, are verified from the original source by the CES Project Manager before the report is signed.

2. **How does the lab ensure that there are no errors in samples records including times when sample information is compiled, data calculated and/or transmitted.** Lab internal QA/QC checks and check sheets for all received coolers will determine if laboratory data is credible, or if the groundwater samples are suspect and new samples must be collected and reanalyzed. Laboratory supervisor will check all data before it leaves the laboratory. Laboratory data will be sent electronically to the environmental contractors of the USA for storage on their server.

3. **How will the data be archived once the report is produced? How can it be retrieved? (This applies to both electronic and hard copies).** Hard copies will be maintained at the West Columbia office for five years. The electronic copies will be maintained for 25 years at the West Columbia office.

Section C Assessment and Oversight

C1 Assessment and Response Actions

1. **Field Oversight:** The Field Manager is responsible for ensuring SOPs to include equipment decontamination and calibration are properly conducted by the field staff. The Field Manager will be present and monitor the field staff every day that field activities occur. The Field Manager also is responsible for ensuring that field personnel adhere to the QAPP. If problems occur, the Field Manager will immediately contact the CES Project Manager to determine the appropriate corrective action. If the situation cannot be resolved on site, another visit will be scheduled to resample the wells. The Field Manager can stop work at any time. The Project Manager can decide if the sampling party will return to the office without completing sampling of all the monitoring wells. The Field Manager's observations will be submitted to the Project Manager on a daily basis.

2. **Commercial Lab Offsite Technical Assessment:** The supervisors for each section will review the procedures for another section of the laboratory on a monthly basis to check quality procedures. The Project QA Manager will conduct specific assessments for the methods addressed by this QAPP. Anyone may suspend work if a situation arises, but only the supervisor can stop work. The Laboratory QA Manager will report all observations to the Laboratory Director. SCDHEC has the right to inspect work at any time. This will be documented and kept as part of the project records.

3. **Project Assessment:** Assessment of project activities will be performed by the CES Project Manager. Field assessments will ensure that proper field methods are followed. At the end of each day of field activities, the Subcontractor Project Manager will review the work completed during that day with the Subcontractor Field Manager. If methods were not adequately followed, affected items will be corrected. If corrective action is implemented, the Subcontractor Project Manager or Project QA/QC Manager will verify that the corrective action was adequate and was properly documented. Any discrepancies will be addressed in Appendix K of the contractor checklist and in section 1.5 of the assessment report.

C2 Reports to Management

See the SC DHEC UST Programmatic QAPP (UST Master QAPP).

Section D Data Validation and Usability

See the SC DHEC UST Programmatic QAPP (UST Master QAPP).

CRAWFORD
ENVIRONMENTAL
SERVICES

APPENDIX B:

Chain of Custody Template

LAB USE ONLY

Access Analytical - Chain of Custody Record

Project Work Order # _____

Sales Order # _____ **PO #** _____ **Access Quote #** _____ **Laboratory ID:** _____

Company Name: | Preservative: (*see codes)

Report To: | Container Type: (*see codes)

Address:

City: State: Zip:

Phone: Fax:

Email:

Project ID:

Sampled By:

→ REQUESTED LAB ANALYSIS: →

Sample ID/Description	Date Collected:	Time Collected:	Type: (grab or composite)	Matrix: (see codes)	Program Area (see codes)	TOTAL # of containers											
							# of containers	date collected	time collected	pre-analysis							
							# of containers	date collected	time collected	pre-analysis							
							# of containers	date collected	time collected	pre-analysis							
							# of containers	date collected	time collected	pre-analysis							
							# of containers	date collected	time collected	pre-analysis							
							# of containers	date collected	time collected	pre-analysis							
							# of containers	date collected	time collected	pre-analysis							
							# of containers	date collected	time collected	pre-analysis							
							# of containers	date collected	time collected	pre-analysis							
							# of containers	date collected	time collected	pre-analysis							

ACCESS ANALYTICAL, INC.

7478 Carlisle Street
Irmo, SC 29063

Phone: (803) 781-4243
Fax: 781-4303

www.axs-inc.com

***Preservative Codes** *(place corresponding # in block above analysis field):*
0 = None, 1 = HCL, 2 = HNO_3, 3 = H_2SO_4, 4 = NaOH, 5 = $Na_2S_2O_3$, 6 = Method 5035 set w/ $NaHSO_4$ & CH_3OH, 7 = NaOH/ZnOAC, 8 = H_3PO_4

***Matrix Codes** *(place corresponding code in matrix column):*
GW = ground water, WW = waste water, DW = drinking water, S = soil, SL = sludge, A = air, IW = industrial waste, WO = waste oil, OT = other *(specify in comments section)*

***Program Area Codes:** CWA = Clean Water Act (for wastewaters), SDWA = Safe Drinking Water Act (for drinking waters), SHW = Solid and Hazardous Wastes (for soils, ground waters and waste samples)

***Container Type:** G = Glass, P = Plastic

NOTES / COMMENTS

(if sample is a composite please use space below to note start/finish times & dates)

Turnaround Time:

___ Standard
___ RUSH*
*Date Required:_____
(For rush work, results emailed/faxed by end of business day on date required)

Project Location:
___SC
___NC
___Other
(specify) _____

Relinquished By:	Received By:	Date (mm-dd-yy)	Time (24HR)	Samples Rec'd on Ice	Sample Temp. Upon Receipt (°C):	
				___Y ___N	_____(°C)	_____(N/A)
				___Y ___N	_____(°C)	_____(N/A)
				___Y ___N	_____(°C)	_____(N/A)
				___Y ___N	_____(°C)	_____(N/A)

See Reverse for Terms and Conditions

Original Copy - Returned w/Report
Yellow Copy - Access File Copy

CRAWFORD
ENVIRONMENTAL
SERVICES

APPENDIX C:

Ground Water Assessment Plan

Groundwater Sampling Plan - Initial Monitoring Report
Underground Storage Tank Program

DHEC 3527 (07/1999) CES Mod ver 0.9

Project Information

UST Permit: 07584, 07777 & 12352 County: Richland Facility Name: Handy Pantry #65/University Mart & Cloud's Chevron

Facility Address: 1600 Two Notch Road City: Columbia State: South Carolina Zip Code: 29204

Property Owner: Mr. Mahesh Patel Address: 2367 Taylor Street

Mr. Andrew Diggins 1600 Block Two Notch Road

City: Columbia State: South Carolina Zip Code: 29204

Project Type: Initial Groundwater Sampling Report- IMR

Current use of facility / property

University Mart currently serves as a retail petroleum service station; Former Cloud's Chevron currently serves as a parking lot for the hospital.

Provided records indicate the site was last sampled May 9-10, 2013

Site Check Details

70 Exisiting Permanent Monitoring Wells were identified during the 3/10/2014 site check

70 monitoring wells associated with 07584, 07777 & 12352

Analyses

List the analytical parameters (e.g., BTEX, MTBE) and estimated number

83 70 exisiting monitoring wells 0 water supply wells 1 surface water samples

4 field blanks 4 trip blanks 4 duplicates BTEX,Naphthalene, MTBE,TBA,TAA,and TAME

Implementation Schedule

(Use MM/DD/YYYY format - Example 01/23/2004)

Start up date: 3/31/2014 *(MM/DD/YYYY)* Completion date: 4/30/2014 *(MM/DD/YYYY)*

Report Submittal Date 4/30/2014 *(MM/DD/YYYY)*

Last Sampling Date

Site Maps

Appendix D

Small Volume Disposal Type and Method

Soil:

Purge Water:

Approximately 400 gallons of groundwater for disposal

Additional Comments

70	Purge
13	No Purge, Surface , Field
0	Gauge
0	Sample Below Product

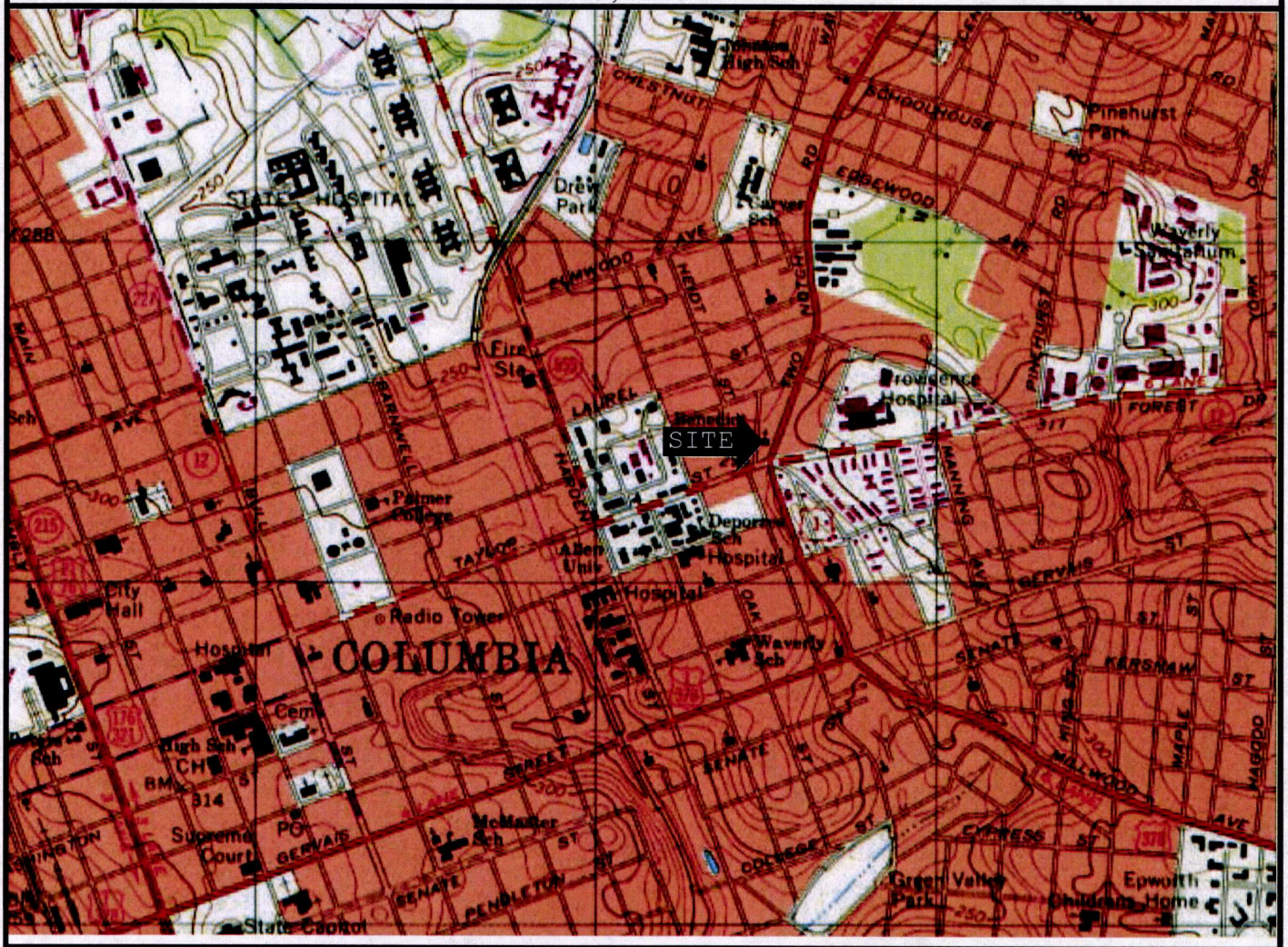
CRAWFORD
ENVIRONMENTAL
SERVICES

APPENDIX D:

Site Figures

FIGURE 1

Site Location Map
Handy Pantry #65 / University Mart / Clouds Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina



CRAWFORD ENVIRONMENTAL SERVICES

15 Church Avenue, SW
Roanoke Virginia, 24011

540-343-6256 (office) 540-343-6259 (fax)

NORTH COLUMBIA, SOUTH CAROLINA

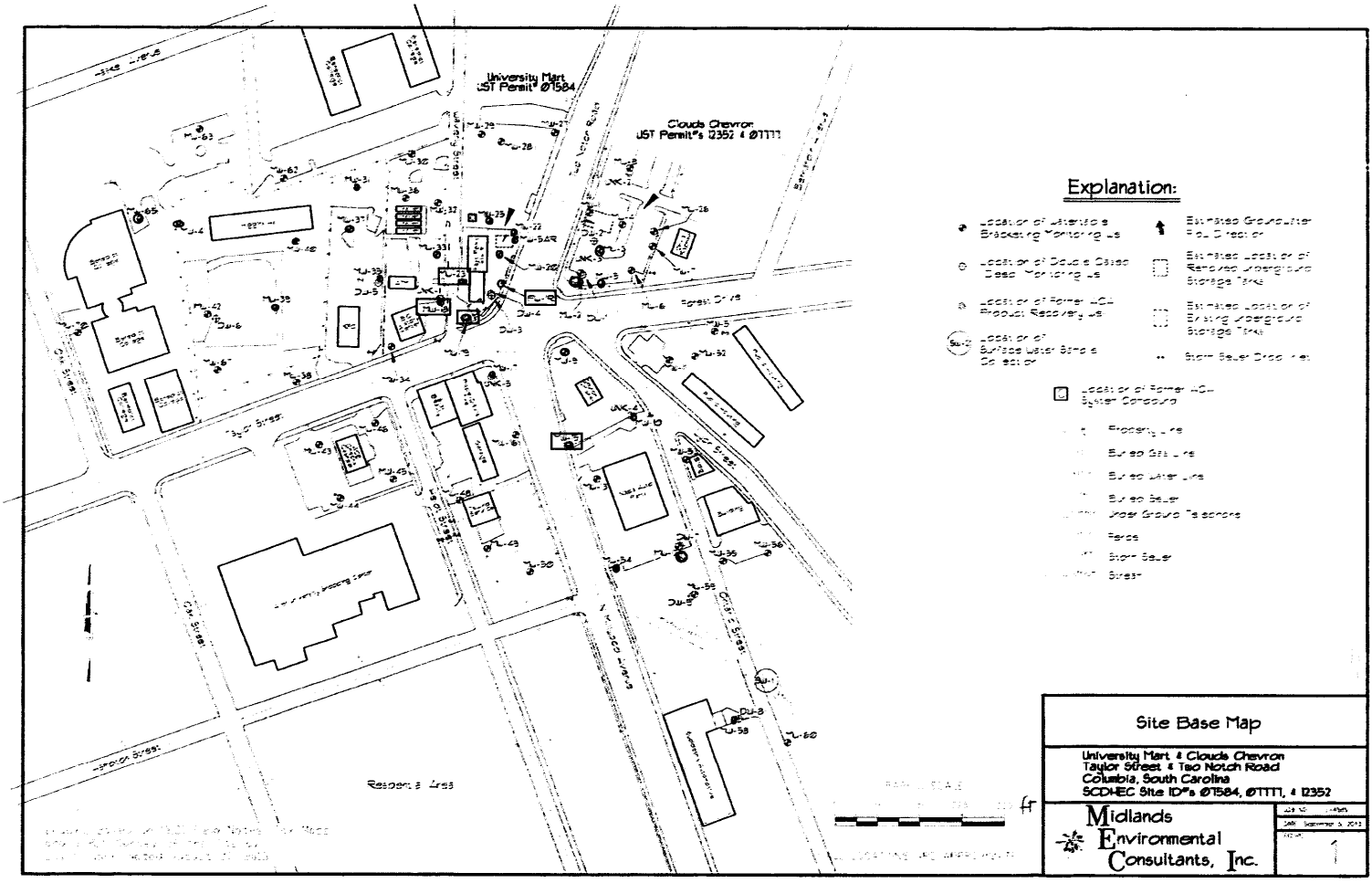
Source: U.S.G.S. Topographic Map of the Columbia North Quadrangle, Virginia, 7.5 Minute Series (1977, revised 1988)
Scale: 1:24,000 Contour Interval: 20 Feet
Vertical Datum: National Geodetic Vertical Datum 1929
Horizontal Datum: North American Datum1927

Project: Corrective Action Plan

Client: SCDHEC

CES Job #: 7.0547

Latitude:
034"00'42.72"N
Longitude:
081"01'00.13"W


University Mart
UST Permit# 07584
Clouds Chevron
UST Permit#s 12352 & 07777
Explanation:
Site Base Map
University Mart & Clouds Chevron
Taylor Street & Two Notch Road
Columbia, South Carolina
SCDHEC Site ID#s 07584, 07777, & 12352
Midlands
Environmental
Consultants, Inc.

Document Receipt Information

☐ Hard Copy ☒ CD ☐ Email

Date Received 24 Mar 14

Permit Number 07584

Project Manager Susan Fulmer

Name of Contractor Crawford Environmental

UST Certification Number UCE-0388

Docket Number 240 tech

Scanned

Corrective Action Plan

March 21, 2014

Ms. Susan Fulmer
State of South Carolina
Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

RE: Corrective Action Plan
Handy Pantry #65/University Mart & Cloud's Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina
UST Permit # 07584 / 07777 / 12352

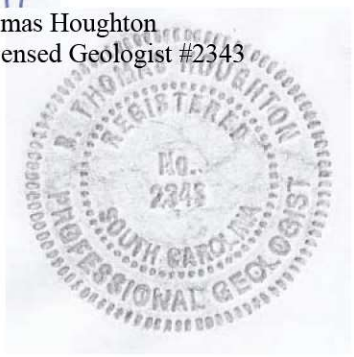
Dear Ms. Fulmer:

Enclosed please find one copy of the *Corrective Action Plan* (CAP) prepared by Crawford Environmental Services, Inc. (CES) for the referenced site. In accordance with historic and current observed site conditions, CES recommends implementation of the CAP to address the multiple-phase contaminants identified on- and off-site. Should you have any questions regarding the enclosed material, or if additional information is required, please feel free to contact me or Charlie Crawford at 540.343.6256.

Best Regards,

Daniel J. Fisher
Division Manager

B. Thomas Houghton
SC Licensed Geologist #2343



cc:

CRAWFORD
ENVIRONMENTAL
SERVICES

CRAWFORD
ENVIRONMENTAL
SERVICES

Corrective Action Report

Handy Pantry #65/University Mart & Cloud's Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina
Richland County
UST Permit #: 07584 / 07777 / 12352

March 21, 2014

CORRECTIVE ACTION PLAN

Handy Pantry #65/University Mart & Cloud's Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina
UST Permit # 07584 / 07777 / 12352

Submitted To:
Ms. Susan Fulmer
State of South Carolina
Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Prepared For:
Ms. Susan Fulmer
State of South Carolina
Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

March 21, 2014
CES Job Number: 7.0547

Prepared By:
Daniel J. Fisher
Division Manager

Reviewed By:
Charles F. Crawford
President

Approved By:
B. Thomas Houghton
Licensed Geologist #2343

CRAWFORD ENVIRONMENTAL SERVICES

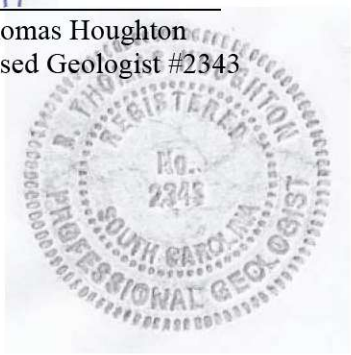


TABLE OF CONTENTS

SIGNATURE/CERTIFICATION PAGE iii
EXECUTIVE SUMMARY iv
1.0 INTRODUCTION 1
1.1 Site Description 1
1.2 Adjacent Properties 1
1.3 Topography 2
2.0 EXISTING REMEDIAL SYSTEM 6
3.0 REMEDIATION SYSTEM DESIGN 6
3.1 Re-Activation of Existing Remedial Components 6
3.2 Surfactant Enhanced Recovery Events 8
3.3 Chemical Oxidation 8
3.4 Biological Injections 9
3.5 Injection Schedule 9
4.0 REMEDIAL SUMMARY 9
5.0 MONITORING SCHEDULES 9
5.1 Remedial Monitoring Schedule 9
5.2 Post-Operational Schedule 10
5.3 Implementation Schedule 10
5.4 Reporting Schedule 10
6.0 DISPOSAL/TREATMENT 11
6.1 Petroleum-Impacted Soil 11
6.2 Non-Impacted Soils 11
7.0 PERMITTING REQUIREMENTS 11
7.1 Construction Permit 11
7.2 Injection Permit 11
8.0 COST EFFECTIVENESS OF PROPOSED SYSTEM 11
9.0 ESTIMATED TIME FRAME TO ACHIEVE ENDPOINTS 11
10.0 SUMMARY AND RECOMMENDATIONS 12
REFERENCES 13

TABLE OF CONTENTS (Cont'd.)

LIST OF FIGURES

Figure 1. *Site Location* *3*
Figure 2. *Site Plan* *4*
Figure 3. *Tax Map* *5*
Figure 4. *Injection Point Location Map* *7*

LIST OF TABLES

Table 1. *Summary of Adjacent Properties* *1*
Table 2. *Summary of Operational Monitoring Schedule* *10*

LIST OF APPENDICES

Appendix A. *Injection Permit Application*

SIGNATURE/CERTIFICATION PAGE

Prepared By:

Name: Daniel J. Fisher, Division Manager

Signature: _____

Reviewed By:

As a registered geologist, I certify that I am a qualified groundwater professional, as defined by the South Carolina Board of Registration for Geologists. All off the information in this plan and in all of the attachments is true, accurate, complete, and in accordance with applicable State Rules and Regulations.

Name: B. Thomas Houghton, P.G. – SC Licensed Geologist #2343

Signature: _____

Approved By:

I certify that I have prepared or supervised preparation of the attached report, that it has been prepared in accordance with industry practices and standards, and that the information contained herein is truthful and accurate to the best of my knowledge.

Name: Charles F. Crawford III – President

Signature: _____

Company: Crawford Environmental Services, Inc.
15 Church Avenue, SW
Roanoke, Virginia 24011
(540) 343-6256 [phone]
(540) 343-6259 [facsimile]

EXECUTIVE SUMMARY

_____	Drinking wells affected
_____	Drinking wells potentially threatened
X	Surface water affected
_____	Surface water potentially threatened
X	Free-phase product in groundwater
X	Dissolved-phase concentrations present which exceed current water quality standards
_____	Sump, basement, utility potentially threatened
_____	Sump or basement affected
X	Utility affected
X	Residual-phase contaminants present that may impact groundwater

In accordance with Department of Health and Environmental Control directives, Crawford Environmental Services, Inc. proposes to remediate the Handy Pantry #65 / University Mart / Cloud's Chevron properties in Columbia, South Carolina via air sparging / soil vapor extraction, surfactant enhanced free product recovery and in-situ chemical oxidation / biological injection technologies.

1.0 INTRODUCTION

On behalf of the South Carolina Department of Health and Environmental Control (SCDHEC), Crawford Environmental Services, Inc. (CES) has prepared a Corrective Action Plan (CAP) to address the multiple-phase contaminant plume(s) identified at the Handy Pantry #65/University Mart and Cloud's Chevron properties located proximal to the intersection of Two Notch Road and Taylor Street in Columbia, South Carolina.

1.1 Site Description

The subject property is located in a primarily commercial area of Columbia, South Carolina (Figure 1). The subject sites, operating as Handy Pantry #65/University Mart and former Cloud's Chevron, is bordered by light commercial properties in all directions. A site plan depicting pertinent features of the subject property is provided as Figure 2.

1.2 Adjacent Properties

As part of CAP development activities, CES reviewed the applicable tax maps for the site and surrounding area. Properties maintaining the presence of monitoring wells and/or those with confirmed petroleum releases are presented in Table 1. A copy of the tax map with the corresponding tax map number is included as Figure 3.

Table 1.

Summary of Adjacent Properties

Tax Map #	I.D. #	Owner Name	Address
R11412-10-16	1	Mr. Mahesh Patel	2367 Taylor Street, Columbia, SC
R11412-09-014A	2	Mr. Andrew Diggins	1600 Block Two Notch Road, Columbia, SC
R11412-09-13	3	Mr. Andrew Diggins	1600 Block Two Notch Road, Columbia, SC
R11411-02-01	4	Ms. Bette Gordon Bateman & Mr. John Bateman	2436 Taylor Street, Columbia, SC
R11411-01-02	5	2368 Taylor Street LLC.	2368 Taylor Street, Columbia, SC
R11411-01-03	6	2368 Taylor Street LLC.	1512 Heidt Street, Columbia, SC
R11411-01-01	7	Chang Moon Sueng	2358 Taylor Street, Columbia, SC
R11408-10-31	8	Mr. Soloman Addico	2361 Taylor Street, Columbia, SC
R11408-10-30	9	Mr. Soloman Addico	1613 Waverly Street, Columbia, SC
R11408-10-29	10	Mr. Soloman Addico	1617 Waverly Street, Columbia, SC
R11407-06-01	11	Mr. Soloman Addico	1616 Oak Street, Columbia, SC
R11407-06-03	12	Mr. Soloman Addico	1604 Oak Street, Columbia, SC
R11407-06-02	13	Mr. Soloman Addico	2305 Taylor Street, Columbia, SC
R11408-10-12	14	Allen University	2315 Taylor Street, Columbia, SC
R11408-10-31	15	Sylvan Food Systems, Inc.	2349 Taylor Street, Columbia, SC
R11411-03-01	16	Ms. Linda Warren	1527 Lyon Street, Columbia, SC
R11411-03-02	17	Ms. Linda Warren	1510 Lyon Street, Columbia, SC

Table 1 (Cont'd).

Summary of Adjacent Properties

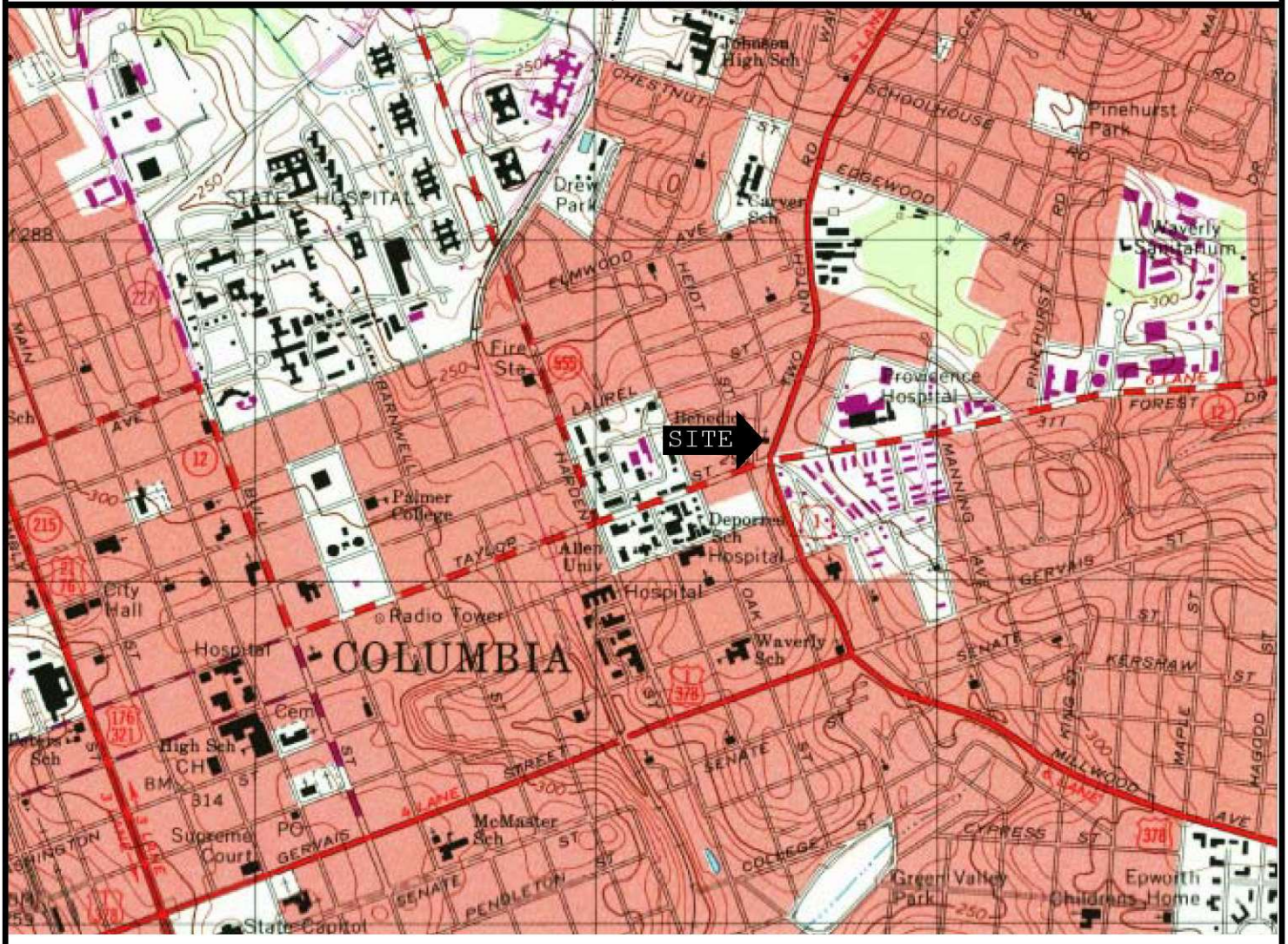
Tax Map #	I.D. #	Owner Name	Address
R11411-04-01	18	Gilbert Walker	1505 Garden Plaza, Columbia, SC
R11411-02-02	19	1500 Millwood Ave LLC.	1527 Ontario Street, Columbia, SC
R11411-02-03	20	John M. Suddeth	Ontario Street, Columbia SC
R11407-07-02	21	Fung Lau	2324 Taylor Street, Columbia, SC

1.3 Topography

The subject site is located within the jurisdictional limits of Richland County, South Carolina and is situated within the Piedmont Physiographic Province. According to the U.S. Geological Survey 7.5 Minute Series Topographic Map of the North Columbia Quadrangle, South Carolina, the site elevation is approximately 293.0 feet above mean sea level.

FIGURE 1

Site Location Map
Handy Pantry #65 / University Mart / Clouds Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina



CRAWFORD ENVIRONMENTAL SERVICES

15 Church Avenue, SW
Roanoke Virginia, 24011

540-343-6256 (office) 540-343-6259 (fax)

NORTH COLUMBIA, SOUTH CAROLINA

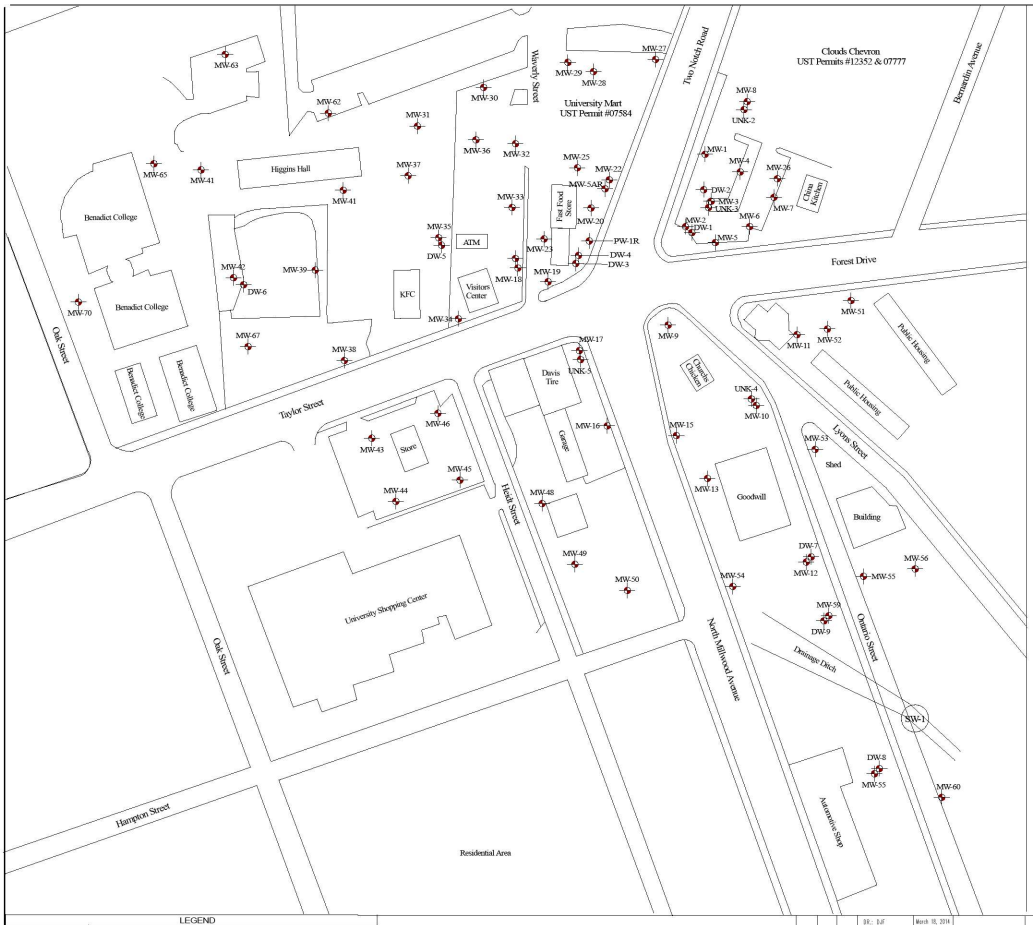
Source: U.S.G.S. Topographic Map of the Columbia North Quadrangle, Virginia, 7.5 Minute Series (1977, revised 1988)
Scale: 1:24,000 Contour Interval: 20 Feet
Vertical Datum: National Geodetic Vertical Datum 1929
Horizontal Datum: North American Datum1927

Project: Corrective Action Plan

Client: SCDHEC

CES Job #: 7.0547

Latitude:
034”00’42.72”N
Longitude:
081”01’00.13”W



Graphic Scale (Feet)

0 75 150 225 300

LEGEND

Gasoline Dispenser	Air Sparge Well	Mail Boxes	Propane Tank
Diesel Dispenser	Future Recovery Well	Sign	Overhead Utility
Utility Pole	Flag Pole	Pay Phone	Metal Fence
Water Meter	Water Spigot	Air Conditioning Unit	Wooden Fence
Monitoring Well	Light Pole	Compressed Air	Manway
Storm Drain	Grease Trap	Waste Receptacle	UST Access

REV.	BY	DATE
	DR.: DJF	March 10, 2014
	CK.:	
	APPD.:	
	SCALE: As Shown	
	CES PROJ. NO.: 7.0547	

Corrective Action Plan

CRAWFORD ENVIRONMENTAL SERVICES

15 Church Avenue, SW
Roanoke, Virginia 24011

540-343-6256
540-343-6259 (fax)

Figure Title
Site Plan
Handy Pantry/University Mart/Clouds Chevron
UST Permits # 07584 / 07777 / 12352
Intersection of Taylor and Two Notch Road
Columbia, South Carolina

DRAWING NUMBER: Figure 2 | REV: 0



			DR.: DJF	March 18, 2014
			CK.:	
			APP'D.: CTC	
			SCALE: NA	
			CES PROJ. NO.: 7.0547	
REV	BY	DATE		

Corrective Action Plan

CRAWFORD ENVIRONMENTAL SERVICES

15 Church Avenue, SW
Roanoke, Virginia 24011

540-343-6256
540-343-6259 (fax)

Figure Title
Tax Map
Handy Pantry/University Mart/Clouds Chevron
UST Permits # 07584 / 07777 / 12352
Intersection of Taylor and Two Notch Road
Columbia, South Carolina

DRAWING NUMBER	REV
Figure 3	0

2.0 EXISTING REMEDIAL SYSTEM

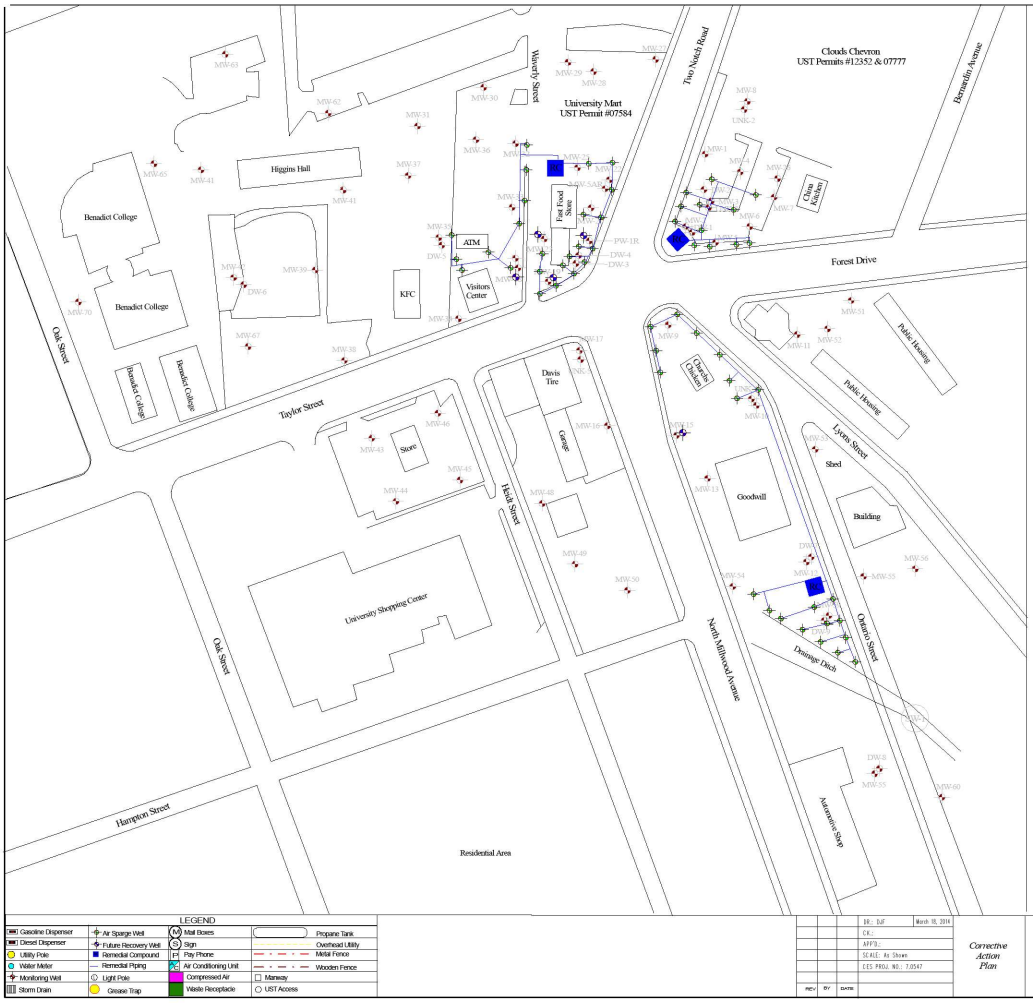
Based on a review of historical documents associated with the referenced UST permits as well as the initial site check performed by CES on March 10, 2014, the former remedial system components remain on-site from the previous contract with Palmetto Environmental Group (PEG). CES identified approximately 58 air-sparge points and four recovery wells. The air-sparge wells were constructed of four-inch schedule 40 polyvinyl chloride (PVC) piping to an approximate depth of 45.0 feet below ground surface (bgs) with screened intervals ranging between 25.0 feet and 45.0 feet bgs. The recovery wells were constructed of two-inch schedule 40 PVC piping to approximate depths of 35.0 feet bgs with screened intervals ranging between 25.0 feet and 35.0 feet bgs. Based on the Corrective Action Plan Implementation Report (CAP-IMP) dated December 27, 2006 completed by PEG, each air sparge well is connected via dedicated 0.5-inch PVC conduits to three independent remedial compounds located at 2367 Taylor Street, 2435 Forest Drive and 2436 Forest Drive. Each remedial system maintains an Atlas Cooper (or equivalent) 10.0-horsepower rotary screw air compressor, a five-horsepower Rotron Regenerative Blower and the ancillary electrical controls. CES performed a cursory visual inspection of the equipment and is assuming that the former remedial systems will resume full operation following minor maintenance and troubleshooting activities. CES has previously submitted applications to South Carolina Electric and Natural Gas (SCENG) to transfer the necessary electric accounts to CES. The existing remedial layout is provided as Figure 4.

3.0 REMEDIATION SYSTEM DESIGN

CES evaluated various corrective action techniques for application at the subject site. In accordance with observed site conditions, CES proposes to remediate the subject properties utilizing a "multi-step" process that will effectively address the free-, dissolved-, and adsorbed-phase petroleum compounds identified at the subject facilities. This tiered-approach will consist of re-activating the air sparge/SVE components, surfactant enhanced free-product recovery efforts, aggressive in-situ chemical-oxidation (ChemOx) and supplemental biological amendment injections. A summary of the remedial program to be implemented at the site is presented below.

3.1 Re-Activation of Existing Remedial Components

Initially, CES proposes to mobilize to the subject site to re-activate the three existing remedial systems. Re-activation will include the following activities: (1) securing the compounds by repairing fencing enclosures and repairing access doors; (2) clearing overgrown foliage and debris surrounding the remedial compounds; (3) performing routine maintenance on the compressors and blowers to include removal and replacement of lubricants, filters, belts, etc.; and (4) modification of the existing remedial manifold to facilitate use during future remedial injections. Following completion of the above referenced activities, the air sparge/SVE systems will be activated and monitored for approximately one quarter.


Clouds Chevron
UST Permits #12352 & 07777
University Mart
UST Permit #07584
Two Notch Road
Bernardin Avenue
Forest Drive
Wilson Street
Higgins Hall
Benedict College
Benedict College
Benedict College
Oak Street
Taylor Street
ATM
Fast Food Store
Visitors Center
KFC
China Garden
Davis Tire
Garage
Store
Hatch Street
University Shopping Center
Oak Street
Hampton Street
Residential Area
Public Housing
Public Housing
Lyons Street
Shed
Building
Goodwill
North Millwood Avenue
Ontario Street
Drainage Ditch
Automotive Shop
Oriental Delights
MW-1
MW-2
MW-3
MW-4
MW-5
MW-6
MW-7
MW-8
MW-9
MW-10
MW-11
MW-12
MW-13
MW-14
MW-15
MW-16
MW-17
MW-18
MW-19
MW-20
MW-21
MW-22
MW-23
MW-24
MW-25
MW-26
MW-27
MW-28
MW-29
MW-30
MW-31
MW-32
MW-33
MW-34
MW-35
MW-36
MW-37
MW-38
MW-39
MW-40
MW-41
MW-42
MW-43
MW-44
MW-45
MW-46
MW-47
MW-48
MW-49
MW-50
MW-51
MW-52
MW-53
MW-54
MW-55
MW-56
MW-57
MW-58
MW-59
MW-60
MW-61
MW-62
MW-63
MW-64
MW-65
MW-66
MW-67
MW-68
MW-69
MW-70
MW-71
DW-1
DW-2
DW-3
DW-4
DW-5
DW-6
DW-7
DW-8
PW-1R
UNK-1
UNK-2
UNK-3
UNK-4
UNK-5
UNK-6
UNK-7
UNK-8
UNK-9
UNK-10
UNK-11
UNK-12
UNK-13
UNK-14
UNK-15
UNK-16
UNK-17
UNK-18
UNK-19
UNK-20
UNK-21
UNK-22
UNK-23
UNK-24
UNK-25
UNK-26
UNK-27
UNK-28
UNK-29
UNK-30
UNK-31
UNK-32
UNK-33
UNK-34
UNK-35
UNK-36
UNK-37
UNK-38
UNK-39
UNK-40

3.2 Surfactant Enhanced Recovery Events

Subsequent to completing approximately one quarter of sparging and vapor extraction, CES will inspect the monitoring points to confirm the presence or absence of free-product. Should site conditions indicate the presence of free-phase petroleum, CES will mobilize to the subject site and install a maximum of six free-product recovery wells. Eight-inch diameter soil borings will be installed utilizing hollow-stem auger techniques to facilitate the construction of six, four-inch recovery / injection wells. Each recovery / injection point will be installed to approximately 35.0 feet below ground surface (bgs). Recovery / injection wells will be equipped with screened intervals from approximately two feet above source area contaminants to the terminal depth of the boring. Each recovery / injection point will maintain an estimated eight-inch diameter waterproof manway installed within an estimated two foot by two foot concrete pad. Proposed recovery / injection point locations are presented on Figure 4.

Following installation of the injections wells, CES will mobilize to the site with remedial injection equipment and approximately 60-gallons of PetroSolv Surfactant (PetroSolv). CES will mix a 3.0% surfactant solution utilizing approximately 50-gallons of PetroSolv and approximately 600-gallons of potable water (acquired on-site). Over an estimated period of one to three days, CES will inject approximately 660-gallons of surfactant solution to injection points IW-1, IW-2, IW-3, IW-4, IW-5, and IW-6. During these injection events, CES will utilize a surge block to actively pressurize the surfactant solution into the formation creating direct contact with the free- and adsorbed-phase compounds. Following completion of the injection activities, CES will utilize a vacuum truck to extract approximately 150-gallons of petroleum impacted groundwater from each of the referenced injection wells.

3.3 Chemical Oxidation

Following achievement of the 60% concentrations of concern (COC) milestone, CES proposes to use a dilute Fenton's reagent process at the subject site to oxidize adsorbed- and dissolved-phase petroleum constituents in the subsurface The Fenton's reagent process utilizes a metal catalyst (ferrous sulfate) and hydrogen peroxide to produce hydroxyl radicals. These hydroxyl radicals rapidly oxidize petroleum hydrocarbons upon contact, ultimately producing by-products of carbon dioxide, water, and dissolved oxygen. Residual petroleum hydrocarbon mass and simple organic acids usually remain after the chemical oxidation process but can be treated with biological amendments. Fenton's reagent process is shown in the following steps:

$$(1)\ Fe^{2+} + H_2O_2 \rightarrow Fe^{3+} + OH\cdot + OH^-$$
$$(2)\ Fe^{3+} + H_2O_2 \rightarrow Fe^{2+} + OOH\cdot + H^+$$

The hydrogen peroxide will be injected into the estimated 58 existing air-sparge wells utilizing the existing piping as subsurface conveyance conduits. The six recovery / injection wells referenced in Section 3.2 also will be utilized for the injection of hydrogen peroxide on an as needed basis. The injection events will be performed episodically until an approximate COC reduction of 75-80% is achieved. CES estimates that each ChemOx injection event can be completed in approximately one to two weeks, however, the duration of these events will be controlled by the site's ability to sustain the desired rates of injection. CES estimates that

approximately 3,000-gallons of 5.0% hydrogen peroxide solution will be utilized at the subject site.

3.4 Biological Injections

Directly following the final ChemOx injection, the holding tank will be cleansed prior to the introduction of bacteria and nutrient-amended water. CES will utilize the PetroBac™ product bundle which contains a TPH Bacterial Consortium and Enzyme Accelerator. The NutriMax™ nutrient mix also will be utilized to increase biological degradation of the hydrocarbon mass at the site. Over the course of an estimated three to five days, CES will inject approximately 1,000 lbs. of CBN nutrients and approximately 20 gallons of A2 bacteria mixed with an estimated 3,500-gallons of potable water. The biological amendments will be gravity fed to the injection points in order to facilitate physical contact with the adsorbed-phase compounds. The amendments will react with the residual TPH mass to produce carbon dioxide and water as by-products.

3.5 Injection Schedule

CES will re-activate the existing remedial compounds immediately upon CAP approval from SCDHEC. Approximately three months following activation of the remedial system, CES will collect groundwater samples from the SSTL wells to evaluate the effectiveness of the existing remedial system. Based on the qualitative and quantitative data collected, CES will evaluate installation of the free-product recovery wells and perform additional injections either on a quarterly or semi-annual basis.

4.0 REMEDIAL SUMMARY

Based on observed site conditions, attainment of cleanup endpoints will be achieved only through remediation of source area or adsorbed-phase contaminants. As described in Section 3.0 of this CAP, surfactant enhanced free-product recovery, in-situ chemical oxidation and supplemental biological degradation will be an aggressive remedial approach to address the multiple-phase contaminants identified at the subject properties. The referenced remedial techniques have been demonstrated by industry as efficient remedial technologies that reduce adsorbed- and dissolved-phase contaminant plumes concurrently, at effective costs and within reasonable time frames. Although preliminary, CES estimates that remedial endpoints can be achieved within approximately 60 months. Contaminant mass removal estimates will be calculated and timelines for the attainment of cleanup endpoints will be modified accordingly after empirical data is collected and evaluated over time.

5.0 MONITORING SCHEDULES

5.1 Remedial Monitoring Schedule

The remedial operation and monitoring (O & M) schedule presented below has been developed to assess the overall effectiveness and operating efficiency of the implemented remedial techniques. Table 2 is a summary of the O & M schedule for the corrective action efforts to be implemented at the subject sites in Columbia, South Carolina.

Table 2.

Summary of Remedial Operation & Monitoring Schedule

Location	Frequency	Parameters	Methods	Media
SVE and system components	Weekly inspections for first month; bi-monthly thereafter	N/A	Routine system O&M	N/A
SVE vapor effluents	Weekly inspections for first month; bi-monthly thereafter	TPH	PID	Vapor
On- and Off-site Monitoring Wells	Semi-Annually from the Date of the CAP-IMP Report	BTEX, Naphthalene, MTBE, TAA, TAME, TBA.	8260B, 8260-OXY	Groundwater

5.2 Post-Operational Schedule

Following achievement of the third interim Chemical of Concern (CoC) concentration goal for 30 consecutive days, CES will complete two quarters of post corrective action monitoring to ensure that dissolved-phase endpoints have been maintained. Upon verification of endpoint maintenance for two consecutive quarters, CES will mobilize to the subject site to remove/abandon all assessment and corrective action equipment. This process will include removal of the injection equipment and abandonment of all on- and off-site monitoring/injection wells.

5.3 Implementation Schedule

Upon receiving the Notice to Proceed from DHEC personnel, CES will mobilize to the subject properties to initiate construction activities. The remedial equipment to be utilized at the subject property is owned by CES which will facilitate the expeditious commencement of the corrective action implementation phase. CES estimates that the existing remedial systems can be operational within one week of receiving the Notice to Proceed.

5.4 Reporting Schedule

The Initial CAP Implementation Report will be submitted to DHEC within 60 days of receipt of the Notice to Proceed. This initial report will comprise details pertaining to overall system design, well installations and as-built drawings for the remedial system utilized. Corrective Action System Evaluation Reports (CASE) will be submitted to DHEC semi-annually from the date of initial "system" startup. The CASE reports will include groundwater analytical results, contaminant mass removal estimates, and an evaluation of the effectiveness of corrective action efforts performed to date.

6.0 DISPOSAL/TREATMENT

The following sections address disposal/treatment options for petroleum-impacted material generated by the proposed corrective action.

6.1 Petroleum-Impacted Soil

CES anticipates that minor amounts of soil will be generated during soil boring installation. Should visual, olfactory and/or headspace evidence indicate that the generated material is petroleum-impacted, CES will collect soil samples for waste characterization analyses. The excavated material will be temporarily stockpiled on-site on six-millimeter polyethylene sheeting pending off-site disposal. Non-hazardous waste manifests for the transport and disposal of any petroleum-impacted soil generated during system installation will be submitted to DHEC under separate cover upon receipt.

6.2 Non-Impacted Soils

Excess non-impacted soils generated during the soil boring process will be stockpiled prior to disposal at a construction debris landfill.

7.0 PERMITTING REQUIREMENTS

7.1 Construction Permit

Local construction standards do not require a construction permit for the required remedial activities.

7.2 Injection Permit

CES has prepared the underground injection permit application and has submitted this document to the SCDHEC Bureau of Water for approval. A copy of the submitted application is included as Appendix A.

8.0 COST EFFECTIVENESS OF PROPOSED SYSTEM

Based on observed site conditions, attainment of cleanup endpoints will be achieved only through remediation of adsorbed- and dissolved-phase contaminant plumes. As described in Section 3.0 of this CAP, in-situ remedial techniques will serve as an aggressive cleanup approach to address the multiple contaminant phases identified at the subject properties.

9.0 ESTIMATED TIME FRAME TO ACHIEVE ENDPOINTS

Accurate estimation of cleanup time is based on sufficient monitoring of corrective action performance during early stages of implementation, quality of effluent data, and appropriate data interpretation (Buscheck and Peargin, 1991). CES has designed the CAP performance monitoring schedule to allow for adequate data collection, particularly as it relates to removal of contaminant mass, during the initial 12 months of corrective action. The absence of quantitative pilot test data is not

conducive to estimating, with any degree of certainty, the contaminant mass remaining in the subsurface. As such, cleanup time and endpoint attainment will be continually evaluated and confirmed throughout the remedial process. Data collection and interpretation in the early stages of corrective action will serve as the baseline for quantifying the remaining contaminant mass. Post-operational monitoring will verify that cleanup endpoints have been achieved.

10.0 SUMMARY AND RECOMMENDATIONS

In accordance with measured site conditions and data reviewed to date, CES recommends a "tiered" remedial approach as follows: (1) reactivation of the existing air sparge and vapor extraction remedial components. (2) Subsequent to the completion of approximately one quarter of AS/SVE operation, supplemental vacuum-enhanced free-product recovery events will be performed, as needed. The final remedial "tiers" will comprise in-situ technologies including chemical oxidation injections and supplemental biological amendments. Following the initial 12 months of active remediation at the subject site, CES will evaluate the effectiveness of the proposed remedial efforts to determine if additional corrective action measures are warranted. CES is prepared to begin implementation of the CAP immediately upon receipt of the Notice to Proceed from SCDHEC. This CAP is being submitted to Ms. Susan Fulmer of the South Carolina Department of Health and Environmental Control UST Management Division.

REFERENCES

Brassington, Rick. *Field Hydrogeology*. Open University Press, Milton Keynes, and Halsted Press: New York, New York, 1988.

Bryson, P. D. *Hydrocarbons. In Comprehensive Review In Toxicology.* 2nd ed., Chapter 47, Aspen Publications: Rockville, Maryland, 1989.

Casana, J.G., et al. *An Underground Storage Tank Guidebook*. Cahners Publishing Company, 1987.

CH2M Hill. *Soil Contamination Evaluation Methodology*. CH2M Hill, Southeast, Inc.: Reston, Virginia, 1985.

Cooke, R.U. and Doornkamp J.C. *Geomorphology in Environmental Management*. Clarendon Press: Oxford, 1974.

Freeze, R. A., and Cherry, J. A. *Groundwater*. Prentice-Hall, Inc.: Englewood Cliffs, New Jersey, 1979.

Keller, Edward A. *Environmental Geology*. Macmillan Publishing Company: New York, New York, 1992. Sixth edition.

Lohman, S.W. Ground-water hydraulics: U.S. Geological Professional Paper. 1979

Lutgens, Frederick K., and Tarbuck, Edward J. *Essentials of Geology*, (Fifth Edition). Prentice-Hall, Inc.: Englewood Cliffs, New Jersey, 1985.

Sax, N. I., and Lewis, R. J. *Hazardous Chemicals Desk Reference*. Van Norstrand Reinhold: New York, New York, 1987.

Siting, M. *Handbook of Toxic and Hazardous Chemicals and Carcinogens*. Noyes Publications: New Jersey, 1985.

Suthersan, Suthan S. Remediation Engineering Design Concepts. CRC Press, Inc.: Boca Raton, Florida, 1997.

U.S. Environmental Protection Agency. *Cleanup of Releases from Petroleum USTs: Selected Technologies.* Office of Underground Storage Tanks, April 1988

U.S. Environmental Protection Agency. *Assessing UST Corrective Action Technologies: Site Assessment and Selection of Unsaturated Zone Treatment Technologies*. Risk Reduction Engineering Laboratory, March 1990.

U.S. Geological Survey, *7.5 Minute Series Topographic Map of the North Columbia Quadrangle, South Carolina*,1979

APPENDIX A

Injection Permit

CRAWFORD
ENVIRONMENTAL
SERVICES

March 20, 2014

Mr. Christopher A. Wargo
State of South Carolina
Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

RE: Underground Injection Control Permit Application
Handy Pantry #65/University Mart & Cloud's Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina
UST Permit # 07584 / 07777 / 12352

Dear Mr. Wargo:

Enclosed please find one copy of the Underground Injection Control Permit Application. A copy of the application also was included with the Corrective Action Plan submitted to Ms. Susan Fulmer on March 21, 2014. If you have any comments or questions, or if additional information is required, please feel free to contact me at 540.798.5068.

Best Regards,

Daniel J. Fisher
Division Manager

Form I UIC	D H E C	I. EPA ID NUMBER		
	Underground Injection Control Permit Application Ground-Water Protection Division (Collected under the Authority of Title 48 Chapter I of the 1976 South Carolina Code of Laws)		T/A	C
		U		

Read attached instructions before starting.
For OfficialUse Only

Application Approved month day year	Date Received month day year	Permit Well Number

Comments

II. Facility Name and Address	III. Owner/Operator and Address
Facility Name: Handy Pantry #65 / University Mart /Clouds Chevron	Owner/OperatorName: Crawford Environmental Services, Inc.
Street Address: Intersection of Taylor Street and Two Notch Road	Street Address: 15 Church Avenue, SW
City: Columbia State: South Carolina Zip Code: 29204	City: Roanoke State: Virginia Zip Code: 24011

IV. Ownership Status (Select One)

☐ A. Federal ☐ B. State ☒ C. Private ☐ D. Public ☐ E. Other (Explain)

V. SIC Codes

VI. Well Status (Select A, B or C)

☐ A. Operating | Date Started *(MM/DD/YYYY)* | ☐ B. Modification/Conversion ☒ C. Proposed

VII. Type of Permit Requested - Class and Type of Well (see reverse)

A. Class(es) enter code(s)	B. Type(s) enter code(s)	C. If class is "other" or type is code 'Y', explain	D. Number of Wells per type
V.A	I		64

VIII. Location of Wells or Approximate Center of field or Project

C	A. Latitude				B. Longitude			
I		Deg 34	Min 00	Sec 76.29		Deg 81	Min 00	Sec 57.53

IX. Attachments

Complete the following questions on a separate sheet(s) and number accordingly; see instructions for Classes 11, 111, and V, complete and submit on a separate sheet(s) attachments A-U as appropriate. Attach maps where required. List attachments by letter which are applicable and include with your application.

X. Certification

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this document and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of a fine and imprisonment.

A. Name (Type or Print)	Title	B. Phone No.
Charles F. Crawford	President	540-343-6256
C. Signature		D. Date Signed (MM/DD/YYYY) 03/20/2014

Well Class and Type Codes

Class I			Industrial, municipal, and other injection wells for the subsurface disposal of fluids. (Prohibited)
Class II			Oil and gas production and storage related injection wells.
	Type	"D"	Produced fluid disposal well
		"R"	Enhanced recovery well
		"R"	Hydrocarbon storage well (excluding natural gas)
		"X"	Other Class II wells
Class III			Special process injection wells.
	Type	"G"	Solution mining well
		"S"	Sulfur mining well by frasch process
		"U"	Uranium mining well (excluding solution mining of conventional mines)
		"X"	Other Class III wells
Class IV			Hazardous or radioactive waste disposal injection wells. (Prohibited)
Class V.A			Injection wells not included in Class I, II, III, IV or V.B
	Type	"A"	Storm runoff drainage wells
		"B"	Aquifer recharge wells
		"C"	Salt-water intrusion barrier wells
		"D"	Subsidence control wells
		"E"	Backfill wells associated with subsurface mining
		"F"	Geothermal energy recovery wells
		"G"	Experimental technology well
		"H"	Natural gas storage wells
		"I"	Corrective action wells
Class V.B			Non-contact return flow system wells
	Type	"A"	Heat pump return flow wells
	Type	"B"	Cooling water return flow wells

□ns□□□□□ons □o□□ □a□□□ en□s □o □o□□ □
□nde□□□o□nd □n□e□□on Con□□ol
□o□Co□□e□□□□e □ □□on Wells
(effective □□□□□)

The following ATTACH□ ENTS should be submitted with an underground injection control (UIC) permit application for Class V.A. corrective action wells associated with aquifer remediation that are to be used to inject fluid whose chemical constituents are below all drinking water standards, as established under R. □□-□□ □

Attachment A □Activity for Review

Submit a brief description of the activities to be conducted that require a UIC permit.

Attachment B □□ ell Construction Details

Submit schematic or other appropriate drawings of the surface and subsurface construction details of the recovery and injection wells.

Attachment C □Operating Data

Submit the following proposed operating data for each injection well□

□) Average and maximum daily rate and volume of fluid to be injected. In addition, indicate the average and maximum daily rate and volume of fluid to be withdrawn from each recovery well. Verification of the aquifer□s hydraulic ability to produce and accept the quantities proposed should be presented.

□) Average and maximum injection pressure.

□) Pumping schedule (i.e. continuous, alternating cycles, etc.).

□) Proposed ranges in the concentration of all contaminant constituents within the injection fluid. Include comprehensive ground-water quality data from a "worst case" well sample.

□) □ength of time the project is expected to require injection to complete remediation (to ensure the effective dates of the permit will allow sufficient time to complete the project).

Attachment D □□ onitoring Program

Discuss the planned monitoring program in detail□

□) Include a discussion of monitoring devices, sampling frequency (sufficient to verify treatment system efficiency), sampling protocol, sampling location, parameters to be analyzed, and proposed method(s) of analysis.

□) This plan should indicate how, through monitoring, the proposed contaminant levels in the injectate will be verified.

□) This plan should also clearly illustrate exactly how hydraulic control of the contaminant plume (and injectate, where relevant) will be verified through monitoring (i.e., piezometers, quality analyses, etc.).

Attachment E □Existing or Pending State □Federal Permits

□ist the program and permit number of any existing State or Federal permits for the facility (i.e., NPDES, RCRA, UST, etc.).

Attachment F □Description of Business

Give a brief description of the nature of the business of the facility and any immediately adjacent facilities.

Attachment G □Area of Review

□) The area of review should be a fixed radius of □□□mile from the injection well, the outermost injection wells (if a wellfield).

- If a fixed radius is not selected, the methods and the calculations used to determine the size of the area of review should be submitted.

Attachment H: Maps of Wells and Area of Review

- Submit a topographic map of the area, extending one mile beyond the project property boundaries. This map should show all hazardous waste treatment, storage, or disposal facilities, and all intake and discharge structures associated with the project facility. Any known areas of soil and/or ground-water contamination within a one mile radius should be indicated. Also indicate all surface bodies of water, springs, mines (surface and subsurface), quarries, and other pertinent surface features such as residences, roads, and geologic faults (known or suspected).

- A scaled map(s) should be included which shows the name and/or number and the location of All production, injection, monitoring, abandoned and dry wells within the area of review. This should be accomplished by file and field surveys. Information regarding the construction (i.e., total depth, diameter, casing/screened intervals, grouting, etc.) and the current status (i.e., actively used, temporarily abandoned, permanently abandoned) of All wells within the area of review should be submitted. If any wells have been abandoned, details on the method the wells were abandoned (i.e., cemented/grouted, filled with sand, etc.) should be included.

- A potentiometric map of the project site should be submitted which accurately locates all monitoring wells and proposed recovery and injection wells and outlines the horizontal extent of both the free-phase contaminant (where applicable) and dissolved contaminant plumes. Include all water level and product thickness data. The date and time that water levels and product thicknesses were measured should be indicated.

Attachment I: Cross Sections/Diagrams

- Geologic cross sections indicating the lithology and stratigraphy of the site and the horizontal and vertical extent of the contaminant plume, should be submitted. At least two stratigraphic cross sections, one parallel and one perpendicular to the horizontal ground-water flow direction, should be submitted. In areas where the site stratigraphy is complex, additional cross sections should be submitted to clearly illustrate the local conditions.

- A schematic diagram, in the form of a cross section, showing the proposed remediation system with the components of flow (above and below ground) and all associated appurtenances (i.e., stripping tower, piping, wells, etc.).

Attachment J: Name and Depth of Underground Sources of Drinking Water (USDWs)

Identify and describe all aquifers which may be affected by the injection.

Attachment K: Hydraulic Control

- Sufficient supporting data (i.e. time/drawdown data, Theis curves and methods, calculations, etc.), used to determine aquifer characteristics to verify complete hydraulic control over the contaminant plume (and injectate, if proposed injectate quality does not conform to classified ground-water standards) during injection should be submitted. At a minimum, values should be given for transmissivity, hydraulic conductivity, effective porosity and specific yield.

- Demonstrate the presence and magnitude of, or the absence of, any vertical hydraulic gradient at the site. If a vertical hydraulic gradient exists, show how its direction and magnitude are incorporated in the calculations demonstrating hydraulic control.

- Ground-water flow computer models (especially 2-D map view with potentiometric and flow lines) may be utilized and submitted. All calculations should be in English units. All model-derived data and maps should be properly labeled and keyed so as to be clearly understood.

Subsequent Action

After receipt of a complete Underground Injection Control Permit Application, the Department will make a determination to deny or issue a Permit to Construct the injection well(s). After the well(s) is/are constructed, the Department should be notified in writing of the well(s) completion and sent a copy of the completed well record form(s) signed by a South Carolina certified well driller which illustrates the "as built" well construction. If the system is in compliance with the approved application, the Department may then issue an Approval to Operate. This Approval to Operate is the final permission necessary prior to injection.

Attachment A: Activity for Review

On behalf of the South Carolina Department of Health and Environmental Control (SCDHEC), Crawford Environmental Services, Inc. (CES) has prepared a Corrective Action Plan (CAP) for the Handy Pantry # 65 / University Mart / Clouds Chevron (Subject Site) located at the intersection of Taylor Street and Two Notch Road in Columbia, South Carolina. Subsurface soils and groundwater quality have been impacted by a release of petroleum products at the site. In accordance with observed site conditions, CES proposes to remediate the subject properties utilizing a "multi-step" process that will effectively address the free-, dissolved-, and adsorbed-phase petroleum compounds identified at the subject facilities. This tiered-approach will consist of re-activating the air sparge/SVE components, surfactant enhanced free-product recovery efforts, aggressive in-situ chemical-oxidation (ChemOx) and supplemental biological amendment injections. A summary of the remedial program to be implemented at the site is presented below.

Attachment B: Well Construction Details

CES has identified approximately 58 air-sparge points and four recovery wells on-site from a previous remedial contract. The air-sparge wells were constructed of four-inch schedule 40 polyvinyl chloride (PVC) piping to an approximate depth of 45.0 feet below ground surface (bgs) with screened intervals ranging between 25.0 feet and 45.0 feet bgs. The recovery wells were constructed of two-inch schedule 40 PVC piping to approximate depths of 35.0 feet bgs with screened intervals ranging between 25.0 feet and 35.0 feet bgs. Based on the Corrective Action Plan Implementation Report (CAP-IMP) dated December 27, 2006 completed by PEG, each air sparge well is connected via dedicated 0.5-inch PVC conduits to three independent remedial compounds located at 2367 Taylor Street, 2435 Forest Drive and 2436 Forest Drive. CES proposes to utilize these wells for air sparging and supplemental injections (Chem-Ox, Surfactant, and Biological Amendments). Copies of the existing well completion records are include as Appendix A.

Subsequent to completing approximately one quarter of sparging and vapor extraction, CES will inspect the monitoring points to confirm the presence or absence of free-product. Should site conditions indicate the presence of free-phase petroleum, CES will mobilize to the subject site and install a maximum of six free-product recover wells. Eight-inch diameter soil borings will be installed utilizing hollow-stem auger techniques to facilitate the construction of six, four-inch recovery wells. Each recovery point will be installed to approximately 35.0 feet below ground surface (bgs). Injection points will be equipped with screened intervals from approximately two feet above source area contaminants to the terminal depth of the boring. Each injection point will maintain an estimated eight-inch diameter waterproof manway installed within an estimated two foot by two foot concrete pad. A diagram of proposed injection well construction is included as Appendix A.

Proposed and existing injection point locations are presented on Figure 1.

Attachment C: Operating Data

1. Average daily rate of fluid to be injected per well is 166 gallons per day (gpd) with a maximum of 210 gpd. Maximum flow rate for air sparging will be four cubic feet per minute (CFM) per injection point.

2. Average fluid injection pressure is planned to be 7-psi with a maximum of 15-psi. Maximum air sparge pressure will be 15-psi.

3. Should free-phase petroleum be identified following the first three months of air sparging, six additional injection wells will be installed for surfactant enhanced recovery points. Following installation of the injections wells, CES will mobilize to the site with remedial injection equipment and approximately 60-gallons of PetroSolv Surfactant (PetroSolv). CES will mix a 3.0% surfactant solution utilizing approximately 50-gallons of PetroSolv and approximately 600-gallons of potable water (acquired on-site). Over an estimated period of one to three days, CES will inject approximately 660-gallons of surfactant solution to injection points IW-1, IW-2, IW-3, IW-4, IW-5, and IW-6. During these injection events, CES will utilize a surge block to actively pressurize the surfactant solution into the formation creating direct contact with the free- and adsorbed-phase compounds. Following completion of the injection activities, CES will utilize a vacuum truck to extract approximately 150-gallons of petroleum impacted groundwater from each of the referenced injection wells.

4. Following achievement of the 60% concentrations of concern (COC) milestone, CES proposes to use a dilute Fenton's reagent process at the subject site to oxidize adsorbed- and dissolved-phase petroleum constituents in the subsurface The Fenton's reagent process utilizes a metal catalyst (ferrous sulfate) and hydrogen peroxide to produce hydroxyl radicals. These hydroxyl radicals rapidly oxidize petroleum hydrocarbons upon contact, ultimately producing by-products of carbon dioxide, water, and dissolved oxygen. Residual petroleum hydrocarbon mass and simple organic acids usually remain after the chemical oxidation process but can be treated with biological amendments. Fenton's reagent process is shown in the following steps:

(1) $Fe^{2+} + H_2O_2 \rightarrow Fe^{3+} + OH\cdot + OH^-$
(2) $Fe^{3+} + H_2O_2 \rightarrow Fe^{2+} + OOH\cdot + H^+$

The hydrogen peroxide will be injected into the estimated 58 existing air-sparge wells utilizing the existing piping as subsurface conveyance conduits. The six free-product recovery wells referenced in Section 3.2 also will be utilized for the injection of hydrogen peroxide on an as needed basis. The injection events will be performed episodically until an approximate COC reduction of 75-80% is achieved. CES estimates that each ChemOx injection event can be completed in approximately one to two weeks, however, the duration of these events will be controlled by the site's ability to sustain the desired rates of injection. CES estimates that approximately 3,000-gallons of 5.0% hydrogen peroxide solution will be utilized at the subject site.

5. Directly following the final ChemOx injection, the holding tank will be cleansed prior to the introduction of bacteria and nutrient-amended water. CES will utilize the PetroBac™ product

bundle which contains a TPH Bacterial Consortium and Enzyme Accelerator. The NutriMax™ nutrient mix also will be utilized to increase biological degradation of the hydrocarbon mass at the site. Over the course of an estimated three to five days, CES will inject approximately 1,000 lbs. of CBN nutrients and approximately 20 gallons of A2 bacteria mixed with an estimated 3,500-gallons of potable water. The biological amendments will be gravity fed to the injection points in order to facilitate physical contact with the adsorbed-phase compounds. The amendments will react with the residual TPH mass to produce carbon dioxide and water as by-products. Material Data Safety Sheets (MSDS) for the referenced amendments are included as Appendix C.

6. CES will conduct air sparging / SVE activities continuously until the 60% concentrations of concern (COC) milestone is achieved. Following conclusion of air sparging activities, CES will conduct injections on a quarterly basis. The estimated length of time to complete remediation is 48 months to 60 months.

Attachment D: Monitoring Program

Corrective Action System Evaluation Reports (CASE) will be submitted to DHEC semi-annually from the date of system startup (re-activation). The CASE reports will include groundwater analytical results, system flow rates and efficiency calculations, and contaminant mass removal rate estimates, and an evaluation of the systems effectiveness during the referenced period. Groundwater samples collected quarterly from site monitoring wells will be analyzed for benzene, toluene, ethylbenzene, xylenes, MTBE, naphthalene, by EPA Method 8260 and tert-amyl alcohol (TAA), tert-amyl methyl ether, TAME, and tert-butanol (TBA) via 8260-OXY. Laboratory analyses will be conducted by a third-party S.C. certified laboratory. Site monitoring well locations are depicted on Figure 2.

Attachment E: Existing Federal and State Permits

The sites currently maintain the following SCDHEC UST permits; 07584 (Handy Pantry #65/University Mart) and 07777 / 12352 (Cloud's Chevron). In addition, an Underground Injection Control permit has been issued to Palmetto Environmental Group, Inc. (PEG), however, the status of the permit is unknown.

Attachment F: Description of Business

The site associated with UST permit numbers 07777 / 12352 was formerly operating as a retail petroleum station. The site is currently utilized as a parking / access area. The site associated with UST permit number 07584 is currently operating as a retail petroleum station.

Attachment G: Area of Review

See Figure 3 for the area included in a quarter mile radius of the site.

Attachment H: Maps of Wells and Area of Review

1. Topographic map of surrounding area – See Figure 3.

2. Scaled map of well locations within the Area of Review – See Figure 2.

3. Potentiometric map of site – See Figure 4.

Attachment I: Cross-Sections/Diagrams

1. Geologic cross-sections of site area – See Figures 5 and 6.

Attachment J: Name and Depth of Underground Sources of Drinking Water (USDW's)

Richland County is located in the upper region of the Upper Coastal Plain Physiographic Province near the interface of the lower Piedmont Physiographic Province. The upper region of the Upper Coastal Plain is typically composed of a sandy or loamy surface layer that is under lain by loamy or clayey subsoil of the Coastal Plain Physiographic Province. Subsurface topography is dominated by a series of nearly level terraces formed by ancient shorelines of the Atlantic Ocean. Those deposits are underlain at relatively shallow depths by residual soils of the Piedmont Physiographic Province.

Based upon previous site investigations conducted by others, the surficial saprolite aquifer is composed of red silty sand grading into a reddish-brown sandy, clayey silt to an investigated depth of 80 feet bsg. Competent rock has not been encountered at the site in previous investigations. Shallow groundwater occurs in the saprolite aquifer at the site at depths ranging from 15-30 feet bgs. Supply wells were not detected within a ¼ mile of the subject site.

Attachment K: Hydraulic Control

The proposed rate and location of injection points should not affect shallow groundwater except in the localized areas of the injection points. Static groundwater conditions should return to the affected areas of the site within a short time frame. Undesirable plume migration will be identified by semi-annual monitoring activities. Site specific aquifer analysis values are included as Appendix D determined during previous phases of investigation.

Appendix A

Existing Well Completion Records /
Proposed Injection Well Construction

Water Well Record
Bureau of Water

2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

RECEIVED JAN 18 2007

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-1
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877
UNDERGROUND STORAGE TANK PROGRAM

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Authorized Representative Date: 12/27/2006

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

RECEIVED JAN 18 2007

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-2
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877 UNDERGROUND STORAGE TANK PROGRAM

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

RECEIVED
JAN 18 2007

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-3
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877 UNDERGROUND STORAGE TANK PROGRAM

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-4
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-5
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-6
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-7
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-8
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-9
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-10
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-11
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-12
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-13
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-14
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Authorized Representative Date: 12/27/2006

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-15
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-16
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-17
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-18
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-19
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-20
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-21
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-22
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-23
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

D H E C — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-24
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-25
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Authorized Representative Date: 12/27/2006

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-26
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-27
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Authorized Representative Date: 12/27/2006

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-28
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

D H E C — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-29
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-30
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-31
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-32
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-33
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Authorized Representative Date: 12/27/2006

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-34
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-35
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Authorized Representative Date: 12/27/2006

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-36
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-37
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-38
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-39
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-40
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-41
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-42
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-43
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-44
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Authorized Representative Date: 12/27/2006

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

D H E C — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-45
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-46
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-47
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

D H E C — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-48
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-49
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-50
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

D H E C — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-51
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-52
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-53
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) 45 ft. Date Started: 9/28/2006 Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-54
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-55
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-56
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-57
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-58
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: RW-1
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34° 00.77 Longitude: 81° 00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	35	35
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
35 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 25 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: .020 Length: 10'
Set Between: 25 ft. and 35 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 24 ft. to 35 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 0 ft. to 24 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: RW-2
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34° 00.77 Longitude: 81° 00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	35	35
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
35 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 25 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: .020 Length: 10'
Set Between: 25 ft. and 35 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 24 ft. to 35 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 0 ft. to 24 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: RW-3
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	35	35
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
35 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 25 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: .020 Length: 10'
Set Between: 25 ft. and 35 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 24 ft. to 35 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 0 ft. to 24 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

D H E C — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: RW-4
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	35	35
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
35 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 25 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: .020 Length: 10'
Set Between: 25 ft. and 35 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 24 ft. to 35 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 0 ft. to 24 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley **CERT. NO.:** 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

REV	BY	DATE	

DR.:DJF
CK.:CJP
APP'D.:
SCALE: NA
CES PROJ. NO.:

UIC Application

CRAWFORD ENVIRONMENTAL SERVICES
15 Church Avenue, SW
Roanoke, Virginia 24011
540-343-6256
540-343-6259 (fax)

DRAWING TITLE

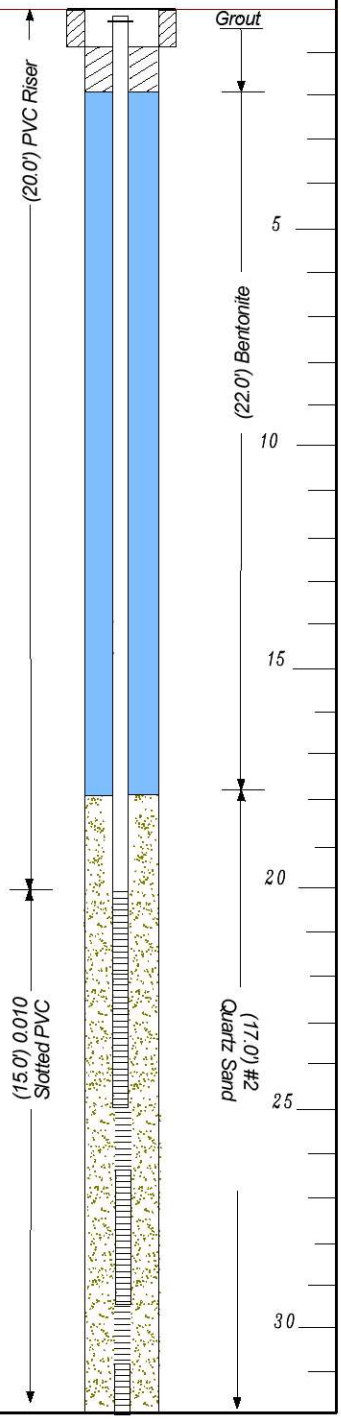
Proposed Well Construction Diagram
Handy Pantry # 65 / Clouds Chevron
Intersection of Taylor ST. & Two Notch Rd
Columbia, South Carolina

DRAWING NUMBER | REV

0

Depth (feet)	Sample ID	Blows	Rec/Adv (in)	PID (ppm)	Water Table	Lithology	Geologic Description
							Asphalt surface cover.

Well Diagram



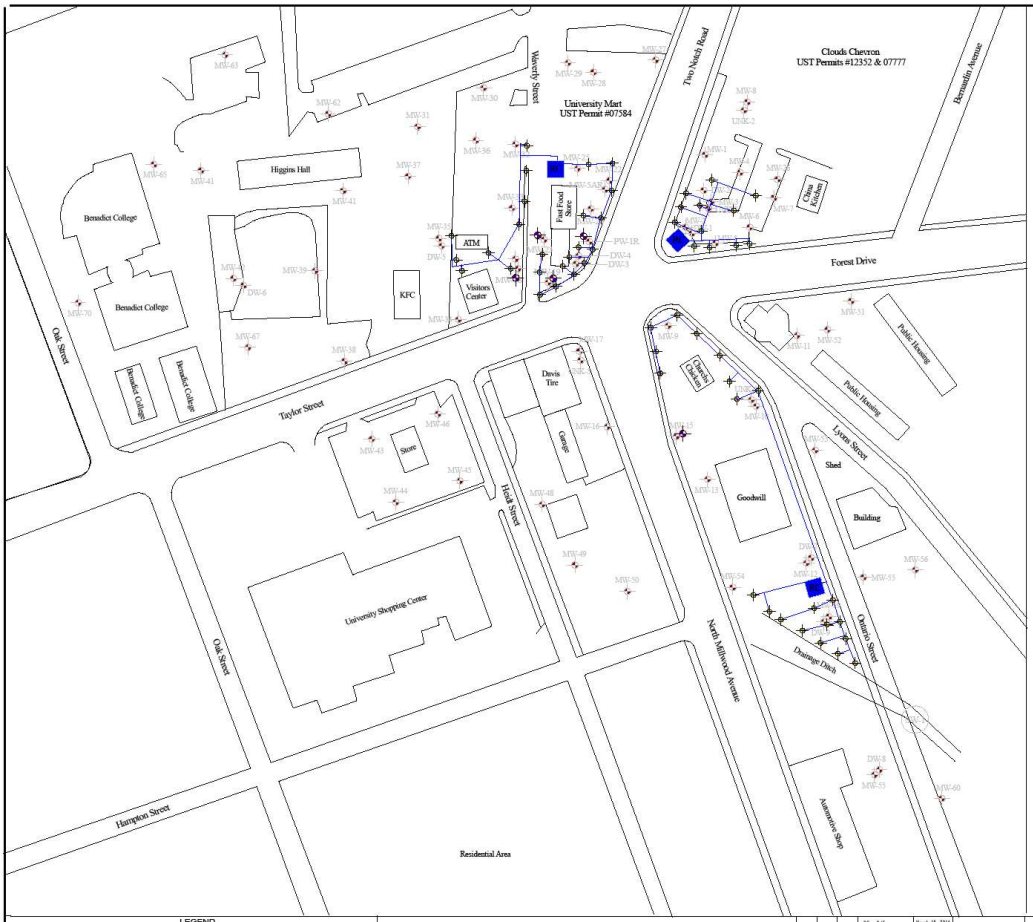
Geologist: _____

Appendix B

Figures

Figures 1

Existing / Proposed Injection Points



Graphic Scale (Feet)

0 75 150 225 300

Air Sparge Well Locations are Estimated.

LEGEND

Gasoline Dispenser	Air Sparge Well	Mail Boxes	Propane Tank
Diesel Dispenser	Future Recovery Well	Sign	Overhead Utility
Utility Pole	Remedial Compound	Pay Phone	Metal Fence
Water Meter	Remedial Piping	Air Conditioning Unit	Wooden Fence
Monitoring Well	Light Pole	Compressed Air	Manway
Storm Drain	Grease Trap	Waste Receptacle	UST Access

REV	BY	DATE

DR.: BJF March 18, 2014
CK.:
APP'D.:
SCALE: As Shown
CES PROJ. NO.: 7.0547

Underground Injection Control Permit Application

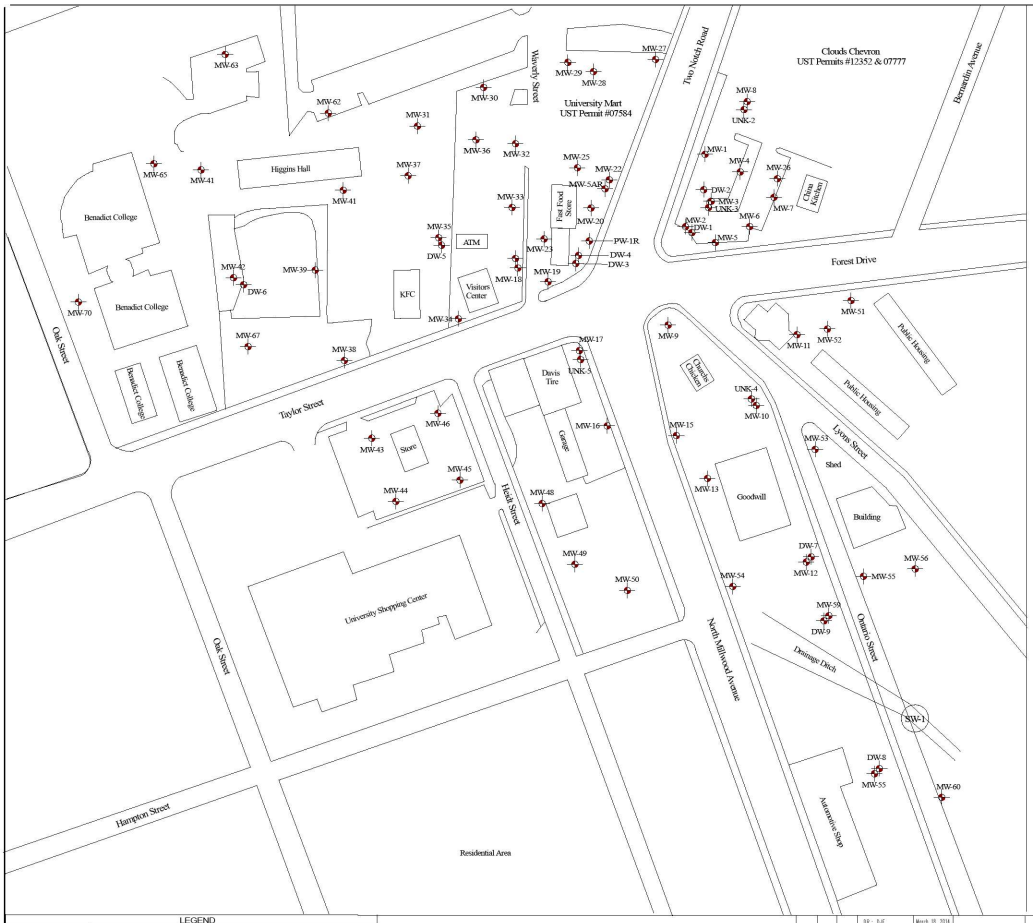
CRAWFORD ENVIRONMENTAL SERVICES
15 Church Avenue, SW
Roanoke, Virginia 24011
540-343-6256
540-343-6259 (fax)

Figure Title
Air Sparge / Remedial Well Layout
Handy Pantry/University Mart/Clouds Chevron
UST Permits # 07584 / 07777 / 12352
Intersection of Taylor and Two Notch Road
Columbia, South Carolina

DRAWING NUMBER: Figure 1 REV: 0

Figures 2

Monitoring Well Location Map



Graphic Scale (Feet)

0 75 150 225 300

LEGEND

Gasoline Dispenser	Air Sparge Well	Mail Boxes	Propane Tank
Diesel Dispenser	Future Recovery Well	Sign	Overhead Utility
Utility Pole	Flag Pole	Pay Phone	Metal Fence
Water Meter	Water Spigot	Air Conditioning Unit	Wooden Fence
Monitoring Well	Light Pole	Compressed Air	Manway
Storm Drain	Grease Trap	Waste Receptacle	UST Access

REV.	BY	DATE

DR.: DJF March 18, 2014
CK.:
APP'D.:
SCALE: As Shown
CES PROJ. NO.: 7.0547

Underground Injection Control Permit Application

CRAWFORD ENVIRONMENTAL SERVICES

15 Church Avenue, SW
Roanoke, Virginia 24011
540-343-6256
540-343-6259 (fax)

FIGURE TITLE
Monitoring Well Location Map
Handy Pantry/University Mart/Clouds Chevron
UST Permits # 07584 / 07777 / 12352
Intersection of Taylor and Two Notch Road
Columbia, South Carolina

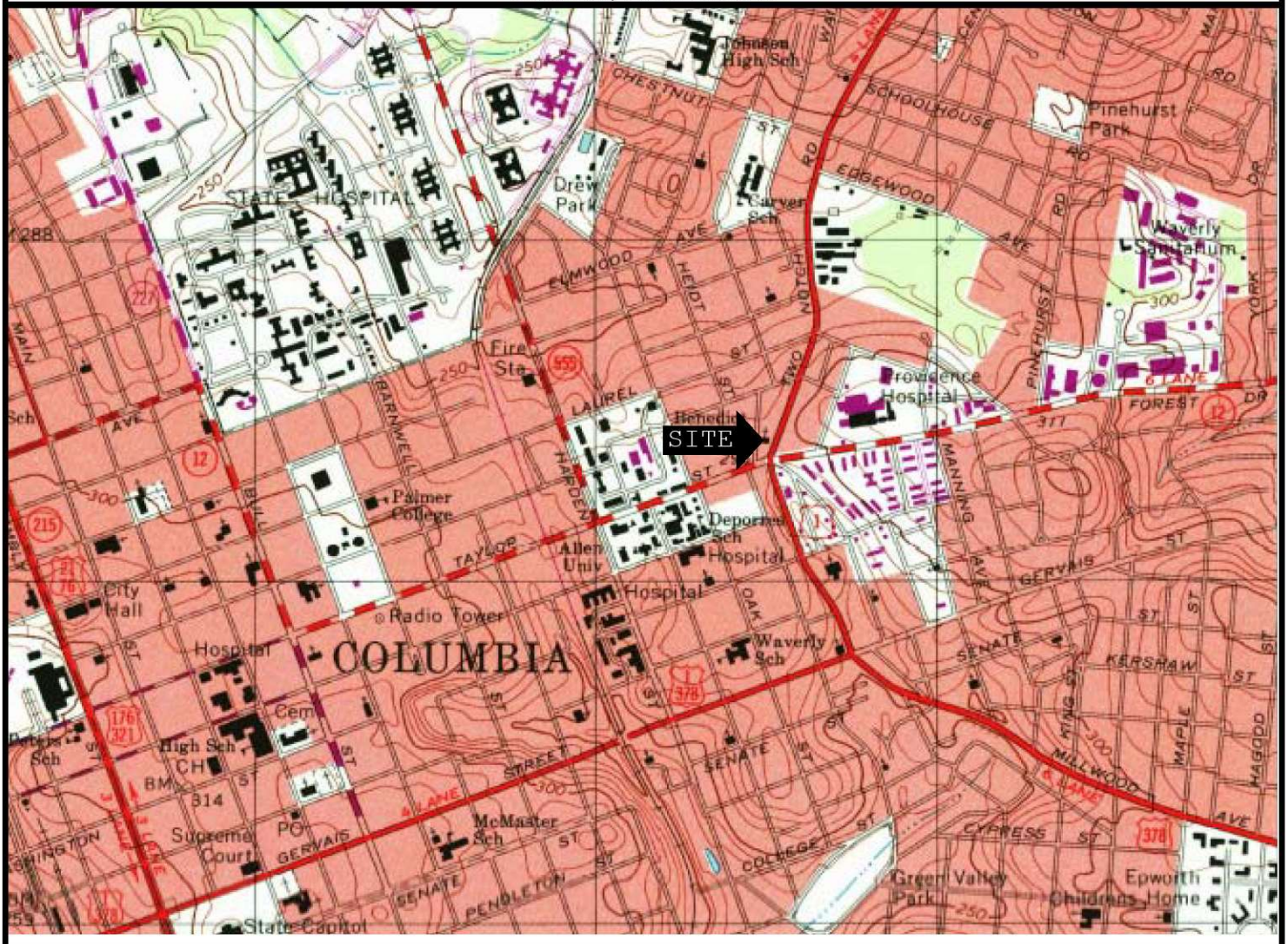
DRAWING NUMBER: Figure 2 REV: 0

Figures 3

¼ Mile Search Radius / Topographic Map

FIGURE 3

¼ Mile Search Radius / Topographic Map
Handy Pantry #65 / University Mart / Clouds Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina



CRAWFORD ENVIRONMENTAL SERVICES

15 Church Avenue, SW
Roanoke Virginia, 24011

540-343-6256 (office) 540-343-6259 (fax)

NORTH COLUMBIA, SOUTH CAROLINA

Source: U.S.G.S. Topographic Map of the Columbia North Quadrangle, Virginia, 7.5 Minute Series (1977, revised 1988)
Scale: 1:24,000 Contour Interval: 20 Feet
Vertical Datum: National Geodetic Vertical Datum 1929
Horizontal Datum: North American Datum1927

Project: Underground Injection Control Permit Application

Client: SCDHEC

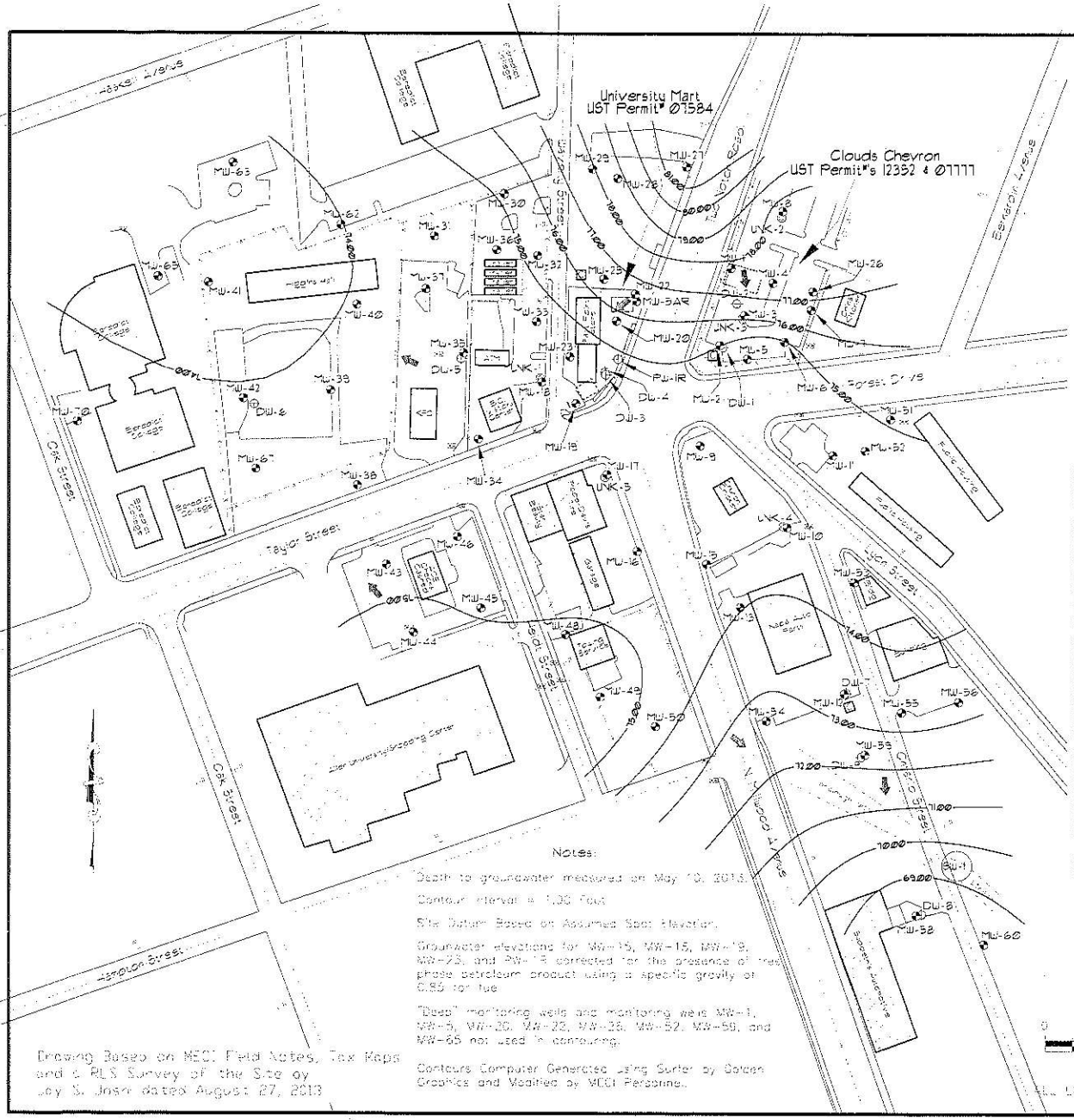
CES Job #: 7.0547

Latitude:
034”00’42.72”N
Longitude:
081”01’00.13”W

Figures 4

Potentiometric Surface Map

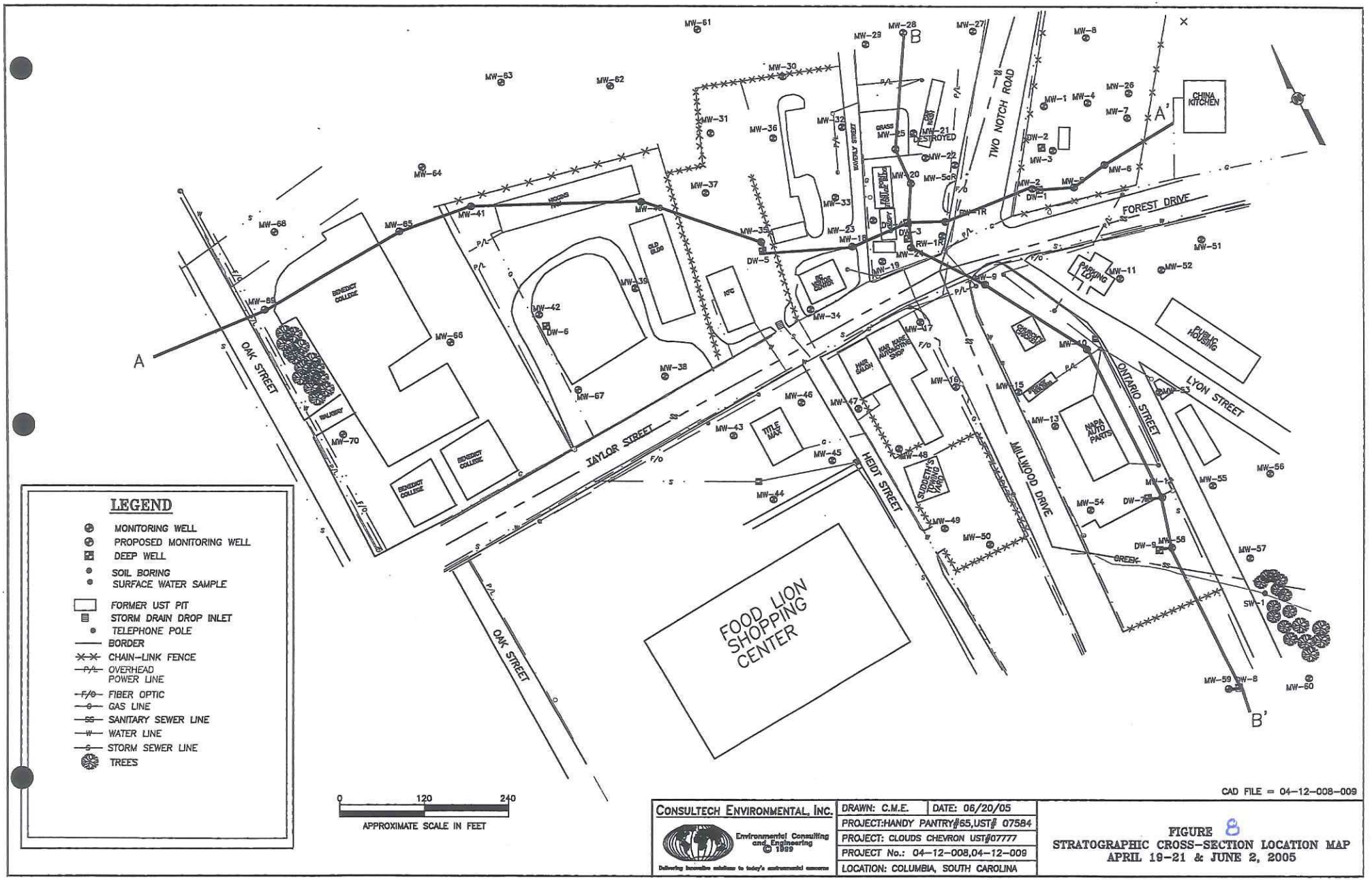
Figure 4 - Potentiometric Surface Map


University Mart
UST Permit# 07584
Clouds Chevron
UST Permit#s 12352 & 07777
Taylor Street
Oak Street
Hampton Street
Forest Drive
Elmwood Avenue
Sumter Street
Main Street
Assembly Street
Gervais Street
Lincoln Street
Pickens Street
Wayne Street
Lady Street
Blossom Street
Bull Street
Senate Street
Barnwell Street
Greene Street
Pendleton Street
Wheat Street
Park Street
Hagood Avenue
Two Notch Road
Bluff Road
Garner's Ferry Road
Colonial Drive
Beltline Boulevard
Edgewood Drive
Rosewood Drive
Devine Street
Millwood Avenue
Huger Street
Catawba Street
Calhoun Street
Laurel Street
Whaley Street
Williams Street
Lincoln Street
Sidney Park Road
Shandon Drive
Greenwood Drive
Wilmot Avenue
Wilkinson Road
Woodrow

Figures 5 / 6

Geologic Cross Sections

Figure 5 -Geologic Cross Section



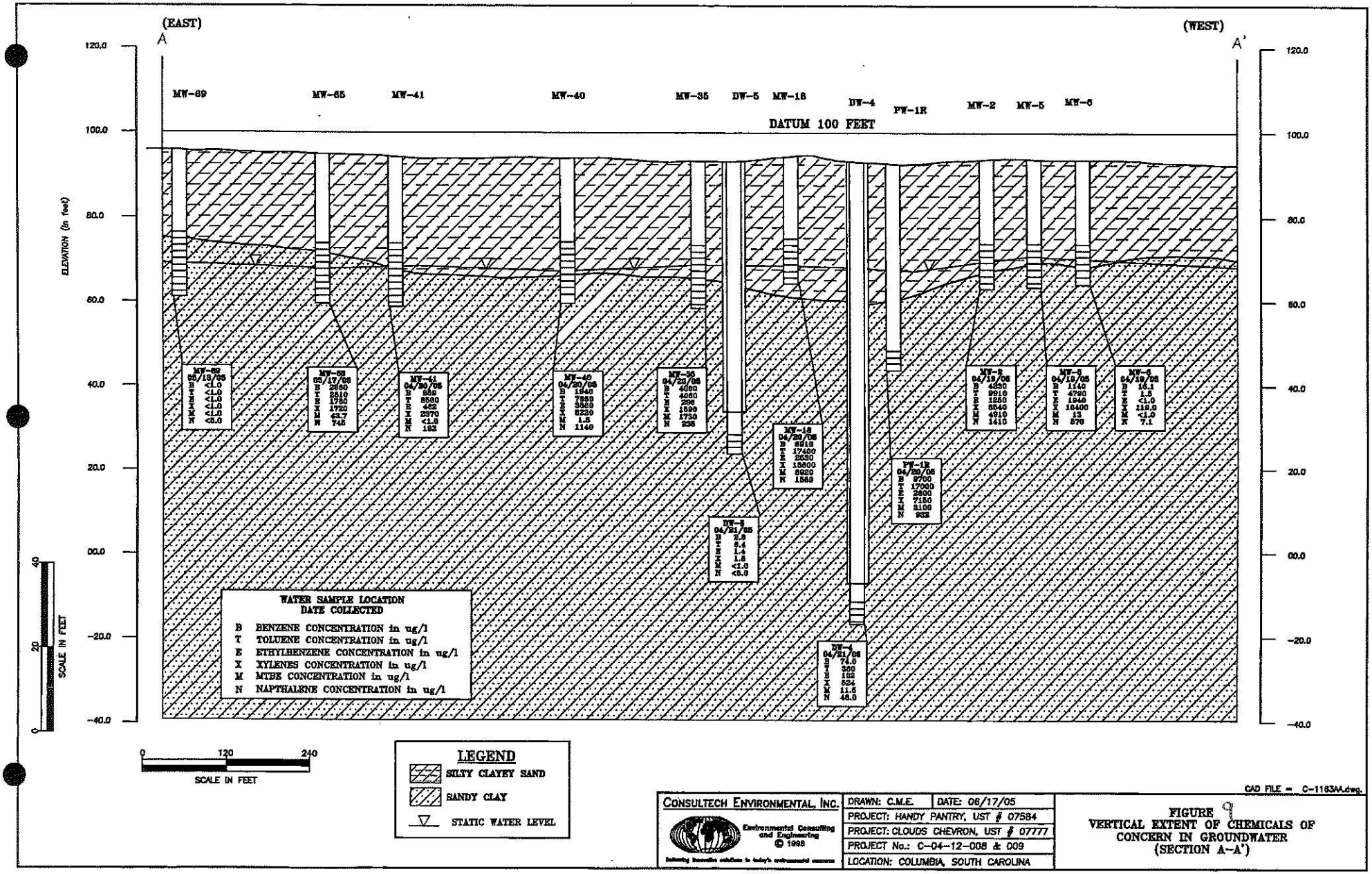
CONSULTECH ENVIRONMENTAL, INC.
Environmental Consulting and Engineering © 1999
Delivering Innovative solutions to today's environmental concerns

DRAWN: C.M.E.	DATE: 06/20/05
PROJECT:HANDY PANTRY#65,UST# 07584	
PROJECT: CLOUDS CHEVRON UST#07777	
PROJECT No.: 04-12-008,04-12-009	
LOCATION: COLUMBIA, SOUTH CAROLINA	

CAD FILE = 04-12-008-009

FIGURE 8
STRATOGRAPHIC CROSS-SECTION LOCATION MAP
APRIL 19-21 & JUNE 2, 2005

Figure 6 -Geologic Cross Section



CAD FILE = C-1163AA.dwg.

CONSULTECH ENVIRONMENTAL, INC. Environmental Consulting and Engineering © 1998	DRAWN: C.M.E.	DATE: 08/17/05
	PROJECT: HANDY PANTRY, UST # 07584	
	PROJECT: CLOUDS CHEVRON, UST # 07777	
	PROJECT No.: C-04-12-008 & 009	
	LOCATION: COLUMBIA, SOUTH CAROLINA	

FIGURE 9
VERTICAL EXTENT OF CHEMICALS OF CONCERN IN GROUNDWATER
(SECTION A-A')

Appendix C

Material Data Safety Sheets

6635 NE 59th Place
Portland, Oregon 97218
(971) 222-3903 Fax
www.etecllc.com

Material Safety Data Sheet

Revision Date: 09/30/2010

Section 1: Product and Company Identification

Product Name: PetroSolv/EZT-EA™
MSDS Number: 016
Chemical Name: Mixture
Chemical Family: Ethoxylated surfactant mixture

Recommended Use: Enzyme accelerator
Restrictions on Use: No Data

Company:
ETEC, LLC
6635 NE 59th Place
Portland, OR 97218
USA

Telephone: (971) 222-3616

Emergency Telephone: (800) 535-5053
Medical Emergencies: (800) 301-7976
U.S. Coast Guard National Response Center: (800) 424-8802

Section 2: Hazards Identification

Emergency Overview:
May be harmful if swallowed or inhaled. Causes skin irritation and eye irritation.

NFPA Rating:

Health Hazard:	1
Fire:	0
Reactivity Hazard:	0

Section 3: Composition/Information on Ingredients

Ingredients as defined by 29 CFR 1910.1200:

Chemical Ingredients:	CAS Number:	Percent Range:
Isotridecanol, ethoxylated	9043-30-5	20-50%
Fatty Acid Methyl Ester Ethoxylate	67762-39-4	20-50%
Rhamnolipid	147858-26-2	20-50%

Section 4: First Aid Measures

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if victim feels unwell.

Skin Contact: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion: Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

Section 5: Fire Fighting Measures

Suitable Extinguishing Media: Material is not expected to be combustible. Use extinguishing medium suitable for surrounding material.

Specific Hazards in Case of Fire: None known.

Special Protective Equipment for Fire-Fighters: Use protective clothing and breathing equipment appropriate for the surrounding fire.

Section 6: Accidental Release Measures

Personal Precautions: Eliminate all ignition sources and heat sources if safe to do so. Take off contaminated clothing and wash before reuse. Use protective clothing and breathing equipment.

Environmental Precautions: Do not flush into surface water or sanitary sewer system.

Methods for Containment/Cleaning Up: Contain spillage and collect with non-combustible absorbent material. Disposal should be in accordance with all applicable local, state and federal regulations.

Section 7: Handling and Storage

Handling: Avoid breathing vapor or mist. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Keep out of reach of children.

Storage: Keep container tightly closed. Store locked up. Store at temperatures not exceeding 130°F (54°C).

Section 8: Exposure Controls/Personal Protection

Exposure Limits:

Chemical Ingredients:	CAS Number:	OSHA PEL	NIOSH REL	ACGIH TLV
Isotridecanol, ethoxylated	9043-30-5	None Established	None Established	None Established
Fatty Acid Methyl Ester Ethoxylate	67762-39-4	None Established	None Established	None Established
Rhamnolipid	147858-26-2	None Established	None Established	None Established

Engineering Controls: Use only outdoors or in a well-ventilated area.

Personal Protective Equipment:

Eye Protection: Wear eye protection/face protection.

Hand Protection: Wear protective gloves.

Skin and Body Protection: Use protective clothing.

Respiratory Protection: Avoid breathing vapor or mist. Use only outdoors or in a well-ventilated area.

Hygiene Measures: Use only outdoors or in a well-ventilated area. Wash thoroughly after handling.

Section 9: Physical and Chemical Properties

Physical State:	Liquid
Color:	Clear to slightly hazy tan color
Odor:	Slight to none
Odor Threshold:	Not Available
pH:	6.5
Melting/Freezing Point:	Not Available
Initial Boiling Point:	Not Available
Flash Point:	Not Available
Evaporation Rate:	1.20
Flammability (solid, gas):	Not Available
Lower Explosive Limit:	Not Available
Upper Explosive Limit:	Not Available
Vapor Pressure:	Not Available
Vapor Density:	Not Available
Relative Density:	1.00
Solubility:	Complete solubility in water
Partition Coefficient:	Not Available
Autoignition Temperature:	Not Available
Decomposition Temperature:	Not Available

Section 10: Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage.

Conditions to Avoid: Heat.

Incompatible Materials: Strong oxidizers, inorganic acids, and halogens.

Hazardous Decomposition Products: Irritating vapors.

Hazardous Polymerization: Will Not Occur

Section 11: Toxicological Information

Inhalation: May cause respiratory headache, dizziness.

Ingestion: May be harmful if swallowed and enters airways.

Skin Contact: Causes skin irritation.

Eye Contact: Causes eye irritation.

Chronic Exposure: No known effects.

Aggravation of Pre-existing Conditions: No information found.

Numerical Measures of Toxicity: None Available

Carcinogenicity: Not known to be as defined by OSHA, IARC or NTP.

Section 12: Ecological Information

This product is safe for the environment at the concentrations predicted under normal use conditions.

Section 13: Disposal Considerations

Dispose of contents/container in accordance with all applicable local, state and federal regulations.

Section 14: Transport Information

For Transportation Emergencies Involving This Material, Call:
ChemTrec 1-800-424-9300
Company Code: E249

DOT (LAND):

Proper Shipping Name:	Not Applicable
Hazard Class:	Not Applicable
UN Number:	Not Applicable

Packing Group:	Not Applicable
Labels:	Not Applicable
Emergency Response Guidebook Number:	Not Applicable
DOT Hazardous Substance RQ:	None/no reportable quantities
DOT Marine Pollutants:	None/no reportable quantities

Section 15: Regulatory Information

OSHA Hazards: Skin irritant, eye irritant

SARA 302: None/no reportable quantities

SARA 311/312 Hazard Categories: Acute Health Hazard

SARA 313: None/no reportable quantities

TSCA: All substances in this product are listed on the TSCA inventory.

Section 16: Other Information

The information contained in this MSDS is presented in good faith and believed to be accurate based on the information provided. The MSDS does not purport to be all inclusive, and shall be used only as a guide. While ETEC, LLC believes that the data contained herein comply with 29 CFR 1910.1200, they are not to be taken as a warranty or representation for which ETEC, LLC assumes legal responsibility. ETEC, LLC shall not be held liable or accountable for any loss or damage associated with the use of this material and information. The recommended industrial hygiene and safe use, handling, storage, and disposal procedures are believed to be generally applicable. However, since the use, handling, storage, and disposal are beyond ETEC, LLC control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability of loss, damage, or expense arising out of the material's improper use.

Legend:

ACGIH: American Conference of Governmental & Industrial Hygienists
CAS: Chemical Abstract Service
CFR: Code of Federal Regulations
DOT: Department of Transportation
DSL/NDSL: Domestic Substances List/Non-Domestic Substances List
IARC: International Agency for the Research of Cancer
IATA: International Air Traffic Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods
IMO: International Maritime Organizations
Health, Flammability & Reactivity; Hazard Scale 0 =minimal/none 4= significant
NTP: National Toxicology Program
NFPA: National Fire Protection Association
OSHA: Occupational Safety & Health Administration
PEL: Permissible Exposure Limits
RCRA: Resource Conservation & Recovery Act
RQ: Reportable Quantity
RTK: Right-To-Know
SARA: Superfund Amendments & Reauthorization Act

STEL: Short Term Exposure Limit
TLV: Threshold Limit Value
TSCA: Toxic Substances Control Act
TWA: Time Weighted Average
TCLP: Toxicity Characteristic Leaching Procedure
VOC: Volatile Organic Compounds

1 PRODUCT AND COMPANY IDENTIFICATION

Industrial Chemicals
Arkema Inc.
2000 Market Street
Philadelphia, PA 19103

EMERGENCY PHONE NUMBERS:
Chemtrec: (800) 424-9300 (24hrs) or (703) 527-3887
Medical: Rocky Mountain Poison Control Center
(866) 767-5089 (24Hrs)

Information Telephone Numbers	Phone Number	Available Hrs
Product Information	215-419-7704	8:30 a.m. - 5:00 p.m. (Eastern)

Product Name	Hydrogen Peroxide, 50% (All Grades)
Product Synonym(s)	
Chemical Family	Peroxide
Chemical Formula	H2O2
Chemical Name	Hydrogen Peroxide Solution, 50%
EPA Reg Num	
Product Use	

IN CANADA, IN CASE OF EMERGENCY CALL:
CANUTEC 613-996-6666

2 COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient Name	CAS RegistryNumber	Typical %	OSHA
Hydrogen peroxide	7722-84-1	50%	Y
Water	7732-18-5	50%	N

The substance(s) marked with a "Y" in the OSHA column, are identified as hazardous chemicals according to the criteria of the OSHA Hazard Communication Standard (29 CFR 1910.1200)

This material is classified as hazardous under Federal OSHA regulation.

The components of this product are all on the TSCA Inventory list.

3 HAZARDS IDENTIFICATION

Emergency Overview
Water white liquid with slightly sharp odor.
DANGER!
CAUSES EYE BURNS. MAY CAUSE BLINDNESS.
CAUSES SKIN BURNS.
CAUSES RESPIRATORY TRACT BURNS.
HARMFUL IF SWALLOWED.
STRONG OXIDIZER.
CONTACT WITH OTHER MATERIAL MAY CAUSE FIRE OR EXPLOSIVE DECOMPOSITION.

Potential Health Effects

Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. Based on single exposure animal tests, it is considered to be moderately toxic if swallowed, practically non-toxic if absorbed

through skin, slightly toxic if inhaled, and corrosive to eyes and skin. Inhalation of high concentrations of vapor or mist may cause severe irritation of the eyes, nose and upper respiratory tract with cough, chest discomfort and, in severe cases, pulmonary edema (accumulation of fluid in the lungs). Skin contact with concentrated liquid for a short period of time may cause a temporary whitening or bleaching of the skin. Prolonged or repeated contact with skin may cause severe irritation or burns characterized by a tingling sensation, redness, swelling and possible destruction of the dermis with ulceration. If swallowed, this material may cause irritation, burns or perforation of the gastrointestinal tract including the stomach and intestines. Symptoms of injury may include nausea, vomiting, diarrhea, abdominal pain, bleeding or tissue ulceration.

4 FIRST AID MEASURES

IF IN EYES, immediately flush with plenty of water for at least 15 minutes. Get medical attention.

IF ON SKIN, immediately flush with plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Destroy contaminated shoes.

IF SWALLOWED, do NOT induce vomiting. Give water to drink. Get medical attention immediately. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

IF INHALED, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

5 FIRE FIGHTING MEASURES

Fire and Explosive Properties

Auto-Ignition Temperature	NA	
Flash Point	None	Flash Point Method
Flammable Limits- Upper	NA	
Lower	NA	

Extinguishing Media

Use water spray, water fog.

Fire Fighting Instructions

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

Fire and Explosion Hazards

Solutions above 65% are especially hazardous as they do not contain enough water to remove the heat of decomposition by evaporation. Avoid breathing fumes from fire exposed material.

6 ACCIDENTAL RELEASE MEASURES

In Case of Spill or Leak

Stop the leak, if possible. Ventilate the space involved. Flush with plenty of water. Combustible materials exposed to hydrogen peroxide should be rinsed immediately with large amounts of water to ensure that all the hydrogen peroxide is removed. Residual hydrogen peroxide which is allowed to dry on organic materials such as paper, fabrics, cotton, leather, wood, or other combustibles can cause the material to ignite and result in a fire. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

7 HANDLING AND STORAGE

Handling

Do not get in eyes, on skin or on clothing. Do not breathe mist. Do not taste or swallow. Wash thoroughly after handling. Use only with adequate ventilation. Avoid contamination. Keep container closed.

Storage

Store separate from acids, alkalies, reducing agents, combustibles.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls

Investigate engineering techniques to reduce exposures below airborne exposure limits. Provide ventilation if necessary to control exposure levels below airborne exposure limits (see below). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

Eye / Face Protection

Where there is potential for eye contact, wear a face shield, chemical goggles, and have eye flushing equipment immediately available.

Skin Protection

Neoprene, Polyvinyl chloride, Butyl rubber Gloves should be worn when handling this material. Wear chemical goggles, a face shield, and chemical resistant clothing such as a rubber apron when splashing may occur. Rinse immediately if skin is contaminated. Remove contaminated clothing promptly and wash before reuse. Clean protective equipment before reuse. Provide a safety shower at any location where skin contact can occur. Wash skin thoroughly after handling.

Respiratory Protection

Avoid breathing vapor or mist. When airborne exposure limits are exceeded (see below), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where exposure limit may be significantly exceeded, use an approved full face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

Other Protective Equipment

Rubber boots with neoprene or pvc soles. Do NOT wear leather boots. Note: As the water content of hydrogen peroxide evaporates, cotton, rayon, and wool fibers are particularly subject to spontaneous combustion. Where there is significant risk of sudden splash or spray, it is advised that an apron or rubber suit be worn. Any contaminated clothing, including gloves, shoes, aprons, coveralls, etc., should be removed immediately and thoroughly flushed with water to eliminate any traces of hydrogen peroxide before cleaning and reuse.

Airborne Exposure Guidelines for Ingredients

Exposure Limit		Value
Hydrogen peroxide		
ACGIH TWA	-	1 ppm 1.4 mg/m3
OSHA TWA PEL	-	1 ppm 1.4 mg/m3

-Only those components with exposure limits are printed in this section.
-Skin contact limits designated with a "Y" above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required.
-ACGIH Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic reactions.
-WEEL-AIHA Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic skin reactions.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Odor	Water white liquid with slightly sharp odor.
pH	NE
Specific Gravity	1.196 @ 20 C
Vapor Pressure	18.3 @ 20 C
Vapor Density	1.0
Melting Point	NE
Freezing Point	-52 C (-62 F)
Boiling Point	114 C (237 F)
Solubility In Water	Complete
Percent Volatile	100%
Molecular Weight	34.01

10 STABILITY AND REACTIVITY

Stability

This material is chemically stable under normal and anticipated storage and handling conditions.

Incompatibility

Material decomposes with the potential to produce a rupture of unvented closed containers. Contact with metals, metal ions, organics, wood, dust, shavings, dry vegetables may cause decomposition.

Hazardous Decomposition Products

This material decomposes if contaminated, causing fire and possible explosions. Oxygen can be liberated at temperatures above ambient.

11 TOXICOLOGICAL INFORMATION

Toxicological Information

Data on this material and/or its components are summarized below. Hydrogen Peroxide
Single exposure (acute) studies indicate that this material is moderately toxic if swallowed (rat LD50 805 mg/kg; 70% solution), practically non-toxic if absorbed through skin (rabbit LD50 >6,500 mg/kg; 70% solution), slightly toxic if inhaled (no mortality in rats at 170 mg/m3 for 4 hours), and corrosive to rabbit eyes and skin. No skin allergy was observed in guinea pigs following repeated exposure. Solutions are commonly used for disinfecting wounds, bleaching hair or as a mouth wash and generally do not show adverse skin reactions. Accidental ingestion by children has resulted in death from lung edema, stomach erosions and gas distention and burns to the throat and esophagus. Eye and throat irritation and bleaching of hair have been reported by workers exposed to this material in the atmosphere.

Several studies have been conducted by administering material in the drinking water of mice and rats. The primary findings were irritation of the gastric mucous. Repeated inhalation exposure of rats and mice caused nasal irritation without notable adverse effects on the lining of the upper respiratory system. Repeated inhalation exposure of dogs resulted in upper respiratory tract irritation and emphysematous changes in the lungs. Generally, long-term oral dosing caused no adverse effects other than erosion of the stomach lining from direct application of the test material. Several studies have shown an increase in gastrointestinal tract tumors in mice and rats following long-term exposure in the drinking water. Concentrations less than 1% do not promote gastrointestinal tumors. The U.S. Federal Drug Administration has concluded that there is insufficient evidence of carcinogenicity and the International Agency for Research on Cancer (IARC) has concluded that this chemical is not classifiable as to its carcinogenicity to humans (Group 3). Genetic changes were observed in tests using bacteria and animal cells, but not in animals.

12 ECOLOGICAL INFORMATION

Ecotoxicological Information

Data on this material and/or its components are summarized below.
Hydrogen Peroxide
This material is highly toxic to marine algae (LC50 0.85 mg/l), moderately toxic to Daphnia magna (EC50 7.7 mg/l) and Daphnia pulex (LC50 2.4 mg/l). It is slightly toxic to coho salmon (LC50 10 mg/l), channel catfish (LC50 37.4 mg/l), golden orfe (LC50 35 mg/l), fathead minnow (LC50 16.4 mg/l), snail (LC50 17.7 mg/l) and bacteria (EC50 30 mg/l).

Chemical Fate Information

No data are available.

13 DISPOSAL CONSIDERATIONS

Waste Disposal

Consult with environmental engineer or professional to determine if neutralization is appropriate and for handling procedures for residual materials. Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

14 TRANSPORT INFORMATION

DOT Name	Hydrogen Peroxide, Aqueous Solution,
DOT Technical Name	
DOT Hazard Class	5.1
UN Number	UN 2014
DOT Packing Group	PG II
RQ	
DOT Special Information	Subsidiary (8) Non-Bulk packages must have Class 5.1 and Class 8 labels. Bulk packages require Class 5.1 Oxidizer placards.

15 REGULATORY INFORMATION

Hazard Categories Under Criteria of SARA Title III Rules (40 CFR Part 370)

Immediate (Acute) Health	Y	Fire	Y
Delayed (Chronic) Health	N	Reactive	Y
		Sudden Release of Pressure	N

The components of this product are all on the TSCA Inventory list.

Ingredient Related Regulatory Information:

SARA Reportable Quantities	CERCLA RQ	SARA TPQ
Hydrogen peroxide	NE	1000 LBS
Water	NE	

SARA Title III, Section 302

This product does contain chemical(s), as indicated below, currently on the Extremly Hazardous Substance List, Section 302, SARA Title III. See Section 2 for further details regarding concentrations and registry numbers.

Hydrogen peroxide

Massachusetts Right to Know

This product does contain the following chemicals(s), as indicated below, currently on the Massachusetts Right to Know Substance List.

Hydrogen peroxide

New Jersey Right to Know

This product does contain the following chemical(s), as indicated below, currently on the New Jersey Right-to-Know Substances List.

Hydrogen peroxide

Pennsylvania Environmental Hazard

This product does contain the following chemical(s), as indicated below, currently on the Pennsylvania Environmental Hazard List.

Hydrogen peroxide

Pennsylvania Right to Know

This product does contain the following chemical(s), as indicated below, currently on the Pennsylvania Hazardous Substance List.

Hydrogen peroxide

16 OTHER INFORMATION

Revision Information

Revision Date	09 AUG 2006	Revision Number 21
Supercedes Revision Dated	12-OCT-2004	

Revision Summary

Added Peroxal BIO grade name

Key

NE= Not Established NA= Not Applicable (R) = Registered Trademark

Miscellaneous

This MSDS covers the following grades of H2O2:
Albone; Alb; Alb A; Alb CG; MS; Alb MT; Alb LCL; Alb LC; AL-1; AL-2; AL-3; AL-4; A; Per; Perone; FG; ASG; AG; CG; Pure; M; DS; EG; KASTONE 50; Valsterane; Peroxal;
CLG; SEG

Peroxal 50% BIO (EPA Registration # 335-235)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Arkema Inc. believes that the information and recommendations contained herein (including data and statements) are accurate as of the date hereof. NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE, WARRANTY OF MERCHANTABILITY, OR ANY OTHER WARRANTY, EXPRESSED OR IMPLIED, IS MADE CONCERNING THE INFORMATION PROVIDED HEREIN. The information provided herein relates only to the specific product designated and may not be valid where such product is used in combination with any other materials or in any process. Further, since the conditions and methods of use are beyond the control of Arkema Inc., Arkema Inc. expressly disclaims any and all liability as to any results obtained or arising from any use of the product or reliance on such information.

6635 NE 59th Place
Portland, Oregon 97218
(971) 222-3903 Fax
www.etecllc.com

Material Safety Data Sheet

Revision Date: 09/30/2010

Section 1: Product and Company Identification

Product Name: **EZT-A2**
MSDS Number: 010
Chemical Name: Not Applicable – Biological Material
Chemical Family: Not Applicable – Biological Material

Recommended Use: Petroleum Hydrocarbon Degradation
Restrictions on Use: No Data

Company:
ETEC, LLC
6635 NE 59th Place
Portland, OR 97218
USA

Telephone: (971) 222-3616

Emergency Telephone: (800) 535-5053
Medical Emergencies: (800) 301-7976
U.S. Coast Guard National Response Center: (800) 424-8802

Section 2: Hazards Identification

Emergency Overview:
Causes skin and eye irritation. May be harmful if swallowed.

NFPA Rating:

Health Hazard:	1
Fire:	0
Reactivity Hazard:	0

Section 3: Composition/Information on Ingredients

Ingredients as defined by 29 CFR 1910.1200:

Chemical Ingredients:	CAS Number:	Percent Range:
Bacterial Consortium	Not Applicable	100%

Section 4: First Aid Measures

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Skin Contact: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion: Do NOT induce vomiting. Immediately call a poison center or doctor/physician.

Section 5: Fire Fighting Measures

Suitable Extinguishing Media: Material is not expected to be combustible. Use extinguishing medium suitable for surrounding material.

Specific Hazards in Case of Fire: None known.

Special Protective Equipment for Fire-Fighters: Use protective clothing and breathing equipment appropriate for the surrounding fire.

Section 6: Accidental Release Measures

Personal Precautions: Use goggles and impervious gloves if contact with product is possible.

Environmental Precautions: Prevent spill material from entering waterways and groundwater, if possible.

Methods for Containment/Cleaning Up: Collect spillage. Re-use if possible. Disposal should be in accordance with all applicable local, state and federal regulations.

Section 7: Handling and Storage

Handling: Avoid breathing vapor or mist. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Keep out of reach of children.

Storage: Keep container tightly closed. Store at temperatures not exceeding 70°F (20°C).

Section 8: Exposure Controls/Personal Protection

Exposure Limits:

Chemical Ingredients:	CAS Number:	OSHA PEL	NIOSH REL	ACGIH TLV
Bacterial Consortium	Not Applicable	None Established	None Established	None Established

Engineering Controls: Use only outdoors or in a well-ventilated area.

Personal Protective Equipment:

Eye Protection: Wear eye protection/face protection.

Hand Protection: Wear protective gloves.

Skin and Body Protection: Use protective clothing.

Respiratory Protection: Use only outdoors or in a well-ventilated area.

Hygiene Measures: Wash thoroughly after handling.

Section 9: Physical and Chemical Properties

Physical State:	Liquid
Color:	Brown/Tan
Odor:	Slightly Sour Odor
Odor Threshold:	Not Available
pH:	Not Available
Melting/Freezing Point:	Not Available
Initial Boiling Point:	212°F (100°C)
Flash Point:	Not Available
Evaporation Rate:	1.00
Flammability (solid, gas):	Not Applicable
Lower Explosive Limit:	Not Available
Upper Explosive Limit:	Not Available
Vapor Pressure:	18 mm Hg at 75°F (24°C)
Vapor Density:	Not Available
Relative Density:	1.00
Solubility:	Completely soluble in water
Partition Coefficient:	Not Available
Autoignition Temperature:	Not Available
Decomposition Temperature:	Not Available

Section 10: Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage.

Conditions to Avoid: None identified.

Incompatible Materials: None identified.

Hazardous Decomposition Products: None identified.

Hazardous Polymerization: Will Not Occur

Section 11: Toxicological Information

Inhalation: No known effects.

Ingestion: Causes gastrointestinal irritation.

Skin Contact: Causes skin irritation.

Eye Contact: Causes eye irritation.

Chronic Exposure: No known effects.

Aggravation of Pre-existing Conditions: No information found.

Numerical Measures of Toxicity: None Available

Carcinogenicity: Not known to be as defined by OSHA, IARC or NTP.

Section 12: Ecological Information

This product is safe for the environment at the concentrations predicted under normal use conditions.

Section 13: Disposal Considerations

Dispose of contents/container in accordance with all applicable local, state and federal regulations.

Section 14: Transport Information

For Transportation Emergencies Involving This Material, Call:
ChemTrec 1-800-424-9300
Company Code: E249

DOT (LAND):

Proper Shipping Name:	Not Applicable
Hazard Class:	Not Applicable
UN Number:	Not Applicable
Packing Group:	Not Applicable
Labels:	Not Applicable
Emergency Response Guidebook Number:	Not Applicable
DOT Hazardous Substance RQ:	None/no reportable quantities
DOT Marine Pollutants:	None/no reportable quantities

Section 15: Regulatory Information

OSHA Hazards: Skin irritant, eye irritant, gastrointestinal irritant

SARA 302: None/no reportable quantities

SARA 311/312 Hazard Categories: No data

SARA 313: None/no reportable quantities

TSCA: Not Applicable

Section 16: Other Information

The information contained in this MSDS is presented in good faith and believed to be accurate based on the information provided. The MSDS does not purport to be all inclusive, and shall be used only as a guide. While ETEC, LLC believes that the data contained herein comply with 29 CFR 1910.1200, they are not to be taken as a warranty or representation for which ETEC, LLC assumes legal responsibility. ETEC, LLC shall not be held liable or accountable for any loss or damage associated with the use of this material and information. The recommended industrial hygiene and safe use, handling, storage, and disposal procedures are believed to be generally applicable. However, since the use, handling, storage, and disposal are beyond ETEC, LLC control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability of loss, damage, or expense arising out of the material's improper use.

Legend:

ACGIH: American Conference of Governmental & Industrial Hygienists
CAS: Chemical Abstract Service
CFR: Code of Federal Regulations
DOT: Department of Transportation
DSL/NDSL: Domestic Substances List/Non-Domestic Substances List
IARC: International Agency for the Research of Cancer
IATA: International Air Traffic Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods
IMO: International Maritime Organizations
NFPA: National Fire Protection Association
Health, Flammability & Reactivity; Hazard Scale 0 =minimal/none 4= significant
NTP: National Toxicology Program
OSHA: Occupational Safety & Health Administration
PEL: Permissible Exposure Limits
RCRA: Resource Conservation & Recovery Act
RQ: Reportable Quantity
RTK: Right-To-Know
SARA: Superfund Amendments & Reauthorization Act
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value
TSCA: Toxic Substances Control Act
TWA: Time Weighted Average
TCLP: Toxicity Characteristic Leaching Procedure
VOC: Volatile Organic Compounds

6635 NE 59th Place
Portland, Oregon 97218
(971) 222-3903 Fax
www.etecllc.com

Material Safety Data Sheet

Revision Date: 09/30/2010

Section 1: Product and Company Identification

Product Name: CBN™ Custom-Blend Nutrients
MSDS Number: 014
Chemical Name: Inorganic Nutrient Mixture
Chemical Family: Mixed Nutrient

Recommended Use: Microbial Nutrient
Restrictions on Use: No Data

Company: ETEC, LLC
6635 NE 59th Place
Portland, OR 97218
USA

Telephone: (971) 222-3616

Emergency Telephone: (800) 535-5053
Medical Emergencies: (800) 301-7976
U.S. Coast Guard National Response Center: (800) 424-8802

Section 2: Hazards Identification

Emergency Overview:

May cause fire or explosion; strong oxidizer. May be harmful if swallowed or inhaled. Causes skin irritation and eye irritation. May cause respiratory irritation.

NFPA Rating:

Health Hazard:	0
Fire:	0
Reactivity Hazard:	3
Other:	Oxidizer

Section 3: Composition/Information on Ingredients

Ingredients as defined by 29 CFR 1910.1200:

Chemical Ingredients:	CAS Number:	Percent Range:
Ammonium Nitrate	6484-52-2	60 – 80%
Phosphate Salt		20 – 30%
Non-hazardous Component		5%

Section 4: First Aid Measures

Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.

Skin Contact: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion: Do NOT induce vomiting. Give large quantities of water to drink. Immediately call a poison center or doctor/physician.

Section 5: Fire Fighting Measures

Suitable Extinguishing Media: Use flooding amounts of water in early stages of fire involving ammonium nitrate for extinction. Use any means suitable for extinguishing surrounding fire.

Specific Hazards in Case of Fire: May cause fire or explosion; strong oxidizer. May support combustion in an existing fire. Contact with oxidizable substances may cause extremely violent combustion. Sealed containers may rupture when heated. Sensitive to mechanical impact. In case of major fire and large quantities: Evacuate area. Fight fire remotely due to the risk of explosion.

Special Protective Equipment for Fire-Fighters: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

Section 6: Accidental Release Measures

Personal Precautions: Eliminate all ignition sources and heat sources if safe to do so.

Environmental Precautions: Prevent spill material from entering waterways and groundwater, if possible.

Methods for Containment/Cleaning Up: Collect spillage. Collected waste may be transferred to a closed, preferably metal container and sent to a RCRA approved waste disposal facility. Alternatively, sweep spill into noncombustible container and dissolve in large amount of water. Add soda ash. Mix and neutralize with 6M-HCl. Neutralized sludge may be sent to an approved waste disposal facility.

Section 7: Handling and Storage

Handling: Keep away from clothing and other combustible materials. Take any precaution to avoid mixing with combustibles. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store away from clothing and other combustible materials. Store at temperatures not exceeding 130°F (54°C), preferably not exceeding 86°F (30°C).

Section 8: Exposure Controls/Personal Protection

Exposure Limits:

Chemical Ingredients:	CAS Number:	OSHA PEL	NIOSH REL	ACGIH TLV
Ammonium Nitrate	6484-52-2	None Established	None Established	None Established
Phosphate Salt		None Established	None Established	None Established
Non-hazardous Component		None Established	None Established	None Established

Engineering Controls: Use only outdoors or in a well-ventilated area.

Personal Protective Equipment:

Eye Protection: Wear eye protection/face protection.

Hand Protection: Wear protective gloves.

Skin and Body Protection: Wear impervious clothing, boots, gloves as appropriate to prevent skin contact.

Respiratory Protection: Avoid breathing dust. Use only outdoors or in a well-ventilated area. If exposure to dust is possible, use a NIOSH approved respirator.

Hygiene Measures: Keep away from clothing and other combustible materials. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling.

Section 9: Physical and Chemical Properties

Physical State:	Crystals, granules
Color:	White
Odor:	Odorless
Odor Threshold:	Not Available
pH:	7.0
Melting/Freezing Point:	338°F (170°C)
Initial Boiling Point:	410°F (210°C) Decomposes
Flash Point:	Not Available
Evaporation Rate:	Not Available
Flammability (solid, gas):	Not Available
Lower Explosive Limit:	Not Available

Upper Explosive Limit:	Not Available
Vapor Pressure:	Not Available
Vapor Density:	Not Available
Relative Density:	1.73 @ 77°F (23°C)
Solubility:	118 g/100 g water @ 32°F (0°C)
Partition Coefficient:	Not Available
Autoignition Temperature:	Not Available
Decomposition Temperature:	Not Available

Section 10: Stability and Reactivity

Stability: Stable under ordinary conditions of use and storage. Hygroscopic.

Conditions to Avoid: Heat, flame, ignition sources, dusting and incompatibles. Moisture and combustible materials. Shock sensitive.

Incompatible Materials: Aluminum, antimony, chromium, copper, iron, lead, magnesium, manganese, nickel, zinc, brass, oil, charcoal, organic material, acetic acid, ammonium chloride, bismuth, cadmium, chlorides, cobalt, phosphorus, potassium and ammonium sulfate, sodium, sodium hypochlorite, sodium perchlorate, sodium-potassium alloy, and sulfides.

Hazardous Decomposition Products: Emits nitrous oxides when heated to decomposition. Liberates ammonia in reaction with strong alkalis.

Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information

Inhalation: May cause respiratory irritation. At high temperatures, exposure to toxic nitrogen oxides decomposition products can quickly cause acute respiratory problems. Inhalation of large amounts causes systemic acidosis and abnormal hemoglobin.

Ingestion: Harmful if swallowed. Large oral doses of nitrates may cause dizziness, abdominal pain, vomiting, bloody diarrhea, weakness, convulsions, and collapse. May cause methemoglobinemia resulting in cyanosis.

Skin Contact: Causes skin irritation.

Eye Contact: Causes eye irritation.

Chronic Exposure: Small repeated oral doses of nitrates may cause weakness, depression, headache, and mental impairment.

Aggravation of Pre-existing Conditions: No information found.

Numerical Measures of Toxicity: Oral rat LD50: 2217 mg/kg (for ammonium nitrate)

Carcinogenicity: Not known to be as defined by OSHA, IARC or NTP (for ammonium nitrate).

Section 12: Ecological Information

Mobility in Soil: When released into soil, this material is expected to leach into groundwater. When released into the soil, this material is not expected to evaporate significantly.

Persistence: When released into water, this material is expected to readily biodegrade.

Section 13: Disposal Considerations

Dispose of contents/container in accordance with all applicable local, state and federal regulations.

Section 14: Transport Information

For Transportation Emergencies Involving This Material, Call: ChemTrec 1-800-424-9300 Company Code: E249

DOT (LAND):

Proper Shipping Name:	AMMONIUM NITRATE
Hazard Class:	5.1
UN Number:	UN1942
Packing Group:	III
Placards:	Oxidizer
DOT Hazardous Substance RQ:	None/no reportable quantities
DOT Marine Pollutants:	None/no reportable quantities

Section 15: Regulatory Information

OSHA Hazards: Strong oxidizer, skin irritant, eye irritant, respiratory irritant

SARA 302: None/no reportable quantities.

SARA 311/312 Hazard Categories: Acute Health Hazard, Reactive Hazard

SARA 313: Nitrate compounds are subject to the reporting requirements of SARA 313. Additionally, water dissociable ammonia salts are subject to the reporting requirements of SARA 313 when placed in water.

TSCA: All substances in this product are listed on the TSCA inventory.

Section 16: Other Information

The information contained in this MSDS is presented in good faith and believed to be accurate based on the information provided. The MSDS does not purport to be all inclusive, and shall be used only as a guide. While ETEC, LLC believes that the data contained herein comply with 29 CFR 1910.1200, they are not to be taken as a warranty or representation for which ETEC, LLC assumes legal responsibility.

ETEC, LLC shall not be held liable or accountable for any loss or damage associated with the use of this material and information. The recommended industrial hygiene and safe use, handling, storage, and disposal procedures are believed to be generally applicable. However, since the use, handling, storage, and disposal are beyond ETEC, LLC control, it is the responsibility of the user both to determine safe conditions for use of this product and to assume liability of loss, damage, or expense arising out of the material's improper use.

Legend:

ACGIH: American Conference of Governmental & Industrial Hygienists
CAS: Chemical Abstract Service
CFR: Code of Federal Regulations
DOT: Department of Transportation
DSL/NDSL: Domestic Substances List/Non-Domestic Substances List
IARC: International Agency for the Research of Cancer
IATA: International Air Traffic Association
ICAO: International Civil Aviation Organization
IMDG: International Maritime Dangerous Goods
IMO: International Maritime Organizations
NFPA: National Fire Protection Association
Health, Flammability & Reactivity; Hazard Scale 0 =minimal/none 4= significant
NTP: National Toxicology Program
OSHA: Occupational Safety & Health Administration
PEL: Permissible Exposure Limits
RCRA: Resource Conservation & Recovery Act
RQ: Reportable Quantity
RTK: Right-To-Know
SARA: Superfund Amendments & Reauthorization Act
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value
TSCA: Toxic Substances Control Act
TWA: Time Weighted Average
TCLP: Toxicity Characteristic Leaching Procedure
VOC: Volatile Organic Compounds

Appendix D

Aquifer Analysis

D H E C
PROMOTE PROTECT PROSPER

Summary of Slug Test
Division of Underground Storage Tank Management

Site Data

UST Permit #: _____ County: Richland

Facility Name: Eastpoint #24

Slug Data

See Appendix D Table _____ Figure _____ for a list of all data measurements. [water level logs, etc. (complete as appropriate)].

Water Level Recovery Data was measured by Water Level Meter
[Hermit Data Logger, Manually with Water Level Indicator, etc. (list method)].

Complete the following table for each well tested.

COMPLETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Slug Test Conducted in Well(s) Number	MW-2a	MW-5a		
Initial Rise/Drawdown in Well (feet)	18.12	22.01		
Radius of Well Casing (feet)	.08	.08		
Effective Radius of Well (feet)	.33	.33		
Static Saturated Aquifer Thickness (feet)	28	28		
Length of Well Screen (feet)	10	10		
Static Height of Water Column in Well (ft)	10	6		

Calculations

See Appendix D Table _____ Figure _____ for calculations (complete as appropriate).

The method for aquifer calculations was Bouwer-Rice (i.e. Bouwer-Rice, Cooper, etc.).

Calculated values by well were as follows:

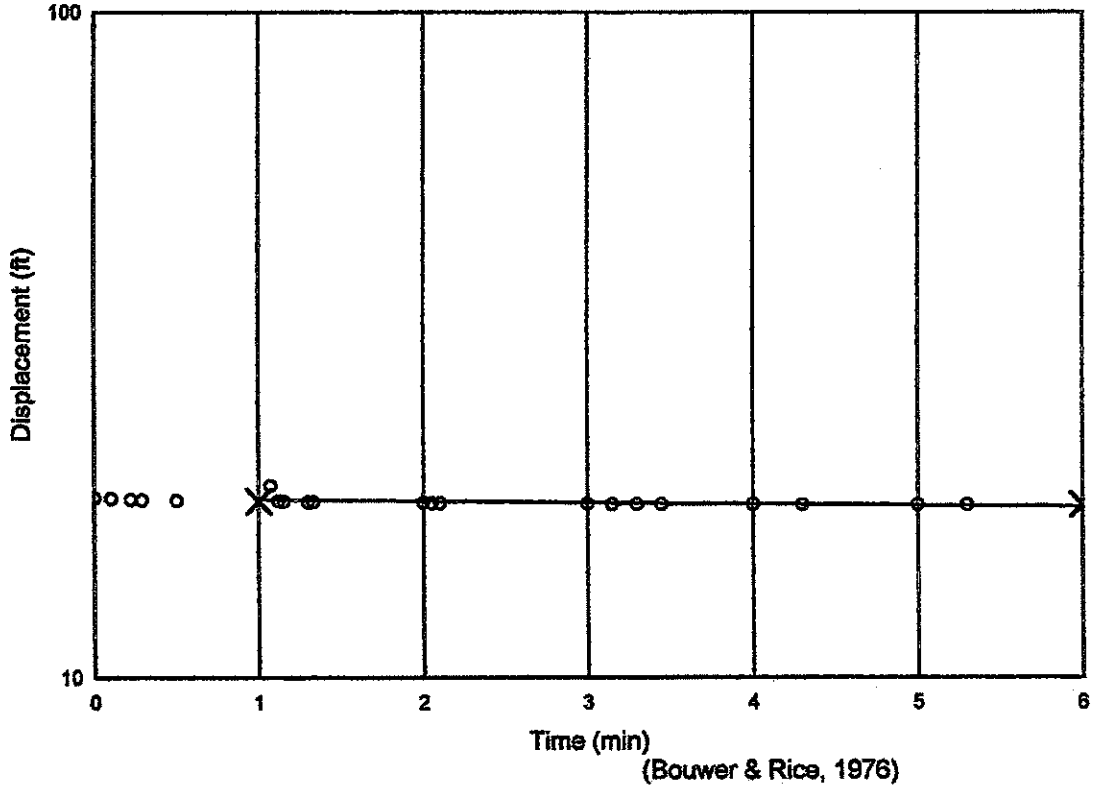
Slug Test Conducted in Well(s) Number	MW-2a	MW-5a	
Hydraulic Conductivity	1.91x10-6	5.60x10-7 cm/sec	

Thickness of the aquifer used to calculate hydraulic conductivity was 28.0 feet.

The aquifer is _____ confined _____ semi-confined X water table (check as appropriate).

The estimated seepage velocity is 0.012 to 0.040 feet per year based on a hydraulic conductivity of 1.91x10-6 to 5.60x10-7, a hydraulic gradient of .007 ft/ft, and a porosity of 35 percent for clayey sand soil (list type i.e., silty sand ,clay, etc).

Rising Head Slug Test
Fastpoint #24 MW-2a



(Bouwer & Rice, 1976)

Rising head test

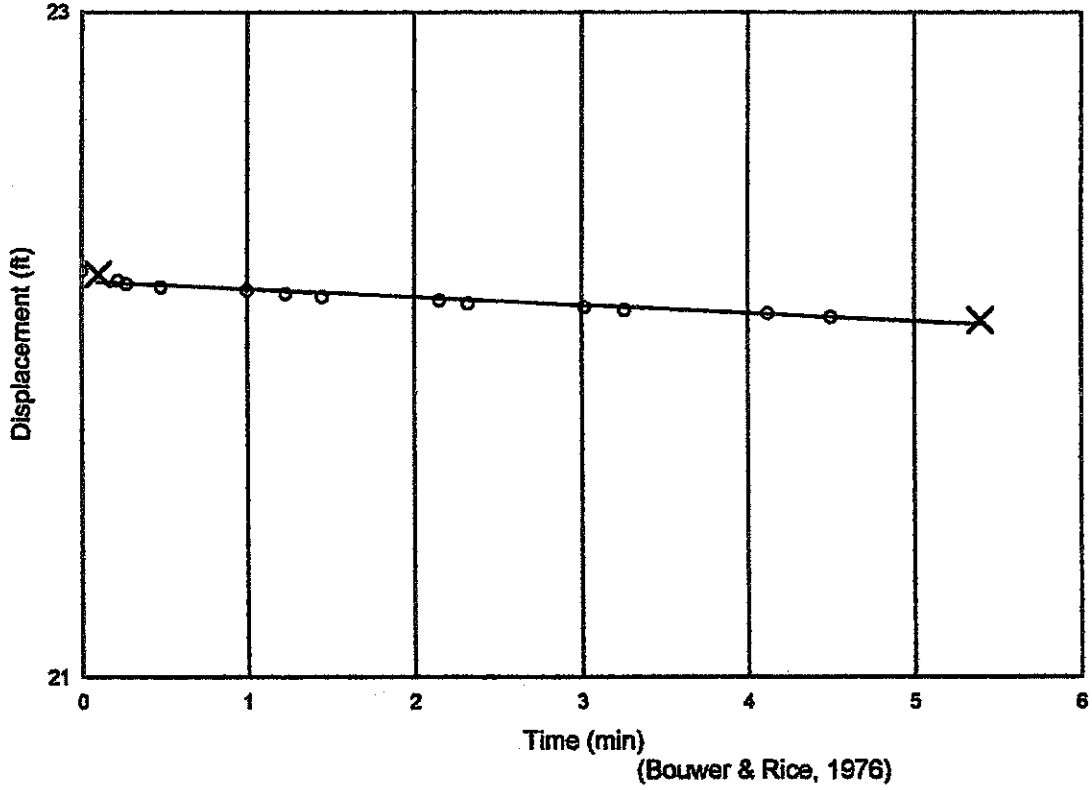
INPUT PARAMETERS
Raw data time unit is min
Raw data length unit is ft
b = 28.00 ft
H = 10.00 ft
L = 10.00 ft
rw = 0.33 ft
rc = 0.08 ft

CALCULATED PARAMETERS
Corr. coeff. = -5.30E-001
Yt = 18.37 ft
t = 2.10E+000 min

OUTPUT PARAMETERS
K = 1.91E-006 cm/sec

Fastpoint #24, Columbia, SC							
Rising Head Slug Test							
MW-2a							
Date: 5-18-99							
				Selected	Selected	Rescaled	
				Time	Draw	(t-t0)	Draw
Time (min.)				(min)	(ft)	(min)	(ft)
0.05	19.1			0.05	19.1	0	19.1
0.2	18.95			0.2	18.95	0.15	18.95
0.31	18.8			0.31	18.8	0.26	18.8
0.36	18.75			0.36	18.75	0.31	18.75
0.48	18.72			0.48	18.72	0.43	18.72
0.5	18.63			0.5	18.63	0.45	18.63
1	18.58			1	18.58	0.95	18.58
1.1	18.55			1.1	18.55	1.05	18.55
1.22	18.5			1.22	18.5	1.17	18.5
1.29	18.45			1.29	18.45	1.24	18.45
1.5	18.43			1.5	18.43	1.45	18.43
2	18.4			2	18.4	1.95	18.4
2.07	19.39			2.07	19.39	2.02	19.39
2.12	18.38			2.12	18.38	2.07	18.38
2.15	18.35			2.15	18.35	2.1	18.35
2.3	18.33			2.3	18.33	2.25	18.33
2.33	18.32			2.33	18.32	2.28	18.32
3	18.29			3	18.29	2.95	18.29
3.05	18.27			3.05	18.27	3	18.27
3.1	18.26			3.1	18.26	3.05	18.26
4	18.22			4	18.22	3.95	18.22
4.15	18.2			4.15	18.2	4.1	18.2
4.3	18.19			4.3	18.19	4.25	18.19
4.45	18.18			4.45	18.18	4.4	18.18
5	18.18			5	18.18	4.95	18.18
5.3	18.16			5.3	18.16	5.25	18.16
6	18.15			6	18.15	5.95	18.15
6.3	18.15			6.3	18.15	6.25	18.15
7	18.15			7	18.15	6.95	18.15

Rising Head Slug Test
Fastpoint #24 MW-5a



(Bouwer & Rice, 1976)

Rising head test

INPUT PARAMETERS
Raw data time unit is min
Raw data length unit is ft
b = 28.00 ft
H = 6.00 ft
L = 6.00 ft
rw = 0.33 ft
rc = 0.08 ft

CALCULATED PARAMETERS
Corr. coeff. = -9.71E-001
Yt = 22.13 ft
t = 1.45E+000 min

OUTPUT PARAMETERS
K = 5.60E-007 cm/sec

Fastpoint #24, Columbia, SC							
Rising Head Slug Test							
MW-5a							
Date: 5-18-99				Selected	Selected	Rescaled	
				Time	Draw	(t-t0)	Draw
Time	Draw			(min)	(ft)	(min)	(ft)
0.37	22.25			0.37	22.25	0	22.2
0.49	22.24			0.49	22.24	0.1	22.19
0.55	22.21			0.55	22.21	0.22	22.17
1	22.2			1	22.2	0.27	22.16
1.1	22.19			1.1	22.19	0.48	22.15
1.22	22.17			1.22	22.17	1	22.14
1.27	22.16			1.27	22.16	1.23	22.13
1.48	22.15			1.48	22.15	1.45	22.12
2	22.14			2	22.14	2.15	22.11
2.23	22.13			2.23	22.13	2.32	22.1
2.45	22.12			2.45	22.12	3.02	22.09
3.15	22.11			3.15	22.11	3.26	22.08
3.32	22.1			3.32	22.1	4.12	22.07
4.02	22.09			4.02	22.09	4.5	22.06
4.26	22.08			4.26	22.08	5.4	22.05
5.12	22.07			5.12	22.07		
5.5	22.06			5.5	22.06		
6.4	22.05			6.4	22.05		

Well Number	Type of Material Exposed to Screened Interval	Hydraulic Conductivity (K) (cm/sec)
MW-1A	UNKNOWN	2.87×10^{-4}
MW-2A	UNKNOWN	5.48×10^{-4}
MW-3	Sandy CLAY	6.96×10^{-5}
MW-5	Sandy CLAY	3.33×10^{-5}
MW-5A	UNKNOWN	8.09×10^{-4}
MW-11	Sandy CLAY	1.73×10^{-4}
MW-12	Silty Sand & Silty CLAY	8.50×10^{-5}
MW-14	SAND	8.24×10^{-6}
MW-16	Sandy CLAY	9.50×10^{-7}
MW-17D	Silty CLAY	7.73×10^{-7}

Notes:

Field tests were reduced and the hydraulic conductivities computed using techniques described in NAVFAC Soil Mechanics Design Manual 7.1, May, 1982, Condition A and Condition C (Condition C used on MW-17D).

Soil descriptions from SCDHEC files.
Calculations are included in Appendix B.

6.4 GROUNDWATER MOVEMENT

Groundwater movement is often related to topography, lithology, elevation of recharge and discharge areas and man-made influences. Referenced groundwater elevations were determined by measuring the top of the monitoring well casing relative to a nearby datum elevation (see Figure 2) measuring the water level in the monitoring well, and computing the reference elevation of the groundwater at the time of measurement.

Directions of groundwater flow were interpolated between monitoring wells by comparing the groundwater elevations at those locations considering the factors listed above. Groundwater levels typically fluctuate with seasonal and rainfall variations.

SUMMARY of SLUG TEST (page 1 of 3)

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)

Site Data

SITE ID # 7777 COUNTY Richland

FACILITY NAME Cloud's Chevron

SLUG DATA

See Appendix _____ Table _____ Figure _____ for a list of all data measurements.
(water level logs, etc.)(Complete as appropriate).
Water Level Recovery Data was measured by ORS Interface Probe .
(Hermit Data Logger, Manually with Water Level Indicator, etc.)(List Method)
Complete the following table for each well tested.
COMPLETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Slug Test Conducted in well(s) number	MW-1A	MW-2A	MW-3	MW-5
Initial Rise/Drawdown in well (feet)	0.09	1.86	1.77	0.65
Radius of well casing (feet)	0.083	0.083	0.083	0.083
Effective Radius of Well (feet)	0.33	0.33	0.35	0.35
Static Saturated Aquifer Thickness (feet)	7.31	3.59	3.46	5.97
Length of Well Screen (feet)	10	10	15	15
Static Height of Water Column in Well (ft)	20.69	25.41	22.04	22.53

Calculations

See Appendix _____ Table _____ Figure _____ for calculations
The method for aquifer calculations was NAVFAC
Calculated values by well were as follows:

Slug Test Conducted in Well(s) number	MW-1A	MW-2A	MW-3	MW-5	
Hydraulic Conductivity	2.87E-04	5.48E-04	6.96E-05	3.33E-05	cm/sec

Thickness of the aquifer used to calculate hydraulic conductivity was N/A feet.
The aquifer is _____ confined _____ semi-confined _____ water table (Check as Appropriate).
SEE SHEET 3
The estimated seepage velocity is _____ feet per year based on a hydraulic conductivity of _____ cm/sec, a hydraulic gradient of _____ ft/ft, and a porosity of _____ percent for _____ soil.

SUMMARY of SLUG TEST

SUMMARY of SLUG TEST (page 2 of 3)

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)

Site Data

SITE ID # 7777 COUNTY Richland

FACILITY NAME Cloud's Chevron

SLUG DATA

See Appendix _____ Table _____ Figure _____ for a list of all data measurements.
(water level logs, etc.)(Complete as appropriate).
Water Level Recovery Data was measured by ORS Interface Probe .
(Hermit Data Logger, Manually with Water Level Indicator, etc..)(List Method)
Complete the following table for each well tested.
COMPLETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Slug Test Conducted in well(s) number	MW-5A	MW-11	MW-12	MW-14
Initial Rise/Drawdown in well (feet)	0.08	0.43	0.1	0.1
Radius of well casing (feet)	0.083	0.083	0.083	0.083
Effective Radius of Well (feet)	0.33	0.33	0.33	0.33
Static Saturated Aquifer Thickness (feet)	6.14	10.02	24.9	14.41
Length of Well Screen (feet)	5	15	15	15
Static Height of Water Column in Well (ft)	23.26	19.98	5.1	15.59

Calculations

See Appendix _____ Table _____ Figure _____ for calculations
The method for aquifer calculations was NAVFAC
Calculated values by well were as follows:

Slug Test Conducted in Well(s) number	MW-5A	MW-11	MW-12	MW-14	
Hydraulic Conductivity	8.09E-04	1.73E-04	8.50E-05	8.24E-06	cm/sec

Thickness of the aquifer used to calculate hydraulic conductivity was N/A feet.
The aquifer is _____ confined _____ semi-confined _____ water table (Check as Appropriate).
SEE SHEET 3
The estimated seepage velocity is _____ feet per year based on a hydraulic conductivity of _____ cm/sec, a hydraulic gradient of _____ ft/ft, and a porosity of _____ percent for _____ soil.

SUMMARY of SLUG TEST

SUMMARY of SLUG TEST (page 3 of 3)

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)

Site Data

SITE ID # 7777 COUNTY Richland

FACILITY NAME Cloud's Chevron

SLUG DATA

See Appendix _____ Table _____ Figure _____ for a list of all data measurements.
(water level logs, etc.)(Complete as appropriate).
Water Level Recovery Data was measured by ORS Interface Probe .
(Hermit Data Logger, Manually with Water Level Indicator, etc..)(List Method)
Complete the following table for each well tested.
COMPLETE A SECOND SHEET IF MORE THAN FOUR WELLS ARE TESTED

Slug Test Conducted in well(s) number	MW-16	MW-17D		
Initial Rise/Drawdown in well (feet)	2.09	4.62		
Radius of well casing (feet)	0.083	0.083		
Effective Radius of Well (feet)	0.33	0.33		
Static Saturated Aquifer Thickness (feet)	11.83	14.36		
Length of Well Screen (feet)	15	15		
Static Height of Water Column in Well (ft)	18.17	44.64		

Calculations

See Appendix _____ Table _____ Figure _____ for calculations
The method for aquifer calculations was NAVFAC
Calculated values by well were as follows:

Slug Test Conducted in Well(s) number	MW-16	MW-17D			
Hydraulic Conductivity	9.50E-07	7.73E-07			cm/sec

Thickness of the aquifer used to calculate hydraulic conductivity was N/A feet.
The aquifer is _____ confined _____ semi-confined X water table (Check as Appropriate).
* Enter Values in Shaded Areas Only
The estimated seepage velocity is 72.94 feet per year based on a hydraulic conductivity of 2.01E-04 cm/sec, a hydraulic gradient of 1.40E-02 ft/ft, and a porosity of 4 percent for Sandy CLAY soil.

SUMMARY of SLUG TEST

Groundwater Seepage Velocity Calculations

SOUTH CAROLINA
Department of Health and Environmental Control (DHEC)

Site Data

SITE ID # 7777 Richland

FACILITY NAME Cloud's Chevron

Hydraulic Conductivity (average)

Hydraulic Conductivity Average = 2.01E-04 cm/sec

5.71E-01 ft./day

3.96E-04 ft./min

Groundwater Seepage Velocity

V = (Ki)/(Ne)
(ft./day)

* Enter Values in Shaded Areas Only

where:

K = Hydraulic Conductivity (ft./day)
I = Hydraulic Gradient (ft./ft.)
Ne = Effective Permeability

K = 5.71E-01 ft./day
I = 1.00E-02 ft./ft.
Ne = 0.04

V = **1.43E-01** ft./day **52.10** ft./year

Groundwater Seepage Velocity Calculations

Inflow for Type II Well MW-1A

Inflow Permeability Calculation

Cloud's Chevron

Test Performed: 4/9/97

MW-1A

Type II (Uncased Well)

Static: 20.69 ft

*Enter Values in Shaded Areas Only

Time (min)	Depth	delta H	Ht/Ho
0.50	20.78	0.09	1.00
1.00	20.77	0.08	0.89
2.00	20.75	0.06	0.67
4.00	20.73	0.04	0.44
7.00	20.71	0.02	0.22
9.50	20.70	0.01	0.11

Information from data and plot of Ht/H0 vs time

Bore Hole Diameter:	8	in
Total Depth of Well:	28	ft
Stand Pipe Area:	50.27	in^2
	0.35	ft^2

Coordinates from Graph for Slope Calc:

H1/Ho:	1	
t1:	0.5	min
H2/Ho:	0.89	
t2:	1	min

H1:	0.09	H2:	0.08
t1:	0.50	t2:	1.00
Radius	R:	4.00	in
Radius	R:	0.33	ft
Depth	D:	7.31	ft
	R/D:	0.046	
	D/R:	21.93	

Shape Factor Determination Value: 0.99 *

*This value is used in conjunction with Figure 13 of Reference [1] to obtain the shape factor.

Shape Factor S: 0.1

Coeff. of Permeability (K):

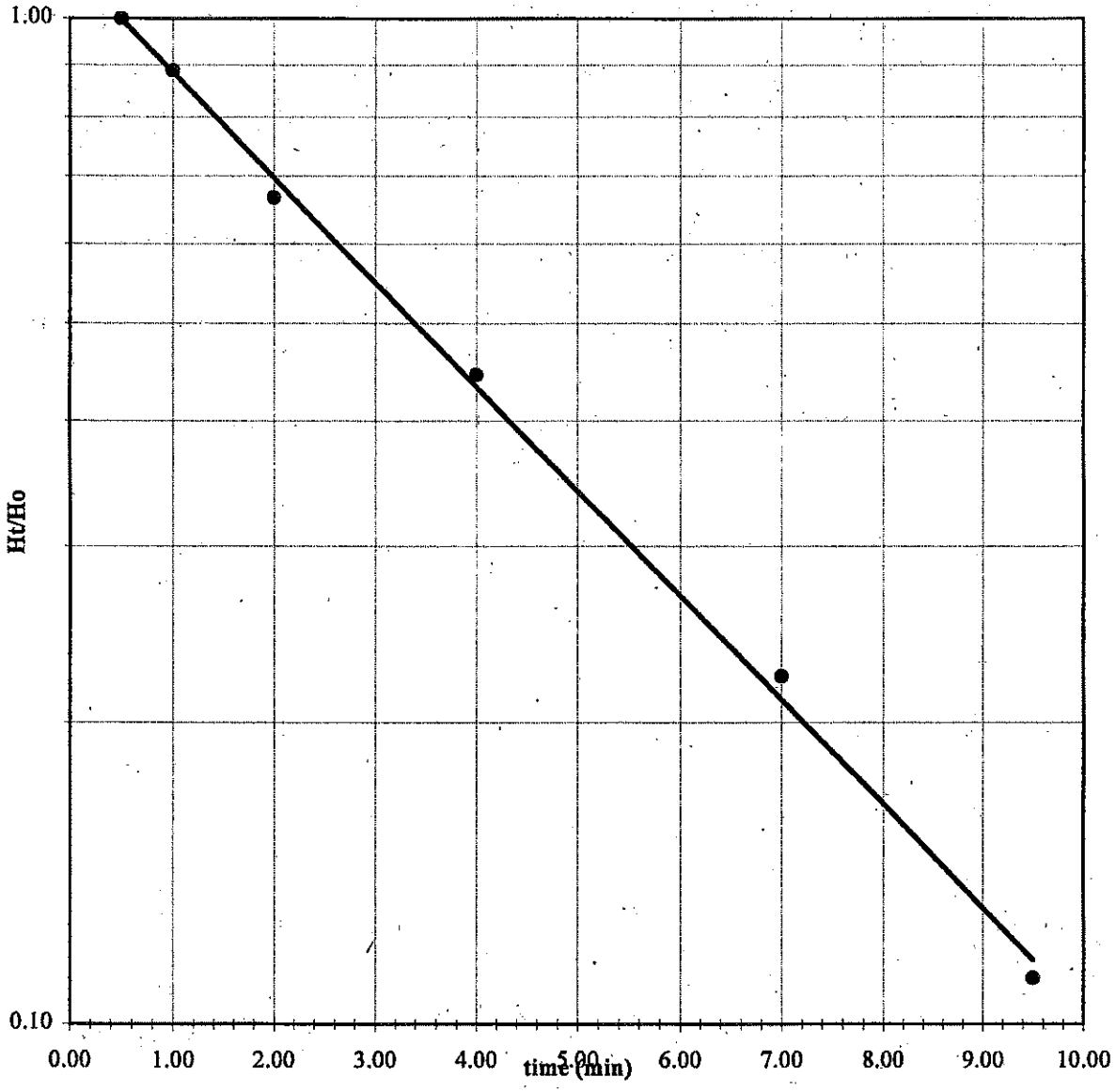
5.64E-04 ft/min

8.13E-01 ft/day

2.87E-04 cm/sec

Ref [1]: Naval Fac. Engr. Command, Design Manual 7.01, soil Mechanics

Inflow for Type II Well MW-1A



Midlands Environmental Consultants Inc.

Purchasing Office
SC DHEC
Attn: Procurement Services Division
2600 Bull Street
Columbia SC 29201-1708
Phone:(803) 898-3501
Fax: (803) 898-3505

Invoice To:
SC DHEC
Attn: Accounts Payable
2600 Bull Street
Columbia SC 29201-1708
Phone:(803) 898-3460
Fax: (803) 253-7637

UST
MAR 14 2014
PROGRAM

Purchase Order: 4600322226 **Date Issued:** 03/11/2014 **Validity - From:** 01/07/2014 **TO:** 01/06/2019 PO Number must appear on all Invoices and Delivery Slips.	**Payment Terms:** **within** 30 **Days** 0.000 **Percent Discount**
Vendor: 7000130450 CRAWFORD ENVIRONMENTAL SERVICES 104 CORPORATE BLVD - SUITE 412 WEST COLUMBIA SC 29169 USA	**Deliver To:** The State of South Carolina DHEC - Columbia Mills Mailroom 301 Gervais St COLUMBIA SC 29201-3073 USA

INSTRUCTIONS TO VENDOR

Procurement Officer: E. Madison Winslow, (803) 898-3487 / Program Contact: Susan B. Fulmer, (803) 898-0614 / Contractor Contact: Charles P. Crawford, (540) 798-4205 / Price per IFB-5400007095-1/30/14-EMW, signed by Charles P. Crawford on 1/26/14. / UST corrective action at 07584-07777-12352. / Total Contract Cost: $540,000.00 / Contract period: January 7, 2014 through January 6, 2019 or until completion or work. / All terms and conditions of the solicitation do apply..

Item No	QTY	Order UOM	Description	Unit Price	Amount
001	540,000	EA	Environmental Consulting Release Order for contract: 4400007922 / 0000000001 Delivery Date:03/07/2015	1.0000	540,000.00
				Subtotal:	**540,000.00**
				Total Value:	**540,000.00 USD**

Created By: EDWARD WINSLOW
Authorized Signature
If received electronically, printed name represents authorized signature for this document

All Sales to the State of South Carolina (SC) are subject to the SC sales and use tax laws, unless such sales are otherwise exempt. The Contractor/Vendor will collect such tax as required.

UST
DOCKETING

CRAWFORD
ENVIRONMENTAL
SERVICES

UST
MAR 25 2014
PROGRAM

March 24, 2014

UST
07584 - 242 tech
DOCKETING
07777 - 176 tech
12352 - 111 tech

Ms. Susan Fulmer, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management
SCDHEC
2600 Bull Street
Columbia, SC 29201

RE: QAPP Contractor Addendum – CAP/CASE
Cloud's Chevron & University Mart
1600 Two Notch Road, Columbia, SC
UST Permits: #07584, 07777 and 12352
CES Number: Pending

Dear Ms. Fulmer

As we have discussed, attached please find the Quality Assurance Project Plan Addendum for the referenced facility prepared by Crawford Environmental Services, Inc. (CES). CES has completed the site check (March 10, 2014), the assessment plan and contractors addendum to the Master QAPP for the Corrective Action Plan (CAP) and Corrective Action System Evaluations (CASE) to be performed at the above noted facility.

Should you have any questions or comments regarding the attached, please feel free to contact me at 540-798-4205 or by email at ccrawford@crawfordenvironmental.com.

Best Regards,
CRAWFORD ENVIRONMENTAL SERVICES, INC.

Charles F. Crawford, III
President
SC Rehabilitation Contractor Number: 0388

Attachments:

Appendix A:	Quality Assurance Program Plan (Contractor's Addendum) 27 pages
Appendix B:	Chain of Custody Template 1 page
Appendix C:	Site Figures 2 pages
Appendix D:	Methodology – Ferrous Iron 14 pages

SCANNED

CRAWFORD
ENVIRONMENTAL
SERVICES

APPENDIX A:

QAPP Contractor Addendum

CRAWFORD ENVIRONMENTAL SERVICES

Section A: Project Management

A1 Title and Approval Page

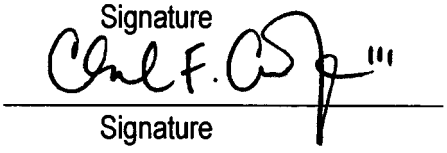
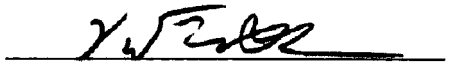
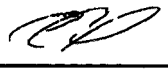
Quality Assurance Project Plan
Addendum (Corrective Action Plan) to the SC DHEC UST Programmatic QAPP
For
Handy Pantry #65 / University Mart & Cloud's Chevron
UST Permit #: 07584, 07777 and 12352

1600 Two Notch Road, Columbia, SC

Prepared by:

Charles F. Crawford, III
Crawford Environmental Services
15 Church Ave., SW
Roanoke, VA 24015
SCDHEC Site Rehabilitation Contractor Certification Number: UCC-0388

Approvals

Susan Fulmer SC DHEC Project Manager	_____ Signature	Date	_____
Charles F. Crawford, III Site Rehabilitation Contractor	 Signature	Date	03.21.14
Daniel J. Fisher Project Verifier	 Signature	Date	03.21.14
Ashley Amick Laboratory Director Access Analytical Inc.	 Signature	Date	03.21.14
Mehmet Yildrim Laboratory Director Analytical Environmental Services Inc.,	 Signature	Date	03.21.14

A2 Table of Contents

A3 Distribution 3
A4 Project Organization 4
A5 Problem Definition/Background 7
A6 Project/Task Description 7
A7 Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs) 8
A8 Training and Certificates 8
A9 Documents and Records 10

Section B Measurement/Data Acquisition 11

B1 Sampling Process/Experimental Design 11
B2 Sampling Methods 11
B3 Sample Handling and Custody 15
B4 Analytical Methods 16
B5 Quality Control Requirements 20
B6 Field Instrument and Equipment Testing, Inspection and Maintenance 20
B7 Instrument Calibration and Frequency 22
B8 Inspection/Acceptance Requirements for Supplies and Consumables 23
B9 Data Acquisition Requirements (Non-Direct Measurements) 24
B10 Data Management 25

Section C Assessment and Oversight 26

C1 Assessment and Response Actions 26
C2 Reports and Management 27

Section D Data Validation and Usability 27

A3 Distribution List

Name	Title	Organization/Address	Telephone Number	Fax Number	Email Address
Susan Fulmer	SC DHEC Technical Project Manager	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-898-0614	803-896-6245	fulmersb@dhec.sc.gov
Charles F. Crawford	Site Rehabilitation Contractor	Crawford Environmental Services 104 Corporate Blvd. Suite 412 West Columbia, SC 29169	540-798-4205	540-343-6259	ccrawford@crawfordenvironmental.com
Daniel J. Fisher	Project QA/QC Manager and Project Verifier	Crawford Environmental Services 15 Church Ave., SW Roanoke, VA 24011	540-798-5068	540-343-6259	dfisher@crawfordenvironmental.com
Daniel J. Fisher	Project Manager	Crawford Environmental Services 104 Corporate Blvd. Suite 412 West Columbia, SC 29169	540-798-5068	540-343-6259	dfisher@crawfordenvironmental.com
William C. Ewing	Field Manager/ Certified Well Driller	Crawford Environmental Services 104 Corporate Blvd. Suite 412 West Columbia, SC 29169	803-708-0079	803-708-8137	bewing@crawfordenvironmental.com
Ashley Amick	Laboratory Director	Access Analytical, Inc. (AA) 7478 Carlisle Street Irmo, SC 29063	803-781-4243	803-781-4303	aamick@axs-inc.com
Mehmet Yildrim	Laboratory Director	Analytical Environmental (AES) Services Inc. 3785 Presidential Pkwy Atlanta, GA 30340	770-457-8177	770-457-8188	myildrim@aesatlanta.com

Table 1A Addendum Distribution List

A4 Project Organization

Role from the UST Master QAPP	Name of person in this Role for this Project	Organization/Address	Telephone Number	Fax Number	Email Address
Project Manager	Susan Fulmer	SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-898-0614	803-896-6245	fulmersb@dhec.sc.gov
Site Rehabilitation Contractor	Charles F. Crawford	Crawford Environmental Services 104 Corporate Blvd. Suite 412 West Columbia, SC 29169	540-798-4205	540-343-6259	ccrawford@crawfordenvironmental.com
Project Manger	Daniel J. Fisher	Crawford Environmental Services 104 Corporate Blvd. Suite 412 West Columbia, SC 29169	540-798-5068	540-343-6259	dfisher@crawfordenvironmental.com
Analytical Laboratory Director	Ashley Amick	Access Analytical, Inc. (AA) 7478 Carlisle Street Irmo, SC 29063	803-781-4243	803-781-4303	aamick@axs-inc.com
Analytical Laboratory Director	Mehmet Yildrim	Analytical Environmental (AES) Services Inc. 3785 Presidential Pkwy Atlanta, GA 30340	770-457-8177	770-457-8188	myildrim@aesatlanta.com
Field Manager/ Certified Well Driller	William C. Ewing	Crawford Environmental Services 104 Corporate Blvd. Suite 412 West Columbia, SC 29169	803-708-0079	803-708-8137	bewing@crawfordenvironmental.com
Project QA/QC Manager and Project Verifier	Daniel J. Fisher	Crawford Environmental Services 15 Church Ave., SW Roanoke, VA 24011	540-798-5068	540-343-6259	dfisher@crawfordenvironmental.com
Disposal Subcontractor	Vanessa Tremblay	Waste Management 1850 Parkway Place – Suite 600 Marietta GA 30067	803-735-0808	877-446-1079	vtrembly@wm.com

Table 2A Addendum Role Identification and Contact Information

The responsibilities of the participants are as follows:

1. **UST Management Project Manager** – The UST Management Project Manager (UST Project Manager) is responsible for direct oversight of the contractor conducting this assessment. The UST Project Manager performs the review of the plan and the report associated with this assessment. These reviews include verification and analysis of data submitted to the UST Management Division by the Site Rehabilitation Contractor. The UST Project Manager is responsible for the review of and approval of the site specific QAPP to ensure compliance with the Master QAPP. The UST Project Manager also is responsible for validating data.

2. **Site Rehabilitation Contractor** – The Site Rehabilitation Contractor is an independent contractor responsible for managing and coordinating field and office activities needed for this assessment.

3. **Project Manager** – The Project Manager is a representative of the Site Rehabilitation Contractor responsible for the day to day oversight of activities needed to complete this assessment. The Project

Manager is responsible for the submission of plans, updates and reports associated with this assessment.

4. Laboratory Analytical Director – The Laboratory Analytical Director represents the Analytical Laboratory that will receive the soil and water samples from the Site Rehabilitation Contractor, performs the requested analyses and provides an analytical report.

5. Field Manager – The Field Manager is a representative of the Site Rehabilitation Contractor responsible for the oversight of the contractor technicians and field activities. The Field Manager is responsible for the review / QA of field activities to ensure compliance with the UST Master QAPP and contractor health and safety plans.

6. Project QA/QC Manager and Project Verifier – The Project QA/QC Manager and Project Verifier is a representative of the Site Rehabilitation Contractor responsible for the oversight of project activities to ensure quality control is in compliance with the UST Master QAPP.

7. Disposal Contractor – The Disposal Contractor is a subcontractor, chosen by the Site Rehabilitation Contractor, which will receive the industry derived waste created during the implementation of this assessment. The Disposal Contractor is responsible for the review of manifests to ensure the disposal is in compliance with the UST Master QAPP.

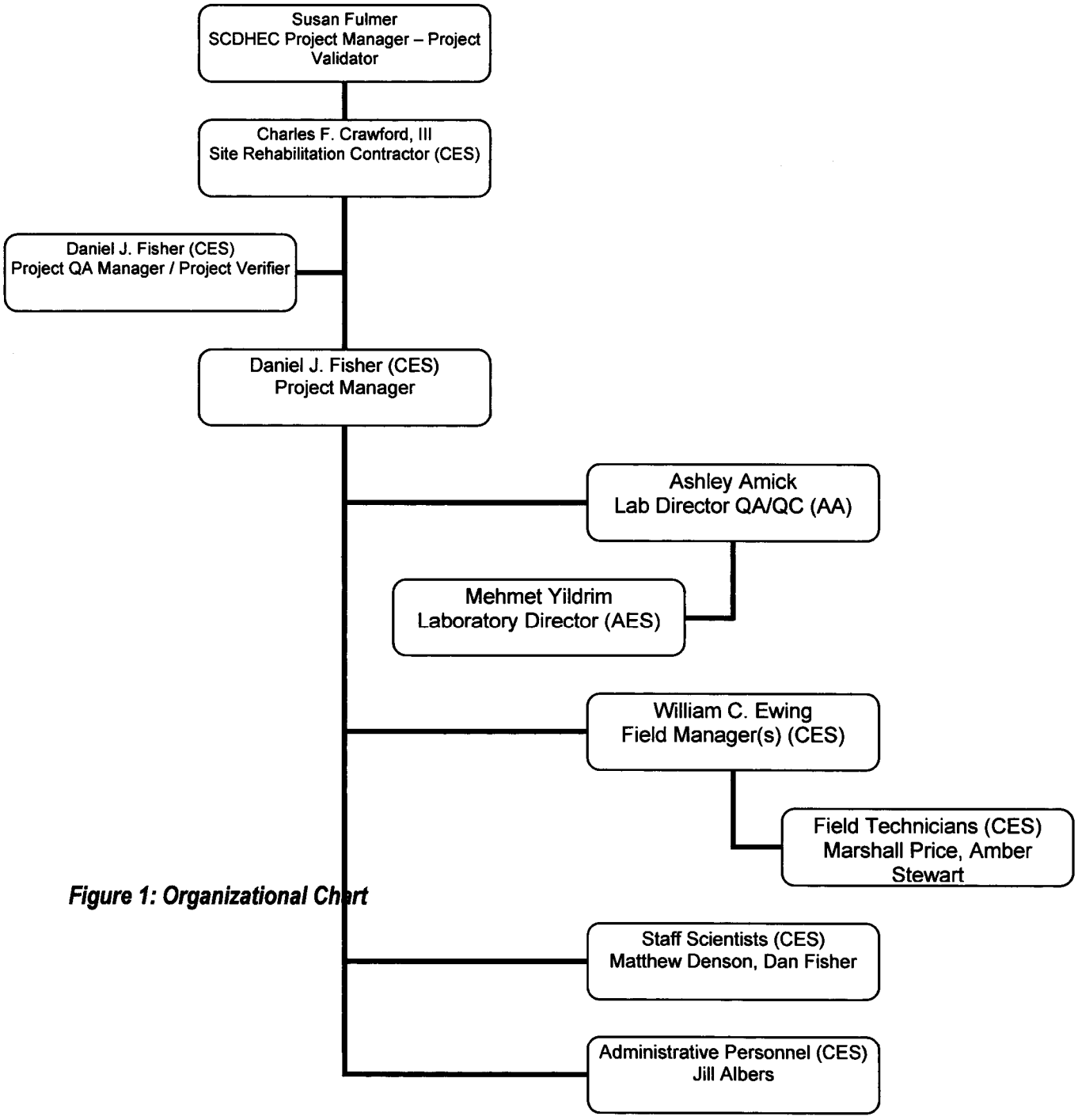


Figure 1: Organizational Chart

A5 Problem Definition/Background

Discuss the background (as much as is known) of the site and appropriate historical information, and why this site is being assessed. According to SCDHEC and contractor records an IGWA, Tier 1, Tier II, Corrective Action and several groundwater sampling events were previously completed at this facility. During the previous assessments, several groundwater monitoring wells yielded dissolved-phase concentrations of Chemicals of Concern (CoCs) in exceedance of the risk based screening limits and maximum contaminant limits (RBSLs/MCLs). Refer to Appendix C for site specifics and history.

Please answer the following: Does this project fall under UST or Brownfields area?
UST Area.

A6 Project/Task Description

1. **Summarize what is known about the work to be done. This can be a short sentence indicating what the Scope of this project is (see Master QAPP Section A6).**

   Complete Semi-Annual Groundwater/Water Supply Well Sampling Reports [Corrective Action System Evaluation – CASE]. Refer to the Figures provided as Appendix C for details and specifics regarding the locations of monitoring wells.

2. **The work will begin within:**
   a. Site mobilization / sample collection and laboratory analysis: 1-2 weeks
   b. De-mobilization and clean-up: 1 week
   c. Report preparation: 1 week; should additional samples be required to achieve 90% valid samples, the project may be extended. The SCDHEC Project Manger will be contacted via email or telephone if project requires an extension for any reason. (Repeating)

3. **Are there any time or resource constraints? Include those factors that may interfere with the tentative schedule.** Laboratory equipment failures may cause up to a two week delay. Property access issues due to their inherent unpredictability, may cause a delay that will exceed the initial timeframe given for this project. Inclement weather conditions also may cause project delays. No resource constraints are anticipated.

A7 Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs)

Please refer to Appendix C of this QAPP for shallow and deep monitoring well locations. The assessment boundaries are limited to the area necessary to complete this initial groundwater assessment. SCDHEC will be notified during the assessment regarding any accessibility issues.

A8 Training and Certificates

Required training and licenses:

Title/Job	Name	Training Required	Date training received	Type of License	License Number
CRAWFORD ENVIRONMENTAL SERVICES, INC. (Last Updated March 2014)					
Site Rehabilitation Contractor	Charles F. Crawford	OSHA HASWOPER	-	Class A General Contractor	2705076157
Senior Project Geologist	B. Thomas Houghton	-	-	S.C.P.G.	2343
Project Manager	Daniel J. Fisher	OSHA HASWOPER	December 2013 (OSHA)	-	-
Staff Scientist	Matthew Denson	OSHA HASWOPER	March 2014 (OSHA)	-	-
Staff Scientist	Daniel J. Fisher	OSHA HASWOPER	December 2013 (OSHA)	N/A	N/A
Administrative	Jill A. Albers	-	-	-	-
Field Manager	William C. Ewing	OSHA HASWOPER	December 2013 (OSHA)	SCLLR Class B Drilling License	1505
Field Technician	Marshall Price	OSHA HASWOPER	December 2013 (OSHA)		
Subcontractors (Labs / Surveyors)					
Lab Director (AA)	Ashley Amick	N/A	N/A	SC Certified Lab	32575001
Lab Director (AES)	Mehmet Yildrim	N/A	N/A	SC Certified Lab	98016003

Table 3A Required Training and Licenses

Daniel J. Fisher of CES is responsible for ensuring that personnel participating in this project receive the proper training. All personnel training records will be stored at the Corporate office located at 15 Church Avenue, SW in Roanoke, VA 24011.

It is understood that training records will be produced if requested by SC DHEC.

The Following Laboratory(ies) will be used for this Project:

Commercial Lab(s)

Full Name of the Contractor performing Lab Analyses: Analytical Environmental Services Inc.
Name of Lab Director: Mehmet Yildrim (QA/QC Ashley Amick- Access Analytical inc.)
SCDHEC Certification Number: SC Cert #: 98016003

Parameters this Laboratory/Contractor will analyze for this project:
BTEX, naphthalene, MTBE via US EPA method 8260B and TBA, TAA and TAME via US EPA method 8260-Oxy

Verification Event(s) Only:
Dissolved Oxygen by method SM4500-O G
Ferrous Iron by Kerr Method
Nitrate by method 9056/9210
Sulfate by method 9038/9056
Methane by method RSK-175

Please note: SC DHEC may require that the contractor submit some or all of the Laboratory's SOPs as part of this QAPP.

A9 Documents and Records

Personnel will receive the most current version of the QAPP Addendum via: (Check all that apply)

__X__ US Mail ____ Courier __X__ Hand delivered

Personnel will receive the QAPP via US Mail, Email, or by downloading from the CES internal network. Notification of updates to the Master QAPP will be through email from the contractor. CES personnel can access the QAPP by downloading through the internal network system.

Record	Produced By	Hardcopy/ Electronic	Storage Location For how long?	Archival
Field Data Sheets/ Sampling logs	Environmental Contractor	Electronic	At Contractor Office Electronic for 5 Years	Included in Report
Laboratory Data	Laboratory Contractor	Electronic	At Laboratory Electronic for 25 Years	See Lab Archive plan
Weekly Update	Environmental Contractor	Electronic	At Contractors Office Electronic copy for 5 years	Included in Report
Monitoring Report	Environmental Contractor	Electronic/ Hard Copy	At Contractors Office Electronic copy for 5 years	Electronic Copy
Correspondence	Environmental Contractor/ SCDHEC/ Subcontractors	Electronic/ Hard Copy	At Contractors Office Electronic copy for 5 years	Electronic Copy
Invoices	Environmental Contractor	Electronic/ Hard Copy	At Contractors Office Electronic copy for 5 years	Electronic Copy
Manifests	Environmental Contractor	Electronic/ Hard Copy	At Contractors Office Electronic copy for 5 years	Electronic Copy
Figures	Environmental Contractor	Electronic/ Hard Copy	At Contractors Office Electronic copy for 5 years	Electronic Copy
Surveys	Environmental Contractor/ Comprehensive Survey Subcontractor	Electronic/ Hard Copy	At Contractors Office Electronic copy for 5 years	Electronic Copy
Disposal Manifests	Environmental Contractor/ Disposal Subcontractor	Electronic/ Hard Copy	At Contractors Office Electronic copy for 5 years	Electronic Copy

Table 4A Record Identification, Storage, and Disposal

Section B Measurement/Data Acquisition

B1 Sampling Process/Experimental Design

Event	Mobilization/ Sampling / Demobilization	Laboratory Analysis	Report Creation	# Samples	Type	Events
Groundwater and Surface Water Sampling Event	3-5 days	11 days	7 days	83 / 89*	Semi Annual	10 +2*
* 2 verification events						

Table 5A Sampling Activities
Up to a total of:

0 Soil Samples
1008 Water Samples

may be submitted for laboratory analysis.

Groundwater samples will be analyzed for the following parameters:
BTEX, naphthalene, MTBE via US EPA method 8260B and TBA, TAA and TAME via EPA method SW-846 8260-Oxy

Verification Event(s) Only:
Dissolved Oxygen by method SM4500-O G
Ferrous Iron by Kerr Method
Nitrate by method 9056/9210
Sulfate by method 9038/9056
Methane by method RSK-175

Field blanks and duplicates will be obtained for groundwater samples (1 per every 20 samples collected). Trip blanks will be obtained for every 20 samples and/or per every cooler used during the assessment.

The contractor will follow sampling protocols as outlined in the UST QAPP. These totals are anticipated to be maximums. The actual number of samples collected and submitted for laboratory analysis will be dependent upon the effort required to complete the scope of work.

CRAWFORD ENVIRONMENTAL SERVICES

***Estimate* the number of samples of each matrix that are expected to be collected:**
Note: numbers provided are intended as a maximum probable under the current plan

Groundwater / Water Supply Well Sampling Event			Water Supply Well Sampling Event	
Sample Type	**Amount (apx)**		**Sample Type**	**Amount (apx)**
Soil	**0**		**Soil**	**0**
Soil Duplicates	**0**		**Soil Duplicates**	**0**
Field Blank	**0**		**Field Blank**	**0**
Trip Blank	**0**		**Trip Blank**	**0**
Total Soil Samples	**0**		**Total Soil Samples**	**0**
Groundwater from Monitoring Well Sampling (MWS)	**70**		**Groundwater from Monitoring Well Sampling (MWS)**	**0**
Groundwater from verification wells	**6**			
Water from water wells	**0**	**0**	**Water from water wells**	**0**
Water from surface features	**1**	**1**	**Water from surface features**	**0**
Field Blanks	**4**	**4**	**Field Blanks**	**0**
Trip Blanks	**4**	**4**	**Trip Blanks**	**0**
Duplicates	**4**	**4**	**Duplicates**	**0**
Total	**83**	**89**	**Total**	**0**
# of events (Standard / Verification)	**10**	**2**	**# of events**	**0**
TOTAL	**1008**		**TOTAL**	**0**
TOTAL			**1008**	

If any of the above are circled please indicate how will it be done and the equipment needed. Sample collection that results in groundwater chemical analysis will include depth to water, depth to product, and groundwater quality indicators. Sampling will include gauging the depth to water and/or depth to free product utilizing an electronic water level indicator or similar device capable of recording the water level or thickness of any free product to an accuracy of 0.01 feet. Measurements of groundwater quality indicators (pH, temperature, D.O. turbidity and specific conductivity) will be recorded during sampling to ensure that groundwater quality is representative of the formation prior to collection of samples. Groundwater samples will be collected from a monitoring well by manual bailing using disposable polyethylene bailers. One sample will be collected from each monitoring well beginning with the wells on the outside perimeter of the contamination plume and working from the wells exhibiting the lowest CoC's to the highest CoC's. Sample duplicates will be collected per every 20 samples. For sample collection the bailer will be slowly lowered into the well until the top of the bailer has penetrated the water table surface, and slowly removed once full. Purge waters will be containerized on site and disposed of properly. The sample containers will then be placed in a cooler and delivered to AA laboratories.

Will Sampling Equipment have to be cleaned and decontaminated or is everything disposable? Decontamination procedures will be the responsibility of the CES Field Technicians; ultimately reviewed and approved by the Field Manager. As outlined in Appendix A of the UST Guidance Document " QAPP Revision 1", all reusable sampling equipment will be stainless steel or constructed of a material that is compatible with the specified analysis and will be cleaned prior to and following the collection of each sample. Disposable bailers, string and gloves will be utilized for sample collection and will be disposed of after use.

If sampling equipment must be cleaned please give a detailed description of how this is done and the disposal of by-products from the cleaning and decontamination. pH, specific conductance, dissolved oxygen, and temperature meters [parameter devices] and water meter probes [sampling equipment] will be decontaminated between monitoring wells. In the field, parameter meter probes will be decontaminated utilizing deionized water. Each meter will be rinsed and then allowed to air dry. Decontamination waste from the cleaning processes will be contained and disposed of with the associated IDW for the site.

Sampling equipment and/or instruments will be decontaminated by washing with a laboratory-grade detergent such as Alconox, rinsed with tap water and then rinsed with analyte free water. If the equipment is not used immediately, it will be covered in plastic and stored in a clean, dry place. If required by UST Project Manager, verification of the effectiveness of the decontamination procedure will be acquired through equipment rinsate samples.

Identify any equipment and support facilities needed. This may include such things as Fed-ex to ship the samples, a Geoprobe, field analysis done by another contractor (who must be certified), and electricity to run sampling equipment.
Access Analytical will be the laboratory and is responsible for shipment of all samples (via Federal Express) to the subcontracted laboratory of AES.

Address the actions to be taken when problems occur in the field, and the person responsible for taking corrective action and how the corrective action will be documented.

Failure	Response	Documentation	Individual Responsible
Equipment Failure (Drilling) {Ie. Drill rig, concrete}	Contact CES project manager. Use alternative equipment if available. Initiate field repairs if possible	Identify failure. Log date, time and equipment.	Field Manager William C. Ewing 803-708-0079
Equipment Failure (sampling) {ie. Parameter meters, pump failure, calibration error}	Contact CES project manager. Use alternative equipment if available. Initiate field repairs if possible.	Identify failure. Log date, time and equipment.	Field Manager William C. Ewing 803-708-0079
Loss or delay of lab samples	Resample	Notice by Access of lost or delayed samples	Access Analytical Ashley Amick 803-781-4243
Drilling Refusal (Rock)	Contact CES project manager. Contact SCDHEC project manager	Log location, time and depth.	Field Manager William C. Ewing 803-708-0079
Drilling Issue (utility line impact etc.)	Contact CES project Manager, Contact Palmetto Utilities Protection Service.	Log location, time and depth.	Field Manager William C. Ewing 803-708-0079
Passive Diffusion Bag deployment / sampling failure	Redeploy. Use alternate method if applicable.	Log location, time and equipment.	Field Manager William C. Ewing 803-708-0079
Snap collector deployment failure.	Redeploy. Use alternate method if applicable.	Log location, time and equipment.	Field Manager William C. Ewing 803-708-0079
Lost samples in the lab	Resample	Email from lab to CES project manager and QA/ project verifier	Access Analytical Ashley Amick 803-781-4243
Sample failure (hold time limit exceeded/temperature limit exceeded	Contact CES project manager	Email from lab to CES project manager and QA/ project verifier	Access Analytical Ashley Amick 803-781-4243

Table 6A Field Corrective Action

B3 Sample Handling and Custody

1. ***How will the samples get from the Site to the Lab to ensure holding requirements are met?*** Samples will be delivered to Access Analytical by CES personnel within 24-72 hours of sample collection. Access Analytical will then ship the samples via Federal Express to AES. Temperature and condition of the samples will be verified upon arrival at both Access Analytical and AES.

2. ***How will the contactors cool the samples and keep the samples cool?*** Sample containers will be maintained in a refrigerator or cooler filled with ice until they are shipped. Appropriate shipping containers for samples include insulated polypropylene or aluminum-clad coolers. The coolers should contain ice in a sealed container or other cooling source to maintain a temperature of 6°C in the container and to prevent degradation of the samples

3. ***How will the lab determine the temperature of the samples upon receipt? Will they be using a temperature blank?*** Project laboratories will use a certified thermometer to determine at-receipt sample temperatures. The temperature will be recorded on the chain-of-custody, temperature blanks will be used.

4. ***Where will the samples be stored in the Lab once they are received?*** Samples to be shipped for analysis will be handled and packaged in a manner that maintains a complete chain-of-custody record and prevents damage during shipment. All samples will be transported to the laboratory directly or by a commercial carrier. When using a commercial carrier, a custody seal will be used to preserve the integrity of the sample from the time it is collected until the container is opened in the laboratory. Samples received at project laboratories will be kept in secure refrigerators.

5. ***Describe the chain of custody procedure and attach a copy of each chain of custody that will be used. If a Chain of Custody SOP exists from the Lab and the Contractor is willing to adhere to it, then this may be attached.*** A chain-of-custody record supplied by the contracted laboratory will be used to document and track possession of the samples. The chain-of-custody record will be sent with each sample shipment from the field to the laboratory and will serve as a record for the receipt of samples by the laboratory. Copies of the chain-of custodies are included as Appendix E.

B4 Analytical Methods

1. ***Identify the SOPs which will be used to analyze the samples, the method which the SOP references and the equipment or instrumentation that is needed:***

Parameter	SOP ID*	Method Referenced	Equipment	Comments
pH	Section 2.10	SM 4500 H+B	HACH SenseION 156 HANNA HI	Refer section 2.10 CES SOP
Specific Conductance	Section 2.10	SM2510B	HACH SenseION 156 HANNA HI	Refer section 2.10 CES SOP
Temperature	Section 2.10	SM2550B	HACH SenseION 156 HANNA HI	Refer section 2.10 CES SOP
Dissolved Oxygen	Section 2.10	SM4500-O-G	HACH SenseION 156 HANNA HI	Refer section 2.10 CES SOP
Turbidity	Section 2.10	Method 8237	HACH DR-820	Refer section 2.10 CES SOP
BTEX, naphthalene, and MTBE	OA 11010	EPA Method 8260B	AES QAP p.195	AES SOP OA 11010 APDX III CES SOP
TAA, TAME and TBA	OA 11010	EPA Method 8260-Oxy	AES QAP p.195	AES SOP OA 11010 APDX III CES SOP
Nitrate	OA 11007	9056/9210	AES QAP p.195	AES SOP OA 11007 APDX III CES SOP
Sulfate	OA 11007	9038/9056	AES QAP p.195	AES SOP OA 11007 APDX III CES SOP
Ferrous Iron	OA 11007	SM3500-Fe	AES QAP p.195	AES SOP OA 11007 APDX III CES SOP
Methane	OA 11007	Kerr Method	AES QAP p.195	AES SOP OA 11007 APDX III CES SOP

Table 7A Analytical SOPs and Referenced Methods

- **This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key.**

Abbreviation	Lab Identification of this SOP	Full Name of the SOP
Section 2.10	CES SOP Section 2.10	State Lead Tier II Assessment Program: Standard Operating Procedure & Quality Assurance/Quality Control
OA 11010	AES SOP OA-11010	Analytical Environmental Services Standard Operating Procedure for Volatile Organic Compound by EPA SW-846 Method 8260B/5030/5035
OA 13002	AES SOP OA-13002	Analytical Environmental Services Standard Operating Procedure Determination of Metals in Water, Soils and Wastes by ICPBY EPA SW-846 Method 6010C and Prep Methods 3010A/3050B/SM3030C
OA 11007	AES SOP OA-11007	Analytical Environmental Services Standard Operating Procedure for 1,2-Dibromoethane (EDB) and 1,2-Bibromo-3-chloropropane (DBCP) by EPA SW-846 Method 8011
AES QAP Section 9.0	AES QAP Rev 15	Access Analytical, Inc. & Analytical Environmental Services (AES) Comprehensive Quality Assurance Plan (Revision 15): Section 9.0 Calibration Procedures and Frequency

Table 8A: SOP Abbreviation Key

2. Identify procedures to follow when failures occur, identify the individual responsible for corrective action and appropriate documentation:

Failure	Response	Documented Where?	Individual Responsible
Equipment Failure (drilling equipment) i.e. drill rig, concrete saw, etc.	Contact CES Project Manager	Record problem, use alternate method / equipment if available / applicable or reschedule field activities after equipment is repaired	CES Project Manager Daniel J. Fisher 540-798-5068
Equipment Failure (sampling equipment) i.e. passive diffusion bags, parameter meters	Contact CES Project Manager	Record problem, use alternate method if applicable/ available or reschedule field activities after equipment is repaired.	CES Project Manager Daniel J. Fisher 540-798-5068
QC Failure	Contact CES Project Manager	Notification/Documentation via email, noted in laboratory report	CES Project Manager Daniel J. Fisher 540-798-5068
Sample accident in transit	Contact CES Project Manager	Notification/Documentation via email, noted in laboratory report	Laboratory Director (AA) Ashley Amick 803-781-4243
Sample accident in lab	Contact CES Project Manager	Notification/Documentation via email, noted in laboratory report	Laboratory Director (AA) Ashley Amick 803-781-4243
Insufficient sample for analysis or repeat analysis	Contact CES Project Manager	Notification/Documentation via email, noted in laboratory report	Laboratory Director (AA) Ashley Amick 803-781-4243
Analytical Errors	Contact CES Project Manager	Notification/Documentation via email, noted in laboratory report.	CES Project Manager Daniel J. Fisher 540-798-5068
CoC or Sample Receiving Issues	Contact CES Project Manager	Notification/Documentation via email, noted in laboratory report.	CES Project Manager Daniel J. Fisher 540-798-5068
On-Time delivery	Contact CES Project Manager	Notification/Documentation via email, noted in laboratory report.	CES Project Manager Daniel J. Fisher 540-798-5068

Table 9A Corrective Action Procedures

3. **Identify sample disposal procedures.**

Analysis	Matrix	Schedule for disposal	Method for disposal	Comments
Turbidity	Groundwater	As Generated	If applicable, a portable granulated carbon filter will be used. 55 gallon drum on site	A&D Environmental Services
DO	Groundwater	As Generated	If applicable, a portable granulated carbon filter will be used. 55 gallon drum on site	A&D Environmental Services
Specific Conductance	Groundwater	As Generated	If applicable, a portable granulated carbon filter will be used. 55 gallon drum on site	A&D Environmental Services
pH	Groundwater	As Generated	If applicable, a portable granulated carbon filter will be used. 55 gallon drum on site	A&D Environmental Services
Lab	All	As Generated	See AES SOP WM 17001	Analytical Environmental Services Inc.

Table 10A Sample Disposal

4. **Provide SOPs for the Kerr Method or the Ferrous Iron Method if these are parameters for this study. This can be attached or written here. If attached please note that it is an attachment and where it is located (if applicable).** Refer to Appendix D.

B5 Quality Control Requirements:

All QC will follow the requirements laid out in Section B5 of the UST Programmatic QAPP.

B6 Field Instrument and Equipment Testing, Inspection and Maintenance

1. **Identify all field and laboratory equipment needing periodic maintenance, the schedule for this, and the person responsible. Not the availability and location of spare parts.**

Instrument	Serial Number	Type of Maintenance	Frequency	Parts needed/Location	Person responsible
HACH SensoION 156 Parameter Meter (ph, Con, temp, DO)	8228266	Check batteries, check buffer solutions, calibration, factory check, clean/change probe(s)	Monthly, change out daily as needed	Columbia Office, Supply Cabinet	CES Project Manager Daniel J. Fisher 540-798-5068
HACH Colorimeter (turbidity)	010420015672	Check batteries, check buffer solutions, calibration, factory check,	Monthly, change out daily as needed	Columbia Office, Supply Cabinet	CES Project Manager Daniel J. Fisher 540-798-5068
HANNA HI 991001 Parameter Meter (pH, Temp)	182298	Check batteries, check buffer solutions, calibration, factory check, clean/change probe(s)	Monthly, change out daily as needed	Columbia Office, Supply Cabinet	CES Project Manager Daniel J. Fisher 540-798-5068
HANNA Dissolved Oxygen Meter	9142	Check batteries, check buffer solutions, calibration, factory check, clean/change probe(s)	Monthly, change out daily as needed	Columbia Office, Supply Cabinet	CES Project Manager Daniel J. Fisher 540-798-5068
KECK Water Level Indicator	2185	Check batteries, clean probe	Weekly	Columbia Office, Supply Cabinet	CES Project Manager Daniel J. Fisher 540-798-5068
KECK Oil Interface Probe	2011	Check batteries, clean probe	Weekly	Columbia Office, Supply Cabinet	CES Project Manager Daniel J. Fisher 540-798-5068
Solonist Water Level Indicator	004602	Check batteries, clean probe	Weekly	Columbia Office, Supply Cabinet	CES Project Manager Daniel J. Fisher 540-798-5068
Laboratory Equipment	P. 195 AES QAP Apdx III Equipment List	p.122 AES QAP Section 10.0	AES QAP Section 10.0	AES QAP Section 10.0	Laboratory Personnel

Table 11A Instrument and Equipment Maintenance

2. Identify the testing criteria for each lab or field instrument that is used to ensure the equipment is performing properly. Indicate how deficiencies, if found, will be resolved, re-inspections performed, and effectiveness of corrective action determined and documented. Give the person responsible for this:

Instrument/Equipment & Serial Number	Type of Inspection	Requirement	Individual Responsible	Resolution of Deficiencies
HACH SenselON 156 Parameter Meter (ph, Con, temp, DO)	Calibration	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	Use another meter
HACH Colorimeter (turbidity)	Calibration	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	Use another meter
HANNA HI 991001 Parameter Meter (pH, Temp)	Calibration	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	Use another meter
HANNA Dissolved Oxygen Meter	Calibration	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	Use another meter
KECK Water Level Indicator	Preparatory Check	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	Use another meter
KECK Oil Interface Probe	Preparatory Check	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	Use another meter
Solonist Water Level Indicator	Preparatory Check	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	Use another meter
Laboratory Equipment	p.116 AES QAP Section 9.0	p.116 AES QAP Section 9.0	Laboratory Personnel	AES QAP Section 9.0

Table 12A Instrument and Equipment Inspection

CRAWFORD ENVIRONMENTAL SERVICES

B7 Instrument Calibration and Frequency

1. **Identify equipment, tools, and instruments for field or lab work that should be calibrated and the frequency.**
2. **Describe how the calibrations should be performed and documented, indicating test criteria and standards or certified equipment.**
3. **Identify how deficiencies should be resolved and documented. Identify the person responsible for corrective action.**

Instrument	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA	SOP Reference*
HACH SenselON 156 Parameter Meter (ph, Con, temp, DO)	See CES SOP Section 2.10	See CES SOP Section 2.10, pg 11, Daily Before Use	See CES SOP Section 2.10	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	See CES SOP Section 2.10
HACH Colorimeter (turbidity)	See CES SOP Section 2.10	See CES SOP Section 2.10, pg 11, Daily Before Use	See CES SOP Section 2.10	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	See CES SOP Section 2.10
HANNA HI 991001 Parameter Meter (pH, Temp)	See CES SOP Section 2.10	See CES SOP Section 2.10, pg 11, Daily Before Use	See CES SOP Section 2.10	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	See CES SOP Section 2.10
HANNA Dissolved Oxygen Meter	See CES SOP Section 2.10	See CES SOP Section 2.10, pg 11, Daily Before Use	See CES SOP Section 2.10	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	See CES SOP Section 2.10
KECK Water Level Indicator	See CES SOP Section 2.10	See CES SOP Section 2.10, pg 11, Daily Before Use	See CES SOP Section 2.10	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	See CES SOP Section 2.10
KECK Oil Interface Probe	See CES SOP Section 2.10	See CES SOP Section 2.10, pg 11, Daily Before Use	See CES SOP Section 2.10	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	See CES SOP Section 2.10
Solonist Water Level Indicator	See CES SOP Section 2.10	See CES SOP Section 2.10, pg 11, Daily Before Use	See CES SOP Section 2.10	See CES SOP Section 2.10	Daniel J. Fisher CES Project Manager 540-798-5068	See CES SOP Section 2.10
Laboratory Equipment	See-AES QAP Section 9.0	See-AES QAP Section 9.0	See-AES QAP Section 9.0	See-AES QAP Section 9.0	Laboratory Personnel	See-AES QAP Section 9.0

Table 13A Instrument Calibration Criteria and Corrective Action

*** This can be a full name of a SOP, an abbreviation, or a number. In the latter two cases, the abbreviation or number must be associated with the full name of the SOP. See also Table 8A SOP Abbreviation Key.**

B8 Inspection/Acceptance Requirements for Supplies and Consumables

1. Identify critical supplies and consumables for field and laboratory, noting supply source, acceptance criteria, and procedures for tracking, storing and retrieving these materials.
2. Identify the individual(s) responsible for this.

Item	Vendor	Acceptance criteria	Handling/Storage Conditions	Person responsible for inspection and tracking.
pH Buffer Solution	Fisher	Within expiration date	Cool. Dry cabinet	Daniel J. Fisher CES Project Manager 540-798-5068
Specific Conductivity Standard	Fisher	Within expiration date	Cool, dry cabinet	Daniel J. Fisher CES Project Manager 540-798-5068
Nitrile Gloves	Clearwater	Sealed	Cool, dry room	Daniel J. Fisher CES Project Manager 540-798-5068
Batteries	Any	Sealed	Cool, dry cabinet	William C. Ewing Field Manager 803-708-0079
Bailers	Clearwater	Sealed (individually)	Cool, dry room	William C. Ewing Field Manager 803-708-0079
Bottles	Access Analytical	Sealed	Cool, dry room	William C. Ewing Field Manager 803-708-0079
Nylon String	Clearwater	Sealed	Cool,dry room	William C. Ewing Field Manager 803-708-0079
Coolers	Access Analytical	Sealed	Cool,dry room	William C. Ewing Field Manager 803-708-0079
Laboratory Equipment	AES	AES QAP Section 11.0	AES QAP Section 11.0	Laboratory Personnel (AES) & (AA)

Table 14A List of Consumables and Acceptance Criteria

B9 Data Acquisition Requirements (Non-Direct Measurements)

1. Identify data sources, for example, computer databases or literature files, or models that should be accessed or used.
2. Describe the intended use of this information and the rationale for their selection, i.e., its relevance to project.
3. Indicate the acceptance criteria for these data sources and/or models.

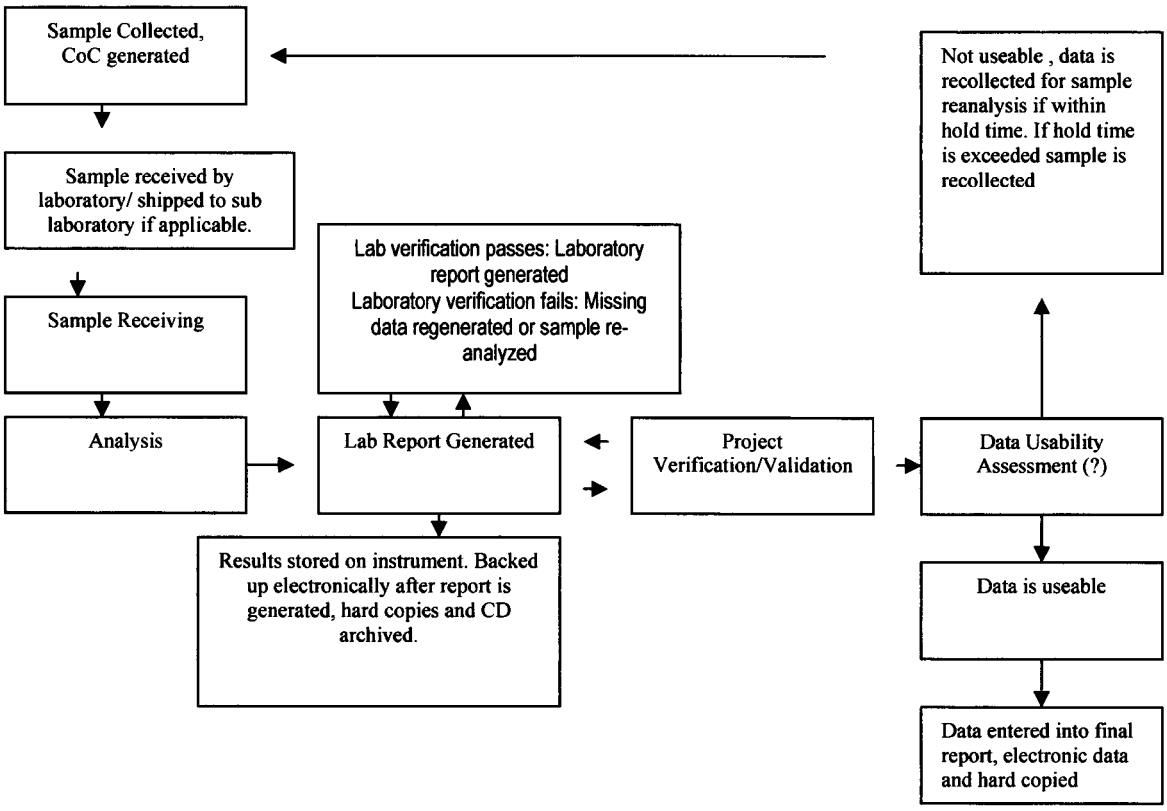
Data Source	Used for	Justification for use in this project	Comments
Previous Assessment and Corrective Action documentation	Remedial efforts performed to date; historic groundwater elevations, historic chemical concentrations, historic well construction logs, historic surveys, historic diagrams, historic topography, historic boring data.	Effectiveness of remedial strategy implemented at the site, evaluate corrective action data collected; determining well screen intervals, total depths, construction details, property access, and historic summary tables.	

Table 15A Non-Direct Measurements

4. Identify key resources/support facilities needed. Not applicable.

B10 Data Management

Describe the data management scheme from field to final use and storage.



1. **How does the lab and field staff ensure that no unauthorized changes are made to the chain of custody, sampling notebooks, laboratory notebooks and computer records?** Field data is kept in a dedicated notebook with no pages removed. All data (reports from the lab, field notes, drafts and final reports) are saved on the internal company server. Original field data hard copies are filed into relevant project folders and archived in filing cabinets. Report data, to include tables and figures, are verified from the original source by the CES Project Manager before the report is signed.

2. **How does the lab ensure that there are no errors in samples records including times when sample information is compiled, data calculated and/or transmitted.** Lab internal QA/QC checks and check sheets for all received coolers will determine if laboratory data is credible, or if the groundwater samples are suspect and new samples must be collected and reanalyzed. Laboratory supervisor will check all data before it leaves the laboratory. Laboratory data will be sent electronically to the environmental contractors of the USA for storage on their server.

3. **How will the data be archived once the report is produced? How can it be retrieved? (This applies to both electronic and hard copies).** Hard copies will be maintained at the West Columbia office for five years. The electronic copies will be maintained for 25 years at the West Columbia office.

Section C Assessment and Oversight

C1 Assessment and Response Actions

1. **Field Oversight:** The Field Manager is responsible for ensuring SOPs to include equipment decontamination and calibration are properly conducted by the field staff. The Field Manager will be present and monitor the field staff every day that field activities occur. The Field Manager also is responsible for ensuring that field personnel adhere to the QAPP. If problems occur, the Field Manager will immediately contact the CES Project Manager to determine the appropriate corrective action. If the situation cannot be resolved on site, another visit will be scheduled to resample the wells. The Field Manager can stop work at any time. The Project Manager can decide if the sampling party will return to the office without completing sampling of all the monitoring wells. The Field Manager's observations will be submitted to the Project Manager on a daily basis.

2. **Commercial Lab Offsite Technical Assessment:** The supervisors for each section will review the procedures for another section of the laboratory on a monthly basis to check quality procedures. The Project QA Manager will conduct specific assessments for the methods addressed by this QAPP. Anyone may suspend work if a situation arises, but only the supervisor can stop work. The Laboratory QA Manager will report all observations to the Laboratory Director. SCDHEC has the right to inspect work at any time. This will be documented and kept as part of the project records.

3. **Project Assessment:** Assessment of project activities will be performed by the CES Project Manager. Field assessments will ensure that proper field methods are followed. At the end of each day of field activities, the Subcontractor Project Manager will review the work completed during that day with the Subcontractor Field Manager. If methods were not adequately followed, affected items will be corrected. If corrective action is implemented, the Subcontractor Project Manager or Project QA/QC Manager will verify that the corrective action was adequate and was properly documented.

C2 Reports to Management

See the SC DHEC UST Programmatic QAPP (UST Master QAPP).

Section D Data Validation and Usability

See the SC DHEC UST Programmatic QAPP (UST Master QAPP).

CRAWFORD
ENVIRONMENTAL
SERVICES

APPENDIX B:

Chain of Custody Template

Access Analytical - Chain of Custody Record

LAB USE ONLY

Sales Order # _____ **PO #** _____ **Access Quote #** _____ **Project Work Order #** _____ **Laboratory ID:** _____

Company Name: | Preservative: (*see codes)

Report To: | Container Type: (*see codes)

Address:

City: State: Zip:

Phone: Fax:

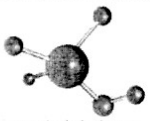
Email:

Project ID:

Sampled By:

↓ REQUESTED LAB ANALYSIS: ↓

Sample ID/Description	Date Collected:	Time Collected:	Type: (grab or composite)	Matrix: (see codes)	Program Area (see codes)	TOTAL # of containers	# of containers collected per analysis	# of containers collected per analysis	# of containers collected per analysis	# of containers collected per analysis	# of containers collected per analysis	# of containers collected per analysis	# of containers collected per analysis	# of containers collected per analysis	# of containers collected per analysis	# of containers collected per analysis



ACCESS ANALYTICAL, INC.

7478 Carlisle Street
Irmo, SC 29063

Phone: (803) 781-4243
Fax: 781-4303

www.axs-inc.com

***Preservative Codes** *(place corresponding # in block above analysis field)*: **0** = None, **1** = HCL, **2** = HNO_3, **3** = H_2SO_4, **4** = NaOH, **5** = $Na_2S_2O_3$, **6** = Method 5035 set w/ $NaHSO_4$ & CH_3OH, **7** = NaOH/ZnO&C, **8** = H_3PO_4

***Matrix Codes** *(place corresponding code in matrix column)*: **GW** = ground water, **WW** = waste water, **DW** = drinking water, **S** = soil, **SL** = sludge, **A** = air, **IW** = industrial waste, **WO** = waste oil, **OT** = other *(specify in comments section)*

***Program Area Codes:** **CWA** = Clean Water Act (for wastewaters), **SDWA** = Safe Drinking Water Act (for drinking waters), **SHW** = Solid and Hazardous Wastes (for soils, ground waters and waste samples)

***Container Type:** **G** = Glass, **P** = Plastic

NOTES / COMMENTS

(if sample is a composite please use space below to note start/finish times & dates)

Turnaround Time:

___ Standard
___ RUSH*
*Date Required:_____
(For rush work, results emailed/faxed by end of business day on date required)

Project Location:
___SC
___NC
___Other
(specify) _____

Relinquished By:	Received By:	Date (mm-dd-yy)	Time (24HR)	Samples Rec'd on Ice	Sample Temp. Upon Receipt (°C):	
				___Y ___N	_____(°C)	_____(N/A)
				___Y ___N	_____(°C)	_____(N/A)
				___Y ___N	_____(°C)	_____(N/A)
				___Y ___N	_____(°C)	_____(N/A)

Original Copy - Returned w/Report

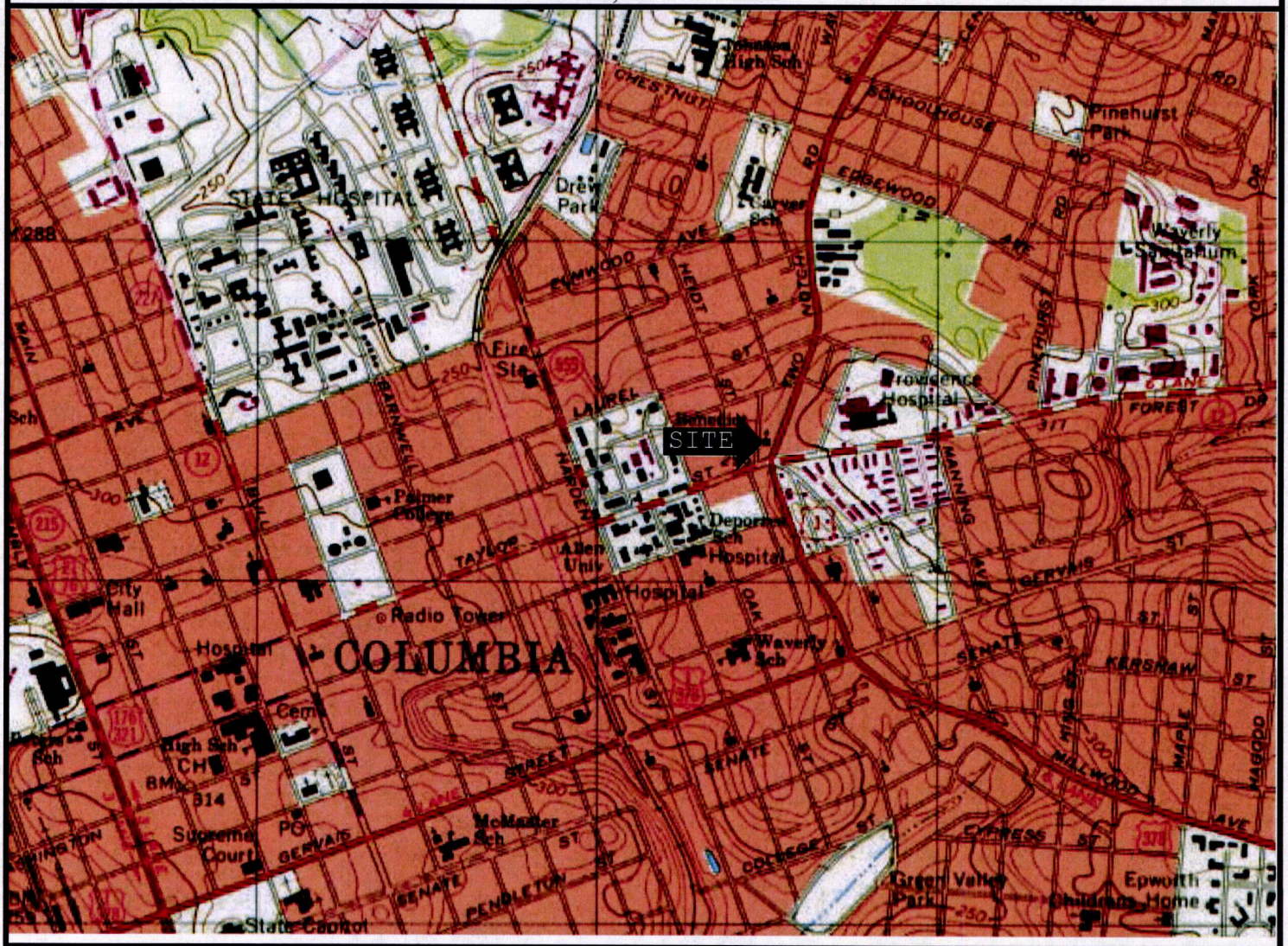
CRAWFORD
ENVIRONMENTAL
SERVICES

APPENDIX C:

Site Figures

FIGURE 1

Site Location Map
Handy Pantry #65 / University Mart / Clouds Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina



CRAWFORD ENVIRONMENTAL SERVICES

15 Church Avenue, SW
Roanoke Virginia, 24011

540-343-6256 (office) 540-343-6259 (fax)

NORTH COLUMBIA, SOUTH CAROLINA

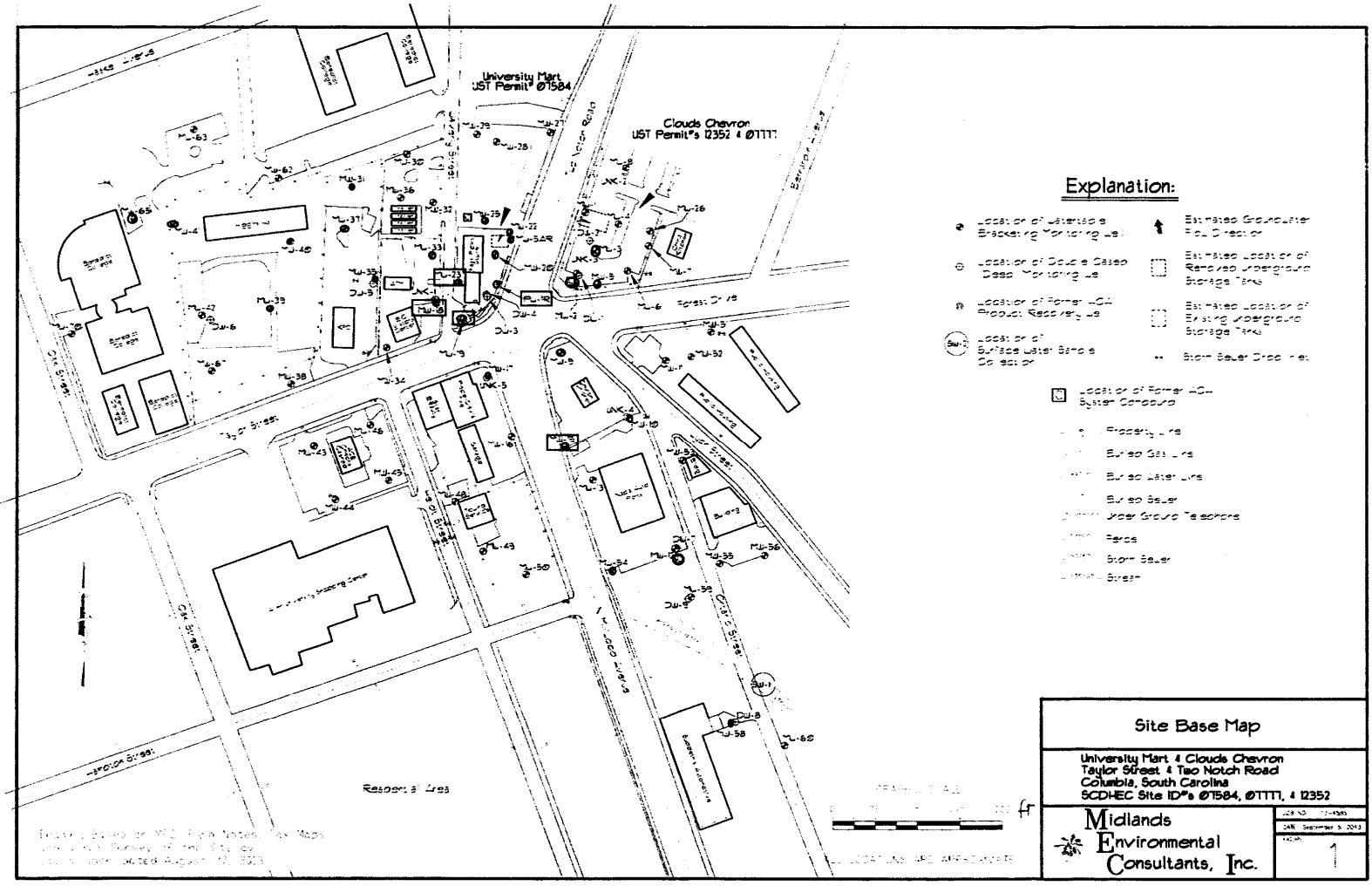
Source: U.S.G.S. Topographic Map of the Columbia North Quadrangle, Virginia, 7.5 Minute Series (1977, revised 1988)
Scale: 1:24,000 Contour Interval: 20 Feet
Vertical Datum: National Geodetic Vertical Datum 1929
Horizontal Datum: North American Datum1927

Project: Corrective Action Plan

Client: SCDHEC

CES Job #: 7.0547

Latitude:
034"00'42.72"N
Longitude:
081"01'00.13"W


University Mart
UST Permit# 07584
Clouds Chevron
UST Permit#s 12352 & 07777
Explanation:
Site Base Map
University Mart & Clouds Chevron
Taylor Street & Two Notch Road
Columbia, South Carolina
SCDHEC Site ID#s 07584, 07777, & 12352
Midlands
Environmental
Consultants, Inc.
1

CRAWFORD
ENVIRONMENTAL
SERVICES

APPENDIX D:

Methodology – Ferrous Iron 14 pages

AES, Inc.
3785 Presidential Pkwy
Atlanta, GA 30340

APPROVAL OF ATTACHED DOCUMENT FOR IMPLEMENTATION

NOTE: THIS IS A CONTROLLED ELECTRONIC DOCUMENT

PRINTED COPIES OF THIS DOCUMENT ARE UNCONTROLLED

ORIGINAL SIGNED DOCUMENT RESIDES IN AES QA OFFICE

DOCUMENT TITLE: STANDARD OPERATING PROCEDURES FOR DETERMINING FERROUS IRON (Fe^{+2}) BY STANDARD METHODS 3500Fe B (20th Edition)

DOCUMENT CONTROL NUMBER: Rev. *6*

DOCUMENT DISTRIBUTION NUMBER: GL-08102

ELECTRONIC DOCUMENT LOCATION
AES Portal Server: http://portal/Procedures/Standard Operating Procedures

The attached Document has been reviewed by the individuals listed below. By signature, each of these individuals acknowledges that the document is ready for distribution, in a controlled manner, to all responsible parties for use and/or reference.

By definition, a "Controlled Copy" of a document cannot be changed without review and approval by designated members of management. At no time may a "controlled copy" be written on or otherwise defaced with notes or other unauthorized additions.

If an uncontrolled copy of this document is desired, please see the Quality Assurance or Laboratory Manager. They will issue you an uncontrolled copy. DO NOT MAKE THE COPY YOURSELF.

By signature below the following employees of Analytical Environmental Services, Inc. have approved this document for distribution.

Technical Director: Dana B. Till Date: 6/28/10

Laboratory Manager: Mehmet Yildirim Date: 6/28/10

Quality Assurance Manager: [signature] Date: 6/28/10

Department Supervisor: [signature] Date: 6/28/10

STANDARD OPERATING PROCEDURES FOR DETERMINING FERROUS IRON (Fe^{+2}) BY STANDARD METHODS 3500Fe B (20th Edition)

TABLE OF CONTENTS

Page

1.0 SCOPE AND APPLICATION 4

2.0 SUMMARY OF METHOD 4

3.0 INTERFERENCES 4

4.0 SAMPLE COLLECTION, PRESERVATION, AND HOLDING TIMES 4

5.0 REAGENTS AND STANDARDS 4

6.0 APPARATUS AND MATERIALS 6

7.0 PROCEDURE 6

8.0 QUALITY ASSURANCE REQUIREMENTS 10

9.0 HEALTH SAFETY REQUIREMENTS 11

10.0 DATA REPORTING 11

11.0 FILE MAINTENANCE 12

12.0 INSTRUMENT MAINTENANCE 12

13.0 METHOD PERFORMANCE 12

14.0 POLLUTION MANAGEMENT 13

15.0 DEFINITIONS 13

16.0 REFERENCES 14

17.0 VALIDATION DATA 14

TABLE 5-1 Calibration Standards for Ferrous Iron 5
TABLE 5-2 Ferrous Iron Standards and Chemicals 5
TABLE 7-1 Samples in a NELAC Batch 7
TABLE 7-2 Checklist for Ferrous Iron Analysis by SM3500 9

1.0 SCOPE AND APPLICATION

This procedure is used to determine concentrations of Fe^{+2} ions in water and ground water. Ferrous (dissolved) Iron is soluble in water. Dissolved levels of iron in waters may stain clothing and porcelain. In this regard, dissolved iron is more of a nuisance than a health hazard.

2.0 SUMMARY OF METHOD

2.1 Iron in the reduced state is treated with 1,10-Phenanthroline at a pH of 3.2 to 3.3. Three molecules of 1,10-Phenanthroline chelate one molecule of Fe^{+2} to form an orange-red complex that is spectrophotmetrically measured at 510 nm. The amount of ferrous iron is calculated from a standard curve.

2.2. If Ferric Iron is desired, it can be calculated as the difference of the Total Iron result (analyzed by ICP) minus the result for the Ferrous Iron.

3.0 INTERFERENCES

3.1 Strong oxidizing agents, cyanide, nitrite, phosphates, and common metals interfere with the test procedure. In addition, silver precipitates phenanthroline and causes low results.

3.2 The initial boiling with acid converts polyphosphates to orthophosphate and removes cyanides and nitrite that would otherwise interfere. Boiling the sample with hydroxylamine reduces soluble ferric iron to ferrous iron. Boiling should not be performed when measuring only ferrous iron. Adding excess hydroxylamine eliminates error caused by high concentrations of strong oxidizing reagents. In the presence of interfering metal ions, use a larger excess of phenanthroline to replace that complexed by the interfering metals.

3.3 If noticeable amounts of color or organic matter are present, it may be necessary to evaporate the sample, gently ash the residue and redissolve in acid. The ashing may be carried out in silica, porcelain, or platinum crucibles that have been boiled for several hours in 1+1 HCl.

4.0 SAMPLE COLLECTION, PRESERVATION, AND HOLDING TIMES

4.1 Samples should be analyzed the day they are received in the laboratory. They should not be acidified as this will solublize ferric iron. Ferrous iron has no holding time.

5.0 REAGENTS AND STANDARDS

5.1 1,10-Phenanthroline. 0.1% purchase commercially.

5.2 200 mg/L Fe^{+2} working standard:

5.2.1 Slowly add 2mL of concentrated Sulfuric Acid to approximately 20mL of DI water in a 100mL volumetric flask..

5.2.2 Dissolve 0.1404g of Ferrous Ammonium Sulfate, Hexahydrate $Fe(NH_4)_2(SO_4)_2 \bullet 6H_2O$ in the acidified water (5.2.1).

5.2.3 When the compound is dissolved, add 5 drops of 5% (5g/L) Potassium Permanganate to the dissolved Ferrous Ammonium Sulfate solution for preservation.

5.2.4 Dilute to 100 ml. The final concentration of this solution is 200 mg/L ferrous iron. This solution expires in 6 months.

5.3 10mL of 200mg/L to 100mL distilled water gives 20mg/L ferrous iron solution. This solution expires in 6 months.

5.4 Ammonium acetate buffer solution. Dissolve 250 grams $NH_4C_2H_3O_2$ in 150 ml distilled water. Add 700 ml concentrated acetic acid.

5.5 Ferrous Iron Reagent (HACH).

5.6 Prepare a calibration curve from the following table.

Table 5-1
Calibration Standards for Ferrous Iron

ml Working Standard (5.3)	**Final Volume (ml)**	**Fe^{+2} Conc. (mg/l)**
0.0	100	0
0.5	100	0.10
1.0	100	0.20
2.5	100	0.50
5.0	100	1.00
10	100	2.00

5.7 Vendor Information. Table 5-2 lists the chemicals used in the test method and where they can be purchased.

Table 5-2
Ferrous Iron Standards and Chemicals

	Manufacturer	**Purity**	**Catalog Number**
1,10-phenathroline	VWR	Pure	VW3443-2
Hydrochloric Acid	EM Science	Concentrated	HX0603-3
Ammonium Acetate	Alfa Aesar	0.1 Percent	B07L02
Ferrous Ammonium Sulfate	EM Science	Pure	FX0205-1

Sulfuric Acid	EM Science	Concentrated	1244-5

6.0 APPARATUS AND MATERIALS

6.1 Spectrophotometer capable of reading 510 nm.

6.2 125-ml Erlenmeyer flasks

6.3 100-ml volumetric flasks

6.4 1,5,10-ml pipettes

6.5 25-ml volumetric flasks

7.0 PROCEDURE

7.1 Sample backlog report.

7.1.1 Each day the section supervisor reviews a backlog report. The log lists samples that are included in batches that have not been completed and closed in LIMS. IF A SAMPLE IS ON THIS LIST AND IT HAS BEEN ANALYZED, CHECK LIMS TO VERIFY THAT THE BATCH HAS BEEN CLOSED. Samples are listed on the work log in the order of due date.

7.1.1.1 Any samples that are received in a "rush" status will have a chain of custody delivered to the section supervisor by the project manager.

7.1.1.2 Prepare a written analysis log using the proper logbook that is kept in the supervisor's office. The following entries must be made in the log.

7.1.1.2.1 Date and time that the batch is opened.

7.1.1.2.2 All sample(s) included in the batch.

7.1.1.2.3 Volume of samples analyzed.

7.1.1.2.4 Analysis procedure employed.

7.1.1.2.5 The initials of the analysts.

7.1.1.2.6 Laboratory number of all reagents used including spiking standard.

7.1.1.2.7 Volume of all reagents used including spiking standard.

7.1.1.2.8 Final volume of all concentrates.

7.1.1.2.9 Date and time the batch is closed.

7.1.1.2.10 Initials of all spike witnesses as appropriate.

7.2 Table 7-1 indicates the number and type of samples that comprise an analytical batch. Note: NELAC requirements specify that the maximum number of client samples in an analytical batch can not exceed 20. Further, a batch can not be left "open" for a period that exceeds 24 hours.

Table 7-1
Samples required in an Analytical Batch

Method Blank (MB)/CCB
LCS/CCV
Client Samples
MS and MSD
LCS 2/CCV 2

Note that an opening and closing CCV/LCS must be included in the analytical "run". The concentrations of the two CCVs/LCSs must not be the same. It is suggested that the analyst alternate between a mid-range concentration and a low-range concentration each batch. If the % Recovery of the standard is between 85% and 115% the curve is considered valid and analysis can continue. If the % recovery is outside the limits a new curve must be analyzed

7.3 Turn on spectrophotometer, set wavelength to 510 nm and allow it to warm up for at least 15 minutes.

7.4 Fill out Ferrous Iron analysis Log Book page with all required information including reagent information.

7.5 Check and record pH of samples. Adjust pH with 0.5N HCL if needed. For MB and LCS acidify DI water.

7.6 Pour two 25 ml aliquots of each pH adjusted sample into two separate centrifuge tubes. One tube is for background reading the other for color development. For the sample to be used for MS and DUP, prepare two extra tubes. Use the same background tube for the sample, MS and DUP.

7.7 Prepare MB by adding one 25 ml aliquot of pH adjusted DI water to the centrifuge tube.

7.8 Prepare LCS 1 (0.5mg/L) by adding 2.5 ml of 20mg/L Ferrous Iron standard to a 100mL volumetric flask and dilute to 100 ml with acidified DI water. Record Standard ID on Log Sheet.

7.9 Prepare LCS 2 (0.8mg/L) by adding 8 ml of 10mg/L Ferrous Iron standard to a 100mL volumetric flask and dilute to 100ml with acidified DI water. Record Standard ID on Log Sheet.

7.10 Prepare MS (0.5mg/L) by CAREFULLY adding 2.5 ml of 20mg/L Ferrous Iron stock solution to the 100mL volume flask containing 100ml of the sample to be spiked.

7.11 Add 5 ml $NH_4C_2H_3O_2$ buffer solution to each tube and mix. Record reagent ID on Log Sheet.

7.12 Add 1 pack of Ferrous Iron reagent (HACH) and mix.

7.13 After 5 minutes and before 10 minutes, begin reading the absorbance of each background tube and the color developed tube at **510mn** using the square, **2.5 cm cell**. Background readings for MB and LCS/LCSD are not necessary. Record each absorbance reading on the Log Sheet.

7.14 Calculate Corrected Absorbance (Color Developed Absorbance – Background Absorbance) and record on Log Sheet.

7.15 Calculate Final Ferrous Iron value as follows:

Ferrous Iron, mg/L = [(Corrected Abs. x Slope) + Intercept] x Dilution Factor.

7.15 Record Final Ferrous Iron value on the Log Sheet.

7.16 If any Ferrous Iron values are greater than the highest standard on the Calibration Curve, sample must be diluted and reanalyzed, **INCLUDING DILUTED BACKGROUND READING.**

Table 7-2
Checklist for Ferrous Iron Analysis by SM3500

____ Turn on spectrophotometer, set wavelength to 510 nm and allow it to warm up for at least 15 minutes.

____ Fill out Ferrous Iron analysis Log Book page with all required information including reagent information.

____ Check and record pH of samples. Adjust pH with 0.5N HCL if needed. For MB and LCS acidify DI water.

____ Pour two 25 ml aliquots of each pH adjusted sample into two separate centrifuge tubes. One tube is for background reading the other for color development. For the sample to be used for MS and DUP, prepare two extra tubes. Use the same background tube for the sample, MS and DUP.

____ Prepare MB by adding one 25 ml aliquot of pH adjusted DI water to the centrifuge tube.

____ Prepare LCS 1 (0.5mg/L) by adding 2.5 ml of 20mg/L Ferrous Iron standard to a 100ml volumetric flask and dilute to 100 ml with acidified DI water. Record Standard ID on Log Sheet.

____ Prepare LCS 2 (0.8mg/L) by adding 8 ml of 10mg/L Ferrous Iron standard to a 100ml volumetric flask and dilute to 100ml with acidified DI water. Record Standard ID on Log Sheet.

____ Prepare MS (0.5mg/L) by CAREFULLY adding 2.5 ml of 20mg/L Ferrous Iron stock solution to the volumetric flask containing 100ml of the sample to be spiked.

____ Add 5 ml $NH_4C_2H_3O_2$ buffer solution to each tube and mix. Record reagent ID on Log Sheet.

____ Add 1 pack of Ferrous Iron reagent (HACH) and mix.

____ After 5 minutes and before 10 minutes, begin reading the absorbance of each background tube and the color developed tube at **510mn** using the square, **2.5 cm cell**. Background readings for MB and LCS/LCSD are not necessary. Record each absorbance reading on the Log Sheet.

____ Calculate Corrected Abs (Color Dev. Abs – Bkgd. Abs) and record on Log Sheet.

____ Calculate Final Ferrous Iron value as follows:

Ferrous Iron, mg/L = [(Corrected Abs x Slope) + Intercept] x Dilution Factor.

____ Record Final Ferrous Iron value on the Log Sheet.

____ If any Ferrous Iron values are greater than the highest standard on the Calibration Curve, sample must be diluted and reanalyzed, **INCLUDING DILUTED BACKGROUND READING**.

8.0 QUALITY ASSURANCE REQUIREMENTS

8.1 Each person using this procedure is required to comply with the formal quality control program specified by AES. The minimum requirements of this program consist of an initial demonstration of capability, and the periodic analysis of laboratory reagent blanks, fortified blanks, and other laboratory solutions as a continuing check on performance. The laboratory, through the analyst, is required to maintain performance records that define the quality of the data that are generated. Detailed quality assurance procedures can be found in SOP# QA-01000, "Quality Assurance Manual," Section 5. Subsequent sections define portions of the quality control program.

8.1.1 Demonstration of Capability. Each analyst must demonstrate proficiency for each method performed by performing Initial Demonstration of Capability (IDOC) prior to unsupervised analysis of analytical samples and Continuing Demonstration of Capability (CDOC) at least annually. Detailed descriptions of IDOC and CDOC requirements and acceptance limits can be found in Section 5 of SOP#QA-01000, "Quality Assurance Manual".

8.1.2 Calibration of the HACH spectrophotometer. This is accomplished through a 5-point calibration curve. The correlation coefficient must be ≥0.99 for the calibration curve to be acceptable.

8.1.3 Method Detection Limit Study. The method detection limit is calculated by analyzing at least seven replicates prepared in blank water at concentrations 1 to 5 times higher than the estimated detection limit. Quantitation limits are laboratory derived from the MDL study data set. MDL's are to be performed annually or whenever instrument conditions have changes that will affect the established detection limits.

8.1.4 Method blank. Reagent blank analyses must be performed at the following frequency: Every twenty (20) samples of similar concentration and/or sample matrix or whenever samples are extracted and analyzed by the same procedure at same time, whichever is more frequent. The concentration of the method blank of any analyte of interest should not exceed the laboratory established practical quantitation limit (PQL).

8.1.5 Laboratory control sample (LCS). The Laboratory Control Sample (LCS) is used to monitor, assess, and document laboratory method performance and is performed on every batch or twenty samples, whichever occurs more frequently. The recovery of the analytes must meet established laboratory guidelines as defined in Section 5 of SOP# QA-01000, "Quality Assurance Manual".

8.1.6 Sample spike and duplicate spike. Matrix spikes and matrix spike duplicates are used to determine the effect of the sample matrix on the recovery of analytes, and are analyzed for each analytical batch up to 20 samples. The recovery of the

analytes must meet established laboratory guidelines as defined in Section 5 of SOP# QA-01000, "Quality Assurance Manual".

8.2 Out of Control Conditions and Corrective Actions. Contingencies for handling out-of-control or unacceptable data are included in Section 5 of SOP# QA-01000, "Quality Assurance Manual". The tables in this section include corrective actions for failing QC and/or acceptance criteria.

8.3 Documentation of data. Document and record all analytical sequence, standard preparation, instrument maintenance, and any procedural deviations in appropriate logbooks.

9.0 HEALTH & SAFETY REQUIREMENTS

9.1 Health and Safety: Safety glasses and latex type gloves must be worn at all times when dealing with any chemicals, samples, or reagents. A lab coat is also highly recommended. Close-toed shoes and clothing that covers the legs (no shorts or dresses) must be worn any time an analyst is working in the laboratory.

9.2 The toxicity or carcinogenicity of each reagent used in this method has not been fully established. Each chemical should be regarded as a health hazard and exposure should be as kept low as reasonably possible. All health and safety concerns for any chemicals are listed in the Material Safety Data Sheets (MSDS) provided by the supplier or manufacturer of these chemicals. A copy of any MSDS is available for review at any time.

9.3 Proper disposal of all wastes is essential. Containers are provided for all waste according to the type. Section 17 of the Quality Assurance Manual discusses the disposal of various laboratory wastes in detail. Also, see Section 14.0 Pollution Management.

10.0 DATA REPORTING

10.1 Report results to three significant digits.

10.2 Current MDLs for all parameters may be found in Section 5 of SOP# QA-01000, "Quality Assurance Manual".

10.3 Out-Of-Control Data - Contingencies for handling out-of-control or unacceptable data are included in SOP #QA-01000, "Quality Assurance Manual" in Section 5 including corrective actions for failing QC and/or acceptance criteria.

10.4 The estimated MDL for this test procedure is 0.01 mg/L.

11.0 FILE MAINTENANCE

11.1 Data from this test is stored in logbooks. When the logbooks are complete, they are scanned and stored on the portal server for a period of 5 years.

11.2 New logbooks are either created or retired through the QA Manager.

11.3 Data is entered into the LIMS by the analyst performing the work

12.0 INSTRUMENT MAINTENANCE

12.1 Instrument logbooks. Instrument logbooks must be completed each time maintenance is performed on the instrument.

Each instrument logbook must have a cover page that includes the following information.

Equipment name. Example: GC-5
Manufacturers name. Example: Hewlett Packard 6890 GC
Serial Number. Example: 13226589A
Date Received. Example: 11/01/00
Date Placed into Service. Example: 11/05/00

12.2 Non-routine maintenance: Typical non-routine maintenance consists of the replacement of circuit boards and other items not associated with typical maintenance. Non-routine maintenance is performed when a system component malfunctions.

12.3 When non-routine maintenance is required, contact the Section Supervisor. The Section Supervisor will complete a maintenance request form and submit the same to the VP of Technical Services.

13.0 METHOD PERFORMANCE

13.1 The method detection limit (MDL) is defined as the minimum concentration of a substance that can be measured and reported with 99% confidence that the value is above zero. The reporting limit RL is defined as the concentration of a substance that is above the level of uncertainty. The concentrations listed in the table in Section VIII were obtained using reagent water. Similar results can be achieved using representative wastewaters. The MDL actually achieved is a given analysis will vary depending on instrument sensitivity and matrix effects.

13.2 A synthetic sample containing 300 µg/l ferric iron per liter, 500µg Al/L, 50 µg Cd/L, 110 µg Cr/L, 470 µg Cu/L, 70 µg Pb/L, 120 µg Mn/L, 150 µg Ag/l, 650 µg Zn/L in distilled water was analyzed in 44 laboratories by the phenanthroline method with a relative standard deviation of 25.5% and a relative error of 13.3%.

14.0 POLLUTION MANAGEMENT

14.1 All laboratory analysis generates wastes. Some wastes can be hazardous such as acidic wastes, alkaline wastes, metal bearing wastes, and organic wastes.

14.2 Some wastes are generated because of the test procedure such as organic extractions and acid digestions.

14.3 The following procedures should be adhered to when disposing of hazardous wastes.

14.3.1 Wastes with pH levels above 12 or less than 4 should be neutralized prior to disposal.

14.3.2 Wastes with other pH levels may be directly discharged into the sinks.

14.3.3 SOP HS-03005 Waste Disposal and SOP SR-09002 Sample Receiving further discuss methods for disposal of samples and waste materials. Additional information can also be found in the QA Manual.

14.4 When disposing of laboratory wastes, the waste disposal log must be completed. To complete this log, supply the following information.

Sample Number
Method of disposal and treatment prior to disposal
Date of sample disposal
Name of person performing the disposal duty

15.0 DEFINITIONS

15.1 Primary Grade –A dry chemical that has been dried at 250°C for 4 hours cooled and stored in a desiccator.

15.2 LCS - Laboratory Control Check Standard. A known amount of sought for analyte is added to distilled water or clean soil and the concentration is measured after all procedures are applied to the sample. The resulting determined concentration must fall within test specified limits.

15.3 DI water- Deionized water

15.4 RSD – Relative Standard Deviation

15.5 RF – Response factor. Determined as the concentration of a sample divided by the chromatographic area of the peak produced by the sample.

15.6 MS- Matrix Spike. Procedure where a known amount of sought for analyte is added to a sample and the resulting concentration measured. The recovery is defined as the measured result of the spiked sample less the concentration of the same analyte in the unspiked sample multiplied by 100 percent.

15.7 MSD- Matrix Spike Duplicate.

15.8 CCV - Continuing calibration verification standard. Must be varied thoughout the daily runs, that is the concentration must be low, middle, and sometimes at the upper end of the calibration curve.

15.9 ICV – Initial calibration verification standard. This standard must be prepared from a second source than that used for the calibration curve. That is, it must be from a different manufacturer or lot that the calibration standard.

15.10 LCSD - Laboratory Check Standard Duplicate

16.0 REFERENCES

16.1 Standard Methods for the Examination of Water and Wastewater, Method 3500-Fe B, "Phenanthroline Method", 1998, 20th Edition.

16.2 Code of Federal Regulations, 40CFR part 136, Appendix B.

17.0 VALIDATION DATA

17.1 Method validation data in the form of MDL study data when applicable is available at AES Portal Server: http://home/aes/Quality Assurance/**MDL.**

17.2 Method validation data in the form of IDOC/CDOC study data when applicable is available at AES Portal Server: http://home/aes/Technical Management/**Demonstrations of Capability and SOP Sign Forms.**

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

UST DOCKETING 17.Tech

PUBLIC NOTICE

Notice #07584-07777-12352-01
March 31, 2014

This notice is to inform the public that the S. C. Department of Health and Environmental Control (Agency) is taking public comments on a Corrective Action Plan (CAP). This CAP addresses the cleanup of soil and groundwater contamination at the facility listed below. The contamination was caused by Petroleum Products that were released from the underground storage tank system at these facilities.

FACILITY: UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release #1 reported January 30, 1991
Release #2 reported April 17, 1998
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991
UST Permit # 12352, Clouds Chevron
Release reported December 30, 1991

APPLICANT: Crawford Environmental Services, 15 Church Avenue SW, Roanoke, VA 24011 on behalf of ACME Petroleum and Fuel Company, 543 Cox Road, Ste C, Gastonia, NC 28054 (University Mart UST#07584); Wallace M. Scott, 76 Whiteford Way, Lexington, SC 29072 (Clouds Chevron UST# 07777), and Jack and Alexandria Lee, 3733 Greenbriar Drive, Columbia, SC 29206 (Clouds Chevron UST#12352).

SUMMARY OF CAP: Petroleum and petroleum byproducts naturally break down over time through chemical, physical, and biological processes. These processes are called natural attenuation. Crawford Environmental Services has submitted a CAP proposing the use of the following technologies in addition to natural attenuation to clean up the contamination.

- Aggressive Fluid Vapor Recovery: A high-pressure vacuum is attached to recovery wells; it removes petroleum vapors, contaminated groundwater, and the petroleum product.
- Air Sparging & Soil Vapor Extraction: Air is pumped underground to evaporate petroleum products. The chemicals are removed using a vacuum system.
- Chemical Oxidation: Oxygen-rich chemicals are injected underground to change the petroleum product(s) into harmless compounds (water and carbon dioxide).
- Bioremediation: Microorganisms that live underground eat the petroleum product(s) and convert the product to water and carbon dioxide. Air and nutrients will be injected underground to assist the microbes in removing the petroleum product(s).

PUBLIC COMMENT PERIOD DEADLINE: The **deadline** for submitting written comments is **5 PM April 30, 2014**. Any interested person(s) may submit written comments concerning the cleanup to the Project Manager listed below. Please bring this notice to the attention of persons whom you know will be interested in this matter. Where there is a significant degree of public interest, the Agency will hold a public hearing.

John C. Bryant
SCDHEC - UST Management Division
2600 Bull Street
Columbia SC 29201
803-898-0606

CONTACT INFORMATION: For additional information, please call the Project Manager listed above. To view a copy of the CAP, contact the Freedom of Information Office at 803-898-3882.

Section 280.67 of the S.C. Underground Storage Tank Control Regulations (R.61-92) requires that any CAP prepared to meet the requirements of 280.66 be placed on notice for public comment.

D H E C
PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

ALLEN UNIVERSITY
1530 HARDEN STREET
COLUMBIA, SC 29204

MAR 2 7 2014

Re: **Public Notice of Proposed Corrective Action**
University Mart, 2367 Taylor Street, Columbia, SC
UST Permit # 07584; Release 1 and 2
Clouds Chevron, 1600 Two Notch Road, Columbia, SC
UST Permit # 07777 & 12352
Corrective Action Plan Received March 24, 2014
Richland County

To Whom It May Concern:

As you are aware, petroleum products have been identified in the soil and groundwater at the former University Mart and Clouds Chevron facilities. To prevent the release from becoming an unacceptable risk, Crawford Environmental Services, Inc. (CES) has been retained to initiate corrective action of the impacted soil and groundwater. CES has submitted a Corrective Action Plan (CAP) for surfactant injection and vacuum extraction, in-situ chemical oxidation, and nutrient and biological injections in addition to natural attenuation. A copy of the CAP has been sent to you by CES. Please contact me if you do not receive the CAP.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the South Carolina Department of Health and Environmental Control to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information. The installation of recovery/ injection wells on your property may be necessary as part of the corrective action. Additionally, periodic sampling of the monitoring wells on your property will be necessary. CES is required to coordinate any activity on your property with you. Your continued cooperation is appreciated.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 30, 2014.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guide

cc: Technical File (w/ PN)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

COLUMBIA GROCERY INC
1510 ONTARIO STREET
COLUMBIA, SC 29204

MAR 2 7 2014

Re: **Public Notice of Proposed Corrective Action**
University Mart, 2367 Taylor Street, Columbia, SC
UST Permit # 07584; Release 1 and 2
Clouds Chevron, 1600 Two Notch Road, Columbia, SC
UST Permit # 07777 & 12352
Corrective Action Plan Received March 24, 2014
Richland County

To Whom It May Concern:

As you are aware, petroleum products have been identified in the soil and groundwater at the former University Mart and Clouds Chevron facilities. To prevent the release from becoming an unacceptable risk, Crawford Environmental Services, Inc. (CES) has been retained to initiate corrective action of the impacted soil and groundwater. CES has submitted a Corrective Action Plan (CAP) for surfactant injection and vacuum extraction, in-situ chemical oxidation, and nutrient and biological injections in addition to natural attenuation. A copy of the CAP has been sent to you by CES. Please contact me if you do not receive the CAP.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the South Carolina Department of Health and Environmental Control to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information. The installation of recovery/ injection wells on your property may be necessary as part of the corrective action. Additionally, periodic sampling of the monitoring wells on your property will be necessary. CES is required to coordinate any activity on your property with you. Your continued cooperation is appreciated.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 30, 2014.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guide

cc: Technical File (w/ PN)

D H E C
PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

MR ANDREW DIGGINGS
PROVIDENCE HOSPITAL
2345 FOREST DRIVE
COLUMBIA, SC 29204

MAR 2 7 2014

Re: **Public Notice of Proposed Corrective Action**
University Mart, 2367 Taylor Street, Columbia, SC
UST Permit # 07584; Release 1 and 2
Clouds Chevron, 1600 Two Notch Road, Columbia, SC
UST Permit # 07777 & 12352
Corrective Action Plan Received March 24, 2014
Richland County

Dear Mr. Diggins:

As you are aware, petroleum products have been identified in the soil and groundwater at the former University Mart and Clouds Chevron facilities. To prevent the release from becoming an unacceptable risk, Crawford Environmental Services, Inc. (CES) has been retained to initiate corrective action of the impacted soil and groundwater. CES has submitted a Corrective Action Plan (CAP) for surfactant injection and vacuum extraction, in-situ chemical oxidation, and nutrient and biological injections in addition to natural attenuation. A copy of the CAP has been sent to you by CES. Please contact me if you do not receive the CAP.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the South Carolina Department of Health and Environmental Control to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information. The installation of recovery/ injection wells on your property may be necessary as part of the corrective action. Additionally, periodic sampling of the monitoring wells on your property will be necessary. CES is required to coordinate any activity on your property with you. Your continued cooperation is appreciated.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 30, 2014.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guide

cc: Technical File (w/ PN)

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

MILLWOOD AVENUE LLC
1330 DEVONSHIRE DRIVE
COLUMBIA, SC 29204

MAR 2 7 2014

Re: **Public Notice of Proposed Corrective Action**
University Mart, 2367 Taylor Street, Columbia, SC
UST Permit # 07584; Release 1 and 2
Clouds Chevron, 1600 Two Notch Road, Columbia, SC
UST Permit # 07777 & 12352
Corrective Action Plan Received March 24, 2014
Richland County

To Whom It May Concern:

As you are aware, petroleum products have been identified in the soil and groundwater at the former University Mart and Clouds Chevron facilities. To prevent the release from becoming an unacceptable risk, Crawford Environmental Services, Inc. (CES) has been retained to initiate corrective action of the impacted soil and groundwater. CES has submitted a Corrective Action Plan (CAP) for surfactant injection and vacuum extraction, in-situ chemical oxidation, and nutrient and biological injections in addition to natural attenuation. A copy of the CAP has been sent to you by CES. Please contact me if you do not receive the CAP.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the South Carolina Department of Health and Environmental Control to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information. The installation of recovery/ injection wells on your property may be necessary as part of the corrective action. Additionally, periodic sampling of the monitoring wells on your property will be necessary. CES is required to coordinate any activity on your property with you. Your continued cooperation is appreciated.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 30, 2014.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guide

cc: Technical File (w/ PN)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

MR LAU FUNG
2300 TAYLOR STREET, STE D
COLUMBIA, SC 29204

MAR 2 7 2014

Re: **Public Notice of Proposed Corrective Action**
University Mart, 2367 Taylor Street, Columbia, SC
UST Permit # 07584; Release 1 and 2
Clouds Chevron, 1600 Two Notch Road, Columbia, SC
UST Permit # 07777 & 12352
Corrective Action Plan Received March 24, 2014
Richland County

Dear Mr. Fung:

As you are aware, petroleum products have been identified in the soil and groundwater at the former University Mart and Clouds Chevron facilities. To prevent the release from becoming an unacceptable risk, Crawford Environmental Services, Inc. (CES) has been retained to initiate corrective action of the impacted soil and groundwater. CES has submitted a Corrective Action Plan (CAP) for surfactant injection and vacuum extraction, in-situ chemical oxidation, and nutrient and biological injections in addition to natural attenuation. A copy of the CAP has been sent to you by CES. Please contact me if you do not receive the CAP.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the South Carolina Department of Health and Environmental Control to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information. The installation of recovery/ injection wells on your property may be necessary as part of the corrective action. Additionally, periodic sampling of the monitoring wells on your property will be necessary. CES is required to coordinate any activity on your property with you. Your continued cooperation is appreciated.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 30, 2014.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guide

cc: Technical File (w/ PN)

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

MR CHANG MOON SUENG
2358 TAYLOR STREET
COLUMBIA, SC 29204

MAR 2 7 2014

Re: **Public Notice of Proposed Corrective Action**
University Mart, 2367 Taylor Street, Columbia, SC
UST Permit # 07584; Release 1 and 2
Clouds Chevron, 1600 Two Notch Road, Columbia, SC
UST Permit # 07777 & 12352
Corrective Action Plan Received March 24, 2014
Richland County

Dear Mr. Sueng:

As you are aware, petroleum products have been identified in the soil and groundwater at the former University Mart and Clouds Chevron facilities. To prevent the release from becoming an unacceptable risk, Crawford Environmental Services, Inc. (CES) has been retained to initiate corrective action of the impacted soil and groundwater. CES has submitted a Corrective Action Plan (CAP) for surfactant injection and vacuum extraction, in-situ chemical oxidation, and nutrient and biological injections in addition to natural attenuation. A copy of the CAP has been sent to you by CES. Please contact me if you do not receive the CAP.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the South Carolina Department of Health and Environmental Control to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information. The installation of recovery/ injection wells on your property may be necessary as part of the corrective action. Additionally, periodic sampling of the monitoring wells on your property will be necessary. CES is required to coordinate any activity on your property with you. Your continued cooperation is appreciated.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 30, 2014.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guide

cc: Technical File (w/ PN)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

TAYLOR STREET LLC
200 GAULEY DRIVE
COLUMBIA, SC 29212

MAR 2 7 2014

Re: **Public Notice of Proposed Corrective Action**
University Mart, 2367 Taylor Street, Columbia, SC
UST Permit # 07584; Release 1 and 2
Clouds Chevron, 1600 Two Notch Road, Columbia, SC
UST Permit # 07777 & 12352
Corrective Action Plan Received March 24, 2014
Richland County

To Whom It May Concern:

As you are aware, petroleum products have been identified in the soil and groundwater at the former University Mart and Clouds Chevron facilities. To prevent the release from becoming an unacceptable risk, Crawford Environmental Services, Inc. (CES) has been retained to initiate corrective action of the impacted soil and groundwater. CES has submitted a Corrective Action Plan (CAP) for surfactant injection and vacuum extraction, in-situ chemical oxidation, and nutrient and biological injections in addition to natural attenuation. A copy of the CAP has been sent to you by CES. Please contact me if you do not receive the CAP.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the South Carolina Department of Health and Environmental Control to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information. The installation of recovery/ injection wells on your property may be necessary as part of the corrective action. Additionally, periodic sampling of the monitoring wells on your property will be necessary. CES is required to coordinate any activity on your property with you. Your continued cooperation is appreciated.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 30, 2014.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guide

cc: Technical File (w/ PN)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

SYLVAN FOOD SYSTEMS, INC
1245 BOSTON AVENUE
WEST COLUMBIA, SC 29170

MAR 2 7 2014

Re: **Public Notice of Proposed Corrective Action**
University Mart, 2367 Taylor Street, Columbia, SC
UST Permit # 07584; Release 1 and 2
Clouds Chevron, 1600 Two Notch Road, Columbia, SC
UST Permit # 07777 & 12352
Corrective Action Plan Received March 24, 2014
Richland County

To Whom It May Concern:

As you are aware, petroleum products have been identified in the soil and groundwater at the former University Mart and Clouds Chevron facilities. To prevent the release from becoming an unacceptable risk, Crawford Environmental Services, Inc. (CES) has been retained to initiate corrective action of the impacted soil and groundwater. CES has submitted a Corrective Action Plan (CAP) for surfactant injection and vacuum extraction, in-situ chemical oxidation, and nutrient and biological injections in addition to natural attenuation. A copy of the CAP has been sent to you by CES. Please contact me if you do not receive the CAP.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the South Carolina Department of Health and Environmental Control to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information. The installation of recovery/ injection wells on your property may be necessary as part of the corrective action. Additionally, periodic sampling of the monitoring wells on your property will be necessary. CES is required to coordinate any activity on your property with you. Your continued cooperation is appreciated.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 30, 2014.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guide

cc: Technical File (w/ PN)

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

MS BETTE G BATEMAN
C/O JESSE T REESE
PO BOX 1026
COLUMBIA, SC 29201

MAR 2 7 2014

Re: **Public Notice of Proposed Corrective Action**
University Mart, 2367 Taylor Street, Columbia, SC
UST Permit # 07584; Release 1 and 2
Clouds Chevron, 1600 Two Notch Road, Columbia, SC
UST Permit # 07777 & 12352
Corrective Action Plan Received March 24, 2014
Richland County

Dear Ms. Bateman:

As you are aware, petroleum products have been identified in the soil and groundwater at the former University Mart and Clouds Chevron facilities. To prevent the release from becoming an unacceptable risk, Crawford Environmental Services, Inc. (CES) has been retained to initiate corrective action of the impacted soil and groundwater. CES has submitted a Corrective Action Plan (CAP) for surfactant injection and vacuum extraction, in-situ chemical oxidation, and nutrient and biological injections in addition to natural attenuation. A copy of the CAP has been sent to you by CES. Please contact me if you do not receive the CAP.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the South Carolina Department of Health and Environmental Control to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information. The installation of recovery/ injection wells on your property may be necessary as part of the corrective action. Additionally, periodic sampling of the monitoring wells on your property will be necessary. CES is required to coordinate any activity on your property with you. Your continued cooperation is appreciated.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 30, 2014.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guide

cc: Technical File (w/ PN)

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

MR MAHESH PATEL
FAST POINT FOOD STORES
2811 REIDVILLE ROAD, STE 11
SPARTANBURG, SC 29301

MAR 2 7 2014

Re: **Public Notice of Proposed Corrective Action**
University Mart, 2367 Taylor Street, Columbia, SC
UST Permit # 07584; Release 1 and 2
Clouds Chevron, 1600 Two Notch Road, Columbia, SC
UST Permit # 07777 & 12352
Corrective Action Plan Received March 24, 2014
Richland County

Dear Mr. Patel:

As you are aware, petroleum products have been identified in the soil and groundwater at the former University Mart and Clouds Chevron facilities. To prevent the release from becoming an unacceptable risk, Crawford Environmental Services, Inc. (CES) has been retained to initiate corrective action of the impacted soil and groundwater. CES has submitted a Corrective Action Plan (CAP) for surfactant injection and vacuum extraction, in-situ chemical oxidation, and nutrient and biological injections in addition to natural attenuation. A copy of the CAP has been sent to you by CES. Please contact me if you do not receive the CAP.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the South Carolina Department of Health and Environmental Control to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information. The installation of recovery/ injection wells on your property may be necessary as part of the corrective action. Additionally, periodic sampling of the monitoring wells on your property will be necessary. CES is required to coordinate any activity on your property with you. Your continued cooperation is appreciated.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 30, 2014.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guide

cc: Technical File (w/ PN)

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

ATTN: DR DAVID H SWINTON
BENEDICT COLLEGE
1600 HARDEN STREET
COLUMBIA, SC 29204

MAR 2 7 2014

Re: **Public Notice of Proposed Corrective Action**
University Mart, 2367 Taylor Street, Columbia, SC
UST Permit # 07584; Release 1 and 2
Clouds Chevron, 1600 Two Notch Road, Columbia, SC
UST Permit # 07777 & 12352
Corrective Action Plan Received March 24, 2014
Richland County

Dear Dr. Swinton:

As you are aware, petroleum products have been identified in the soil and groundwater at the former University Mart and Clouds Chevron facilities. To prevent the release from becoming an unacceptable risk, Crawford Environmental Services, Inc. (CES) has been retained to initiate corrective action of the impacted soil and groundwater. CES has submitted a Corrective Action Plan (CAP) for surfactant injection and vacuum extraction, in-situ chemical oxidation, and nutrient and biological injections in addition to natural attenuation. A copy of the CAP has been sent to you by CES. Please contact me if you do not receive the CAP.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the South Carolina Department of Health and Environmental Control to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information. The installation of recovery/ injection wells on your property may be necessary as part of the corrective action. Additionally, periodic sampling of the monitoring wells on your property will be necessary. CES is required to coordinate any activity on your property with you. Your continued cooperation is appreciated.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 30, 2014.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guide

cc: Technical File (w/ PN)

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

ATTN: MR GILBERT WALKER
COLUMBIA HOUSING AUTHORITY
PO BOX 4307
COLUMBIA, SC 29204

MAR 27 2014

Re: **Public Notice of Proposed Corrective Action**
University Mart, 2367 Taylor Street, Columbia, SC
UST Permit # 07584; Release 1 and 2
Clouds Chevron, 1600 Two Notch Road, Columbia, SC
UST Permit # 07777 & 12352
Corrective Action Plan Received March 24, 2014
Richland County

Dear Mr. Walker:

As you are aware, petroleum products have been identified in the soil and groundwater at the former University Mart and Clouds Chevron facilities. To prevent the release from becoming an unacceptable risk, Crawford Environmental Services, Inc. (CES) has been retained to initiate corrective action of the impacted soil and groundwater. CES has submitted a Corrective Action Plan (CAP) for surfactant injection and vacuum extraction, in-situ chemical oxidation, and nutrient and biological injections in addition to natural attenuation. A copy of the CAP has been sent to you by CES. Please contact me if you do not receive the CAP.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the South Carolina Department of Health and Environmental Control to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information. The installation of recovery/ injection wells on your property may be necessary as part of the corrective action. Additionally, periodic sampling of the monitoring wells on your property will be necessary. CES is required to coordinate any activity on your property with you. Your continued cooperation is appreciated.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 30, 2014.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guide

cc: Technical File (w/ PN)

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

MS LINDA WARREN
1527 LYON STREET
COLUMBIA, SC 29204

MAR 2 7 2014

Re: **Public Notice of Proposed Corrective Action**
University Mart, 2367 Taylor Street, Columbia, SC
UST Permit # 07584; Release 1 and 2
Clouds Chevron, 1600 Two Notch Road, Columbia, SC
UST Permit # 07777 & 12352
Corrective Action Plan Received March 24, 2014
Richland County

Dear Ms. Warren:

As you are aware, petroleum products have been identified in the soil and groundwater at the former University Mart and Clouds Chevron facilities. To prevent the release from becoming an unacceptable risk, Crawford Environmental Services, Inc. (CES) has been retained to initiate corrective action of the impacted soil and groundwater. CES has submitted a Corrective Action Plan (CAP) for surfactant injection and vacuum extraction, in-situ chemical oxidation, and nutrient and biological injections in addition to natural attenuation. A copy of the CAP has been sent to you by CES. Please contact me if you do not receive the CAP.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the South Carolina Department of Health and Environmental Control to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information. The installation of recovery/ injection wells on your property may be necessary as part of the corrective action. Additionally, periodic sampling of the monitoring wells on your property will be necessary. CES is required to coordinate any activity on your property with you. Your continued cooperation is appreciated.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 30, 2014.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guide

cc: Technical File (w/ PN)

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

MR JOE T SUDDETH
302 BIDDLE ROAD
COLUMBIA, SC 29212

MAR 2 7 2014

Re: **Public Notice of Proposed Corrective Action**
University Mart, 2367 Taylor Street, Columbia, SC
UST Permit # 07584; Release 1 and 2
Clouds Chevron, 1600 Two Notch Road, Columbia, SC
UST Permit # 07777 & 12352
Corrective Action Plan Received March 24, 2014
Richland County

Dear Mr. Suddeth:

As you are aware, petroleum products have been identified in the soil and groundwater at the former University Mart and Clouds Chevron facilities. To prevent the release from becoming an unacceptable risk, Crawford Environmental Services, Inc. (CES) has been retained to initiate corrective action of the impacted soil and groundwater. CES has submitted a Corrective Action Plan (CAP) for surfactant injection and vacuum extraction, in-situ chemical oxidation, and nutrient and biological injections in addition to natural attenuation. A copy of the CAP has been sent to you by CES. Please contact me if you do not receive the CAP.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the South Carolina Department of Health and Environmental Control to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information. The installation of recovery/ injection wells on your property may be necessary as part of the corrective action. Additionally, periodic sampling of the monitoring wells on your property will be necessary. CES is required to coordinate any activity on your property with you. Your continued cooperation is appreciated.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 30, 2014.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guide

cc: Technical File (w/ PN)

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

JACK AND ALEXANDRIA LEE
3733 GREENBRAIR DRIVE
COLUMBIA, SOUTH CAROLINA 29206

MAR 2 7 2014

Re: **Public Notice of Proposed Corrective Action**
Clouds Chevron, 1600 Two Notch Road, Columbia, SC
UST Permit # 12352
Corrective Action Plan Received March 24, 2014
Richland County

Dear Mr. Lee:

As you are aware, petroleum products have been identified in the soil and groundwater at the University Mart and Clouds Chevron facilities. To prevent the release from becoming an unacceptable risk, Crawford Environmental Services has been retained to initiate corrective action of the impacted soil and groundwater. Crawford Environmental Services has submitted a Corrective Action Plan (CAP) for surfactant injection and vacuum extraction, in-situ chemical oxidation, and nutrient and biological injections in addition to natural attenuation. A copy of the CAP has been sent to you by Crawford Environmental Services. Please contact me if you do not receive the CAP.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the South Carolina Department of Health and Environmental Control to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information. The installation of recovery/ injection wells is necessary as part of the corrective action. Crawford Environmental Services is required to coordinate all activities with the affected property owners. Your continued cooperation is appreciated.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 30, 2014.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guide

cc: Technical File (w/ PN)

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

WALLACE M. SCOTT
76 WHITEFORD WAY
LEXINGTON, SOUTH CAROLINA 29072

MAR 2 7 2014

Re: **Public Notice of Proposed Corrective Action**
Clouds Chevron, 1600 Two Notch Road, Columbia, SC
UST Permit # 07777
Corrective Action Plan Received March 24, 2014
Richland County

Dear Mr. Scott:

As you are aware, petroleum products have been identified in the soil and groundwater at the University Mart and Clouds Chevron facilities. To prevent the release from becoming an unacceptable risk, Crawford Environmental Services has been retained to initiate corrective action of the impacted soil and groundwater. Crawford Environmental Services has submitted a Corrective Action Plan (CAP) for surfactant injection and vacuum extraction, in-situ chemical oxidation, and nutrient and biological injections in addition to natural attenuation. A copy of the CAP has been sent to you by Crawford Environmental Services. Please contact me if you do not receive the CAP.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the South Carolina Department of Health and Environmental Control to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information. The installation of recovery/ injection wells is necessary as part of the corrective action. Crawford Environmental Services is required to coordinate all activities with the affected property owners. Your continued cooperation is appreciated.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 30, 2014.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guide

cc: Technical File (w/ PN)

D H E C
PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

ACME PETROLEUM AND FUEL COMPANY
543 COX ROAD
STE C
GASTONIA, NORTH CAROLINA 28054

MAR 2 7 2014

Re: **Public Notice of Proposed Corrective Action**
University Mart, 2367 Taylor Street, Columbia, SC
UST Permit # 07584; Release 1 and 2
Corrective Action Plan Received March 24, 2014
Richland County

To Whom It May Concern:

As you are aware, petroleum products have been identified in the soil and groundwater at the University Mart and Clouds Chevron facilities. To prevent the release from becoming an unacceptable risk, Crawford Environmental Services has been retained to initiate corrective action of the impacted soil and groundwater. Crawford Environmental Services has submitted a Corrective Action Plan (CAP) for surfactant injection and vacuum extraction, in-situ chemical oxidation, and nutrient and biological injections in addition to natural attenuation. A copy of the CAP has been sent to you by Crawford Environmental Services. Please contact me if you do not receive the CAP.

Section 280.67 of the South Carolina Underground Storage Tank Regulations requires the South Carolina Department of Health and Environmental Control to provide notice to those members of the public that may be affected by a planned corrective action. A copy of the public notice is enclosed for your information. The installation of recovery/ injection wells is necessary as part of the corrective action. Crawford Environmental Services is required to coordinate all activities with the affected property owners. Your continued cooperation is appreciated.

If you have any questions or comments regarding the proposed corrective action, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or by email at bryantjc@dhec.sc.gov. All comments should be submitted on or before April 30, 2014.

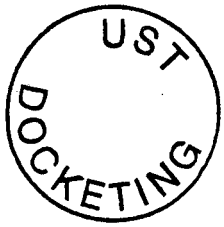
Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Public Notice
Citizens Guide

cc: Technical File (w/ PN)

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment



MR CHARLES F. CRAWFORD, III
CRAWFORD ENVIRONMENTAL SERVICES
104 CORPORATE BLVD STE 412
WEST COLUMBIA SC 29169

MAR 2 7 2014

Re: **Corrective Action Award**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release #1 reported January 30, 1991; CA#47811
Release #2 reported April 17, 1998; CA#47812
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991; CA#47813
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991; CA#47814
Contract #IFB-5400007095-1/30/2014-EMW; PO # 4600322226
Richland County

Dear Mr. Crawford:

As you are aware, the Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control has determined that active corrective action is necessary at the referenced facility. On January 7, 2014, you were awarded the corrective action contract in the amount of $540,000.00, which will be funded by the State Underground Petroleum Environmental Response Bank (SUPERB) Account. Per contract requirements, the Quality Assurance Project Plan (QAPP) for the Initial Monitoring Report must be submitted within 15 days of the award date (Received March 21, 2014), the corrective action plan with a QAPP Addendum for corrective action must be submitted within 30 days of the award date (Received March 24, 2014), and the Initial Monitoring Report must be submitted within 45 days of the QAPP Addendum approval date (on or before May 25, 2014). A signed copy of the Right-of-Entry and the approved QAPP addendum for the referenced facility is enclosed. Please coordinate with each landowner for access and keep any inconveniences to the affected landowners to a minimum. Please also note that in accordance with contract specifications, copies of all plans and reports should be sent to all affected property owners listed in the bid solicitation appendix.

If you have any questions or need additional information, please contact me at (803) 898-0606 or bryantjc@dhec.sc.gov.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Cost Agreements
Right of Entry
Signed QAPP Addendum

cc: Richard E. Fay, 2020 Charlotte Plaza, 201 South College St., Charlotte NC 28244-2020 (w/o enc)
Mr. Pete Overton, Acme Petroleum and Fuel Company, 543 Cox Rd. Ste. C, Gastonia SC 28054 (w/o enc)
Mr. Mahesh Patel, Fast Point Food Stores, 2811 Reidville Rd. Ste. 11, Spartanburg SC 29301-3227 (w/o enc)
Mrs. Wallace Scott, 76 Whiteford Way, Lexington SC 29072 (w/o enc)
Mr. Andrew Diggins, Providence Hospital, 2345 Forest Dr., Columbia SC 29204 (w/o enc)
Ms. Bette Gordon Bateman, c/o Jesse T. Reese, PO Box 1026, Columbia, SC 29201 (w/o enc)
W.L. Boyd III, 455 Alexander Cir., Columbia SC 29206 (w/o enc)
James A. & Marilyn L. Bundrick, 217 Palmer Dr., Lexington SC 29072 (w/o enc)
Mr. James Morrison Jr., 1014 Laurens St., Columbia SC 29201 (w/o enc)
Pope D. Johnson III, McCutchen Blanton Johnson & Barnette LLP, PO Drawer 11209, Columbia SC 29211-1209 (w/o enc)
Mr. Joe T. Suddeth, 302 Biddle Rd., Columbia SC 29212 (w/o enc)
Chang Moon Sueng, 2358 Taylor St., Columbia SC 29204 (w/o enc)
Dr. David H. Swinton, Benedict College, 1600 Harden St., Columbia SC 29204 (w/o enc)
Sylvan Food Systems Inc., 1245 Boston Ave., West Columbia SC 29170 (w/o enc)
Ms. Linda Warren, 1527 Lyon St., Columbia SC 29204 (w/o enc)
Gilbert Walker, Columbia Housing Authority, PO Box 4307, Columbia SC 29204 (w/o enc)
Technical Files (w/o enc)

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

April 11, 2014

(BOW-GWPROT-CAW)
Mr. Charles F. Crawford
Crawford Environmental Services, Inc.
15 Church Ave, SW
Roanoke, VA 24011

Re: Underground Injection Control Permit #SCHE03020184M
Cloud's Chevron/Handy Panty #65/University Mart Site
Richland County

Dear Mr. Crawford:

Enclosed is a Permit to Construct for six (6) Class VA-I injection wells at the Cloud's Chevron/Handy Panty #65/University Mart Site, Richland County as requested in the permit application received March 27, 2014.

South Carolina Board of Health and Environmental Control
Guide to Board Review
Pursuant to S.C. Code Ann. § 44-1-60
Effective April 1, 2013

The decision of the South Carolina Department of Health and Environmental Control (Department) becomes the final agency decision fifteen (15) calendar days after notice of the decision has been mailed to the applicant, permittee, licensee and affected persons who have requested in writing to be notified, unless a written request for final review accompanied by a filing fee in the amount of $100 is filed with Department by the applicant, permittee, licensee or affected person.

Applicants, permittees, licensees, and affected parties are encouraged to engage in mediation during the final review process.

If the Board declines in writing to schedule a final review conference, the Department's decision becomes the final agency decision and an applicant, permittee, licensee, or affected person may request a contested case hearing before the Administrative Law Court within thirty (30) calendar days after notice is mailed that the Board declined to hold a final review conference.

I. Filing of Request for Final Review

1. A written Request for Final Review (RFR)and the required filing fee of one hundred dollars ($100) must be received by Clerk of the Board within fifteen (15)calendar days after notice of the staff decision has been mailed to the applicant, permittee, licensee, or affected persons. If the 15th day occurs on a weekend or State holiday, the RFR must be received by the Clerk on the next working day. RFRs will not be accepted after5:00 p.m.

2. RFRs shall be in writing and should include, at a minimum, the following information:

   - The grounds for amending, modifying, or rescinding the staff decision;
   - a statement of any significant issues or factors the Board should consider in deciding how to handle the matter;
   - the relief requested; and
   - a copy of the decision for which review is requested.

3. RFRs should be filed in person or by mail at the following address:

South Carolina Board of Health and Environmental Control

Attention: Clerk of the Board

2600 Bull Street

Columbia, South Carolina 29201

Alternatively, RFR's may be filed with the Clerk by facsimile (803-898-3393) or by electronic mail (boardclerk@dhec.sc.gov).

4. The filing fee maybe paid by cash, certified check or credit card. If a RFR is filed by facsimile or electronic mail, the filing fee may be mailed to the Clerk of the Board and the envelope must be postmarked within the time allowed for filing a RFR.

5. If there is any perceived discrepancy in compliance with this RFR filing procedure, the Clerk should consult with the Chairman or, if the Chairman is unavailable, the Vice-Chairman. The Chairman or the Vice-Chairman will determine whether the RFR is timely and properly filed and direct the Clerk to (1) process the RFR for consideration by the Board or (2) return the RFR and filing fee to the requestor with a cover letter explaining why the RFR was not timely or properly filed. Processing an RFR for consideration by the Board shall not be interpreted as a waiver of any claim or defense by the agency in subsequent proceedings concerning the RFR.

6. If the RFR will be processed for Board consideration, the Clerk will send an Acknowledgement of RFR to the Requestor and the applicant, permittee, or licensee, if other than the Requestor.

7. The Clerk will email the RFR to all Board members for review, and all Board members will confirm receipt of the RFR to the Clerk by email. If a Board member does not confirm receipt of the RFR within twenty-four (24) hour period, the Clerk will contact the Board member and confirm receipt. If a Board member believes the RFR should be considered by the RFR Committee, he or she will respond to the Clerk's email within forty-eight (48) hours and will request further review. If no Board member requests further review of the RFR within the forty-eight (48) hour period, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, stating the Board will not hold a Final Review Conference. A copy of the Notice of Appeal Procedure will be included with the letter.

NOTE: If the time periods described above end on a weekend or State holiday, the time is automatically extended to 5:00 p.m. on the next business day.

8. If the RFR is to be considered by the RFR Committee, the Clerk will forward a copy of the RFR to Department staff and Office of General Counsel. A Department response to the RFR should be provided by Department staff to the Clerk within eight (8) working days after the RFR is forwarded.

II. Final Review Conference Scheduling

1. If a Conference will be held, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, informing the Requestor of the determination.

2. The Clerk will request Department staff provide the Administrative Record.

3. The Clerk will send Notice of Final Review Conference to the parties at least ten (10) days before the Conference. The Conference will be publicly noticed and should:

   - include the place, date and time of the Conference;
   - state the presentation times allowed in the Conference;
   - state evidence may be presented at the Conference;
   - if the conference will be held by committee, include a copy of the Chairman's order appointing the committee; and
   - inform the Requestor of his or her right to request a transcript of the proceedings of the Conference prepared at Requestor's expense.

4. If a party requests a transcript of the proceedings of the Conference and agrees to pay all related costs in writing, including costs for the transcript, the Clerk will schedule a court reporter for the Conference.

III. **Final Review Conference and Decision**

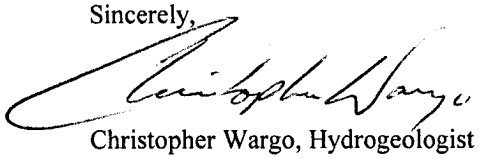
1. The order of presentation in the Conference will, subject to the presiding officer's discretion, be as follows:
   - Department staff will provide an overview of the staff decision and the applicable law to include [10 minutes]:
     - Type of decision (permit, enforcement, etc.) and description of the program.
     - Parties
     - Description of facility/site
     - Applicable statutes and regulations
     - Decision and materials relied upon in the administrative record to support the staff decision.
   - Requestor(s) will state the reasons for protesting the staff decision and may provide evidence to support amending, modifying, or rescinding the staff decision. [15 minutes] *NOTE: The burden of proof is on the Requestor(s)*
   - Rebuttal by Department staff[15 minutes]
   - Rebuttal by Requestor(s)[10 minutes]

     Note: Times noted in brackets are for information only and are superseded by times stated in the Notice of Final Review Conference or by the presiding officer.
2. Parties may present evidence during the conference; however, the rules of evidence do not apply.
3. At any time during the conference, the officers conducting the conference may request additional information and may question the Requestor, the staff, and anyone else providing information at the conference.
4. The presiding officer, in his or her sole discretion, may allow additional time for presentations and may impose time limits on the Conference.
5. All Conferences are open to the public.
6. The officers may deliberate in closed session.
7. The officers may announce the decision at conclusion of the Conference or it may be reserved for consideration.
8. The Clerk will mail the written final agency decision (FAD) to parties within 30 days after the Conference. The written decision must explain the basis for the decision and inform the parties of their right to request a contested case hearing before the Administrative Law Court. The FAD will be sent by certified mail, return receipt requested.
9. Communications may also be sent by electronic mail, in addition to the forms stated herein, when electronic mail addresses are provided to the Clerk.

The above information is provided as a courtesy; parties are responsible for complying with all applicable legal requirements.

Please submit all of the well logs for the installed wells to schedule a well inspection. An inspection of the UIC System must be conducted prior to issuance of the Permit to Operate. If you have any questions, please call Christopher Wargo at (803) 898-3799.

Sincerely,



Christopher Wargo, Hydrogeologist
Groundwater Protection Section
Bureau of Water

cc: John Bryant, SCDHEC-BLWM-UST

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

WATER MONITORING ASSESSMENT & PROTECTION DIVISION

Injection Well Construction Permit
for
Class II, III, and V.A. Injection Well(s)

Permit #SCHE03020184M

Date Issued: April 11, 2014
Date Expired: April 11, 2015

For (Operator): Crawford Environmental Services, Inc.

In accordance with R.61-72 this permit will become final unless it is appealed within fifteen (15) days of the issuance date.

In accordance with provisions of Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended, permission is granted for construction of six (6) Class VA-I injection wells with a true diameter of four (4) inches, and a total depth of approximately thirty-five (35) feet located at Cloud's Chevron/Handy Panty #65/University Mart, Richland County, SC with the following provisions:

1) The operator shall submit completed SCDHEC well record forms to the Departments Water Monitoring, Assessment & Protection Division after completion of the injection wells.

2) Upon completion of construction, injection activities shall not commence prior to receiving approval from the Department to operate the injection wells.

3) When the injection wells are no longer in use, or upon request by the Department, within sixty (60) days all injection wells must be permanently abandoned in accordance with the South Carolina Well Standards and Regulations (R.61-71).

Charles Gorman, Director
Groundwater Protection Section
Bureau of Water

STATEMENT OF BASIS - UIC DRAFT PERMIT #SCHE03020184M

In accordance with the South Carolina Underground Injection Control Regulations, Section R61-87.13(J), this Statement of Basis has been prepared for the Cloud's Chevron/Handy Panty #65/University Mart Site Underground Injection Control permit application received March 27, 2014.

Ownership of the proposed injection wells is Crawford Environmental Services, Inc., 15 Church Ave, SW, Roanoke, VA 24011. The permit (UIC SCHE03020184M) is for the construction of six (6) injection wells for a corrective action system at the Cloud's Chevron/Handy Panty #65/University Mart Site. The intent of the injection wells is to inject surfactant,hydrogen peroxide, PetroBac and NutriMax into the subsurface to remediate contaminated groundwater as described in the cleanup plan dated March 20, 2014. The final permit for the underground injection proposal has been prepared based on staff review and the application of the Pollution Control Act of South Carolina and the Underground Injection Control Regulations of South Carolina.

Conditions of the permit issuance include the submittal of well records for all injection wells installed and the inspection of well construction by the Department prior to injection.

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

April 11, 2014

(BOW-GWPROT-CAW)
Mr. Charles F. Crawford
Crawford Environmental Services, Inc.
15 Chruch Ave., SW
Roanoke, VA 24011

Re: Underground Injection Control Permit #SCHE03020184
Cloud's Chevron/Handy Panty #65/ University Mart Site
Richland County

Dear Mr. Crawford:

Enclosed is a Permit to Operate fifty-eight (58) Class VA-I (Aquifer Remediation) injection wells at the Cloud's Chevron/Handy Panty #65/ University Mart Site, Richland County, SC.

South Carolina Board of Health and Environmental Control
Guide to Board Review
Pursuant to S.C. Code Ann. § 44-1-60
Effective April 1, 2013

The decision of the South Carolina Department of Health and Environmental Control (Department) becomes the final agency decision fifteen (15) calendar days after notice of the decision has been mailed to the applicant, permittee, licensee and affected persons who have requested in writing to be notified, unless a written request for final review accompanied by a filing fee in the amount of $100 is filed with Department by the applicant, permittee, licensee or affected person.

Applicants, permittees, licensees, and affected parties are encouraged to engage in mediation during the final review process.

If the Board declines in writing to schedule a final review conference, the Department's decision becomes the final agency decision and an applicant, permittee, licensee, or affected person may request a contested case hearing before the Administrative Law Court within thirty (30) calendar days after notice is mailed that the Board declined to hold a final review conference.

I. **Filing of Request for Final Review**

1. A written Request for Final Review (RFR)and the required filing fee of one hundred dollars ($100) must be received by Clerk of the Board within fifteen (15)calendar days after notice of the staff decision has been mailed to the applicant, permittee, licensee, or affected persons. If the 15th day occurs on a weekend or State holiday, the RFR must be received by the Clerk on the next working day. RFRs will not be accepted after5:00 p.m.

2. RFRs shall be in writing and should include, at a minimum, the following information:

   - The grounds for amending, modifying, or rescinding the staff decision;
   - a statement of any significant issues or factors the Board should consider in deciding how to handle the matter;
   - the relief requested; and
   - a copy of the decision for which review is requested.

3. RFRs should be filed in person or by mail at the following address:

South Carolina Board of Health and Environmental Control

Attention: Clerk of the Board

2600 Bull Street

Columbia, South Carolina 29201

Alternatively, RFR's may be filed with the Clerk by facsimile (803-898-3393) or by electronic mail (boardclerk@dhec.sc.gov).

4. The filing fee maybe paid by cash, certified check or credit card. If a RFR is filed by facsimile or electronic mail, the filing fee may be mailed to the Clerk of the Board and the envelope must be postmarked within the time allowed for filing a RFR.

5. If there is any perceived discrepancy in compliance with this RFR filing procedure, the Clerk should consult with the Chairman or, if the Chairman is unavailable, the Vice-Chairman. The Chairman or the Vice-Chairman will determine whether the RFR is timely and properly filed and direct the Clerk to (1) process the RFR for consideration by the Board or (2) return the RFR and filing fee to the requestor with a cover letter explaining why the RFR was not timely or properly filed. Processing an RFR for consideration by the Board shall not be interpreted as a waiver of any claim or defense by the agency in subsequent proceedings concerning the RFR.

6. If the RFR will be processed for Board consideration, the Clerk will send an Acknowledgement of RFR to the Requestor and the applicant, permittee, or licensee, if other than the Requestor.

7. The Clerk will email the RFR to all Board members for review, and all Board members will confirm receipt of the RFR to the Clerk by email. If a Board member does not confirm receipt of the RFR within twenty-four (24) hour period, the Clerk will contact the Board member and confirm receipt. If a Board member believes the RFR should be considered by the RFR Committee, he or she will respond to the Clerk's email within forty-eight (48) hours and will request further review. If no Board member requests further review of the RFR within the forty-eight (48) hour period, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, stating the Board will not hold a Final Review Conference. A copy of the Notice of Appeal Procedure will be included with the letter.

NOTE: If the time periods described above end on a weekend or State holiday, the time is automatically extended to 5:00 p.m. on the next business day.

8. If the RFR is to be considered by the RFR Committee, the Clerk will forward a copy of the RFR to Department staff and Office of General Counsel. A Department response to the RFR should be provided by Department staff to the Clerk within eight (8) working days after the RFR is forwarded.

II. Final Review Conference Scheduling

1. If a Conference will be held, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, informing the Requestor of the determination.

2. The Clerk will request Department staff provide the Administrative Record.

3. The Clerk will send Notice of Final Review Conference to the parties at least ten (10) days before the Conference. The Conference will be publicly noticed and should:

   - include the place, date and time of the Conference;
   - state the presentation times allowed in the Conference;
   - state evidence may be presented at the Conference;
   - if the conference will be held by committee, include a copy of the Chairman's order appointing the committee; and
   - inform the Requestor of his or her right to request a transcript of the proceedings of the Conference prepared at Requestor's expense.

4. If a party requests a transcript of the proceedings of the Conference and agrees to pay all related costs in writing, including costs for the transcript, the Clerk will schedule a court reporter for the Conference.

III. **Final Review Conference and Decision**

1. The order of presentation in the Conference will, subject to the presiding officer's discretion, be as follows:

   - Department staff will provide an overview of the staff decision and the applicable law to include [10 minutes]:
     - Type of decision (permit, enforcement, etc.) and description of the program.
     - Parties
     - Description of facility/site
     - Applicable statutes and regulations
     - Decision and materials relied upon in the administrative record to support the staff decision.
   - Requestor(s) will state the reasons for protesting the staff decision and may provide evidence to support amending, modifying, or rescinding the staff decision. [15 minutes] *NOTE: The burden of proof is on the Requestor(s)*
   - Rebuttal by Department staff[15 minutes]
   - Rebuttal by Requestor(s)[10 minutes]

   Note: Times noted in brackets are for information only and are superseded by times stated in the Notice of Final Review Conference or by the presiding officer.

2. Parties may present evidence during the conference; however, the rules of evidence do not apply.
3. At any time during the conference, the officers conducting the conference may request additional information and may question the Requestor, the staff, and anyone else providing information at the conference.
4. The presiding officer, in his or her sole discretion, may allow additional time for presentations and may impose time limits on the Conference.
5. All Conferences are open to the public.
6. The officers may deliberate in closed session.
7. The officers may announce the decision at conclusion of the Conference or it may be reserved for consideration.
8. The Clerk will mail the written final agency decision (FAD) to parties within 30 days after the Conference. The written decision must explain the basis for the decision and inform the parties of their right to request a contested case hearing before the Administrative Law Court. The FAD will be sent by certified mail, return receipt requested.
9. Communications may also be sent by electronic mail, in addition to the forms stated herein, when electronic mail addresses are provided to the Clerk.

The above information is provided as a courtesy; parties are responsible for complying with all applicable legal requirements.

If you have any questions, please call Christopher Wargo at (803) 898-3799.

Sincerely,

Christopher Wargo, Hydrogeologist
Groundwater Protection Section
Bureau of Water

cc: John Bryant, SCHEC-BLWM-USTP

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

WATER MONITORING ASSESSMENT & PROTECTION DIVISION

Injection Well Operating Approval

for

Class II, III, and V.A. Injection Well(s)

Permit #SCHE03020184 Date of Issue: April 11, 2014

In accordance with R.61-72 this permit will become final unless it is appealed within fifteen (15) days of the issuance date.

In accordance with the provisions of Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended, and pursuant to receiving a Permit to Operate fifty-eight (58) Class VA-I (Aquifer Remediation) injection wells, authorization is granted to Crawford Environmental Services, Inc. to operate fifty-eight (58) Class VA-I (Aquifer Remediation) injection wells located at the Cloud's Chevron/Handy Panty #65/ University Mart Site, Richland County, SC, and are subject to the attached provisos noted for the operator.

The Class VA-I injection wells are one (1) inches in diameter and approximately thirty-five to forty-five (35-45) feet deep

Pursuant to Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended, this authorization may be rescinded if these injection wells should, at any time, contaminate, pollute, or otherwise adversely affect other water in the vicinity or for any other conditions contained in R61-87, Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended.

Expires: April 11, 2019

Charles Gorman, Director
Groundwater Protection Section
Bureau of Water

Date April 11, 2014

Provisions to the Injection Well Operating Approval
for
Underground Injection Well Permit #SCHE03020184
Cloud's Chevron/Handy Panty #65/ University Mart
Richland County, S.C.
April 11, 2014

1) Construction of new or abandonment of existing wells must be reported to the Department within thirty (30) days of completion.

2) Only ambient air, hydrogen peroxide, PetroBac (microbes) and NutriMax (nutrient mix) as described in the corrective action plan may be injected into the subsurface at the fifty-eight (58) Class VA-I (Aquifer Remediation) injection wells. Any changes in the system operation other than as presented in the UIC Permit Application must be reported to the Department prior to implementation.

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

APR 18 2014

CRAWFORD ENVIONMENTAL SERVICES
MR CHARLES F. CRAWFORD, III
15 CHURCH AVENUE SW
ROANOKE, VA 24011

UST DOCKETING 07584-246 tech

07777-180 tech

12352-115 tech

Re: **Corrective Action Award**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release #1 reported January 30, 1991; CA#47811
Release #2 reported April 17, 1998; CA#47812
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991; CA#47813
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991; CA#47814
Contract #IFB-5400007095-1/30/2014-EMW; PO # 4600322226
Richland County

Dear Mr. Crawford:

As you are aware, the Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control has determined that active corrective action is necessary at the referenced facility. On January 7, 2014, you were awarded the corrective action contract in the amount of $540,000.00, which will be funded by the State Underground Petroleum Environmental Response Bank (SUPERB) Account. Per contract requirements, the Quality Assurance Project Plan (QAPP) for the Initial Monitoring Report must be submitted within 15 days of the award date (Received March 21, 2014), the corrective action plan with a QAPP Addendum for corrective action must be submitted within 30 days of the award date (Received March 24, 2014), and the Initial Monitoring Report must be submitted within 45 days of the QAPP Addendum approval date (on or before May 25, 2014). A signed copy of the Right-of-Entry and the approved QAPP addendum for the referenced facility is enclosed. Please coordinate with each landowner for access and keep any inconveniences to the affected landowners to a minimum. Please also note that in accordance with contract specifications, copies of all plans and reports should be sent to all affected property owners listed in the bid solicitation appendix.

If you have any questions or need additional information, please contact me at (803) 898-0606 or bryantjc@dhec.sc.gov.

Sincerely,

John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: Cost Agreements
Signed QAPP Addendum

CRAWFORD ENVIRONMENTAL SERVICES

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum (Corrective Action Plan) to the SC DHEC UST Programmatic QAPP
For
Handy Pantry #65 / University Mart & Cloud's Chevron
UST Permit #: 07584, 07777 and 12352

1600 Two Notch Road, Columbia, SC

Prepared by:

Charles F. Crawford, III
Crawford Environmental Services
15 Church Ave., SW
Roanoke, VA 24015
SCDHEC Site Rehabilitation Contractor Certification Number: UCC-0388

Approvals

Susan Fulmer SC DHEC Project Manager	Signature	Date	3/24/14
Charles F. Crawford, III Site Rehabilitation Contractor	Signature	Date	03.21.14
Daniel J. Fisher Project Verifier	Signature	Date	03.21.14
Ashley Amick Laboratory Director Access Analytical Inc.	Signature	Date	03.21.14
Mehmet Yildrim Laboratory Director Analytical Environmental Services Inc.,	Signature	Date	03.21.14

Approved Cost Agreement 47814

Facility: 12352 CLOUDS CHEVRON
FULMERSB
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
22 CORRECTIVE ACTION						
	FP DISSO FREE PRODUCT DISSOLVE	1E	CAM/TI AND/OR OPERATIONAL	1.0000	540,000.00	54,000.00
		2E	FREE PRODUCT REMOVAL	1.0000	540,000.00	13,500.00
		3E	60% REDUCTION COC - REMOVAL FP	1.0000	540,000.00	13,500.00
		4E	90% REDUCTION OF COC	1.0000	540,000.00	5,400.00
		5E	100% REDUCTION OF COC	1.0000	540,000.00	5,400.00
		6E	100% RED IN COC/SYSTEM REMOVAL	1.0000	540,000.00	43,200.00
				Total Amount		135,000.00

Approved Cost Agreement 47813

Facility: 07777 CLOUDS CHEVRON

FULMERSB

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
22 CORRECTIVE ACTION						
	FP DISSO FREE PRODUCT DISSOLVE	1E	CAM/TI AND/OR OPERATIONAL	1.0000	540,000.00	54,000.00
		2E	FREE PRODUCT REMOVAL	1.0000	540,000.00	13,500.00
		3E	60% REDUCTION COC - REMOVAL FP	1.0000	540,000.00	13,500.00
		4E	90% REDUCTION OF COC	1.0000	540,000.00	5,400.00
		5E	100% REDUCTION OF COC	1.0000	540,000.00	5,400.00
		6E	100% RED IN COC/SYSTEM REMOVAL	1.0000	540,000.00	43,200.00
				Total Amount		135,000.00

Approved Cost Agreement 47811

Facility: 07584 UNIVERSITY MART

FULMERSB

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
22 CORRECTIVE ACTION						
	FP DISSO FREE PRODUCT DISSOLVE	1E	CAM/TI AND/OR OPERATIONAL	1.0000	540,000.00	54,000.00
		2E	FREE PRODUCT REMOVAL	1.0000	540,000.00	13,500.00
		3E	60% REDUCTION COC - REMOVAL FP	1.0000	540,000.00	13,500.00
		4E	90% REDUCTION OF COC	1.0000	540,000.00	5,400.00
		5E	100% REDUCTION OF COC	1.0000	540,000.00	5,400.00
		6E	100% RED IN COC/SYSTEM REMOVAL	1.0000	540,000.00	43,200.00
				Total Amount		135,000.00

Approved Cost Agreement 47812

Facility: 07584 UNIVERSITY MART
FULMERSB
PO Number:

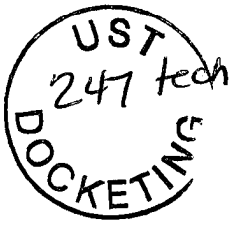
Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
22 CORRECTIVE ACTION						
	FP DISSO FREE PRODUCT DISSOLVE	1E	CAM/TI AND/OR OPERATIONAL	1.0000	540,000.00	54,000.00
		2E	FREE PRODUCT REMOVAL	1.0000	540,000.00	13,500.00
		3E	60% REDUCTION COC - REMOVAL FP	1.0000	540,000.00	13,500.00
		4E	90% REDUCTION OF COC	1.0000	540,000.00	5,400.00
		5E	100% REDUCTION OF COC	1.0000	540,000.00	5,400.00
		6E	100% RED IN COC/SYSTEM REMOVAL	1.0000	540,000.00	43,200.00
				Total Amount		135,000.00

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment



CRAWFORD ENVIONMENTAL SERVICES
MR CHARLES F. CRAWFORD, III
15 CHURCH AVENUE SW
ROANOKE, VA 24011

APR 30 2014

Re: **Notice to Proceed**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release #1 reported January 30, 1991; CA#47811
Release #2 reported April 17, 1998; CA#47812
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991; CA#47813
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991; CA#47814
Contract #IFB-5400007095-1/30/2014-EMW; PO # 4600322226
Corrective Action Plan received March 24, 2014
Public Notice Completed April 30, 2014
Richland County

Dear Mr. Charles Crawford:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the referenced documents. As required by Section 280.67 of the South Carolina Underground Storage Tank Regulations R.61-92, the UST Management Division has provided a public notice period including notice of the pending corrective actions to the surrounding landowners. No objections to the proposed actions were expressed; therefore, the Corrective Action Plan (CAP) is approved. All work must be completed in accordance with the referenced bid specifications. The UST Management Division recognizes that modifications to the CAP are usually necessary as site conditions change during implementation. If changes to the CAP are later deemed necessary to achieve the Site-Specific Target Levels in a timely manner, please notify the UST Management Division. Any changes or modifications to the CAP will not result in a change order. The required Underground Injection Control Permit is enclosed.

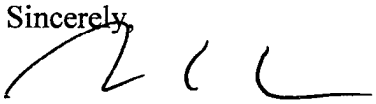
As stated in Section 3.5 B 5, the Corrective Action Plan is to be implemented within 30 days from receipt of this letter. As stated in Section 3.4 B 3, the Site Incentive Period will commence on the Corrective Action System Startup Date. As stated in Section 3.5 B 8, monitoring reports are to be submitted on a semi-annual basis. The first Corrective Action Status (CASE) Report will be due 90 days from the date of the CAP Implementation Report. **The details of the system installation, including injection well logs, should be documented in the CAP Implementation Report, due 60 days from this letter.**

The Agency grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. There can be no spillage or leakage in transport. All investigation-derived waste (IDW) must be properly contained and labeled prior to disposal. **IDW should not be stored on-site longer than ninety (90) days.** A copy of the disposal manifest and/or acceptance letter from the receiving facility that clearly designates the quantity received must be included as an appendix to the report. If the chemicals of concern (COC) concentrations, based on laboratory analysis, are below Risk Based Screening Levels (RBSLs), please contact the project manager for approval to dispose of soil and/or groundwater on site. The State Underground Petroleum Environmental Response Bank (SUPERB) Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

All future invoices and/or other rehabilitation activities must comply with current SUPERB criteria per Section 44-2-20(2) and the referenced bid special conditions. Please reference Cost Agreement #'s 47811, 47812, 47813 and 47814 on all pay-for-performance invoices. The first pay-for-performance invoice in the amount of $216,000 (40%) may be submitted (on the invoice form available online at http://www.scdhec.gov/environment/admin/htm/EQC_forms.asp#Land) once the Underground Injection Control Permit to Operate has been issued and the treatment system has been placed into operation.

On all correspondence regarding this site, please reference UST Permit #'s 07777, 07584 and 12352. On the invoices, please reference the UST Permit Numbers and Cost Agreement Numbers. If you have questions concerning this correspondence, feel free to contact me by telephone at (803) 898-0606, by fax at (803) 898-0673, or bryantjc@dhec.sc.gov.

Sincerely,



John C. Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

enc: UIC Permit

cc: Technical File (w/enc)

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

April 11, 2014

(BOW-GWPROT-CAW)
Mr. Charles F. Crawford
Crawford Environmental Services, Inc.
15 Church Ave, SW
Roanoke, VA 24011

Re: Underground Injection Control Permit #SCHE03020184M
Cloud's Chevron/Handy Panty #65/University Mart Site
Richland County

Dear Mr. Crawford:

Enclosed is a Permit to Construct for six (6) Class VA-I injection wells at the Cloud's Chevron/Handy Panty #65/University Mart Site, Richland County as requested in the permit application received March 27, 2014.

South Carolina Board of Health and Environmental Control
Guide to Board Review
Pursuant to S.C. Code Ann. § 44-1-60
Effective April 1, 2013

The decision of the South Carolina Department of Health and Environmental Control (Department) becomes the final agency decision fifteen (15) calendar days after notice of the decision has been mailed to the applicant, permittee, licensee and affected persons who have requested in writing to be notified, unless a written request for final review accompanied by a filing fee in the amount of $100 is filed with Department by the applicant, permittee, licensee or affected person.

Applicants, permittees, licensees, and affected parties are encouraged to engage in mediation during the final review process.

If the Board declines in writing to schedule a final review conference, the Department's decision becomes the final agency decision and an applicant, permittee, licensee, or affected person may request a contested case hearing before the Administrative Law Court within thirty (30) calendar days after notice is mailed that the Board declined to hold a final review conference.

I. Filing of Request for Final Review

1. A written Request for Final Review (RFR)and the required filing fee of one hundred dollars ($100) must be received by Clerk of the Board within fifteen (15)calendar days after notice of the staff decision has been mailed to the applicant, permittee, licensee, or affected persons. If the 15th day occurs on a weekend or State holiday, the RFR must be received by the Clerk on the next working day. RFRs will not be accepted after5:00 p.m.

2. RFRs shall be in writing and should include, at a minimum, the following information:

    - The grounds for amending, modifying, or rescinding the staff decision;
    - a statement of any significant issues or factors the Board should consider in deciding how to handle the matter;
    - the relief requested; and
    - a copy of the decision for which review is requested.

3. RFRs should be filed in person or by mail at the following address:

South Carolina Board of Health and Environmental Control

Attention: Clerk of the Board

2600 Bull Street

Columbia, South Carolina 29201

Alternatively, RFR's may be filed with the Clerk by facsimile (803-898-3393) or by electronic mail (boardclerk@dhec.sc.gov).

4. The filing fee maybe paid by cash, certified check or credit card. If a RFR is filed by facsimile or electronic mail, the filing fee may be mailed to the Clerk of the Board and the envelope must be postmarked within the time allowed for filing a RFR.

5. If there is any perceived discrepancy in compliance with this RFR filing procedure, the Clerk should consult with the Chairman or, if the Chairman is unavailable, the Vice-Chairman. The Chairman or the Vice-Chairman will determine whether the RFR is timely and properly filed and direct the Clerk to (1) process the RFR for consideration by the Board or (2) return the RFR and filing fee to the requestor with a cover letter explaining why the RFR was not timely or properly filed. Processing an RFR for consideration by the Board shall not be interpreted as a waiver of any claim or defense by the agency in subsequent proceedings concerning the RFR.

6. If the RFR will be processed for Board consideration, the Clerk will send an Acknowledgement of RFR to the Requestor and the applicant, permittee, or licensee, if other than the Requestor.

7. The Clerk will email the RFR to all Board members for review, and all Board members will confirm receipt of the RFR to the Clerk by email. If a Board member does not confirm receipt of the RFR within twenty-four (24) hour period, the Clerk will contact the Board member and confirm receipt. If a Board member believes the RFR should be considered by the RFR Committee, he or she will respond to the Clerk's email within forty-eight (48) hours and will request further review. If no Board member requests further review of the RFR within the forty-eight (48) hour period, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, stating the Board will not hold a Final Review Conference. A copy of the Notice of Appeal Procedure will be included with the letter.

NOTE: If the time periods described above end on a weekend or State holiday, the time is automatically extended to 5:00 p.m. on the next business day.

8. If the RFR is to be considered by the RFR Committee, the Clerk will forward a copy of the RFR to Department staff and Office of General Counsel. A Department response to the RFR should be provided by Department staff to the Clerk within eight (8) working days after the RFR is forwarded.

II. Final Review Conference Scheduling

1. If a Conference will be held, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, informing the Requestor of the determination.

2. The Clerk will request Department staff provide the Administrative Record.

3. The Clerk will send Notice of Final Review Conference to the parties at least ten (10) days before the Conference. The Conference will be publicly noticed and should:

   - include the place, date and time of the Conference;
   - state the presentation times allowed in the Conference;
   - state evidence may be presented at the Conference;
   - if the conference will be held by committee, include a copy of the Chairman's order appointing the committee; and
   - inform the Requestor of his or her right to request a transcript of the proceedings of the Conference prepared at Requestor's expense.

4. If a party requests a transcript of the proceedings of the Conference and agrees to pay all related costs in writing, including costs for the transcript, the Clerk will schedule a court reporter for the Conference.

III. **Final Review Conference and Decision**

1. The order of presentation in the Conference will, subject to the presiding officer's discretion, be as follows:

   - Department staff will provide an overview of the staff decision and the applicable law to include [10 minutes]:
     - Type of decision (permit, enforcement, etc.) and description of the program.
     - Parties
     - Description of facility/site
     - Applicable statutes and regulations
     - Decision and materials relied upon in the administrative record to support the staff decision.
   - Requestor(s) will state the reasons for protesting the staff decision and may provide evidence to support amending, modifying, or rescinding the staff decision. [15 minutes] *NOTE: The burden of proof is on the Requestor(s)*
   - Rebuttal by Department staff[15 minutes]
   - Rebuttal by Requestor(s)[10 minutes]

   Note: Times noted in brackets are for information only and are superseded by times stated in the Notice of Final Review Conference or by the presiding officer.

2. Parties may present evidence during the conference; however, the rules of evidence do not apply.
3. At any time during the conference, the officers conducting the conference may request additional information and may question the Requestor, the staff, and anyone else providing information at the conference.
4. The presiding officer, in his or her sole discretion, may allow additional time for presentations and may impose time limits on the Conference.
5. All Conferences are open to the public.
6. The officers may deliberate in closed session.
7. The officers may announce the decision at conclusion of the Conference or it may be reserved for consideration.
8. The Clerk will mail the written final agency decision (FAD) to parties within 30 days after the Conference. The written decision must explain the basis for the decision and inform the parties of their right to request a contested case hearing before the Administrative Law Court. The FAD will be sent by certified mail, return receipt requested.
9. Communications may also be sent by electronic mail, in addition to the forms stated herein, when electronic mail addresses are provided to the Clerk.

The above information is provided as a courtesy; parties are responsible for complying with all applicable legal requirements.

Please submit all of the well logs for the installed wells to schedule a well inspection. An inspection of the UIC System must be conducted prior to issuance of the Permit to Operate. If you have any questions, please call Christopher Wargo at (803) 898-3799.

Sincerely,

Christopher Wargo, Hydrogeologist
Groundwater Protection Section
Bureau of Water

cc: John Bryant, SCDHEC-BLWM-UST

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

WATER MONITORING ASSESSMENT & PROTECTION DIVISION

Injection Well Construction Permit
for
Class II, III, and V.A. Injection Well(s)

Permit #SCHE03020184M

Date Issued: April 11, 2014
Date Expired: April 11, 2015

For (Operator): Crawford Environmental Services, Inc.

In accordance with R.61-72 this permit will become final unless it is appealed within fifteen (15) days of the issuance date.

In accordance with provisions of Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended, permission is granted for construction of six (6) Class VA-I injection wells with a true diameter of four (4) inches, and a total depth of approximately thirty-five (35) feet located at Cloud's Chevron/Handy Panty #65/University Mart, Richland County, SC with the following provisions:

1) The operator shall submit completed SCDHEC well record forms to the Departments Water Monitoring, Assessment & Protection Division after completion of the injection wells.

2) Upon completion of construction, injection activities shall not commence prior to receiving approval from the Department to operate the injection wells.

3) When the injection wells are no longer in use, or upon request by the Department, within sixty (60) days all injection wells must be permanently abandoned in accordance with the South Carolina Well Standards and Regulations (R.61-71).

Charles Gorman, Director
Groundwater Protection Section
Bureau of Water

STATEMENT OF BASIS - UIC DRAFT PERMIT #SCHE03020184M

In accordance with the South Carolina Underground Injection Control Regulations, Section R61-87.13(J), this Statement of Basis has been prepared for the Cloud's Chevron/Handy Panty #65/University Mart Site Underground Injection Control permit application received March 27, 2014.

Ownership of the proposed injection wells is Crawford Environmental Services, Inc., 15 Church Ave, SW, Roanoke, VA 24011. The permit (UIC SCHE03020184M) is for the construction of six (6) injection wells for a corrective action system at the Cloud's Chevron/Handy Panty #65/University Mart Site. The intent of the injection wells is to inject surfactant,hydrogen peroxide, PetroBac and NutriMax into the subsurface to remediate contaminated groundwater as described in the cleanup plan dated March 20, 2014. The final permit for the underground injection proposal has been prepared based on staff review and the application of the Pollution Control Act of South Carolina and the Underground Injection Control Regulations of South Carolina.

Conditions of the permit issuance include the submittal of well records for all injection wells installed and the inspection of well construction by the Department prior to injection.

D H E C
PROMOTE PROTECT PROSPER
Catherine B. Templeton, Director
Promoting and protecting the health of the public and the environment

April 11, 2014

(BOW-GWPROT-CAW)
Mr. Charles F. Crawford
Crawford Environmental Services, Inc.
15 Chruch Ave., SW
Roanoke, VA 24011

Re: Underground Injection Control Permit #SCHE03020184
Cloud's Chevron/Handy Panty #65/ University Mart Site
Richland County

Dear Mr. Crawford:

Enclosed is a Permit to Operate fifty-eight (58) Class VA-I (Aquifer Remediation) injection wells at the Cloud's Chevron/Handy Panty #65/ University Mart Site, Richland County, SC.

South Carolina Board of Health and Environmental Control
Guide to Board Review
Pursuant to S.C. Code Ann. § 44-1-60
Effective April 1, 2013

The decision of the South Carolina Department of Health and Environmental Control (Department) becomes the final agency decision fifteen (15) calendar days after notice of the decision has been mailed to the applicant, permittee, licensee and affected persons who have requested in writing to be notified, unless a written request for final review accompanied by a filing fee in the amount of $100 is filed with Department by the applicant, permittee, licensee or affected person.

Applicants, permittees, licensees, and affected parties are encouraged to engage in mediation during the final review process.

If the Board declines in writing to schedule a final review conference, the Department's decision becomes the final agency decision and an applicant, permittee, licensee, or affected person may request a contested case hearing before the Administrative Law Court within thirty (30) calendar days after notice is mailed that the Board declined to hold a final review conference.

I. Filing of Request for Final Review

1. A written Request for Final Review (RFR)and the required filing fee of one hundred dollars ($100) must be received by Clerk of the Board within fifteen (15)calendar days after notice of the staff decision has been mailed to the applicant, permittee, licensee, or affected persons. If the 15th day occurs on a weekend or State holiday, the RFR must be received by the Clerk on the next working day. RFRs will not be accepted after5:00 p.m.

2. RFRs shall be in writing and should include, at a minimum, the following information:

   - The grounds for amending, modifying, or rescinding the staff decision;
   - a statement of any significant issues or factors the Board should consider in deciding how to handle the matter;
   - the relief requested; and
   - a copy of the decision for which review is requested.

3. RFRs should be filed in person or by mail at the following address:

South Carolina Board of Health and Environmental Control

Attention: Clerk of the Board

2600 Bull Street

Columbia, South Carolina 29201

Alternatively, RFR's may be filed with the Clerk by facsimile (803-898-3393) or by electronic mail (boardclerk@dhec.sc.gov).

4. The filing fee maybe paid by cash, certified check or credit card. If a RFR is filed by facsimile or electronic mail, the filing fee may be mailed to the Clerk of the Board and the envelope must be postmarked within the time allowed for filing a RFR.

5. If there is any perceived discrepancy in compliance with this RFR filing procedure, the Clerk should consult with the Chairman or, if the Chairman is unavailable, the Vice-Chairman. The Chairman or the Vice-Chairman will determine whether the RFR is timely and properly filed and direct the Clerk to (1) process the RFR for consideration by the Board or (2) return the RFR and filing fee to the requestor with a cover letter explaining why the RFR was not timely or properly filed. Processing an RFR for consideration by the Board shall not be interpreted as a waiver of any claim or defense by the agency in subsequent proceedings concerning the RFR.

6. If the RFR will be processed for Board consideration, the Clerk will send an Acknowledgement of RFR to the Requestor and the applicant, permittee, or licensee, if other than the Requestor.

7. The Clerk will email the RFR to all Board members for review, and all Board members will confirm receipt of the RFR to the Clerk by email. If a Board member does not confirm receipt of the RFR within twenty-four (24) hour period, the Clerk will contact the Board member and confirm receipt. If a Board member believes the RFR should be considered by the RFR Committee, he or she will respond to the Clerk's email within forty-eight (48) hours and will request further review. If no Board member requests further review of the RFR within the forty-eight (48) hour period, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, stating the Board will not hold a Final Review Conference. A copy of the Notice of Appeal Procedure will be included with the letter.

NOTE: If the time periods described above end on a weekend or State holiday, the time is automatically extended to 5:00 p.m. on the next business day.

8. If the RFR is to be considered by the RFR Committee, the Clerk will forward a copy of the RFR to Department staff and Office of General Counsel. A Department response to the RFR should be provided by Department staff to the Clerk within eight (8) working days after the RFR is forwarded.

II. Final Review Conference Scheduling

1. If a Conference will be held, the Clerk will send a letter by certified mail to the Requestor, with copy by regular mail to the applicant, permittee, or licensee, if not the Requestor, informing the Requestor of the determination.

2. The Clerk will request Department staff provide the Administrative Record.

3. The Clerk will send Notice of Final Review Conference to the parties at least ten (10) days before the Conference. The Conference will be publicly noticed and should:

   - include the place, date and time of the Conference;
   - state the presentation times allowed in the Conference;
   - state evidence may be presented at the Conference;
   - if the conference will be held by committee, include a copy of the Chairman's order appointing the committee; and
   - inform the Requestor of his or her right to request a transcript of the proceedings of the Conference prepared at Requestor's expense.

4. If a party requests a transcript of the proceedings of the Conference and agrees to pay all related costs in writing, including costs for the transcript, the Clerk will schedule a court reporter for the Conference.

III. **Final Review Conference and Decision**

1. The order of presentation in the Conference will, subject to the presiding officer's discretion, be as follows:

   - Department staff will provide an overview of the staff decision and the applicable law to include [10 minutes]:
     - Type of decision (permit, enforcement, etc.) and description of the program.
     - Parties
     - Description of facility/site
     - Applicable statutes and regulations
     - Decision and materials relied upon in the administrative record to support the staff decision.
   - Requestor(s) will state the reasons for protesting the staff decision and may provide evidence to support amending, modifying, or rescinding the staff decision. [15 minutes] *NOTE: The burden of proof is on the Requestor(s)*
   - Rebuttal by Department staff[15 minutes]
   - Rebuttal by Requestor(s)[10 minutes]

   Note: Times noted in brackets are for information only and are superseded by times stated in the Notice of Final Review Conference or by the presiding officer.

2. Parties may present evidence during the conference; however, the rules of evidence do not apply.

3. At any time during the conference, the officers conducting the conference may request additional information and may question the Requestor, the staff, and anyone else providing information at the conference.

4. The presiding officer, in his or her sole discretion, may allow additional time for presentations and may impose time limits on the Conference.

5. All Conferences are open to the public.

6. The officers may deliberate in closed session.

7. The officers may announce the decision at conclusion of the Conference or it may be reserved for consideration.

8. The Clerk will mail the written final agency decision (FAD) to parties within 30 days after the Conference. The written decision must explain the basis for the decision and inform the parties of their right to request a contested case hearing before the Administrative Law Court. The FAD will be sent by certified mail, return receipt requested.

9. Communications may also be sent by electronic mail, in addition to the forms stated herein, when electronic mail addresses are provided to the Clerk.

The above information is provided as a courtesy; parties are responsible for complying with all applicable legal requirements.

If you have any questions, please call Christopher Wargo at (803) 898-3799.

Sincerely,

Christopher Wargo, Hydrogeologist
Groundwater Protection Section
Bureau of Water

cc: John Bryant, SCHEC-BLWM-USTP

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

WATER MONITORING ASSESSMENT & PROTECTION DIVISION

Injection Well Operating Approval

for

Class II, III, and V.A. Injection Well(s)

Permit #SCHE03020184 Date of Issue: April 11, 2014

In accordance with R.61-72 this permit will become final unless it is appealed within fifteen (15) days of the issuance date.

In accordance with the provisions of Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended, and pursuant to receiving a Permit to Operate fifty-eight (58) Class VA-I (Aquifer Remediation) injection wells, authorization is granted to Crawford Environmental Services, Inc. to operate fifty-eight (58) Class VA-I (Aquifer Remediation) injection wells located at the Cloud's Chevron/Handy Panty #65/ University Mart Site, Richland County, SC, and are subject to the attached provisos noted for the operator.

The Class VA-I injection wells are one (1) inches in diameter and approximately thirty-five to forty-five (35-45) feet deep

Pursuant to Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended, this authorization may be rescinded if these injection wells should, at any time, contaminate, pollute, or otherwise adversely affect other water in the vicinity or for any other conditions contained in R61-87, Title 48, Chapter 1, South Carolina Code of Laws, 1976, as amended.

Expires: April 11, 2019

Charles Gorman, Director
Groundwater Protection Section
Bureau of Water

Date April 11, 2014

Provisions to the Injection Well Operating Approval
for
Underground Injection Well Permit #SCHE03020184
Cloud's Chevron/Handy Panty #65/ University Mart
Richland County, S.C.
April 11, 2014

1) Construction of new or abandonment of existing wells must be reported to the Department within thirty (30) days of completion.

2) Only ambient air, hydrogen peroxide, PetroBac (microbes) and NutriMax (nutrient mix) as described in the corrective action plan may be injected into the subsurface at the fifty-eight (58) Class VA-I (Aquifer Remediation) injection wells. Any changes in the system operation other than as presented in the UIC Permit Application must be reported to the Department prior to implementation.

CRAWFORD
ENVIRONMENTAL
SERVICES

UST
DOCKETING

May 16, 2014

Mr. John Bryant
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

UST
MAY 20 2014
DIVISION

RE: Initial Monitoring Report
Handy Pantry #65/University Mart & Cloud's Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina
UST Permit # 07584 / 07777 / 12352

Dear Mr. Bryant:

Enclosed please find one copy of the Initial Monitoring Report (IMR) report prepared by Crawford Environmental Services, Inc. (CES) for the referenced site. Should you have any questions regarding the enclosed material, or if additional information is required, please feel free to contact Charlie Crawford or myself at 540.343.6256.

Best Regards,

Daniel Fisher
Division Manager

CRAWFORD
ENVIRONMENTAL
SERVICES

Initial Monitoring Report

Handy Pantry #65/University Mart & Cloud's Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina
UST Permit # 07584 / 07777 / 12352

May 16, 2014

INITIAL MONITORING REPORT

Handy Pantry #65/University Mart & Cloud's Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina
UST Permit # 07584 / 07777 / 12352

Submitted To:

South Carolina Department of Health and Environmental Control
Underground Storage Tank Program
Bureau of Land and Waste Management
2600 Bull Street
Columbia, South Carolina 29201-1708

Submitted By:

Crawford Environmental Services
15 Church Avenue, SW
Roanoke, Virginia 24011
SCDHEC Site Rehabilitation Contractor Certification #: UCC-0388

May 16, 2014
CES Job Number: 7.0547

Daniel J. Fisher
Division Manager

B. Thomas Houghton
Professional Geologist
SC Registration No: 2343



CRAWFORD ENVIRONMENTAL SERVICES

1.0 Project Information....3
1.1 Introduction....3
1.2 Facility Information....3
1.2.1 Site Address....3
1.2.2 Owner Operator Information....3
1.2.3 Contractor Information....3
1.2.4 Laboratory Information....3
1.3 Site Description....4

2.0 Assessment Activities....4
2.1 Water Sample Collection....4
2.1.1 Groundwater Sampling....4
2.1.2 Surface Water Sampling....5
3.0 Summary....6
4.0 Limitations....6

Tables
Table 1: Groundwater Elevation Data
Table 2: Groundwater Analytical Data
Table 3: Site Specific Target Levels

Figures
Figure 1: Topographic Map
Figure 2: Site Facility Base Map
Figure 3: Concentrations of Concern Map
Figure 4: Groundwater Elevation Map

Appendices
Appendix A – Photo-Documentation
Appendix B – Purge Water Disposal Manifest
Appendix C – Field Notes
Appendix D – Laboratory Data Reports and Chain of Custodies
Appendix E – QAPP Addendum Contractor Checklist

1.0 Project Information

1.1 Introduction

Crawford Environmental Services Inc., (CES) has completed an Initial Monitoring Report (IMR) for the Handy Pantry #65/University Mart and Cloud's Chevron properties. This report describes assessment activities conducted at the site in general accordance with the scope of work as defined in the QAPP Addendum Approval – dated March 20, 2014.

1.2 Facility Information:

1.2.1 Site Address

Handy Pantry #65 / University Mart / Clouds Chevron
2367 Taylor Street
Columbia, South Carolina

1.2.2 Property Owner Information

Mr. Mahesh Patel
2367 Taylor Street
Columbia, South Carolina

Mr. Andrew Diggins
1600 Block Two Notch Road
Columbia, South Carolina

1.2.3 Contractor Information

Crawford Environmental Services
15 Church Avenue, SW
Roanoke, Virginia 24011
1 (540) 343-6256
Contractor Number: UCC-0388

1.2.4 Laboratory Information

Access Analytical, Inc. (AA)
7478 Carlisle Street
Irmo, SC 29063
1 (803) 781-4243
SC Certification: 32575001

Analytical Environmental Services Inc. (AES)
3785 Presidential Pkwy.
Atlanta, GA 30340
1 (770) 457-8177
SC Certification: 98016003

1.3 Site Description

The subject property is located in a primarily commercial area of Columbia, South Carolina (Figure 1). The subject sites, operating as Handy Pantry #65/University Mart and former Cloud's Chevron, is bordered by light commercial properties in all directions. A site plan depicting pertinent features of the subject property is provided as Figure 2. Current site conditions are depicted in the photo-documentation provided as Attachment A.

2.0 Assessment Activities

2.1 Water Sample Collection

A comprehensive groundwater sampling event, including; recording equilibrated static water levels, product thicknesses, and the collection of chemical samples was completed by CES personnel on April 1, 2, and 3, 2014. CES personnel utilized an electronic water level indicator for water level measurements and an oil/water interface probe for free phase product measurements. Groundwater samples were collected from the shallow wells utilizing disposable polyethylene bailers. Groundwater elevation data is presented in Table 1.

Shallow monitoring wells were purged three to five well volumes, via pump or bailer or till dry before sampling. Bailers were lowered slowly to the top of the water column (after purging in some cases) allowed to fill one volume, then removed. Disposal Manifest for the purge water generated during the sampling event are included as Appendix B.

After collection, groundwater was transferred to the appropriate sampling containers and was then placed in coolers, maintaining 4°C, and delivered to AA. AA then transferred the samples to AES via FEDEX for laboratory analysis. Temperature, pH, specific conductance and dissolved oxygen readings were recorded during sampling. Groundwater chemical samples were submitted to Access Analytical, Inc., (AA) {SC Certification: 98016} for analysis.

2.1.1 Groundwater Sampling

Equilibrated static water levels and free-product thicknesses were recorded for monitoring MW-2, MW-3, MW-4, MW-6, MW-7, MW-8, MW-9, MW-10, MW-11, MW-12, MW-13, MW-15, MW-16, MW-17, MW-18, MW-19, MW-20, MW-22, MW-23, MW-25, MW-26, MW-27, MW-28, MW-29, MW-30, MW-31, MW-32, MW-33, MW-34, MW-35, MW-36, MW-37, MW-38, MW-39, MW-40, MW-41, MW-42, MW-43, MW-44, MW-45, MW-46, MW-48, MW-51, MW-53, MW-54, MW-55, MW-56, MW-59, MW-62, MW-63, MW-67, MW-70, MW-5AR, PW-1R,

DW-1, DW-2, DW-3, DW-4, DW-5, DW-6, DW-7, AND DW-9 by CES personnel on April 1, 2, and 3, 2014.

Groundwater samples were unable to be collected from MW-1 and MW-5 due to an insufficient water column.

Groundwater samples were unable to be collected from MW-15 due to the presence of approximately 0.60-feet of free-phase petroleum.

Monitoring wells MW-49, MW-50, MW-58, MW-60, MW-65, and DW-5 were unable to be sampled due to being inaccessible, paved over, or abandoned.

Field notes from the sampling event are included as Appendix C.

Groundwater Samples were submitted for the following chemical analyses; Benzene, Toluene, Ethylbenzene, Xylenes (BTEX), Methy tert-butyl ether (MTBE), tert-Amyl Alcohol (TAA), tert-Amyl methyl ether (TAA), and tert-Butyl Alcohol (TBA) via standard method 8260. Laboratory Reports and Chain of Custody Documentation is included as Appendix D.

2.1.2 Surface Water Sampling

As part of IMR activities, CES collected a surface water sample from location SW-1 on April 2, 2014.

Table 2 presents the laboratory data for the submitted groundwater samples collected as part of this assessment. The Concentrations of Concern Map is included as Figure 3. A Groundwater Elevation Map is included as Figure 4.

3.0 Summary

During the assessment activities performed at the subject property, CES conducted a comprehensive groundwater monitoring event. The qualitative and quantitative data collected from recent assessment activities indicates the following regarding current site conditions;

1. Shallow groundwater flow at the above referenced facility was mapped with a southwestern component as inferred from the relative groundwater elevations and calculated gradients on April 1, and 2, 2014.

2. Free phase petroleum was observed in MW-15 (0.60-feet) during the April 2014 sampling event.

3. Groundwater samples collected from MW-2, MW-3, MW-9, MW-10, MW-12, MW-17, MW-18, MW-19, MW-20, MW-22, MW-23, MW-25, MW-31, MW-33, MW-35, MW-37, MW-54, MW-5AR, PW-1R, and DW-3 exhibited concentrations in excess of the Site Specific Target Levels (SSTLs). The following SSTL monitoring wells were unable to be sampled; MW-5 (Dry), MW-15 (Free Product), MW-58 (Abandoned) and MW-65 (Unable to Locate)

4. The current concentration reduction value has been calculated to be 53.29%.

5. The surface water sample collected from SW-1 exceeded the Site Specific Target Levels.

4.0 Limitations

This report is based upon a specific scope of work requested by SCDHEC. This report is intended only for the use of CES's client and anyone else specifically listed on this report. Some data contained within this report was previously collected by other consultants and is assumed to be correct. CES will not and cannot be liable for the unauthorized release by any third party. Other than as contained in this paragraph, CES makes no expressed or implied warranty as to the contents of this report.

APPENDIX A

Photo-Documentation

Initial Monitoring Report Photographic Documentation
Handy Pantry #65 / University Mart & Clouds Chevron
2367 Taylor Street
Columbia, South Carolina 29209
Page 1



Clouds Chevron # 1

View of Remedial Shed #1.



Clouds Chevron # 2

View of Remedial Shed #3.



Clouds Chevron # 3

View of Remedial Shed #3.



Clouds Chevron # 4

View of remedial trenching proximal to the southeast intersection of Two Notch Road and Forest Drive



Clouds Chevron # 5

View of remedial trenching proximal to Shed #3.



Clouds Chevron # 6

View of remedial trenching proximal to Lyons Street.



Clouds Chevron # 7

View of remedial trenching proximal to Shed #3.



Clouds Chevron # 8

View of remedial trenching proximal to the northwest corner of Two Notch Road and Forest Drive.



Clouds Chevron # 9

View of remedial trenching proximal to Shed #3.



Clouds Chevron # 10

View of remedial trenching at 2367 Taylor Street (University Mart).

APPENDIX B

Disposal Manifests

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
			TZS 4-8-14

GENERATOR

5. Generator's Name and Mailing Address
SCDHEC
2600 Bull St
Columbia, SC
Generator's Phone: 864-436-6322

Generator's Site Address (if different than mailing address)
Petra-Tech Environmental (Agent for SCDHEC)
2435 E. North St Suite 1108-202
Greenville, SC 29615

6. Transporter 1 Company Name
Petra-Tech Environmental, LLC
U.S. EPA ID Number

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
VLS Recovery Services, LLC
305 S. Main St
Facility's Phone: 864.462.9953 Mauldin, SC 29662
U.S. EPA ID Number
SCR000762468

9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1. Non Haz/Non Regulated well water Profile # 16374 Reeds Shore UST 16084	1	PVC Tank	55	gal	
2. Clouds Chevron Final UST 07584/07777/10852	1	PVC Tank	105	gal	
3.					
4.					

13. Special Handling Instructions and Additional Information
Z... - 6
... - 10

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.
Generator's/Offeror's Printed/Typed Name: Trevor Z Slack
Signature:
Month 4 Day 8 Year 14

INT'L

15. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Trevor Z. Slack
Signature:
Month 4 Day 8 Year 14
Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

17. Discrepancy
17a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
17b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
17c. Signature of Alternate Facility (or Generator)
Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a
Printed/Typed Name: Daniel Fay
Signature:
Month 4 Day 8 Year 14

DESIGNATED FACILITY'S COPY

APPENDIX C

Field Notes

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: Not Sampled	DATE: 4/2/14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 27	WELL SCREEN INTERVAL DEPTH: 17 feet to 27 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (27 feet) - STATIC DEPTH TO WATER (feet)) X WELL CAPACITY (gallons/foot) = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT)	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE:	SAMPLING TIME:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N	FILTER SIZE:
DUPLICATE COLLECTED: Y N		Filtration Equipment Type:	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (ml)	FINAL pH			

REMARKS: Not Sampled. Dry

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW-2	DATE: 4/2/14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH: 20 feet to 30 feet	STATIC DEPTH TO WATER (feet): 21.12	PURGE PUMP TYPE OR BAILER: —

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH 30 feet - STATIC DEPTH TO WATER) 21.12 feet) x WELL CAPACITY 0.16 gallons/foot = 1.42 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
1247	—	—	24.6	—	6.6	—	151	—	1.1	—	48	—	C/C	Strong

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trever Slack	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/2/14	SAMPLING TIME: 1247
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N)	FILTER SIZE:
DUPLICATE COLLECTED: (Y) N	Dup B@1251	Filtration Equipment Type:	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCL	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ± 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO. [redacted]	SAMPLE ID: MW-3	DATE: 4/2/14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 29	WELL SCREEN INTERVAL DEPTH: 19 feet to 29 feet	STATIC DEPTH TO WATER (feet): 21.40	PURGE PUMP TYPE OR BAILER: —

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (29 feet - 21.40 feet) X 0.16 gallons/foot = 1.22 gallons

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
1013	—	—	25.7	—	6.0	—	273	—	0.8	—	19	—	Clr	Strong

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trevor Clark	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/2/14	SAMPLING TIME: 1013
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: (Y) N	DUP @ 1015		

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCl	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW-4	DATE: 4/2/14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 28	WELL SCREEN INTERVAL DEPTH: 18 feet to 28 feet	STATIC DEPTH TO WATER (feet): 21.31	PURGE PUMP TYPE OR BAILER: —

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (28) feet - STATIC DEPTH TO WATER (21.31) feet) x WELL CAPACITY (0.16) gallons/foot = 1.07 gallons

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
1809	—	—	26.1	—	6.8	—	161	—	2.3	—	86	—	Clr	None

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trever Slack	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/2/14	SAMPLING TIME: 1809
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N)	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)		Filtration Equipment Type:	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCl	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC
WELL NO: MW-5	SAMPLE ID:
DATE: 4/2/14	

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 26	WELL SCREEN INTERVAL DEPTH: 16 feet to 26 feet	STATIC DEPTH TO WATER (feet): Dry	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (26 feet - feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP. (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT)	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE:	SAMPLING TIME:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y N			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS: Dry. Not Sampled

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: MW-6	SAMPLE ID: MW-6	DATE: 4/3/14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH: 20 feet to 30 feet	STATIC DEPTH TO WATER (feet): 22.61	PURGE PUMP TYPE OR BAILER: —

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH 30 feet − STATIC DEPTH TO WATER 22.61 feet) × WELL CAPACITY 0.16 gallons/foot = 1.18 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
0849	—	—	24.1	—	6.2	—	131	—	1.1	—	49	—	Clr	mod

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trever Slack	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/3/14	SAMPLING TIME: 0849
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N)	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)		Filtration Equipment Type:	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINER	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (ml)	FINAL pH			
	2	CG	40ml	HCl	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW-7	DATE: 4/3/14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet):	WELL SCREEN INTERVAL DEPTH:	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:
2	30	20 feet to 30 feet	23.02	—

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (feet) - STATIC DEPTH TO WATER (feet)) x WELL CAPACITY (gallons/foot) = (30 - 23.02) x 0.16 = 1.12 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
1131	—	—	23.1	—	6.3	—	104	—	1.6	—	19	—	Clr	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT)	SAMPLER(S) SIGNATURE(S)	SAMPLING DATE	SAMPLING TIME
Trever Slack	[signature]	4/3/14	1131

PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y (N)	FILTER SIZE:
—	—	Filtration Equipment Type:	

DUPLICATE COLLECTED: Y

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCl	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW-8	DATE: 4/3/14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 28	WELL SCREEN INTERVAL DEPTH: 18.5 feet to 28 feet	STATIC DEPTH TO WATER (feet): 19.95	PURGE PUMP TYPE OR BAILER: T

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH 28 feet - STATIC DEPTH TO WATER 19.95 feet) X WELL CAPACITY 0.16 gallons/foot = 1.29 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
1209	—	—	19.9	—	6.3	—	121	—	1.9	—	81	—	clr	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trever Slack	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/3/14	SAMPLING TIME: 1209
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCl	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW-9	DATE: 4-2-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH: 20 feet to 30 feet	STATIC DEPTH TO WATER (feet): 20.60	PURGE PUMP TYPE OR BAILER: —

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH 30 feet – STATIC DEPTH TO WATER 20.60 feet) X WELL CAPACITY 0.16 gallons/foot = 1.50 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
15:00	—	—	26.9	—	6.0	—	401	—	1.0	—	207	—	clear	strong

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 6" = 1.02; 8" = 1.47; 12" = 6.66

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4-2-14	SAMPLING TIME: 15:00
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (ml)	FINAL pH			
	2	CG	40ml	HCl	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW-10	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 28	WELL SCREEN INTERVAL DEPTH: 18 feet to 28 feet	STATIC DEPTH TO WATER (feet): 17.69	PURGE PUMP TYPE OR BAILER: P

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH 28 feet - STATIC DEPTH TO WATER 17.69 feet) x WELL CAPACITY 0.16 gallons/foot = 1.65 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
1428	—	—	21.2	—	7.0	—	663	—	0.7	—	209	—	cldy	strong
1442	2.0	2.0	22.4	1.8	6.9	0.2	661	2			104	105	sl cldy	↓
1502	2.0	4.0	22.7	3	6.8	0	622	39			12	92	clr	↓
1517	2.0	6.0	22.6	1	6.7	0.1	634	12			8.6	3.4	clr	↓

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Wolfe	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-1-14	SAMPLING TIME: 15:17
PUMP OR TUBING DEPTH IN WELL (feet): 22	TUBING MATERIAL CODE: PE	FIELD FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	3	CG	40ml	HCL	—	—	8260B	RFPP	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW-11	DATE: 4-2-14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH: ? feet to ? feet	STATIC DEPTH TO WATER (feet): 18.61	PURGE PUMP TYPE OR BAILER: P

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (feet) - STATIC DEPTH TO WATER (feet)) x WELL CAPACITY (gallons/foot) = (30 - 18.61) x 0.16 = 1.82 gallons

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
1430	—	—	24.6	—	6.8	—	220	—	1.1	—	41	—	clr	mild
1440	3.5	3.5	23.1	1.5	6.5	0.3	194	26			186	145	slclr	↓
1451	1.5	5.0	22.9	0.2	6.4	0.1	176	18			21	165	clr	↓
1501	2.0	7.0	22.9	0	6.4	0	171	5			9.8	11.2	clr	↓
1520	1.5	8.5	22.9	0	6.3	0.1	172	1			9.4	0.4	clr	↓

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.89

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4-2-14	SAMPLING TIME: 15:20
PUMP OR TUBING DEPTH IN WELL (feet): 24	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCL	—	—	8260B	RFPP	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW12	DATE: 4-2-14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 24.65	WELL SCREEN INTERVAL DEPTH: ? feet to ? feet	STATIC DEPTH TO WATER (feet): 4.20	PURGE PUMP TYPE OR BAILER: P

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (24.65 feet - 4.20 feet) X 0.16 gallons/foot = 3.27 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
1450	—	—	22.7	—	6.1	—	345	—	1.3	—	46	—	clr	mod
1505	3.0	3.0	22.4	0.3	6.4	0.3	301	44			62	16	clr	
1518	2.0	5.0	22.3	0.1	6.2	0.2	296	5			11	51	clr	
1528	2.5	7.5	22.5	0.2	5.9	0.3	294	2			10	1	clr	
1535	2.5	10.0	22.4	0.1	5.8	0.1	297	3			9.8	0.2	clr	
1549	3.0	13.0	22.3	0.1	5.8	0	295	2			9.5	0.3	clr	

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Carson Warlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-2-14	SAMPLING TIME: 15:49
PUMP OR TUBING DEPTH IN WELL (feet): 20.0	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCL	—	—	8260B	RFPP	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW-13	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 30.10	WELL SCREEN INTERVAL DEPTH: ? feet to ? feet	STATIC DEPTH TO WATER (feet): 11.13	PURGE PUMP TYPE OR BAILER: P

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (30.10 feet - 11.13 feet) X 0.16 gallons/foot = 3.03 gallons

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
1432	—	—	25.0	—	6.2	—	167	—	2.4	—	21	—	c/c	DROP
1448	3.5	3.5	24.0	1.0	6.0	0.2	141	26			49	28	c/c	|
1500	1.5	5.0	29.8	0.2	6.0	0	139	2			11	38	c/c	|
1510	2.5	7.5	29.9	0.1	5.9	0.1	136	3			10.5	0.5	c/c	|
1527	2.0	9.5	23.9	0	6.0	0.1	138	2			9.8	0.7	c/c	✓

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Weslick	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4-1-14	SAMPLING TIME: 1532
PUMP OR TUBING DEPTH IN WELL (feet): 20.0	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCL	—	—	8260B	RFPP	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

.GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC
WELL NO: [redacted]	SAMPLE ID:
DATE: 4/1/14	

PURGING DATA

FP - no sample DTP 16.6

WELL DIAMETER (inches):	Total Well Depth (feet): 25	WELL SCREEN INTERVAL DEPTH: 15 feet to 25 feet	STATIC DEPTH TO WATER (feet): 16.0	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (25 feet - feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 6" = 1.02; 8" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT):	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE:	SAMPLING TIME:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y N			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS: 0.60 feet Free product.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW-16	DATE: 4-2-14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 25	WELL SCREEN INTERVAL DEPTH: 15 feet to 25 feet	STATIC DEPTH TO WATER (feet): 17.54	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (25 feet - 17.54 feet) X 0.16 gallons/foot = 1.19 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
14:47	—	—	26.6	—	6.2	—	360	—	1.9	—	32	—	Clr	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4-2-14	SAMPLING TIME: 14:47
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCl	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW-17	DATE: 4/2/14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH 20 feet to 30 feet	STATIC DEPTH TO WATER (feet): 22.00	PURGE PUMP TYPE OR BAILER: —

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (30 feet - 22.00 feet) X 0.16 gallons/foot = 1.28 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
14:50	—	—	24.7	—	6.8	—	275	—	1.0	—	82	—	clr	odorless

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4-2-14	SAMPLING TIME: 14:50
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCL	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: ~~MW-18~~	SAMPLE ID: MW18	DATE: 4-2-14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH: 20 feet to 30 feet	STATIC DEPTH TO WATER (feet): 23.68	PURGE PUMP TYPE OR BAILER: —

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH 30 feet − STATIC DEPTH TO WATER 23.68 feet) X WELL CAPACITY 0.16 gallons/foot = 1.01 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
13:49	—	—	25.0	—	5.6	—	182	—	0.4	—	341	—	cldy	strong

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-2-14	SAMPLING TIME: 13:49
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCl	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: ~~MW-19~~	SAMPLE ID: MW-19	DATE: 4/3/14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH: 20 feet to 30 feet	STATIC DEPTH TO WATER (feet): 23.33	PURGE PUMP TYPE OR BAILER: —

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH 30 feet - STATIC DEPTH TO WATER 23.33 feet) X WELL CAPACITY 0.16 gallons/foot = 1.07 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
1435	—	—	23.4	—	6.3	—	194	—	0.8	—	164	—	slclybr	mod

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 6" = 1.02; 8" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trevor Sleek	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/3/14	SAMPLING TIME: 1435
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINER S	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCl	—	—	826013	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW-20	DATE: 4/3/14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 25	WELL SCREEN INTERVAL DEPTH: 15 feet to 25 feet	STATIC DEPTH TO WATER (feet): 21.95	PURGE PUMP TYPE OR BAILER: —

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH 25 feet − STATIC DEPTH TO WATER 21.95 feet) × WELL CAPACITY 0.16 gallons/foot = 0.49 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
315	—	—	23.4	—	6.1	—	136	—	0.7	—	71	—	Clr	mod

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trever Slack	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/3/14	SAMPLING TIME: 315
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: (Y) DUP2			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (ml)	FINAL pH			
	2	CG	40ml	HCl	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO. [redacted]	SAMPLE ID: MW-22	DATE: 4/3/14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH: 20 feet to 30 feet	STATIC DEPTH TO WATER (feet): 21.11	PURGE PUMP TYPE OR BAILER: —

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (feet) − STATIC DEPTH TO WATER (feet)) × WELL CAPACITY (gallons/foot) = (30 − 21.11) × 0.16 = 1.42 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
1244	—	—	24.8	—	6.6	—	241	—	1.4	—	37	—	Clr	mod

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trever Slack	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/3/14	SAMPLING TIME: 1244
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# OF CONTAINER	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCL	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW-2B	DATE: 4/3/14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH: 20 feet to 30 feet	STATIC DEPTH TO WATER (feet): 23.65	PURGE PUMP TYPE OR BAILER: —

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH 30 feet − STATIC DEPTH TO WATER 23.65 feet) × WELL CAPACITY 0.16 gallons/foot = 1.02 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (SU)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
1435	—	—	24.2	—	6.5	—	201	—	1.9	—	96	—	clr	mod

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trevor Block	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/3/14	SAMPLING TIME: 1435
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N)	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)		Filtration Equipment Type:	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCL	—	—	8260B	13	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]-25	SAMPLE ID: MW-25	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 25.6	WELL SCREEN INTERVAL DEPTH: ? feet to ? feet	STATIC DEPTH TO WATER (feet): 19.71	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (25.6 feet - 19.71 feet) X 0.16 gallons/foot = 0.94 gallons

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
9:12	—	—	18.8	—	6.6	—	491	—	1.2	—	496	—	cldy	strong

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Werlick	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4-1-14	SAMPLING TIME: 9:12
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINER S	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCL	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO. [redacted]	SAMPLE ID: MW-26	DATE: 4/3/14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 30'	WELL SCREEN INTERVAL DEPTH: ? feet to ? feet	STATIC DEPTH TO WATER (feet): 20.01	PURGE PUMP TYPE OR BAILER: —

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (30 feet) − STATIC DEPTH TO WATER (20.01 feet)) × WELL CAPACITY (0.16 gallons/foot) = 1.60 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
1155	—	—	22.9	—	7.0	—	191	—	1.2	—	296	—	clay	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 6" = 1.02; 8" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trevor Slack	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4/3/14	SAMPLING TIME: 1155
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (ml)	FINAL pH			
	2	CG	40ml	HCl	—	—	8260B	FB	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron		SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW-27		DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH: 15 feet to 30 feet	STATIC DEPTH TO WATER (feet): 14.65	PURGE PUMP TYPE OR BAILER: —

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (30 feet - 14.65 feet) X 0.16 gallons/foot = 2.46 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
0812	—	—	19.3	—	6.7	—	400	—	2.3	—	86	—	clr	none
0831	3.0	3.0	18.3	1.0	6.3	0.4	387	13			31	55	clr	
0848	2.0	5.0	18.6	0.3	6.4	0.1	386	1			9.4	21.6	clr	
0907	2.5	7.5	18.6	0	6.3	0.1	382	4			9.6	0.2	clr.	↓

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4-1-14	SAMPLING TIME: 9:08
PUMP OR TUBING DEPTH IN WELL (feet): 19.0	TUBING MATERIAL CODE: PE	FIELD-FILTERED: Y (N)	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)		Filtration Equipment Type:	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCl	—	—	8260B	RSPP	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron		SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO. [redacted]	SAMPLE ID: MW-28		DATE: 4/1/14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH: 15 feet to 30 feet	STATIC DEPTH TO WATER (feet): 15.63	PURGE PUMP TYPE OR BAILER: B

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (30 feet) - STATIC DEPTH TO WATER (15.63 feet)) x WELL CAPACITY (0.16 gallons/foot) = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
9:03	—	—	18.6	—	6.3	—	181	—	2.8	—	188	—	clr	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4-1-14	SAMPLING TIME: 9:03
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCl	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ± 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW-2	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH: 15 feet to 30 feet	STATIC DEPTH TO WATER (feet): 15.51	PURGE PUMP TYPE OR BAILER: B

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) x WELL CAPACITY
= (30 feet - 15.5 feet) x 0.16 gallons/foot = 2.4 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
0943	—	—	19.5	—	5.8	—	174	—	3.5	—	48	—	clr	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-1-14	SAMPLING TIME: 9:43
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCL	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO. [redacted]	SAMPLE ID: MW-30	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH: 15 feet to 30 feet	STATIC DEPTH TO WATER (feet): 20.50	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (30 feet) - STATIC DEPTH TO WATER (20.50 feet)) x WELL CAPACITY (0.16 gallons/foot) = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP. (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
10:07	—	—	22.3	—	6.74	—	318	—	3.8	—	56	—	clr	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-1-14	SAMPLING TIME: 10:07
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINER S	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCL	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW-3	DATE: 4-2-14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH: 20 feet to 35 feet	STATIC DEPTH TO WATER (feet): 24.41	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (35) feet - STATIC DEPTH TO WATER (24.41) feet) X WELL CAPACITY (0.16) gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
13:56	—	—	23.0	—	6.0	—	123	—	2.9	—	110	—	SLCldy	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-2-14	SAMPLING TIME: 13:56
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCl	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PB = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO. [redacted]	SAMPLE ID: MW-32	DATE: 4-2-14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH: 15 feet to 30 feet	STATIC DEPTH TO WATER (feet): 21.28	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGED: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (30 feet - 21.28 feet) X 0.16 gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
10:15	—	—	22.8	—	5.5	—	218	—	2.1	—	145	—	Clay	Slight

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4-2-14	SAMPLING TIME: 10:15
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N)	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)		Filtration Equipment Type:	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINER	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCL	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW-33	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH: 20 feet to 35 feet	STATIC DEPTH TO WATER (feet): 23.18	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (feet) 35 − STATIC DEPTH TO WATER (feet) 23.18) × WELL CAPACITY (gallons/foot) 0.16 = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
10:24	—	—	24.1	—	6.3	—	224	—	2.0	—	383	—	cldy	strong

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4-1-14	SAMPLING TIME: 10:24
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCl	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO.: MW-34	SAMPLE ID: MW-34	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH: 20 feet to 35 feet	STATIC DEPTH TO WATER (feet): 24.06	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (35 feet) – STATIC DEPTH TO WATER (24.06 feet)) X WELL CAPACITY (0.16 gallons/foot) = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
10:30	—	—	23.6	—	5.2	—	128	—	2.7	—	991	—	cldy	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Camaron Warlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-1-14	SAMPLING TIME: 10:30
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCL	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: MW-35	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH: 20 feet to 35 feet	STATIC DEPTH TO WATER (feet): 21.35	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) x WELL CAPACITY
= (35 feet - 21.35 feet) x 0.16 gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
10:35	—	—	24.2	—	5.8	—	197	—	1.8	—	501	—	cldy	Y

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4-1-14	SAMPLING TIME: 10:55
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE:	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCL	—	—	8260B	—	B

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH: 20 feet to 35 feet	STATIC DEPTH TO WATER (feet): 27.84	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (feet) - STATIC DEPTH TO WATER (feet)) X WELL CAPACITY (gallons/foot) = gallons

= (35 feet -) X

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
10:19	—	—	23.4	—	5.9	—	220	—	2.6	—	86	—	Slcldy	Slight

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Jarlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-1-14	SAMPLING TIME: 10:19
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40mL	HCl	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH 20 feet to 35 feet	STATIC DEPTH TO WATER (feet): 22.24	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (35 feet) – STATIC DEPTH TO WATER (feet)) X WELL CAPACITY (gallons/foot) = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
11:25	–	–	23.6	–	4.9	–	127	–	2.60	–	301	–	cldy	Slight

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Walick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-1-14	SAMPLING TIME: 11:25
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40mL	HCL	–	–	8260B	B	–

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PB = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches)	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH: 20 feet to 35 feet	STATIC DEPTH TO WATER (feet): 24.61	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (feet) - STATIC DEPTH TO WATER (feet)) X WELL CAPACITY (gallons/foot) = gallons

= (35 feet - feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
11:35	—	—	24.7	—	4.8	—	118	—	3.2	—	198	—	cldy	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4-1-14	SAMPLING TIME: 11:35
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y (N) Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (mV/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
—	2	CG	40mL	HCL	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; BSP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: MW-39	SAMPLE ID:	DATE: 4-2-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH: 20 feet to 35 feet	STATIC DEPTH TO WATER (feet): 25.59	PURGE PUMP TYPE OR BAILER: B

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH 35 feet – STATIC DEPTH TO WATER feet) X WELL CAPACITY gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
12:13	–	–	25.6	–	5.9	–	49	–	2.4	–	88	–	Slight	Slight

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-2-14	SAMPLING TIME: 12:13
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N FILTER SIZE: Filtration Equipment Type:	
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
–	2	CG	40mL	HCl	–	–	8260B	B	–

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: MW-10	SAMPLE ID:	DATE: 4-2-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH: 20 feet to 35 feet	STATIC DEPTH TO WATER (feet): 26.29	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (35 feet) - STATIC DEPTH TO WATER (feet)) X WELL CAPACITY (gallons/foot) = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
12:18	—	—	23.0	—	6.0	—	154	—	2.1	—	245	—	clear	Y

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-2-14	SAMPLING TIME: 12:19
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y N			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (ml)	FINAL pH			
—	2	CG	40ml	HCl	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH: 20 feet to 35 feet	STATIC DEPTH TO WATER (feet): 24.70	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH 35 feet – STATIC DEPTH TO WATER feet) X WELL CAPACITY gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
15:27	—	—	24.9	—	6.9	—	321	—	2.7	—	401	—	dy	Slight

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-1-14	SAMPLING TIME: 15:27
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
—	2	CG	40mL	HCL	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches)	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH 20 feet to 35 feet	STATIC DEPTH TO WATER (feet): 25.35	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (35 feet) - STATIC DEPTH TO WATER feet) X WELL CAPACITY gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
11:56	-	-	24.9	-	4.8	-	73	-	2.9	-	108	-	Cldy	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4-1-14	SAMPLING TIME: 11:56
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
-	2	CG	40ml	HCl	-	-	8260B	B	-

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO. [redacted]	SAMPLE ID:	DATE: 4-2-14

PURGING DATA

WELL DIAMETER (inches)	Total Well Depth (feet): 40	WELL SCREEN INTERVAL DEPTH: 20 feet to 40 feet	STATIC DEPTH TO WATER (feet): 24.00	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (40 feet - STATIC DEPTH TO WATER) feet) X WELL CAPACITY gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
14:28	—	—	26.4	—	4.7	—	124	—	3.6	—	55	—	Clr	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Werlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-2-14	SAMPLING TIME: 14:28
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (ml)	FINAL pH			
—	2	CG	40ml	HCl	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 31	WELL SCREEN INTERVAL DEPTH: 16 feet to 31 feet	STATIC DEPTH TO WATER (feet): 24.42	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (31 feet - feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
14:20	-	-	25.2	-	4.6	-	111	-	3.2	-	88	-	SLCldy	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 6" = 1.02; 8" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-1-14	SAMPLING TIME: 14:20
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (ml)	FINAL pH			
	2	CG	40mL	HCL	-	-	8260B	B	

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH: 15 feet to 30 feet	STATIC DEPTH TO WATER (feet): 21.22	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (30 feet - feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
14:22	—	—	24.3	—	4.7	—	101	—	3.3	—	56	—	clr	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 6" = 1.02; 8" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-1-14	SAMPLING TIME: 14:22
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:

DUPLICATE COLLECTED: Y (N)

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (ml)	FINAL pH			
	2	CG	40mL	HCl	—	—	8260B	B	

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH: 20 feet to 35 feet	STATIC DEPTH TO WATER (feet): 28.55	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (35 feet - feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
14:30	-	-	26.9	-	6.9	-	221	-	3.8	-	171	-	cldy	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Weslick	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4-1-14	SAMPLING TIME: 14:30
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N FILTER SIZE: Filtration Equipment Type:	
DUPLICATE COLLECTED: Y D			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40mL	HCl	-	-	8260B	B	

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4-2-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH: 15 feet to 30 feet	STATIC DEPTH TO WATER (feet): 19.70	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (30 feet) – STATIC DEPTH TO WATER feet) X WELL CAPACITY gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
14:38	–	–	25.4	–	6.4	–	233	–	4.0	–	33	–	c/c	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4-2-14	SAMPLING TIME: 14:39
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:

DUPLICATE COLLECTED: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
–	2	CG	40ml	HCl	–	–	8260B	B	–

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE:

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH: 15 feet to 30 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (30 feet) - STATIC DEPTH TO WATER (feet)) X WELL CAPACITY (gallons/foot) = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT)	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE:	SAMPLING TIME:
PUMP OR TUBING DEPTH IN WELL (feet)	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:

DUPLICATE COLLECTED: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS: Gate Locked. Not accessed

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC
WELL NO: [redacted]	SAMPLE ID:
DATE:	

PURGING DATA

WELL DIAMETER (inches)	Total Well Depth (feet): 30	WELL SCREEN INTERVAL DEPTH: 15 feet to 30 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (30 feet- feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (Gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT)	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE:	SAMPLING TIME:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:

DUPLICATE COLLECTED: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS: Gate Locked.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4-2-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH: 20 feet to 35 feet	STATIC DEPTH TO WATER (feet): 21.23	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (35 feet - feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
15:25	-	-	25.8	-	5.7	-	94	-	3.3	-	41	-	Clr	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Camron Warlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-2-14	SAMPLING TIME: 15:25
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N FILTER SIZE: Filtration Equipment Type:	
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
-	2	CG	40mL	HCl	-	-	8260B	B	-

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4/3/14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 20	WELL SCREEN INTERVAL DEPTH: 5 feet to 20 feet	STATIC DEPTH TO WATER (feet): 9.60	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (20 feet - 9.60 feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
0851	-	-	19.3	-	7.1	-	196	-	3.6	-	19	-	Clr	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trevor Slack	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/3/14	SAMPLING TIME: 0851
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)		Filtration Equipment Type:	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
-	2	CG	40mL	HCl	-	-	8260B	B	-

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 20	WELL SCREEN INTERVAL DEPTH: 5 feet to 20 feet	STATIC DEPTH TO WATER (feet): 11.31	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (20 feet - feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
15:45	-	-	24.0	-	6.0	-	227	-	3.3	-	50	[illegible]	Clr	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4-1-14	SAMPLING TIME: 15:45
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
-	2	CG	40mL	HCl	-	-	8260B	B	

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4/3/14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 14	WELL SCREEN INTERVAL DEPTH: 4 feet to 14 feet	STATIC DEPTH TO WATER (feet): 2.51	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (14 feet - 2.51 feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
0935	–	–	21.9	–	6.3	–	138	–	3.4	–	220	–	Slcly	none
0946	2.5	2.5	20.7	0.7	5.7	0.4	133	5			180	40	Slclr	"
1000	3.0	5.5	20.3	0.4	5.7	0.2	134	1			101	79	Slclr	"
1009	2.5	8.0	19.6	0.7	5.8	0.1	137	3			41	60	clr	"
1015	3.0	11.0	19.5	0.1	5.8	0.0	139	2			9	32	clr	"

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trevor Z. Slack	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/3/14	SAMPLING TIME: 1019
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
–	7	CG	40mL	HCl	–	–	8260B	B	–

REMARKS: Broken well Lid/missing bolts.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4/3/14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 20	WELL SCREEN INTERVAL DEPTH: 5 feet to 20 feet	STATIC DEPTH TO WATER (feet): 5.12	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (20 feet - feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
0941	-	-	14.3	-	6.18	-	160	-	3.7	-	33	-	clr	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trevor Slack	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/3/14	SAMPLING TIME: 0941
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40mL	HCl	-	-	8260B	B	

REMARKS

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO. [redacted]	SAMPLE ID:	DATE: 4-2-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 19	WELL SCREEN INTERVAL DEPTH: 4 feet to 19 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (19 feet - feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT):	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE:	SAMPLING TIME:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y N			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS: Not Sampled. Abandoned.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC
WELL NO: [redacted]	SAMPLE ID:
DATE:	

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 17	WELL SCREEN INTERVAL DEPTH: 2 feet to 17 feet	STATIC DEPTH TO WATER (feet): 6.05	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (17 feet - feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
1555	-	-	21.0	-	6.4	-	435	-	3.1	-	88	-	slclty	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trever Slack	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/2/14	SAMPLING TIME: 1555
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N	FILTER SIZE:
DUPLICATE COLLECTED: Y		Filtration Equipment Type:	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40mL	HCL	-	-	8260B	B	

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE:

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 14	WELL SCREEN INTERVAL DEPTH: 4 feet to 14 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (14 feet - feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT)	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE:	SAMPLING TIME:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y N			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS: Not Located

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH: 20 feet to 35 feet	STATIC DEPTH TO WATER (feet): 22.32	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (35 feet - feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP. (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
13:38	-	-	23.1	-	5.0	-	238	-	2.8		465		cldy	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S): [signature]	SAMPLING DATE: 4-1-14	SAMPLING TIME: 13:38
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCl	-	-	8260B	B	

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4-2-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH: 20 feet to 35 feet	STATIC DEPTH TO WATER (feet): 23.67	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (35 feet - feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
13:27	—	—	26.2	—	5.2	—	221	—	3.5	—	48	—	Clr	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 6" = 1.02; 8" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Wardick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-2-14	SAMPLING TIME: 13:27
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40ml	HCl	—	—	8260B	B	—

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE:

PURGING DATA Not Found - New Construction

WELL DIAMETER (inches):	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH: 20 feet to 35 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (35 feet - feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT)	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE:	SAMPLING TIME:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:

DUPLICATE COLLECTED: Y N

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS: Not Located. Likely Paved over during Construction

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches)	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH: 20 feet to 35 feet	STATIC DEPTH TO WATER (feet): 24.44	PURGE PUMP TYPE OR BAILER

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (35 feet - feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
12:42	-	-	21.7	-	5.5	-	111	-	3.16	-	506	-	clear	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-1-14	SAMPLING TIME: 12:42
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40mL	HCl	-	-	8260B	B	-

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO. [redacted]	SAMPLE ID:	DATE: 4/2/14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 35	WELL SCREEN INTERVAL DEPTH: 20 feet to 35 feet	STATIC DEPTH TO WATER (feet): 24.70	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (35 feet - feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
13:01	-	-	24.3	-	5.9	-	137	-	2.4	-	28	-	clr	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-2-14	SAMPLING TIME: 13:01
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	7	CG	40mL	HCl	-	-	8260B		

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 28	WELL SCREEN INTERVAL DEPTH: 18 feet to 28 feet	STATIC DEPTH TO WATER (feet): 21.24	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH 28 feet – STATIC DEPTH TO WATER feet) X WELL CAPACITY gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
9:30	—	—	20.4	—	6.8	—	987	—	1.8	—	203	—	Strong	Strong

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Cameron Warlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-1-14	SAMPLING TIME: 9:30
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	7	CG	40mL	HCl	—	—	8260B		

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE 4/3/14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 50	WELL SCREEN INTERVAL DEPTH: 45 feet to 50 feet	STATIC DEPTH TO WATER (feet): 23.11	PURGE PUMP TYPE OR BAILER: P

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (feet) - STATIC DEPTH TO WATER (feet)) X WELL CAPACITY (gallons/foot) = gallons

= (60 feet - feet; X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
1227	—	—	25.1	—	6.2	—	168	—	1.3	—	220	—	SCLDY	Y
1240	4.0	4.0	25.5	0.4	5.8	0.4	111	3			153	67	SCLDY	
1251	2.5	6.5	24.0	1.5	5.6	0.2	86	25			101	52	SCLDY	
1306	3.0	9.5	24.2	0.2	5.5	0.1	77	9			85	16	SCLDY	
1314	2.0	11.5	24.3	0.1	5.8	0.3	75	2			33	52	Clear	
1326	3.0	14.5	24.2	0.1	5.8	0.0	73	2			21	12	Clear	
1335	3.5	18.0	24.2	0.0	5.9	0.1	75	2			7	14	clear	L

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trevor Slack	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/3/14	SAMPLING TIME: 1335
PUMP OR TUBING DEPTH IN WELL (feet): —	TUBING MATERIAL CODE: —	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y N DUP			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	7	CG	40mL	HCL	—	—	8260B	B	

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: DW-1	DATE: 4/2/14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 70	WELL SCREEN INTERVAL DEPTH: 65 feet to 70 feet	STATIC DEPTH TO WATER (feet): 45.00	PURGE PUMP TYPE OR BAILER: B

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (70 feet - 45.00 feet) X 0.16 gallons/foot = 4.00 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
1405	5	—	25.7	—	6.7	—	71	-	3.2	-	741	—	cldy	N
1414	5.5	5.5	26.0	0.3	6.9	0.2	85	14			496		cldy	N

DRY

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trevor Slocum	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/2/14	SAMPLING TIME: 1420
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40mL	HCl	—	—	8260B	B	

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID: DW-2	DATE: 4/2/14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 75	WELL SCREEN INTERVAL DEPTH: 70 feet to 75 feet	STATIC DEPTH TO WATER (feet): 44.34	PURGE PUMP TYPE OR BAILER: B

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (75 feet - 44.34 feet) X 0.16 gallons/foot = 4.91 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
1440	—	—	25.2	—	7.0	—	155	—	3.2	—	62		clr	N
1458	6.5	6.5	26.0	0.8	7.2	0.2	135	20			601		Cldy	N

Dry

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trevor Sloat	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/2/14	SAMPLING TIME: 1501
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y N			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	7	CG	40mL	HCl	—	—	8260B	B	

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PS = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC
WELL NO. [redacted]	SAMPLE ID:
	DATE: 4/3/14

PURGING DATA

WELL DIAMETER (inches)	Total Well Depth (feet): 52	WELL SCREEN INTERVAL DEPTH 47 feet to 52 feet	STATIC DEPTH TO WATER (feet): 24.40	PURGE PUMP TYPE OR BAILER: P

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (52) feet - STATIC DEPTH TO WATER (24.40) feet) x WELL CAPACITY (0.16 gallons/foot) = 4.42 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
1506	S	—	26.1	—	6.6	—	75	—	2.0	—	18	[illegible]	C|C	Y
1515	5.0	5.0	27.2	1.1	7.2	0.6	101	26			491	473	C|C	|
1522	2.0	7.0	26.8	0.4	6.5	0.7	111	10			204	287	C|C	|
1530	2.5	9.5	25.7	1.1	6.4	0.1	88	23			113	91	C|C	|
1539	3.0	12.5	25.6	0.1	6.4	0.0	87	1			72	41	C|C	|
1551	2.5	15.0	25.6	0.0	6.5	0.1	87	0			16	56	C|C	|
1600	2.0	17.0	25.6	0.0	6.6	0.1	88	1			9.0	7	C|C	|

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trever Sluck	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/3/14	SAMPLING TIME: 1601
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)		Filtration Equipment Type:	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40mL	HCl	—	—	8260B	B	

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO. [redacted]	SAMPLE ID: DW-4	DATE: 4/3/14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 110	WELL SCREEN INTERVAL DEPTH: 105 feet to 110 feet	STATIC DEPTH TO WATER (feet): 44.60	PURGE PUMP TYPE OR BAILER: B

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (110 feet - 44.60 feet) X 0.16 gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
1240	—	—	23.8	—	7.4	—	100	—	2.9	—	61	—	clr	Slight
1252	4.5	4.5	24.2	0.4	7.9	0.5	149	49			892	831	cldy	Slight
1300	3.5	8.0	24.9	0.7	7.1	0.5	145	4			596	296	cldy	N
1311	3.0	11.0	25.3	0.4	8.1	0.7	133	12			184	412	sl cldy	N
1321	2.0	13.0	25.0	0.3	7.9	0.2	130	3			100	84	sl cldy	N
1328	2.5	15.5	25.0	0.0	7.5	0.4	98	32			32	68	clr	Slight
1337	4.0	19.5	25.1	0.1	7.3	0.2	87	11			16	16	clr	N
1351	3.5	23.0	25.1	0.0	7.1	0.2	88	1			12	4	clr	N
1405	4.0	27.0	25.2	0.1	7.1	0.0	88	0			8.4	3.6	clr	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trevor Slack	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/3/14	SAMPLING TIME: 1409
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40 mL	HCl	—	—	8260B	B	

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO. [redacted]	SAMPLE ID	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches)	Total Well Depth (feet): 70	WELL SCREEN INTERVAL DEPTH: 65 feet to 70 feet	STATIC DEPTH TO WATER (feet): 44.42	PURGE PUMP TYPE OR BAILER: P

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (70 feet - feet) X 0.16 gallons/foot = 5 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
1050	—	—	22.4	—	6.6	—	104	—	2.5	—	4000	—	cldy	Y
1100	5.0	5.0	22.6	0.2	7.0	0.4	1,114	10			346	10%	cldy	Y

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Camara Warlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-1-14	SAMPLING TIME: 11:00
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y N			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	1	CG	40mL	HCl	—	—	8260B	B	

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE: 4-1-14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 70	WELL SCREEN INTERVAL DEPTH: 65 feet to 70 feet	STATIC DEPTH TO WATER (feet): 45.86	PURGE PUMP TYPE OR BAILER: B

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH 70 feet - STATIC DEPTH TO WATER 45.86 feet) x WELL CAPACITY 0.16 gallons/foot = 3.86 gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
12:03	—	—	22.3	—	7.0	—	125	—	3.7	—	1000	—	cldy	N
12:07	6.0	6.0	24.4	3.9	7.4	0.4	123	2			263	737	cldy	I
12:10	4.5	10.5	23.0	1.4	8.2	0.8	124	1			118	145	sl cldy	I
12:12	4.0	14.5	23.3	0.3	8.1	0.1	124	0			10	108	C	L

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): C Peterson W Warlick	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4-1-14	SAMPLING TIME: 1918
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40mL	HCL	—	—	8260B	B	

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO. [redacted]	SAMPLE ID: DW-7	DATE: 1517

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 55	WELL SCREEN INTERVAL DEPTH: 50 feet to 55 feet	STATIC DEPTH TO WATER (feet): 24.00	PURGE PUMP TYPE OR BAILER: P

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (55 feet) – STATIC DEPTH TO WATER (feet)) X WELL CAPACITY (gallons/foot) = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
1420	—	—	25.1	—	6.2	—	201	—	3.5	—	1000	—	clay	N
1431	5.0	5.0	24.8	0.3	7.2	1.0	141	60			173	827	silty	N
1440	3.5	8.5	24.6	0.2	7.5	0.3	135	6			48	125	clr	N
1451	4.0	12.5	24.6	0.0	7.5	0.0	120	15			22	26	clr	N
1506	4.0	16.5	24.6	0.0	7.5	0.0	121	1			13	9	clr	N
1515	4.5	21.0	24.7	0.1	7.5	0.0	120	1			8.9	4.1	clr	N

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 6" = 1.02; 8" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trevor Black	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/3/14	SAMPLING TIME: 1517
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40mL	HCl	—	—	8260B	B	

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: [redacted]	SAMPLE ID:	DATE:

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet): 55	WELL SCREEN INTERVAL DEPTH: 50 feet to 55 feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH (55 feet – feet) X WELL CAPACITY gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT)	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE:	SAMPLING TIME:
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N Filtration Equipment Type:	FILTER SIZE:
DUPLICATE COLLECTED: Y N			

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS: Not sampled. Abandoned.

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RPPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO. [redacted]	SAMPLE ID: DW-9	DATE: 4/2/14

PURGING DATA

WELL DIAMETER (inches): 2	Total Well Depth (feet): 65	WELL SCREEN INTERVAL DEPTH: 60 feet to 65 feet	STATIC DEPTH TO WATER (feet): 25.00	PURGE PUMP TYPE OR BAILER: B

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH - STATIC DEPTH TO WATER) X WELL CAPACITY
= (65 feet - 25.00 feet) X 0.16 gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND (µS)	Δ	DO (mg/L)	Δ	TURBIDITY (NTU)	Δ	COLOR	ODOR
1014	—	—	23.4	—	6.9	—	73	—	3.8	—	42	—	Clr	Slight
1023	5.0	5.0	21.8	1.6	6.7	0.2	47	26			196	154	Clr	none
1029	5.0	10.0	21.6	0.2	6.4	0.3	36	11			53	143	Clr	none
1036	5.0	15.0	21.6	0.0	6.0	0.4	30	6			18	35	Clr	none
1048	5.0	20.0	21.6	0.0	6.1	0.1	32	3			10	8	Clr	none

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trevor Sleek	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/2/14	SAMPLING TIME: 1055
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD FILTERED: Y N	FILTER SIZE:
DUPLICATE COLLECTED: Y (N)		Filtration Equipment Type:	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			
	2	CG	40mL	HCl	—	—	8260B	B	

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units **Temperature:** ± 0.2 °C **Specific Conductance:** ± 5% **Dissolved Oxygen:** ± 0.2 mg/L or ± 10% **Turbidity:** ≤ 10 NTU or ± 10%

GROUNDWATER SAMPLING LOG

SITE NAME: Clouds Chevron	SITE LOCATION: Taylors Street & Two Notch Road, Columbia, SC	
WELL NO: SW-1	SAMPLE ID: SW-1	DATE: 4/2/14

PURGING DATA

WELL DIAMETER (inches):	Total Well Depth (feet):	WELL SCREEN INTERVAL DEPTH: feet to feet	STATIC DEPTH TO WATER (feet):	PURGE PUMP TYPE OR BAILER:

WELL VOLUME PURGE: 1 WELL VOLUME = (TOTAL WELL DEPTH – STATIC DEPTH TO WATER) X WELL CAPACITY
= (feet – feet) X gallons/foot = gallons

TIME	VOLUME PURGED (gallons)	CUMUL. VOLUME PURGED (gallons)	TEMP (°C)	Δ	pH (su)	Δ	COND. (µS)	Δ	DO (mg/L)	Δ	TURB IDITY (NTU)	Δ	COLOR	ODOR
1158	—	—	19.6	—	6.7	—	396	—	3.4	—	276	—	Slcly	mod

WELL CAPACITY (Gallons Per Foot): 0.75" = 0.02; 1" = 0.04; 1.25" = 0.06; 2" = 0.16; 3" = 0.37; 4" = 0.65; 5" = 1.02; 6" = 1.47; 12" = 5.88

SAMPLING DATA

SAMPLED BY (PRINT): Trevor Sinclair	SAMPLER(S) SIGNATURE(S):	SAMPLING DATE: 4/2/14	SAMPLING TIME: 1158
PUMP OR TUBING DEPTH IN WELL (feet):	TUBING MATERIAL CODE:	FIELD-FILTERED: Y N	FILTER SIZE:
DUPLICATE COLLECTED: Y N		Filtration Equipment Type:	

SAMPLE CONTAINER SPECIFICATION				SAMPLE PRESERVATION			INTENDED ANALYSIS AND/OR METHOD	SAMPLING EQUIPMENT CODE	SAMPLE PUMP FLOW RATE (ml/min)
SAMPLE ID CODE	# CONTAINERS	MATERIAL CODE	VOLUME	PRESERVATIVE USED	TOTAL VOL ADDED IN FIELD (mL)	FINAL pH			

REMARKS:

MATERIAL CODES: AG = Amber Glass; CG = Clear Glass; PE = Polyethylene; PP = Polypropylene; S = Silicone; T = Teflon; O = Other (Specify)

SAMPLING EQUIPMENT CODES: APP = After Peristaltic Pump; B = Bailer; BP = Bladder Pump; ESP = Electric Submersible Pump; RFPP = Reverse Flow Peristaltic Pump; SM = Straw Method (Tubing Gravity Drain); O = Other (Specify)

STABILIZATION CRITERIA

pH: ± 0.2 units Temperature: ± 0.2 °C Specific Conductance: ± 5% Dissolved Oxygen: ± 0.2 mg/L or ± 10% Turbidity: ≤ 10 NTU or ± 10%

APPENDIX D

Laboratory Reports
And
Chain-of-Custody Documentation

ACCESS
ANALYTICAL, INC.

ANALYTICAL REPORT

CLIENT

Crawford Environmental Services
15 Church Ave, SW
Roanoke VA 24011

ATTENTION
Charles Crawford

PROJECT ID
Clouds Chevron et. al.

LABORATORY REPORT NUMBER
1404588

DATE
April 16, 2014

Primary Data Review By

Chantelle Kanhai
Project Manager, AES

Secondary Data Review By

Ashley Amick

Project Manager, Access Analytical
aamick@axs-inc.com

PLEASE NOTE:

- **Unless otherwise noted, all analysis on this report performed at Analytical Environmental Services Inc. (AES Inc), 3080 Presidential Drive, Atlanta, GA 30340.**
- **AES is SCDHEC certified laboratory # 98016, NCDENR certified lab # 562, GA certified lab # FL-E87582, NELAP certified laboratory # E87582**
- Local support services for this project are provided by Access Analytical, Inc. Access Analytical is a representative of AES serving client in the SC/NC/GA areas. All questions regarding this report should be directed to your local Access Analytical representative at 803.781.4243 or toll fee at 883.315.4243

Access Analytical - Chain of Custody Record

LAB USE ONLY

Sales Order #_____ PO #_____ Access Quote #_____

Project Work Order # 1404588

Laboratory ID: _____

Company Name: Crawford Env

Report To: Charles Crawford

Address: 15 Church Ave SW

City: Roanoke State: Va Zip: 24011

Phone: 540.343.6256 Fax: 540.343.6259

Email: ccrawford@crawfordenvironmental.com

Project ID: Clouds Chevron et. al.

Sampled By: Trever Slack

Preservative: (*see codes) 1

Container Type: (*see codes) G

↓ REQUESTED LAB ANALYSIS: ↓ 8260B BTEX + M+N + TAA + TAME + TBA

ACCESS ANALYTICAL, INC.

7478 Carlisle Street
Irmo, SC 29063

Phone: (803) 781-4243
Fax: 781-4303

www.axs-inc.com

*Preservative Codes (place corresponding # in block above analysis field): 0 = None, 1 = HCL, 2 = HNO_3, 3 = H_2SO_4, 4 = NaOH, 5 = $Na_2S_2O_3$, 6 = Method 5035 set w/ $NaHSO_4$ & CH_3OH, 7 = NaOH/ZnOAC, 8 = H_3PO_4

*Matrix Codes (place corresponding code in matrix column): GW = ground water, WW = waste water, DW = drinking water, S = soil, SL = sludge, A = air, IW = industrial waste, WO = waste oil, OT = other (specify in comments section)

*Program Area Codes: CWA = Clean Water Act (for wastewaters), SDWA = Safe Drinking Water Act (for drinking waters), SHW = Solid and Hazardous Wastes (for soils, ground waters and waste samples)

*Container Type: G = Glass, P = Plastic

Sample ID/Description	Date Collected:	Time Collected:	Type: (grab or composite)	Matrix: (see codes)	Program Area (see codes)	TOTAL # of containers	# of containers collected per analysis	8260B BTEX + M+N + TAA + TAME + TBA	NOTES / COMMENTS (if sample is a composite please use space below to note start/finish times & dates)
MW-1	~~4/2/14~~	~~1434~~						Not Sampled - Dry	
MW-2	4/2/14	1247	G	GW		2		2	C2
MW-3	4/2/14	1013	G	GW		2		2	C2
MW-4	4/2/14	1809	G	GW		2		2	C1
MW-5								Not Sampled - Dry	
MW-6	4/3/14	0849	G	GW		2		2	C1
MW-7	4/3/14	1131	G	GW		2		2	C1
MW-8	4/3/14	1209	G	GW		2		2	C1
MW-9	4/2/14	1500	G	GW		2		2	C1
MW-10	4/1/14	1317	G	GW		2		2	C1

Turnaround Time:

___ Standard
___ RUSH*
*Date Required:_____
(For rush work, results emailed/faxed by end of business day on date required)

Project Location:
X SC
___ NC
___ Other
(specify) _____

Relinquished By:	Received By:	Date (mm-dd-yy)	Time (24HR)	Samples Rec'd on Ice	Sample Temp. Upon Receipt (°C):	
[signature]	A Mart	4/3/14	1635	___Y ___N	____(°C)	____(N/A)
A Mart	Fedex	4-3-14	1700	___Y ___N	____(°C)	____(N/A)
	[signature]	4/4/14	1150	___Y ___N	3.5 (°C)	____(N/A)
				___Y ___N	____(°C)	____(N/A)

See Reverse for Terms and Conditions

Original Copy - Returned w/Report
Yellow Copy - Access File Copy
Pink Copy - Client Copy

Access Analytical - Chain of Custody Record

LAB USE ONLY

Sales Order # _____ PO # _____ Access Quote # _____

Project Work Order # 1404588

Laboratory ID: _____

Company Name: Crawford Env

Report To: Charles Crawford

Address: 15 Church Ave SW

City: Roanoke State: Va Zip: 24011

Phone: 540.343.6256 Fax: 540.343.6259

Email: ccrawford@crawfordenvironmental.com

Project ID: Clouds Chevron et al

Sampled By: Trever Slack

Preservative: (*see codes) 1

Container Type: (*see codes) G

↓ REQUESTED LAB ANALYSIS: ↓ 8260B BTEX+M+N+TBA+TAME+TAA

ACCESS ANALYTICAL, INC.

7478 Carlisle Street
Irmo, SC 29063

Phone: (803) 781-4243
Fax: 781-4303

www.axs-inc.com

*Preservative Codes (place corresponding # in block above analysis field): 0 = None, 1 = HCL, 2 = HNO_3, 3 = H_2SO_4, 4 = NaOH, 5 = $Na_2S_2O_3$, 6 = Method 5035 set w/ $NaHSO_4$ & CH_3OH, 7 = NaOH/ZnOAC, 8 = H_3PO_4

*Matrix Codes (place corresponding code in matrix column): GW = ground water, WW = waste water, DW = drinking water, S = soil, SL = sludge, A = air, IW = industrial waste, WO = waste oil, OT = other (specify in comments section)

*Program Area Codes: CWA = Clean Water Act (for wastewaters), SDWA = Safe Drinking Water Act (for drinking waters), SHW = Solid and Hazardous Wastes (for soils, ground waters and waste samples)

*Container Type: G = Glass, P = Plastic

Sample ID/Description	Date Collected:	Time Collected:	Type: (grab or composite)	Matrix: (see codes)	Program Area (see codes)	TOTAL # of containers	8260B BTEX+M+N+TBA+TAME+TAA	NOTES / COMMENTS (if sample is a composite please use space below to note start/finish times & dates)
MW-11	4/2/14	1520	G	GW		2	2	C2
MW-12	4/2/14	1549	G	GW		2	2	C2
MW-13	4/1/14	1527	G	GW		2	2	C1
MW-15	←						Not Sampled - Free-Product →	
MW-16	4/2/14	1447	G	GW		2	2	C2
MW-17	4/2/14	1450	G	GW		2	2	C2
MW-18	4/2/14	1349	G	GW		2	2	C2
MW-19	4/3/14	1435	G	GW		2	2	C1
MW-20	4/3/14	1315	G	GW		2	2	C1
MW-22	4/3/14	1244	G	GW		2	2	C1

Turnaround Time:

___ Standard
___ RUSH*
*Date Required: _____
(For rush work, results emailed/faxed by end of business day on date required)

Project Location:
X SC
___ NC
___ Other
(specify) _____

Relinquished By:	Received By:	Date (mm-dd-yy)	Time (24HR)	Samples Rec'd on Ice	Sample Temp. Upon Receipt (°C):	
[signature]	[signature]	4/3/14	1635	___Y ___N	___(°C)	___(N/A)
Amart	Fedex	4-3-14	AW	___Y ___N	___(°C)	___(N/A)
	[signature]	4/4/14	1150	___Y ___N	3.5 (°C)	___(N/A)
				___Y ___N	___(°C)	___(N/A)

See Reverse for Terms and Conditions

Original Copy - Returned w/Report
Yellow Copy - Access File Copy
Pink Copy - Client Copy

Access Analytical - Chain of Custody Record

LAB USE ONLY

Project Work Order #: 1404588

Sales Order #: _____ PO #: _____ Access Quote #: _____ Laboratory ID: _____

Company Name: Crawford Env. | Preservative: (*see codes) 1 | Container Type: (*see codes) G

Report To: Charles Crawford

Address: 15 Church Ave SW

City: Roanoke State: Va Zip: 24011

Phone: 540.343.6256 Fax: 540.343.6259

Email: ccrawford@crawfordenvironmental.com

Project ID: Clouds Chevron et al

Sampled By: Trevor Slack

↓ REQUESTED LAB ANALYSIS: ↓ — 8260B BTEX+MTBE+TAA+TAME+TBA

Sample ID/Description	Date Collected:	Time Collected:	Type: (grab or composite)	Matrix: (see codes)	Program Area (see codes)	TOTAL # of containers	# of containers collected	# of containers per analysis	NOTES / COMMENTS (if sample is a composite please use space below to note start/finish times & dates)
MW-23	4/3/14	1435	G	GW		2	2	2	C1
MW-25	4/1/14	0912	G	GW		2	2	2	C1
MW-26	4/3/14	1155	G	GW		2	2	2	C1
MW-27	4/1/14	0908	G	GW		2	2	2	C1
MW-28	4/1/14	0903	G	GW		2	2	2	C1
MW-29	4/1/14	0943	G	GW		2	2	2	C1
MW-30	4/1/14	1007	G	GW		2	2	2	C1
MW-31	4/2/14	1356	G	GW		2	2	2	C2
MW-32	4/2/14	1015	G	GW		2	2	2	C2
MW-33	4/1/14	1024	G	GW		2	2	2	C1

ACCESS ANALYTICAL, INC.

7478 Carlisle Street
Irmo, SC 29063
Phone: (803) 781-4243
Fax: 781-4303
www.axs-inc.com

*Preservative Codes (place corresponding # in block above analysis field): 0 = None, 1 = HCL, 2 = HNO_3, 3 = H_2SO_4, 4 = NaOH, 5 = $Na_2S_2O_3$, 6 = Method 5035 set w/ $NaHSO_4$ & CH_3OH, 7 = NaOH/ZnOAC, 8 = H_3PO_4

*Matrix Codes (place corresponding code in matrix column): GW = ground water, WW = waste water, DW = drinking water, S = soil, SL = sludge, A = air, IW = industrial waste, WO = waste oil, OT = other (specify in comments section)

*Program Area Codes: CWA = Clean Water Act (for wastewaters), SDWA = Safe Drinking Water Act (for drinking waters), SHW = Solid and Hazardous Wastes (for soils, ground waters and waste samples)

*Container Type: G = Glass, P = Plastic

Turnaround Time:

___ Standard
___ RUSH*
*Date Required: _____
(For rush work, results emailed/faxed by end of business day on date required)

Project Location:
X SC
___ NC
___ Other
(specify) _____

Relinquished By:	Received By:	Date (mm-dd-yy)	Time (24HR)	Samples Rec'd on Ice	Sample Temp. Upon Receipt (°C):	
[signature]	Anart	4/3/14	1635	___Y ___N	____(°C)	____(N/A)
Anart-	Fedex	4-3-14	1700	___Y ___N	____(°C)	____(N/A)
	[signature]	4/4/14	1150	___Y ___N	3.5 (°C)	____(N/A)
				___Y ___N	____(°C)	____(N/A)

See Reverse for Terms and Conditions

Original Copy - Returned w/Report
Yellow Copy - Access File Copy
Pink Copy - Client Copy

Access Analytical - Chain of Custody Record

LAB USE ONLY

Project Work Order #: 1404588

Sales Order #: _____ PO #: _____ Access Quote #: _____ Laboratory ID: _____

Company Name: Crawford Envr. | Preservative: (*see codes) 1 | Container Type: (*see codes) G

Report To: Charles Crawford

Address: 15 Church Avenue, SW

City: Roanoke State: Va Zip: 24011

Phone: 540.343.6256 Fax: 540.343.6259

Email: ccrawford@crawfordenvironmental.com

Project ID: Clouds Chevron etal

Sampled By: Trever Slack

↓ REQUESTED LAB ANALYSIS: ↓ — 8260B BTEX + MTBE + TAA + TAME + TBA

Sample ID/Description	Date Collected:	Time Collected:	Type: (grab or composite)	Matrix: (see codes)	Program Area (see codes)	TOTAL # of containers	# of containers collected	# of containers collected per analysis	NOTES / COMMENTS (if sample is a composite please use space below to note start/finish times & dates)
MW-34	4/1/14	1030	G	GW		2	2	2	C1
MW-35	4/1/14	1055	G	GW		2	2	2	C1
MW-36	4/1/14	1019	G	GW		2	2	2	C1
MW-37	4/1/14	1125	G	GW		2	2	2	C1
MW-38	4/1/14	1135	G	GW		2	2	2	C1
MW-39	4/2/14	1213	G	GW		2	2	2	C2
MW-40	4/2/14	1218	G	GW		2	2	2	C2
MW-41	4/1/14	1227	G	GW		2	2	2	C1
MW-42	4/1/14	1156	G	GW		2	2	2	C1
MW-43	4/2/14	1428	G	GW		2	2	2	C2

ACCESS ANALYTICAL, INC.
7478 Carlisle Street
Irmo, SC 29063
Phone: (803) 781-4243
Fax: 781-4303
www.axs-inc.com

*Preservative Codes (place corresponding # in block above analysis field): 0 = None, 1 = HCL, 2 = HNO_3, 3 = H_2SO_4, 4 = NaOH, 5 = $Na_2S_2O_3$, 6 = Method 5035 set w/ $NaHSO_4$ & CH_3OH, 7 = NaOH/ZnOAC, 8 = H_3PO_4

*Matrix Codes (place corresponding code in matrix column): GW = ground water, WW = waste water, DW = drinking water, S = soil, SL = sludge, A = air, IW = industrial waste, WO = waste oil, OT = other (specify in comments section)

*Program Area Codes: CWA = Clean Water Act (for wastewaters), SDWA = Safe Drinking Water Act (for drinking waters), SHW = Solid and Hazardous Wastes (for soils, ground waters and waste samples)

*Container Type: G = Glass, P = Plastic

Turnaround Time:

___ Standard
___ RUSH*
*Date Required: _____
(For rush work, results emailed/faxed by end of business day on date required)

Project Location:
X SC
___ NC
___ Other
(specify) _____

Relinquished By:	Received By:	Date (mm-dd-yy)	Time (24HR)	Samples Rec'd on Ice	Sample Temp. Upon Receipt (°C):	
	Anart	4/3/14	1635	___Y ___N	_____(°C)	_____(N/A)
Anart	Fedex	4-3-14	1720	___Y ___N	_____(°C)	_____(N/A)
		4/4/14	1115	___Y ___N	3.5 (°C)	_____(N/A)
				___Y ___N	_____(°C)	_____(N/A)

See Reverse for Terms and Conditions

Original Copy - Returned w/Report
Yellow Copy - Access File Copy
Pink Copy - Client Copy

Access Analytical - Chain of Custody Record

LAB USE ONLY

Project Work Order # 1404588

Sales Order # _____ PO # _____ Access Quote # _____ Laboratory ID: _____

Company Name: Crawford Env.
Report To: Charles Crawford
Address: 15 Church Avenue, SW
City: Roanoke State: Va Zip: 24011
Phone: 540.343.6256 Fax: 540.343.6259
Email: ccrawford@crawfordenvironmental.com
Project ID: Clouds Chevron et al
Sampled By: Trever Slack

Preservative: (*see codes) 1
Container Type: (*see codes) G

↓ REQUESTED LAB ANALYSIS: ↓ 8260B BTEX + MTBE + TAA + TAME + TBA

Sample ID/Description	Date Collected:	Time Collected:	Type: (grab or composite)	Matrix: (see codes)	Program Area (see codes)	TOTAL # of containers	# of containers collected	container condition (check if ok)	# of containers collected for analysis	NOTES / COMMENTS (if sample is a composite please use space below to note start/finish times & dates)
MW-44	4/1/14	1420	G	GW		2	2		2	C1
MW-45	4/1/14	1422	G	GW		2	2		2	C1
MW-46	4/1/14	1430	G	GW		2	2		2	C1
MW-48	4/2/14	1438	G	GW		2	2		2	C2
MW-49	←									Could not access - Gate Locked →
MW-50	←									Could not access - Gate Locked →
MW-51	4/2/14	1525	G	GW		2	2		2	C2
MW-53	4/3/14	0851	G	GW		2	2		2	C2
MW-54	4/1/14	1545	G	GW		2	2		2	C1
MW-55	4/3/14	1019	G	GW		2	2		2	C2

ACCESS ANALYTICAL, INC.
7478 Carlisle Street
Irmo, SC 29063
Phone: (803) 781-4243
Fax: 781-4303
www.axs-inc.com

*Preservative Codes (place corresponding # in block above analysis field): 0 = None, 1 = HCL, 2 = HNO_3, 3 = H_2SO_4, 4 = NaOH, 5 = $Na_2S_2O_3$, 6 = Method 5035 set w/ $NaHSO_4$ & CH_3OH, 7 = NaOH/ZnOAC, 8 = H_3PO_4

*Matrix Codes (place corresponding code in matrix column): GW = ground water, WW = waste water, DW = drinking water, S = soil, SL = sludge, A = air, IW = industrial waste, WO = waste oil, OT = other (specify in comments section)

*Program Area Codes: CWA = Clean Water Act (for wastewaters), SDWA = Safe Drinking Water Act (for drinking waters), SHW = Solid and Hazardous Wastes (for solils, ground waters and waste samples)

*Container Type: G = Glass, P = Plastic

Turnaround Time:
___ Standard
___ RUSH*
*Date Required: _____
(For rush work, results emailed/faxed by end of business day on date required)

Project Location:
X SC
___ NC
___ Other
(specify) _____

Relinquished By:	Received By:	Date (mm-dd-yy)	Time (24HR)	Samples Rec'd on Ice	Sample Temp. Upon Receipt (°C):	
[signature]	[signature]	4/3/14	1635	___Y ___N	_____(°C)	_____(N/A)
[signature]	[signature]	4-3-14	1740	___Y ___N	_____(°C)	_____(N/A)
	[signature]	4/4/14	1115	___Y ___N	3.5 (°C)	_____(N/A)
				___Y ___N	_____(°C)	_____(N/A)

See Reverse for Terms and Conditions

Original Copy - Returned w/Report
Yellow Copy - Access File Copy
Pink Copy - Client Copy

LAB USE ONLY

Access Analytical - Chain of Custody Record

Project Work Order # 1404588

Sales Order # _____ PO # _____ Access Quote # _____ Laboratory ID: _____

Company Name: Crawford Env. | Preservative: (*see codes) 1

Report To: Charles Crawford | Container Type: (*see codes) G

Address: 15 Church Ave, SW

City: Roanoke State: Va Zip: 24011

Phone: 540.343.6256 Fax: 540.343.6259

Email: ccrawford@crawfordenvironmental.com

Project ID: Clouds Chevron et al

Sampled By: Travis Slack

ACCESS ANALYTICAL, INC.
7478 Carlisle Street
Irmo, SC 29063
Phone: (803) 781-4243
Fax: 781-4303
www.axs-inc.com

*Preservative Codes (place corresponding # in block above analysis field): 0 = None, 1 = HCL, 2 = HNO_3, 3 = H_2SO_4, 4 = NaOH, 5 = $Na_2S_2O_3$, 6 = Method 5035 set w/ $NaHSO_4$ & CH_3OH, 7 = NaOH/ZnOAC, 8 = H_3PO_4

*Matrix Codes (place corresponding code in matrix column): GW = ground water, WW = waste water, DW = drinking water, S = soil, SL = sludge, A = air, IW = industrial waste, WO = waste oil, OT = other (specify in comments section)

*Program Area Codes: CWA = Clean Water Act (for wastewaters), SDWA = Safe Drinking Water Act (for drinking waters), SHW = Solid and Hazardous Wastes (for soils, ground waters and waste samples)

*Container Type: G = Glass, P = Plastic

Sample ID/Description	Date Collected:	Time Collected:	Type: (grab or composite)	Matrix: (see codes)	Program Area (see codes)	TOTAL # of containers	↓ REQUESTED LAB ANALYSIS: ↓ 8260B BTEX+MTBE TAA+TAME+TBA	NOTES / COMMENTS (if sample is a composite please see space below to note start/finish times & dates)
Mw-56	4/3/14	0941	G	GW		2	2	C2
Mw-58	~~4/2/14~~	~~1355~~	Abandoned					C2
Mw-59	4/2/14	1555	G	GW		2	2	C2
Mw-60			Not Located					
Mw-62	4/1/14	1338	G	GW		2	2	C1
Mw-63	4/2/14	1327	G	GW		2	2	C2
Mw-65			Not Located					
Mw-67	4/1/14	1242	G	GW		2	2	C1
Mw-70	4/2/14	1301	G	GW		2	2	C2
Mw-5ar	4/1/14	0930	G	GW		2	2	C1

Turnaround Time:

___ Standard
___ RUSH*
*Date Required: _____
(For rush work, results emailed/faxed by end of business day on date required)

Project Location:
X SC
___ NC
___ Other
(specify) _____

Relinquished By:	Received By:	Date (mm-dd-yy)	Time (24HR)	Samples Rec'd on Ice	Sample Temp. Upon Receipt (°C):	
[signature]	[signature]	4/3/14	1635	___Y ___N	_____(°C)	_____(N/A)
[signature]	[signature]	4-3-14	1720	___Y ___N	_____(°C)	_____(N/A)
	[signature]	4/4/14	1115	___Y ___N	3.5 (°C)	_____(N/A)
				___Y ___N	_____(°C)	_____(N/A)

See Reverse for Terms and Conditions

Original Copy - Returned w/Report
Yellow Copy - Access File Copy
Pink Copy - Client Copy

Access Analytical - Chain of Custody Record

LAB USE ONLY

Sales Order #_____ PO #_____ Access Quote #_____

Project Work Order # 1404588

Laboratory ID: _____

Company Name: Crawford Env

Report To: Charles Crawford

Address: 15 Church Ave SW

City: Roanoke State: Va Zip: 24011

Phone: 540.343.6256 Fax: 540.343.6259

Email: ccrawford@crawfordenvironmental.com

Project ID: Clouds Chevron et al

Sampled By: Trevor Slack

Preservative: (*see codes) 1

Container Type: (*see codes) G

↓ REQUESTED LAB ANALYSIS: ↓ 8260B BTEX+M+N + TAA + TAME + TBA.

ACCESS ANALYTICAL, INC.

7478 Carlisle Street
Irmo, SC 29063

Phone: (803) 781-4243
Fax: 781-4303

www.axs-inc.com

*Preservative Codes (place corresponding # in block above analysis field): 0 = None, 1 = HCL, 2 = HNO_3, 3 = H_2SO_4, 4 = NaOH, 5 = $Na_2S_2O_3$, 6 = Method 5035 set w/ $NaHSO_4$ & CH_3OH, 7 = NaOH/ZnOAC, 8 = H_3PO_4

*Matrix Codes (place corresponding code in matrix column): GW = ground water, WW = waste water, DW = drinking water, S = soil, SL = sludge, A = air, IW = industrial waste, WO = waste oil, OT = other (specify in comments section)

*Program Area Codes: CWA = Clean Water Act (for wastewaters), SDWA = Safe Drinking Water Act (for drinking waters), SHW = Solid and Hazardous Wastes (for soils, ground waters and waste samples)

*Container Type: G = Glass, P = Plastic

Sample ID/Description	Date Collected:	Time Collected:	Type: (grab or composite)	Matrix: (see codes)	Program Area (see codes)	TOTAL # of containers	# of containers collected ↓ per ↓ analysis	8260B BTEX+M+N + TAA + TAME + TBA.	NOTES / COMMENTS (if sample is a composite please use space below to note start/finish times & dates)
PW-1R	4/3/14	1335	G	GW		2	2		C1
DW-1	4/2/14	1420	G	GW		2	2		C2
DW-2	4/2/14	1501	G	GW		2	2		C2
DW-3	4/3/14	1601	G	GW		2	2		C1
DW-4	4/3/14	1409	G	GW		2	2		C1
DW-5	4/1/14	1100	G	GW		2	2		C1
DW-6	4/1/14	1218	G	GW		2	2		C1
DW-7	4/3/14	1517	G	GW		2	2		C1
DW-9	4/2/14	1055	G	GW		2	2		C2
SW-1	4/2/14	1158	G	GW		2	2		C2

Turnaround Time:

___ Standard
___ RUSH*
*Date Required:_____
(For rush work, results emailed/faxed by end of business day on date required)

Project Location:
X SC
___ NC
___ Other
(specify) _____

Relinquished By:	Received By:	Date (mm-dd-yy)	Time (24HR)	Samples Rec'd on Ice	Sample Temp. Upon Receipt (°C):	
[signature]	[signature]	4/3/14	1635	___Y ___N	____(°C)	____(N/A)
[signature]	Fedex	4-3-14	1700	___Y ___N	____(°C)	____(N/A)
	[signature]	4/4/14	1115	___Y ___N	3.5 (°C)	____(N/A)
				___Y ___N	____(°C)	____(N/A)

See Reverse for Terms and Conditions

Original Copy - Returned w/Report
Yellow Copy - Access File Copy
Pink Copy - Client Copy

Access Analytical - Chain of Custody Record

LAB USE ONLY

Sales Order #_____ PO #_____ Access Quote #_____

Project Work Order # 1404588

Laboratory ID: _____

Company Name: Crawford Env

Report To: Charles Crawford Env

Address: 15 Church Ave SW

City: Roanoke State: Va Zip: 24011

Phone: 540.343.6256 Fax: 540.343.6259

Email: ccrawford@crawfordenvironmental.com

Project ID: Clouds Chevron ct. 91

Sampled By: Trevor Slack

Preservative: (*see codes) 1

Container Type: (*see codes) G

↓ REQUESTED LAB ANALYSIS: ↓ 8260B BTEX+M+N + TAME+TAA+ TBA

ACCESS ANALYTICAL, INC.

7478 Carlisle Street
Irmo, SC 29063

Phone: (803) 781-4243
Fax: 781-4303

www.axs-inc.com

*Preservative Codes (place corresponding # in block above analysis field): 0 = None, 1 = HCL, 2 = HNO_3, 3 = H_2SO_4, 4 = NaOH, 5 = $Na_2S_2O_3$, 6 = Method 5035 set w/ $NaHSO_4$ & CH_3OH, 7 = NaOH/ZnOAC, 8 = H_3PO_4

*Matrix Codes (place corresponding code in matrix column): GW = ground water, WW = waste water, DW = drinking water, S = soil, SL = sludge, A = air, IW = industrial waste, WO = waste oil, OT = other (specify in comments section)

*Program Area Codes: CWA = Clean Water Act (for wastewaters), SDWA = Safe Drinking Water Act (for drinking waters), SHW = Solid and Hazardous Wastes (for soils, ground waters and waste samples)

*Container Type: G = Glass, P = Plastic

Sample ID/Description	Date Collected:	Time Collected:	Type: (grab or composite)	Matrix: (see codes)	Program Area (see codes)	TOTAL # of containers	# of containers collected per analysis	NOTES / COMMENTS (if sample is a composite please use space below to note start/finish times & dates)
Trip Blank 1	—	—	—	—	—	—	1	C1
Trip Blank 2	—	—	—	—	—	—	1	C2
FB1	4/3/14	1001	G	GW		2	2	C2
FB2	4/2/14	1414	G	GW		2	2	C2
FB3	4/1/14	1149	G	GW		2	2	C2
Dup A	4/2/14	1015	G	GW		2	2	
Dup B	4/2/14	1251	G	GW		2	2	
Dup C	4/3/14	1320	G	GW		2	2	
Dup D	4/3/14	1340	G	GW		2	2	

Turnaround Time:

___ Standard
___ RUSH*
*Date Required:_____
(For rush work, results emailed/faxed by end of business day on date required)

Project Location:
X SC
___ NC
___ Other
(specify) _____

Relinquished By:	Received By:	Date (mm-dd-yy)	Time (24HR)	Samples Rec'd on Ice	Sample Temp. Upon Receipt (°C):	
[signature]	[signature]	4/3/14	1635	___Y ___N	____(°C)	____(N/A)
[signature]	Fedex	4-3-14	1700	___Y ___N	____(°C)	____(N/A)
	[signature]	4/4/14	11:5	___Y ___N	3.5 (°C)	____(N/A)
				___Y ___N	____(°C)	____(N/A)

See Reverse for Terms and Conditions

Original Copy - Returned w/Report
Yellow Copy - Access File Copy
Pink Copy - Client Copy

Client: Crawford Environmental Services
Project: Clouds Chevron et. al.
Lab ID: 1404588

Case Narrative

Volatile Organic Compounds Analysis by Method 8260B:

Sample 1404588-060A as received did not meet method specified preservation requirements of pH <2. The laboratory proceeded with analysis

Due to sample matrix, samples 1404588-003A, -009A, -010A, -016A, -017A, -018A, -019A, -020A, -021A, -030A, -032A, -060A, -061A, -064A, -076A, -078A and -079A required dilution during preparation and/or analysis resulting in elevated reporting limits.

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-2
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 12:47:00 PM
Lab ID:	1404588-002	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	170		0.39	1.0	ug/L	189485	1	04/10/2014 20:38	NP
Ethylbenzene	200		0.40	1.0	ug/L	189485	1	04/10/2014 20:38	NP
Methyl tert-butyl ether	320		4.2	10	ug/L	189485	10	04/10/2014 21:04	NP
Naphthalene	150		2.0	50	ug/L	189485	10	04/10/2014 21:04	NP
Toluene	41		0.38	1.0	ug/L	189485	1	04/10/2014 20:38	NP
Xylenes, Total	960		8.3	10	ug/L	189485	10	04/10/2014 21:04	NP
Surr: 4-Bromofluorobenzene	87.1		0	66.2-120	%REC	189485	10	04/10/2014 21:04	NP
Surr: 4-Bromofluorobenzene	96.1		0	66.2-120	%REC	189485	1	04/10/2014 20:38	NP
Surr: Dibromofluoromethane	91		0	79.5-121	%REC	189485	1	04/10/2014 20:38	NP
Surr: Dibromofluoromethane	92		0	79.5-121	%REC	189485	10	04/10/2014 21:04	NP
Surr: Toluene-d8	88.2		0	77-117	%REC	189485	10	04/10/2014 21:04	NP
Surr: Toluene-d8	91		0	77-117	%REC	189485	1	04/10/2014 20:38	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	230		9.5	100	ug/L	189485	1	04/10/2014 20:38	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189485	1	04/10/2014 20:38	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189485	1	04/10/2014 20:38	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-3
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 10:13:00 AM
Lab ID:	1404588-003	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	6900		19	50	ug/L	189485	50	04/10/2014 16:03	NP
Ethylbenzene	1200		20	50	ug/L	189485	50	04/10/2014 16:03	NP
Methyl tert-butyl ether	1800		21	50	ug/L	189485	50	04/10/2014 16:03	NP
Naphthalene	600		10	250	ug/L	189485	50	04/10/2014 16:03	NP
Toluene	18000		190	500	ug/L	189485	500	04/10/2014 21:29	NP
Xylenes, Total	16000		41	50	ug/L	189485	50	04/10/2014 16:03	NP
Surr: 4-Bromofluorobenzene	87.8		0	66.2-120	%REC	189485	500	04/10/2014 21:29	NP
Surr: 4-Bromofluorobenzene	90.4		0	66.2-120	%REC	189485	50	04/10/2014 16:03	NP
Surr: Dibromofluoromethane	94		0	79.5-121	%REC	189485	50	04/10/2014 16:03	NP
Surr: Dibromofluoromethane	96.4		0	79.5-121	%REC	189485	500	04/10/2014 21:29	NP
Surr: Toluene-d8	88		0	77-117	%REC	189485	50	04/10/2014 16:03	NP
Surr: Toluene-d8	88.2		0	77-117	%REC	189485	500	04/10/2014 21:29	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	980	J	480	5000	ug/L	189485	50	04/10/2014 16:03	NP
tert-Amyl methyl ether	560		50	500	ug/L	189485	50	04/10/2014 16:03	NP
tert-Butyl Alcohol	BRL		340	5000	ug/L	189485	50	04/10/2014 16:03	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-4
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 6:09:00 PM
Lab ID:	1404588-004	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189485	1	04/09/2014 17:50	NP
Ethylbenzene	BRL		0.40	1.0	ug/L	189485	1	04/09/2014 17:50	NP
Methyl tert-butyl ether	3.5		0.42	1.0	ug/L	189485	1	04/09/2014 17:50	NP
Naphthalene	BRL		0.20	5.0	ug/L	189485	1	04/09/2014 17:50	NP
Toluene	BRL		0.38	1.0	ug/L	189485	1	04/09/2014 17:50	NP
Xylenes, Total	BRL		0.83	1.0	ug/L	189485	1	04/09/2014 17:50	NP
Surr: 4-Bromofluorobenzene	97.3		0	66.2-120	%REC	189485	1	04/09/2014 17:50	NP
Surr: Dibromofluoromethane	99.1		0	79.5-121	%REC	189485	1	04/09/2014 17:50	NP
Surr: Toluene-d8	97.9		0	77-117	%REC	189485	1	04/09/2014 17:50	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189485	1	04/09/2014 17:50	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189485	1	04/09/2014 17:50	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189485	1	04/09/2014 17:50	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-6
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 8:49:00 AM
Lab ID:	1404588-006	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	2.6		0.39	1.0	ug/L	189485	1	04/10/2014 20:14	NP
Ethylbenzene	2.4		0.40	1.0	ug/L	189485	1	04/10/2014 20:14	NP
Methyl tert-butyl ether	2.5		0.42	1.0	ug/L	189485	1	04/10/2014 20:14	NP
Naphthalene	4.2	J	0.20	5.0	ug/L	189485	1	04/10/2014 20:14	NP
Toluene	BRL		0.38	1.0	ug/L	189485	1	04/10/2014 20:14	NP
Xylenes, Total	10		0.83	1.0	ug/L	189485	1	04/10/2014 20:14	NP
Surr: 4-Bromofluorobenzene	95.1		0	66.2-120	%REC	189485	1	04/10/2014 20:14	NP
Surr: Dibromofluoromethane	92.7		0	79.5-121	%REC	189485	1	04/10/2014 20:14	NP
Surr: Toluene-d8	92.7		0	77-117	%REC	189485	1	04/10/2014 20:14	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189485	1	04/10/2014 20:14	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189485	1	04/10/2014 20:14	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189485	1	04/10/2014 20:14	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-7
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 11:31:00 AM
Lab ID:	1404588-007	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189485	1	04/09/2014 18:18	NP
Ethylbenzene	BRL		0.40	1.0	ug/L	189485	1	04/09/2014 18:18	NP
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189485	1	04/09/2014 18:18	NP
Naphthalene	BRL		0.20	5.0	ug/L	189485	1	04/09/2014 18:18	NP
Toluene	BRL		0.38	1.0	ug/L	189485	1	04/09/2014 18:18	NP
Xylenes, Total	BRL		0.83	1.0	ug/L	189485	1	04/09/2014 18:18	NP
Surr: 4-Bromofluorobenzene	93.6		0	66.2-120	%REC	189485	1	04/09/2014 18:18	NP
Surr: Dibromofluoromethane	96.4		0	79.5-121	%REC	189485	1	04/09/2014 18:18	NP
Surr: Toluene-d8	96.8		0	77-117	%REC	189485	1	04/09/2014 18:18	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189485	1	04/09/2014 18:18	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189485	1	04/09/2014 18:18	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189485	1	04/09/2014 18:18	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-8
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 12:09:00 PM
Lab ID:	1404588-008	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189485	1	04/09/2014 18:46	NP
Ethylbenzene	BRL		0.40	1.0	ug/L	189485	1	04/09/2014 18:46	NP
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189485	1	04/09/2014 18:46	NP
Naphthalene	BRL		0.20	5.0	ug/L	189485	1	04/09/2014 18:46	NP
Toluene	BRL		0.38	1.0	ug/L	189485	1	04/09/2014 18:46	NP
Xylenes, Total	BRL		0.83	1.0	ug/L	189485	1	04/09/2014 18:46	NP
Surr: 4-Bromofluorobenzene	92.5		0	66.2-120	%REC	189485	1	04/09/2014 18:46	NP
Surr: Dibromofluoromethane	98.1		0	79.5-121	%REC	189485	1	04/09/2014 18:46	NP
Surr: Toluene-d8	96		0	77-117	%REC	189485	1	04/09/2014 18:46	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189485	1	04/09/2014 18:46	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189485	1	04/09/2014 18:46	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189485	1	04/09/2014 18:46	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-9
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 3:00:00 PM
Lab ID:	1404588-009	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)									
Benzene	830		19	50	ug/L	189485	50	04/10/2014 22:19	NP
Ethylbenzene	1700		20	50	ug/L	189485	50	04/10/2014 22:19	NP
Methyl tert-butyl ether	BRL		21	50	ug/L	189485	50	04/10/2014 22:19	NP
Naphthalene	590		10	250	ug/L	189485	50	04/10/2014 22:19	NP
Toluene	7500		19	50	ug/L	189485	50	04/10/2014 22:19	NP
Xylenes, Total	14000		41	50	ug/L	189485	50	04/10/2014 22:19	NP
Surr: 4-Bromofluorobenzene	86.9		0	66.2-120	%REC	189485	50	04/10/2014 22:19	NP
Surr: Dibromofluoromethane	93.5		0	79.5-121	%REC	189485	50	04/10/2014 22:19	NP
Surr: Toluene-d8	88.6		0	77-117	%REC	189485	50	04/10/2014 22:19	NP
Oxygenates (AES SOP OA-11010) SW8260B (SW5030B)									
tert-Amyl alcohol	1700	J	480	5000	ug/L	189485	50	04/10/2014 22:19	NP
tert-Amyl methyl ether	BRL		50	500	ug/L	189485	50	04/10/2014 22:19	NP
tert-Butyl Alcohol	BRL		340	5000	ug/L	189485	50	04/10/2014 22:19	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-10
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 1:17:00 PM
Lab ID:	1404588-010	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	1800		19	50	ug/L	189485	50	04/09/2014 16:43	NP
Ethylbenzene	350		20	50	ug/L	189485	50	04/09/2014 16:43	NP
Methyl tert-butyl ether	BRL		21	50	ug/L	189485	50	04/09/2014 16:43	NP
Naphthalene	690		10	250	ug/L	189485	50	04/09/2014 16:43	NP
Toluene	5700		19	50	ug/L	189485	50	04/09/2014 16:43	NP
Xylenes, Total	8500		41	50	ug/L	189485	50	04/09/2014 16:43	NP
Surr: 4-Bromofluorobenzene	90.4		0	66.2-120	%REC	189485	50	04/09/2014 16:43	NP
Surr: Dibromofluoromethane	101		0	79.5-121	%REC	189485	50	04/09/2014 16:43	NP
Surr: Toluene-d8	92.1		0	77-117	%REC	189485	50	04/09/2014 16:43	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		480	5000	ug/L	189485	50	04/09/2014 16:43	NP
tert-Amyl methyl ether	BRL		50	500	ug/L	189485	50	04/09/2014 16:43	NP
tert-Butyl Alcohol	BRL		340	5000	ug/L	189485	50	04/09/2014 16:43	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-11
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 3:20:00 PM
Lab ID:	1404588-011	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	2.3		0.39	1.0	ug/L	189485	1	04/11/2014 11:51	NP
Ethylbenzene	11		0.40	1.0	ug/L	189485	1	04/11/2014 11:51	NP
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189485	1	04/11/2014 11:51	NP
Naphthalene	4.4	J	0.20	5.0	ug/L	189485	1	04/11/2014 11:51	NP
Toluene	1.1		0.38	1.0	ug/L	189485	1	04/11/2014 11:51	NP
Xylenes, Total	4.1		0.83	1.0	ug/L	189485	1	04/11/2014 11:51	NP
Surr: 4-Bromofluorobenzene	87.6		0	66.2-120	%REC	189485	1	04/11/2014 11:51	NP
Surr: Dibromofluoromethane	104		0	79.5-121	%REC	189485	1	04/11/2014 11:51	NP
Surr: Toluene-d8	95.5		0	77-117	%REC	189485	1	04/11/2014 11:51	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	120		9.5	100	ug/L	189485	1	04/11/2014 11:51	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189485	1	04/11/2014 11:51	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189485	1	04/11/2014 11:51	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-12
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 3:49:00 PM
Lab ID:	1404588-012	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	2.9		0.39	1.0	ug/L	189485	1	04/10/2014 18:34	NP
Ethylbenzene	1.6		0.40	1.0	ug/L	189485	1	04/10/2014 18:34	NP
Methyl tert-butyl ether	18		0.42	1.0	ug/L	189485	1	04/10/2014 18:34	NP
Naphthalene	4.7	J	0.20	5.0	ug/L	189485	1	04/10/2014 18:34	NP
Toluene	0.67	J	0.38	1.0	ug/L	189485	1	04/10/2014 18:34	NP
Xylenes, Total	0.91	J	0.83	1.0	ug/L	189485	1	04/10/2014 18:34	NP
Surr: 4-Bromofluorobenzene	87		0	66.2-120	%REC	189485	1	04/10/2014 18:34	NP
Surr: Dibromofluoromethane	95.6		0	79.5-121	%REC	189485	1	04/10/2014 18:34	NP
Surr: Toluene-d8	92.3		0	77-117	%REC	189485	1	04/10/2014 18:34	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	630		9.5	100	ug/L	189485	1	04/09/2014 19:15	NP
tert-Amyl methyl ether	9.3	J	1.0	10	ug/L	189485	1	04/09/2014 19:15	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189485	1	04/09/2014 19:15	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-13
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 3:27:00 PM
Lab ID:	1404588-013	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	0.62	J	0.39	1.0	ug/L	189485	1	04/09/2014 19:43	NP
Ethylbenzene	4.5		0.40	1.0	ug/L	189485	1	04/09/2014 19:43	NP
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189485	1	04/09/2014 19:43	NP
Naphthalene	31		0.20	5.0	ug/L	189485	1	04/09/2014 19:43	NP
Toluene	8.8		0.38	1.0	ug/L	189485	1	04/09/2014 19:43	NP
Xylenes, Total	86		0.83	1.0	ug/L	189485	1	04/09/2014 19:43	NP
Surr: 4-Bromofluorobenzene	104		0	66.2-120	%REC	189485	1	04/09/2014 19:43	NP
Surr: Dibromofluoromethane	98.4		0	79.5-121	%REC	189485	1	04/09/2014 19:43	NP
Surr: Toluene-d8	97.9		0	77-117	%REC	189485	1	04/09/2014 19:43	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	10	J	9.5	100	ug/L	189485	1	04/10/2014 18:59	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189485	1	04/10/2014 18:59	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189485	1	04/10/2014 18:59	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-16
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 2:47:00 PM
Lab ID:	1404588-015	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189485	1	04/09/2014 20:11	NP
Ethylbenzene	BRL		0.40	1.0	ug/L	189485	1	04/09/2014 20:11	NP
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189485	1	04/09/2014 20:11	NP
Naphthalene	3.4	J	0.20	5.0	ug/L	189485	1	04/09/2014 20:11	NP
Toluene	BRL		0.38	1.0	ug/L	189485	1	04/09/2014 20:11	NP
Xylenes, Total	BRL		0.83	1.0	ug/L	189485	1	04/09/2014 20:11	NP
Surr: 4-Bromofluorobenzene	97.8		0	66.2-120	%REC	189485	1	04/09/2014 20:11	NP
Surr: Dibromofluoromethane	97.3		0	79.5-121	%REC	189485	1	04/09/2014 20:11	NP
Surr: Toluene-d8	98.8		0	77-117	%REC	189485	1	04/09/2014 20:11	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189485	1	04/09/2014 20:11	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189485	1	04/09/2014 20:11	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189485	1	04/09/2014 20:11	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-17
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 2:50:00 PM
Lab ID:	1404588-016	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	280		19	50	ug/L	189485	50	04/10/2014 23:08	NP
Ethylbenzene	450		20	50	ug/L	189485	50	04/10/2014 23:08	NP
Methyl tert-butyl ether	BRL		21	50	ug/L	189485	50	04/10/2014 23:08	NP
Naphthalene	850		10	250	ug/L	189485	50	04/10/2014 23:08	NP
Toluene	5100		19	50	ug/L	189485	50	04/10/2014 23:08	NP
Xylenes, Total	13000		41	50	ug/L	189485	50	04/10/2014 23:08	NP
Surr: 4-Bromofluorobenzene	88.9		0	66.2-120	%REC	189485	50	04/10/2014 23:08	NP
Surr: Dibromofluoromethane	96.4		0	79.5-121	%REC	189485	50	04/10/2014 23:08	NP
Surr: Toluene-d8	90.6		0	77-117	%REC	189485	50	04/10/2014 23:08	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	2200	J	480	5000	ug/L	189485	50	04/10/2014 23:08	NP
tert-Amyl methyl ether	BRL		50	500	ug/L	189485	50	04/10/2014 23:08	NP
tert-Butyl Alcohol	BRL		340	5000	ug/L	189485	50	04/10/2014 23:08	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-18
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 1:49:00 PM
Lab ID:	1404588-017	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	1900		19	50	ug/L	189485	50	04/10/2014 23:33	NP
Ethylbenzene	630		20	50	ug/L	189485	50	04/10/2014 23:33	NP
Methyl tert-butyl ether	340		21	50	ug/L	189485	50	04/10/2014 23:33	NP
Naphthalene	370		10	250	ug/L	189485	50	04/10/2014 23:33	NP
Toluene	7200		19	50	ug/L	189485	50	04/10/2014 23:33	NP
Xylenes, Total	8300		41	50	ug/L	189485	50	04/10/2014 23:33	NP
Surr: 4-Bromofluorobenzene	89.8		0	66.2-120	%REC	189485	50	04/10/2014 23:33	NP
Surr: Dibromofluoromethane	95.8		0	79.5-121	%REC	189485	50	04/10/2014 23:33	NP
Surr: Toluene-d8	90.2		0	77-117	%REC	189485	50	04/10/2014 23:33	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	4900	J	480	5000	ug/L	189485	50	04/10/2014 23:33	NP
tert-Amyl methyl ether	70	J	50	500	ug/L	189485	50	04/10/2014 23:33	NP
tert-Butyl Alcohol	BRL		340	5000	ug/L	189485	50	04/10/2014 23:33	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-19
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 2:35:00 PM
Lab ID:	1404588-018	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	300		19	50	ug/L	189485	50	04/10/2014 21:54	NP
Ethylbenzene	490		20	50	ug/L	189485	50	04/10/2014 21:54	NP
Methyl tert-butyl ether	BRL		21	50	ug/L	189485	50	04/10/2014 21:54	NP
Naphthalene	900		10	250	ug/L	189485	50	04/10/2014 21:54	NP
Toluene	1800		19	50	ug/L	189485	50	04/10/2014 21:54	NP
Xylenes, Total	12000		41	50	ug/L	189485	50	04/10/2014 21:54	NP
Surr: 4-Bromofluorobenzene	88.1		0	66.2-120	%REC	189485	50	04/10/2014 21:54	NP
Surr: Dibromofluoromethane	92.3		0	79.5-121	%REC	189485	50	04/10/2014 21:54	NP
Surr: Toluene-d8	87.5		0	77-117	%REC	189485	50	04/10/2014 21:54	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	610	J	480	5000	ug/L	189485	50	04/10/2014 21:54	NP
tert-Amyl methyl ether	BRL		50	500	ug/L	189485	50	04/10/2014 21:54	NP
tert-Butyl Alcohol	BRL		340	5000	ug/L	189485	50	04/10/2014 21:54	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-20
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 1:15:00 PM
Lab ID:	1404588-019	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	1800		19	50	ug/L	189485	50	04/11/2014 18:37	NP
Ethylbenzene	460		20	50	ug/L	189485	50	04/11/2014 18:37	NP
Methyl tert-butyl ether	50		21	50	ug/L	189485	50	04/11/2014 18:37	NP
Naphthalene	960		10	250	ug/L	189485	50	04/11/2014 18:37	NP
Toluene	11000		190	500	ug/L	189485	500	04/11/2014 15:35	NP
Xylenes, Total	11000		41	50	ug/L	189485	50	04/11/2014 18:37	NP
Surr: 4-Bromofluorobenzene	86.1		0	66.2-120	%REC	189485	500	04/11/2014 15:35	NP
Surr: 4-Bromofluorobenzene	90		0	66.2-120	%REC	189485	50	04/11/2014 18:37	NP
Surr: Dibromofluoromethane	94		0	79.5-121	%REC	189485	50	04/11/2014 18:37	NP
Surr: Dibromofluoromethane	97		0	79.5-121	%REC	189485	500	04/11/2014 15:35	NP
Surr: Toluene-d8	87.2		0	77-117	%REC	189485	500	04/11/2014 15:35	NP
Surr: Toluene-d8	90.2		0	77-117	%REC	189485	50	04/11/2014 18:37	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	3100	J	480	5000	ug/L	189485	50	04/11/2014 18:37	NP
tert-Amyl methyl ether	65	J	50	500	ug/L	189485	50	04/11/2014 18:37	NP
tert-Butyl Alcohol	BRL		340	5000	ug/L	189485	50	04/11/2014 18:37	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-22
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 12:44:00 PM
Lab ID:	1404588-020	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	5700		19	50	ug/L	189485	50	04/11/2014 00:23	NP
Ethylbenzene	880		20	50	ug/L	189485	50	04/11/2014 00:23	NP
Methyl tert-butyl ether	BRL		21	50	ug/L	189485	50	04/11/2014 00:23	NP
Naphthalene	990		10	250	ug/L	189485	50	04/11/2014 00:23	NP
Toluene	12000		190	500	ug/L	189485	500	04/11/2014 14:45	NP
Xylenes, Total	23000		410	500	ug/L	189485	500	04/11/2014 14:45	NP
Surr: 4-Bromofluorobenzene	88.9		0	66.2-120	%REC	189485	500	04/11/2014 14:45	NP
Surr: 4-Bromofluorobenzene	90.7		0	66.2-120	%REC	189485	50	04/11/2014 00:23	NP
Surr: Dibromofluoromethane	94.2		0	79.5-121	%REC	189485	50	04/11/2014 00:23	NP
Surr: Dibromofluoromethane	94.6		0	79.5-121	%REC	189485	500	04/11/2014 14:45	NP
Surr: Toluene-d8	88.2		0	77-117	%REC	189485	500	04/11/2014 14:45	NP
Surr: Toluene-d8	89.8		0	77-117	%REC	189485	50	04/11/2014 00:23	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	3600	J	480	5000	ug/L	189485	50	04/11/2014 00:23	NP
tert-Amyl methyl ether	BRL		50	500	ug/L	189485	50	04/11/2014 00:23	NP
tert-Butyl Alcohol	BRL		340	5000	ug/L	189485	50	04/11/2014 00:23	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-23
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 2:35:00 PM
Lab ID:	1404588-021	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	4200		19	50	ug/L	189488	50	04/09/2014 15:03	NP
Ethylbenzene	880		20	50	ug/L	189488	50	04/09/2014 15:03	NP
Methyl tert-butyl ether	120		21	50	ug/L	189488	50	04/09/2014 15:03	NP
Naphthalene	1100		10	250	ug/L	189488	50	04/09/2014 15:03	NP
Toluene	16000		190	500	ug/L	189488	500	04/09/2014 16:18	NP
Xylenes, Total	19000		41	50	ug/L	189488	50	04/09/2014 15:03	NP
Surr: 4-Bromofluorobenzene	91.6		0	66.2-120	%REC	189488	500	04/09/2014 16:18	NP
Surr: 4-Bromofluorobenzene	93.1		0	66.2-120	%REC	189488	50	04/09/2014 15:03	NP
Surr: Dibromofluoromethane	101		0	79.5-121	%REC	189488	500	04/09/2014 16:18	NP
Surr: Dibromofluoromethane	102		0	79.5-121	%REC	189488	50	04/09/2014 15:03	NP
Surr: Toluene-d8	90.6		0	77-117	%REC	189488	500	04/09/2014 16:18	NP
Surr: Toluene-d8	93.6		0	77-117	%REC	189488	50	04/09/2014 15:03	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	5900		480	5000	ug/L	189488	50	04/09/2014 15:03	NP
tert-Amyl methyl ether	BRL		50	500	ug/L	189488	50	04/09/2014 15:03	NP
tert-Butyl Alcohol	BRL		340	5000	ug/L	189488	50	04/09/2014 15:03	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-25
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 9:12:00 AM
Lab ID:	1404588-022	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Benzene	5.5		0.39	1.0	ug/L	189488	1	04/11/2014 13:31	NP
Ethylbenzene	320		20	50	ug/L	189488	50	04/11/2014 00:47	NP
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189488	1	04/11/2014 13:31	NP
Naphthalene	1300		10	250	ug/L	189488	50	04/11/2014 00:47	NP
Toluene	200		19	50	ug/L	189488	50	04/11/2014 00:47	NP
Xylenes, Total	4400		41	50	ug/L	189488	50	04/11/2014 00:47	NP
Surr: 4-Bromofluorobenzene	91.4		0	66.2-120	%REC	189488	50	04/11/2014 00:47	NP
Surr: 4-Bromofluorobenzene	97.2		0	66.2-120	%REC	189488	1	04/11/2014 13:31	NP
Surr: Dibromofluoromethane	100		0	79.5-121	%REC	189488	50	04/11/2014 00:47	NP
Surr: Dibromofluoromethane	90.5		0	79.5-121	%REC	189488	1	04/11/2014 13:31	NP
Surr: Toluene-d8	90.4		0	77-117	%REC	189488	50	04/11/2014 00:47	NP
Surr: Toluene-d8	89		0	77-117	%REC	189488	1	04/11/2014 13:31	NP
Oxygenates (AES SOP OA-11010) SW8260B					**(SW5030B)**				
tert-Amyl alcohol	170		9.5	100	ug/L	189488	1	04/11/2014 13:31	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189488	1	04/11/2014 13:31	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189488	1	04/11/2014 13:31	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-26
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 11:55:00 AM
Lab ID:	1404588-023	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189488	1	04/09/2014 20:39	NP
Ethylbenzene	BRL		0.40	1.0	ug/L	189488	1	04/09/2014 20:39	NP
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189488	1	04/09/2014 20:39	NP
Naphthalene	BRL		0.20	5.0	ug/L	189488	1	04/09/2014 20:39	NP
Toluene	BRL		0.38	1.0	ug/L	189488	1	04/09/2014 20:39	NP
Xylenes, Total	BRL		0.83	1.0	ug/L	189488	1	04/09/2014 20:39	NP
Surr: 4-Bromofluorobenzene	96.4		0	66.2-120	%REC	189488	1	04/09/2014 20:39	NP
Surr: Dibromofluoromethane	98.2		0	79.5-121	%REC	189488	1	04/09/2014 20:39	NP
Surr: Toluene-d8	96.7		0	77-117	%REC	189488	1	04/09/2014 20:39	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189488	1	04/09/2014 20:39	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189488	1	04/09/2014 20:39	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189488	1	04/09/2014 20:39	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-27
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 9:08:00 AM
Lab ID:	1404588-024	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189488	1	04/09/2014 21:07	NP
Ethylbenzene	BRL		0.40	1.0	ug/L	189488	1	04/09/2014 21:07	NP
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189488	1	04/09/2014 21:07	NP
Naphthalene	BRL		0.20	5.0	ug/L	189488	1	04/09/2014 21:07	NP
Toluene	BRL		0.38	1.0	ug/L	189488	1	04/09/2014 21:07	NP
Xylenes, Total	BRL		0.83	1.0	ug/L	189488	1	04/09/2014 21:07	NP
Surr: 4-Bromofluorobenzene	96.9		0	66.2-120	%REC	189488	1	04/09/2014 21:07	NP
Surr: Dibromofluoromethane	98.5		0	79.5-121	%REC	189488	1	04/09/2014 21:07	NP
Surr: Toluene-d8	95.7		0	77-117	%REC	189488	1	04/09/2014 21:07	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189488	1	04/09/2014 21:07	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189488	1	04/09/2014 21:07	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189488	1	04/09/2014 21:07	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-28
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 9:03:00 AM
Lab ID:	1404588-025	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189488	1	04/09/2014 21:35	NP
Ethylbenzene	BRL		0.40	1.0	ug/L	189488	1	04/09/2014 21:35	NP
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189488	1	04/09/2014 21:35	NP
Naphthalene	BRL		0.20	5.0	ug/L	189488	1	04/09/2014 21:35	NP
Toluene	BRL		0.38	1.0	ug/L	189488	1	04/09/2014 21:35	NP
Xylenes, Total	BRL		0.83	1.0	ug/L	189488	1	04/09/2014 21:35	NP
Surr: 4-Bromofluorobenzene	95.3		0	66.2-120	%REC	189488	1	04/09/2014 21:35	NP
Surr: Dibromofluoromethane	99.6		0	79.5-121	%REC	189488	1	04/09/2014 21:35	NP
Surr: Toluene-d8	98.1		0	77-117	%REC	189488	1	04/09/2014 21:35	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189488	1	04/09/2014 21:35	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189488	1	04/09/2014 21:35	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189488	1	04/09/2014 21:35	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-29
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 9:43:00 AM
Lab ID:	1404588-026	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Benzene	BRL		0.39	1.0	ug/L	189488	1	04/09/2014 22:03	NP
Ethylbenzene	BRL		0.40	1.0	ug/L	189488	1	04/09/2014 22:03	NP
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189488	1	04/09/2014 22:03	NP
Naphthalene	BRL		0.20	5.0	ug/L	189488	1	04/09/2014 22:03	NP
Toluene	BRL		0.38	1.0	ug/L	189488	1	04/09/2014 22:03	NP
Xylenes, Total	BRL		0.83	1.0	ug/L	189488	1	04/09/2014 22:03	NP
Surr: 4-Bromofluorobenzene	93.4		0	66.2-120	%REC	189488	1	04/09/2014 22:03	NP
Surr: Dibromofluoromethane	100		0	79.5-121	%REC	189488	1	04/09/2014 22:03	NP
Surr: Toluene-d8	97.5		0	77-117	%REC	189488	1	04/09/2014 22:03	NP
Oxygenates (AES SOP OA-11010) SW8260B					**(SW5030B)**				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189488	1	04/09/2014 22:03	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189488	1	04/09/2014 22:03	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189488	1	04/09/2014 22:03	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-30
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 10:07:00 AM
Lab ID:	1404588-027	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189488	1	04/09/2014 22:32	NP
Ethylbenzene	BRL		0.40	1.0	ug/L	189488	1	04/09/2014 22:32	NP
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189488	1	04/09/2014 22:32	NP
Naphthalene	BRL		0.20	5.0	ug/L	189488	1	04/09/2014 22:32	NP
Toluene	BRL		0.38	1.0	ug/L	189488	1	04/09/2014 22:32	NP
Xylenes, Total	BRL		0.83	1.0	ug/L	189488	1	04/09/2014 22:32	NP
Surr: 4-Bromofluorobenzene	91.8		0	66.2-120	%REC	189488	1	04/09/2014 22:32	NP
Surr: Dibromofluoromethane	102		0	79.5-121	%REC	189488	1	04/09/2014 22:32	NP
Surr: Toluene-d8	100		0	77-117	%REC	189488	1	04/09/2014 22:32	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189488	1	04/09/2014 22:32	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189488	1	04/09/2014 22:32	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189488	1	04/09/2014 22:32	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-31
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 1:56:00 PM
Lab ID:	1404588-028	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Benzene	0.90	J	0.39	1.0	ug/L	189488	1	04/09/2014 23:00	NP
Ethylbenzene	BRL		0.40	1.0	ug/L	189488	1	04/09/2014 23:00	NP
Methyl tert-butyl ether	2.7		0.42	1.0	ug/L	189488	1	04/09/2014 23:00	NP
Naphthalene	BRL		0.20	5.0	ug/L	189488	1	04/09/2014 23:00	NP
Toluene	BRL		0.38	1.0	ug/L	189488	1	04/09/2014 23:00	NP
Xylenes, Total	BRL		0.83	1.0	ug/L	189488	1	04/09/2014 23:00	NP
Surr: 4-Bromofluorobenzene	94.1		0	66.2-120	%REC	189488	1	04/09/2014 23:00	NP
Surr: Dibromofluoromethane	99.9		0	79.5-121	%REC	189488	1	04/09/2014 23:00	NP
Surr: Toluene-d8	99.6		0	77-117	%REC	189488	1	04/09/2014 23:00	NP
Oxygenates (AES SOP OA-11010) SW8260B					**(SW5030B)**				
tert-Amyl alcohol	59	J	9.5	100	ug/L	189488	1	04/09/2014 23:00	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189488	1	04/09/2014 23:00	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189488	1	04/09/2014 23:00	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-32
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 10:15:00 AM
Lab ID:	1404588-029	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	0.94	J	0.39	1.0	ug/L	189488	1	04/10/2014 19:24	NP
Ethylbenzene	1.9		0.40	1.0	ug/L	189488	1	04/10/2014 19:24	NP
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189488	1	04/10/2014 19:24	NP
Naphthalene	6.6		0.20	5.0	ug/L	189488	1	04/10/2014 19:24	NP
Toluene	BRL		0.38	1.0	ug/L	189488	1	04/10/2014 19:24	NP
Xylenes, Total	2.4		0.83	1.0	ug/L	189488	1	04/10/2014 19:24	NP
Surr: 4-Bromofluorobenzene	89.9		0	66.2-120	%REC	189488	1	04/10/2014 19:24	NP
Surr: Dibromofluoromethane	90.7		0	79.5-121	%REC	189488	1	04/10/2014 19:24	NP
Surr: Toluene-d8	90.8		0	77-117	%REC	189488	1	04/10/2014 19:24	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	170		9.5	100	ug/L	189488	1	04/09/2014 23:28	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189488	1	04/09/2014 23:28	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189488	1	04/09/2014 23:28	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-33
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 10:24:00 AM
Lab ID:	1404588-030	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	560		19	50	ug/L	189488	50	04/11/2014 19:02	NP
Ethylbenzene	2500		20	50	ug/L	189488	50	04/11/2014 19:02	NP
Methyl tert-butyl ether	BRL		21	50	ug/L	189488	50	04/11/2014 19:02	NP
Naphthalene	670		10	250	ug/L	189488	50	04/11/2014 19:02	NP
Toluene	5200		19	50	ug/L	189488	50	04/11/2014 19:02	NP
Xylenes, Total	6900		41	50	ug/L	189488	50	04/11/2014 19:02	NP
Surr: 4-Bromofluorobenzene	89.3		0	66.2-120	%REC	189488	50	04/11/2014 19:02	NP
Surr: Dibromofluoromethane	94.6		0	79.5-121	%REC	189488	50	04/11/2014 19:02	NP
Surr: Toluene-d8	88.1		0	77-117	%REC	189488	50	04/11/2014 19:02	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	4100	J	480	5000	ug/L	189488	50	04/11/2014 19:02	NP
tert-Amyl methyl ether	BRL		50	500	ug/L	189488	50	04/11/2014 19:02	NP
tert-Butyl Alcohol	BRL		340	5000	ug/L	189488	50	04/11/2014 19:02	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-34
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 10:30:00 AM
Lab ID:	1404588-031	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189488	1	04/09/2014 23:56	NP
Ethylbenzene	BRL		0.40	1.0	ug/L	189488	1	04/09/2014 23:56	NP
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189488	1	04/09/2014 23:56	NP
Naphthalene	BRL		0.20	5.0	ug/L	189488	1	04/09/2014 23:56	NP
Toluene	BRL		0.38	1.0	ug/L	189488	1	04/09/2014 23:56	NP
Xylenes, Total	BRL		0.83	1.0	ug/L	189488	1	04/09/2014 23:56	NP
Surr: 4-Bromofluorobenzene	95.8		0	66.2-120	%REC	189488	1	04/09/2014 23:56	NP
Surr: Dibromofluoromethane	100		0	79.5-121	%REC	189488	1	04/09/2014 23:56	NP
Surr: Toluene-d8	98.4		0	77-117	%REC	189488	1	04/09/2014 23:56	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	39	J	9.5	100	ug/L	189488	1	04/09/2014 23:56	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189488	1	04/09/2014 23:56	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189488	1	04/09/2014 23:56	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-35
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 10:55:00 AM
Lab ID:	1404588-032	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	3700		19	50	ug/L	189488	50	04/11/2014 01:37	NP
Ethylbenzene	2000		20	50	ug/L	189488	50	04/11/2014 01:37	NP
Methyl tert-butyl ether	160		21	50	ug/L	189488	50	04/11/2014 01:37	NP
Naphthalene	550		10	250	ug/L	189488	50	04/11/2014 01:37	NP
Toluene	4300		19	50	ug/L	189488	50	04/11/2014 01:37	NP
Xylenes, Total	6200		41	50	ug/L	189488	50	04/11/2014 01:37	NP
Surr: 4-Bromofluorobenzene	88.2		0	66.2-120	%REC	189488	50	04/11/2014 01:37	NP
Surr: Dibromofluoromethane	95.5		0	79.5-121	%REC	189488	50	04/11/2014 01:37	NP
Surr: Toluene-d8	89.1		0	77-117	%REC	189488	50	04/11/2014 01:37	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	5600		480	5000	ug/L	189488	50	04/11/2014 01:37	NP
tert-Amyl methyl ether	54	J	50	500	ug/L	189488	50	04/11/2014 01:37	NP
tert-Butyl Alcohol	BRL		340	5000	ug/L	189488	50	04/11/2014 01:37	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-36
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 10:19:00 AM
Lab ID:	1404588-033	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	5.1		0.39	1.0	ug/L	189488	1	04/10/2014 00:24	NP
Ethylbenzene	38		0.40	1.0	ug/L	189488	1	04/10/2014 00:24	NP
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189488	1	04/10/2014 00:24	NP
Naphthalene	55		0.20	5.0	ug/L	189488	1	04/10/2014 00:24	NP
Toluene	BRL		0.38	1.0	ug/L	189488	1	04/10/2014 00:24	NP
Xylenes, Total	BRL		0.83	1.0	ug/L	189488	1	04/10/2014 00:24	NP
Surr: 4-Bromofluorobenzene	99.8		0	66.2-120	%REC	189488	1	04/10/2014 00:24	NP
Surr: Dibromofluoromethane	98.2		0	79.5-121	%REC	189488	1	04/10/2014 00:24	NP
Surr: Toluene-d8	101		0	77-117	%REC	189488	1	04/10/2014 00:24	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	96	J	9.5	100	ug/L	189488	1	04/10/2014 00:24	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189488	1	04/10/2014 00:24	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189488	1	04/10/2014 00:24	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-37
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 11:25:00 AM
Lab ID:	1404588-034	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189488	1	04/10/2014 00:52	NP
Ethylbenzene	BRL		0.40	1.0	ug/L	189488	1	04/10/2014 00:52	NP
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189488	1	04/10/2014 00:52	NP
Naphthalene	3.7	J	0.20	5.0	ug/L	189488	1	04/10/2014 00:52	NP
Toluene	BRL		0.38	1.0	ug/L	189488	1	04/10/2014 00:52	NP
Xylenes, Total	BRL		0.83	1.0	ug/L	189488	1	04/10/2014 00:52	NP
Surr: 4-Bromofluorobenzene	96.5		0	66.2-120	%REC	189488	1	04/10/2014 00:52	NP
Surr: Dibromofluoromethane	99.7		0	79.5-121	%REC	189488	1	04/10/2014 00:52	NP
Surr: Toluene-d8	97.7		0	77-117	%REC	189488	1	04/10/2014 00:52	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189488	1	04/10/2014 00:52	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189488	1	04/10/2014 00:52	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189488	1	04/10/2014 00:52	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-38
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 11:35:00 AM
Lab ID:	1404588-035	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189488	1	04/10/2014 09:55	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189488	1	04/10/2014 09:55	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189488	1	04/10/2014 09:55	SB
Naphthalene	BRL		0.20	5.0	ug/L	189488	1	04/10/2014 09:55	SB
Toluene	BRL		0.38	1.0	ug/L	189488	1	04/10/2014 09:55	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189488	1	04/10/2014 09:55	SB
Surr: 4-Bromofluorobenzene	92.2		0	66.2-120	%REC	189488	1	04/10/2014 09:55	SB
Surr: Dibromofluoromethane	96.9		0	79.5-121	%REC	189488	1	04/10/2014 09:55	SB
Surr: Toluene-d8	96		0	77-117	%REC	189488	1	04/10/2014 09:55	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189488	1	04/10/2014 09:55	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189488	1	04/10/2014 09:55	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189488	1	04/10/2014 09:55	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-39
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 12:13:00 PM
Lab ID:	1404588-036	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189488	1	04/10/2014 10:24	SB
Ethylbenzene	2.2		0.40	1.0	ug/L	189488	1	04/10/2014 10:24	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189488	1	04/10/2014 10:24	SB
Naphthalene	3.3	J	0.20	5.0	ug/L	189488	1	04/10/2014 10:24	SB
Toluene	3.2		0.38	1.0	ug/L	189488	1	04/10/2014 10:24	SB
Xylenes, Total	14		0.83	1.0	ug/L	189488	1	04/10/2014 10:24	SB
Surr: 4-Bromofluorobenzene	100		0	66.2-120	%REC	189488	1	04/10/2014 10:24	SB
Surr: Dibromofluoromethane	104		0	79.5-121	%REC	189488	1	04/10/2014 10:24	SB
Surr: Toluene-d8	98.5		0	77-117	%REC	189488	1	04/10/2014 10:24	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189488	1	04/10/2014 10:24	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189488	1	04/10/2014 10:24	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189488	1	04/10/2014 10:24	SB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-40
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 12:18:00 PM
Lab ID:	1404588-037	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	5.8		0.39	1.0	ug/L	189488	1	04/10/2014 10:52	SB
Ethylbenzene	2.0		0.40	1.0	ug/L	189488	1	04/10/2014 10:52	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189488	1	04/10/2014 10:52	SB
Naphthalene	24		0.20	5.0	ug/L	189488	1	04/10/2014 10:52	SB
Toluene	14		0.38	1.0	ug/L	189488	1	04/10/2014 10:52	SB
Xylenes, Total	580		8.3	10	ug/L	189488	10	04/10/2014 18:52	SB
Surr: 4-Bromofluorobenzene	103		0	66.2-120	%REC	189488	10	04/10/2014 18:52	SB
Surr: 4-Bromofluorobenzene	109		0	66.2-120	%REC	189488	1	04/10/2014 10:52	SB
Surr: Dibromofluoromethane	96		0	79.5-121	%REC	189488	1	04/10/2014 10:52	SB
Surr: Dibromofluoromethane	99.9		0	79.5-121	%REC	189488	10	04/10/2014 18:52	SB
Surr: Toluene-d8	99.3		0	77-117	%REC	189488	1	04/10/2014 10:52	SB
Surr: Toluene-d8	98.8		0	77-117	%REC	189488	10	04/10/2014 18:52	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189488	1	04/10/2014 10:52	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189488	1	04/10/2014 10:52	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189488	1	04/10/2014 10:52	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-41
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 12:27:00 PM
Lab ID:	1404588-038	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189488	1	04/10/2014 12:45	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189488	1	04/10/2014 12:45	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189488	1	04/10/2014 12:45	SB
Naphthalene	BRL		0.20	5.0	ug/L	189488	1	04/10/2014 12:45	SB
Toluene	BRL		0.38	1.0	ug/L	189488	1	04/10/2014 12:45	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189488	1	04/10/2014 12:45	SB
Surr: 4-Bromofluorobenzene	95.1		0	66.2-120	%REC	189488	1	04/10/2014 12:45	SB
Surr: Dibromofluoromethane	99.3		0	79.5-121	%REC	189488	1	04/10/2014 12:45	SB
Surr: Toluene-d8	96.5		0	77-117	%REC	189488	1	04/10/2014 12:45	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189488	1	04/10/2014 12:45	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189488	1	04/10/2014 12:45	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189488	1	04/10/2014 12:45	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-42
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 11:56:00 AM
Lab ID:	1404588-039	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189488	1	04/10/2014 11:48	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189488	1	04/10/2014 11:48	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189488	1	04/10/2014 11:48	SB
Naphthalene	BRL		0.20	5.0	ug/L	189488	1	04/10/2014 11:48	SB
Toluene	BRL		0.38	1.0	ug/L	189488	1	04/10/2014 11:48	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189488	1	04/10/2014 11:48	SB
Surr: 4-Bromofluorobenzene	95.1		0	66.2-120	%REC	189488	1	04/10/2014 11:48	SB
Surr: Dibromofluoromethane	97.3		0	79.5-121	%REC	189488	1	04/10/2014 11:48	SB
Surr: Toluene-d8	94.8		0	77-117	%REC	189488	1	04/10/2014 11:48	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189488	1	04/10/2014 11:48	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189488	1	04/10/2014 11:48	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189488	1	04/10/2014 11:48	SB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-43
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 2:28:00 PM
Lab ID:	1404588-040	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189488	1	04/10/2014 12:17	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189488	1	04/10/2014 12:17	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189488	1	04/10/2014 12:17	SB
Naphthalene	BRL		0.20	5.0	ug/L	189488	1	04/10/2014 12:17	SB
Toluene	BRL		0.38	1.0	ug/L	189488	1	04/10/2014 12:17	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189488	1	04/10/2014 12:17	SB
Surr: 4-Bromofluorobenzene	93.8		0	66.2-120	%REC	189488	1	04/10/2014 12:17	SB
Surr: Dibromofluoromethane	97		0	79.5-121	%REC	189488	1	04/10/2014 12:17	SB
Surr: Toluene-d8	96.7		0	77-117	%REC	189488	1	04/10/2014 12:17	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189488	1	04/10/2014 12:17	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189488	1	04/10/2014 12:17	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189488	1	04/10/2014 12:17	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-44
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 2:20:00 PM
Lab ID:	1404588-041	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189490	1	04/10/2014 13:13	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189490	1	04/10/2014 13:13	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189490	1	04/10/2014 13:13	SB
Naphthalene	BRL		0.20	5.0	ug/L	189490	1	04/10/2014 13:13	SB
Toluene	BRL		0.38	1.0	ug/L	189490	1	04/10/2014 13:13	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189490	1	04/10/2014 13:13	SB
Surr: 4-Bromofluorobenzene	93		0	66.2-120	%REC	189490	1	04/10/2014 13:13	SB
Surr: Dibromofluoromethane	96.6		0	79.5-121	%REC	189490	1	04/10/2014 13:13	SB
Surr: Toluene-d8	95.4		0	77-117	%REC	189490	1	04/10/2014 13:13	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189490	1	04/10/2014 13:13	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189490	1	04/10/2014 13:13	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189490	1	04/10/2014 13:13	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-45
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 2:22:00 PM
Lab ID:	1404588-042	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189490	1	04/10/2014 13:41	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189490	1	04/10/2014 13:41	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189490	1	04/10/2014 13:41	SB
Naphthalene	BRL		0.20	5.0	ug/L	189490	1	04/10/2014 13:41	SB
Toluene	BRL		0.38	1.0	ug/L	189490	1	04/10/2014 13:41	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189490	1	04/10/2014 13:41	SB
Surr: 4-Bromofluorobenzene	96		0	66.2-120	%REC	189490	1	04/10/2014 13:41	SB
Surr: Dibromofluoromethane	101		0	79.5-121	%REC	189490	1	04/10/2014 13:41	SB
Surr: Toluene-d8	97.6		0	77-117	%REC	189490	1	04/10/2014 13:41	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189490	1	04/10/2014 13:41	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189490	1	04/10/2014 13:41	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189490	1	04/10/2014 13:41	SB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-46
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 2:30:00 PM
Lab ID:	1404588-043	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189490	1	04/10/2014 14:09	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189490	1	04/10/2014 14:09	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189490	1	04/10/2014 14:09	SB
Naphthalene	BRL		0.20	5.0	ug/L	189490	1	04/10/2014 14:09	SB
Toluene	BRL		0.38	1.0	ug/L	189490	1	04/10/2014 14:09	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189490	1	04/10/2014 14:09	SB
Surr: 4-Bromofluorobenzene	90.3		0	66.2-120	%REC	189490	1	04/10/2014 14:09	SB
Surr: Dibromofluoromethane	96.8		0	79.5-121	%REC	189490	1	04/10/2014 14:09	SB
Surr: Toluene-d8	97.4		0	77-117	%REC	189490	1	04/10/2014 14:09	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189490	1	04/10/2014 14:09	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189490	1	04/10/2014 14:09	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189490	1	04/10/2014 14:09	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-48
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 2:38:00 PM
Lab ID:	1404588-044	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189490	1	04/10/2014 14:37	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189490	1	04/10/2014 14:37	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189490	1	04/10/2014 14:37	SB
Naphthalene	BRL		0.20	5.0	ug/L	189490	1	04/10/2014 14:37	SB
Toluene	BRL		0.38	1.0	ug/L	189490	1	04/10/2014 14:37	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189490	1	04/10/2014 14:37	SB
Surr: 4-Bromofluorobenzene	94.8		0	66.2-120	%REC	189490	1	04/10/2014 14:37	SB
Surr: Dibromofluoromethane	101		0	79.5-121	%REC	189490	1	04/10/2014 14:37	SB
Surr: Toluene-d8	97.4		0	77-117	%REC	189490	1	04/10/2014 14:37	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189490	1	04/10/2014 14:37	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189490	1	04/10/2014 14:37	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189490	1	04/10/2014 14:37	SB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-51
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 3:25:00 PM
Lab ID:	1404588-047	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189490	1	04/10/2014 15:06	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189490	1	04/10/2014 15:06	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189490	1	04/10/2014 15:06	SB
Naphthalene	BRL		0.20	5.0	ug/L	189490	1	04/10/2014 15:06	SB
Toluene	BRL		0.38	1.0	ug/L	189490	1	04/10/2014 15:06	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189490	1	04/10/2014 15:06	SB
Surr: 4-Bromofluorobenzene	93.8		0	66.2-120	%REC	189490	1	04/10/2014 15:06	SB
Surr: Dibromofluoromethane	102		0	79.5-121	%REC	189490	1	04/10/2014 15:06	SB
Surr: Toluene-d8	98.2		0	77-117	%REC	189490	1	04/10/2014 15:06	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189490	1	04/10/2014 15:06	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189490	1	04/10/2014 15:06	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189490	1	04/10/2014 15:06	SB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-53
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 8:51:00 AM
Lab ID:	1404588-048	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189490	1	04/10/2014 19:49	NP
Ethylbenzene	BRL		0.40	1.0	ug/L	189490	1	04/10/2014 19:49	NP
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189490	1	04/10/2014 19:49	NP
Naphthalene	4.1	J	0.20	5.0	ug/L	189490	1	04/10/2014 19:49	NP
Toluene	BRL		0.38	1.0	ug/L	189490	1	04/10/2014 19:49	NP
Xylenes, Total	BRL		0.83	1.0	ug/L	189490	1	04/10/2014 19:49	NP
Surr: 4-Bromofluorobenzene	86.2		0	66.2-120	%REC	189490	1	04/10/2014 19:49	NP
Surr: Dibromofluoromethane	97		0	79.5-121	%REC	189490	1	04/10/2014 19:49	NP
Surr: Toluene-d8	88.3		0	77-117	%REC	189490	1	04/10/2014 19:49	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189490	1	04/10/2014 15:34	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189490	1	04/10/2014 15:34	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189490	1	04/10/2014 15:34	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-54
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 3:45:00 PM
Lab ID:	1404588-049	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189490	1	04/10/2014 16:02	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189490	1	04/10/2014 16:02	SB
Methyl tert-butyl ether	9.6		0.42	1.0	ug/L	189490	1	04/10/2014 16:02	SB
Naphthalene	BRL		0.20	5.0	ug/L	189490	1	04/10/2014 16:02	SB
Toluene	BRL		0.38	1.0	ug/L	189490	1	04/10/2014 16:02	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189490	1	04/10/2014 16:02	SB
Surr: 4-Bromofluorobenzene	90.6		0	66.2-120	%REC	189490	1	04/10/2014 16:02	SB
Surr: Dibromofluoromethane	105		0	79.5-121	%REC	189490	1	04/10/2014 16:02	SB
Surr: Toluene-d8	97.8		0	77-117	%REC	189490	1	04/10/2014 16:02	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189490	1	04/10/2014 16:02	SB
tert-Amyl methyl ether	6.7	J	1.0	10	ug/L	189490	1	04/10/2014 16:02	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189490	1	04/10/2014 16:02	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-55
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 10:19:00 AM
Lab ID:	1404588-050	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	10		0.39	1.0	ug/L	189490	1	04/10/2014 21:42	SB
Ethylbenzene	3.5		0.40	1.0	ug/L	189490	1	04/10/2014 21:42	SB
Methyl tert-butyl ether	24		0.42	1.0	ug/L	189490	1	04/10/2014 21:42	SB
Naphthalene	3.9	J	0.20	5.0	ug/L	189490	1	04/10/2014 21:42	SB
Toluene	BRL		0.38	1.0	ug/L	189490	1	04/10/2014 21:42	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189490	1	04/10/2014 21:42	SB
Surr: 4-Bromofluorobenzene	93.4		0	66.2-120	%REC	189490	1	04/10/2014 21:42	SB
Surr: Dibromofluoromethane	99.2		0	79.5-121	%REC	189490	1	04/10/2014 21:42	SB
Surr: Toluene-d8	98		0	77-117	%REC	189490	1	04/10/2014 21:42	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	98	J	9.5	100	ug/L	189490	1	04/10/2014 21:42	SB
tert-Amyl methyl ether	6.4	J	1.0	10	ug/L	189490	1	04/10/2014 21:42	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189490	1	04/10/2014 21:42	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-56
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 9:41:00 AM
Lab ID:	1404588-051	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189490	1	04/10/2014 22:10	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189490	1	04/10/2014 22:10	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189490	1	04/10/2014 22:10	SB
Naphthalene	BRL		0.20	5.0	ug/L	189490	1	04/10/2014 22:10	SB
Toluene	BRL		0.38	1.0	ug/L	189490	1	04/10/2014 22:10	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189490	1	04/10/2014 22:10	SB
Surr: 4-Bromofluorobenzene	92.6		0	66.2-120	%REC	189490	1	04/10/2014 22:10	SB
Surr: Dibromofluoromethane	102		0	79.5-121	%REC	189490	1	04/10/2014 22:10	SB
Surr: Toluene-d8	97.9		0	77-117	%REC	189490	1	04/10/2014 22:10	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	50	J	9.5	100	ug/L	189490	1	04/10/2014 22:10	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189490	1	04/10/2014 22:10	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189490	1	04/10/2014 22:10	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-59
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 3:55:00 PM
Lab ID:	1404588-053	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	28		0.39	1.0	ug/L	189490	1	04/09/2014 17:33	NP
Ethylbenzene	300		4.0	10	ug/L	189490	10	04/10/2014 13:08	NP
Methyl tert-butyl ether	130		0.42	1.0	ug/L	189490	1	04/09/2014 17:33	NP
Naphthalene	45		0.20	5.0	ug/L	189490	1	04/09/2014 17:33	NP
Toluene	2.8		0.38	1.0	ug/L	189490	1	04/09/2014 17:33	NP
Xylenes, Total	6.4		0.83	1.0	ug/L	189490	1	04/09/2014 17:33	NP
Surr: 4-Bromofluorobenzene	88		0	66.2-120	%REC	189490	10	04/10/2014 13:08	NP
Surr: 4-Bromofluorobenzene	93.7		0	66.2-120	%REC	189490	1	04/09/2014 17:33	NP
Surr: Dibromofluoromethane	93.6		0	79.5-121	%REC	189490	10	04/10/2014 13:08	NP
Surr: Dibromofluoromethane	96.8		0	79.5-121	%REC	189490	1	04/09/2014 17:33	NP
Surr: Toluene-d8	89		0	77-117	%REC	189490	10	04/10/2014 13:08	NP
Surr: Toluene-d8	95.4		0	77-117	%REC	189490	1	04/09/2014 17:33	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	2600		95	1000	ug/L	189490	10	04/10/2014 13:08	NP
tert-Amyl methyl ether	42		1.0	10	ug/L	189490	1	04/09/2014 17:33	NP
tert-Butyl Alcohol	160		6.8	100	ug/L	189490	1	04/09/2014 17:33	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-62
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 1:38:00 PM
Lab ID:	1404588-055	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	0.86	J	0.39	1.0	ug/L	189490	1	04/10/2014 22:39	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189490	1	04/10/2014 22:39	SB
Methyl tert-butyl ether	3.0		0.42	1.0	ug/L	189490	1	04/10/2014 22:39	SB
Naphthalene	3.3	J	0.20	5.0	ug/L	189490	1	04/10/2014 22:39	SB
Toluene	BRL		0.38	1.0	ug/L	189490	1	04/10/2014 22:39	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189490	1	04/10/2014 22:39	SB
Surr: 4-Bromofluorobenzene	93.4		0	66.2-120	%REC	189490	1	04/10/2014 22:39	SB
Surr: Dibromofluoromethane	102		0	79.5-121	%REC	189490	1	04/10/2014 22:39	SB
Surr: Toluene-d8	98.5		0	77-117	%REC	189490	1	04/10/2014 22:39	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	260		9.5	100	ug/L	189490	1	04/10/2014 22:39	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189490	1	04/10/2014 22:39	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189490	1	04/10/2014 22:39	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-63
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 1:27:00 PM
Lab ID:	1404588-056	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189490	1	04/10/2014 23:07	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189490	1	04/10/2014 23:07	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189490	1	04/10/2014 23:07	SB
Naphthalene	BRL		0.20	5.0	ug/L	189490	1	04/10/2014 23:07	SB
Toluene	BRL		0.38	1.0	ug/L	189490	1	04/10/2014 23:07	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189490	1	04/10/2014 23:07	SB
Surr: 4-Bromofluorobenzene	93.6		0	66.2-120	%REC	189490	1	04/10/2014 23:07	SB
Surr: Dibromofluoromethane	99		0	79.5-121	%REC	189490	1	04/10/2014 23:07	SB
Surr: Toluene-d8	97.4		0	77-117	%REC	189490	1	04/10/2014 23:07	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	120		9.5	100	ug/L	189490	1	04/10/2014 23:07	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189490	1	04/10/2014 23:07	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189490	1	04/10/2014 23:07	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-67
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 12:42:00 PM
Lab ID:	1404588-058	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189490	1	04/10/2014 23:35	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189490	1	04/10/2014 23:35	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189490	1	04/10/2014 23:35	SB
Naphthalene	BRL		0.20	5.0	ug/L	189490	1	04/10/2014 23:35	SB
Toluene	BRL		0.38	1.0	ug/L	189490	1	04/10/2014 23:35	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189490	1	04/10/2014 23:35	SB
Surr: 4-Bromofluorobenzene	91.5		0	66.2-120	%REC	189490	1	04/10/2014 23:35	SB
Surr: Dibromofluoromethane	100		0	79.5-121	%REC	189490	1	04/10/2014 23:35	SB
Surr: Toluene-d8	97.8		0	77-117	%REC	189490	1	04/10/2014 23:35	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189490	1	04/10/2014 23:35	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189490	1	04/10/2014 23:35	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189490	1	04/10/2014 23:35	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-70
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 1:01:00 PM
Lab ID:	1404588-059	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B (SW5030B)									
Benzene	BRL		0.39	1.0	ug/L	189490	1	04/11/2014 00:03	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189490	1	04/11/2014 00:03	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189490	1	04/11/2014 00:03	SB
Naphthalene	BRL		0.20	5.0	ug/L	189490	1	04/11/2014 00:03	SB
Toluene	BRL		0.38	1.0	ug/L	189490	1	04/11/2014 00:03	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189490	1	04/11/2014 00:03	SB
Surr: 4-Bromofluorobenzene	92.7		0	66.2-120	%REC	189490	1	04/11/2014 00:03	SB
Surr: Dibromofluoromethane	104		0	79.5-121	%REC	189490	1	04/11/2014 00:03	SB
Surr: Toluene-d8	98.8		0	77-117	%REC	189490	1	04/11/2014 00:03	SB
Oxygenates (AES SOP OA-11010) SW8260B (SW5030B)									
tert-Amyl alcohol	BRL		9.5	100	ug/L	189490	1	04/11/2014 00:03	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189490	1	04/11/2014 00:03	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189490	1	04/11/2014 00:03	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	MW-5ar
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 9:30:00 AM
Lab ID:	1404588-060	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	12000		190	500	ug/L	189490	500	04/11/2014 13:55	NP
Ethylbenzene	2400		20	50	ug/L	189490	50	04/11/2014 02:02	NP
Methyl tert-butyl ether	70		21	50	ug/L	189490	50	04/11/2014 02:02	NP
Naphthalene	1000		10	250	ug/L	189490	50	04/11/2014 02:02	NP
Toluene	13000		190	500	ug/L	189490	500	04/11/2014 13:55	NP
Xylenes, Total	13000		41	50	ug/L	189490	50	04/11/2014 02:02	NP
Surr: 4-Bromofluorobenzene	88.1		0	66.2-120	%REC	189490	500	04/11/2014 13:55	NP
Surr: 4-Bromofluorobenzene	88.2		0	66.2-120	%REC	189490	50	04/11/2014 02:02	NP
Surr: Dibromofluoromethane	93.4		0	79.5-121	%REC	189490	500	04/11/2014 13:55	NP
Surr: Dibromofluoromethane	93.6		0	79.5-121	%REC	189490	50	04/11/2014 02:02	NP
Surr: Toluene-d8	87.1		0	77-117	%REC	189490	500	04/11/2014 13:55	NP
Surr: Toluene-d8	89.7		0	77-117	%REC	189490	50	04/11/2014 02:02	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		480	5000	ug/L	189490	50	04/11/2014 02:02	NP
tert-Amyl methyl ether	160	J	50	500	ug/L	189490	50	04/11/2014 02:02	NP
tert-Butyl Alcohol	BRL		340	5000	ug/L	189490	50	04/11/2014 02:02	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	PW-1R
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 1:35:00 PM
Lab ID:	1404588-061	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	460		19	50	ug/L	189490	50	04/11/2014 02:27	NP
Ethylbenzene	320		20	50	ug/L	189490	50	04/11/2014 02:27	NP
Methyl tert-butyl ether	BRL		21	50	ug/L	189490	50	04/11/2014 02:27	NP
Naphthalene	510		10	250	ug/L	189490	50	04/11/2014 02:27	NP
Toluene	3400		19	50	ug/L	189490	50	04/11/2014 02:27	NP
Xylenes, Total	9200		41	50	ug/L	189490	50	04/11/2014 02:27	NP
Surr: 4-Bromofluorobenzene	86.6		0	66.2-120	%REC	189490	50	04/11/2014 02:27	NP
Surr: Dibromofluoromethane	94.4		0	79.5-121	%REC	189490	50	04/11/2014 02:27	NP
Surr: Toluene-d8	88.4		0	77-117	%REC	189490	50	04/11/2014 02:27	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	710	J	480	5000	ug/L	189490	50	04/11/2014 02:27	NP
tert-Amyl methyl ether	BRL		50	500	ug/L	189490	50	04/11/2014 02:27	NP
tert-Butyl Alcohol	BRL		340	5000	ug/L	189490	50	04/11/2014 02:27	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	DW-1
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 2:20:00 PM
Lab ID:	1404588-062	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Benzene	0.45	J	0.39	1.0	ug/L	189490	1	04/11/2014 00:31	SB
Ethylbenzene	1.7		0.40	1.0	ug/L	189490	1	04/11/2014 00:31	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189490	1	04/11/2014 00:31	SB
Naphthalene	BRL		0.20	5.0	ug/L	189490	1	04/11/2014 00:31	SB
Toluene	1.2		0.38	1.0	ug/L	189490	1	04/11/2014 00:31	SB
Xylenes, Total	7.2		0.83	1.0	ug/L	189490	1	04/11/2014 00:31	SB
Surr: 4-Bromofluorobenzene	96.1		0	66.2-120	%REC	189490	1	04/11/2014 00:31	SB
Surr: Dibromofluoromethane	102		0	79.5-121	%REC	189490	1	04/11/2014 00:31	SB
Surr: Toluene-d8	95.1		0	77-117	%REC	189490	1	04/11/2014 00:31	SB
Oxygenates (AES SOP OA-11010) SW8260B					**(SW5030B)**				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189490	1	04/11/2014 00:31	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189490	1	04/11/2014 00:31	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189490	1	04/11/2014 00:31	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	DW-2
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 3:01:00 PM
Lab ID:	1404588-063	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189490	1	04/11/2014 16:50	NP
Ethylbenzene	BRL		0.40	1.0	ug/L	189490	1	04/11/2014 16:50	NP
Methyl tert-butyl ether	7.1		0.42	1.0	ug/L	189490	1	04/11/2014 16:50	NP
Naphthalene	4.1	J	0.20	5.0	ug/L	189490	1	04/11/2014 16:50	NP
Toluene	BRL		0.38	1.0	ug/L	189490	1	04/11/2014 16:50	NP
Xylenes, Total	BRL		0.83	1.0	ug/L	189490	1	04/11/2014 16:50	NP
Surr: 4-Bromofluorobenzene	83.6		0	66.2-120	%REC	189490	1	04/11/2014 16:50	NP
Surr: Dibromofluoromethane	100		0	79.5-121	%REC	189490	1	04/11/2014 16:50	NP
Surr: Toluene-d8	93		0	77-117	%REC	189490	1	04/11/2014 16:50	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189490	1	04/11/2014 00:59	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189490	1	04/11/2014 00:59	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189490	1	04/11/2014 00:59	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	DW-3
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 4:01:00 PM
Lab ID:	1404588-064	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	9800		190	500	ug/L	189490	500	04/11/2014 16:00	NP
Ethylbenzene	3700		20	50	ug/L	189490	50	04/11/2014 19:27	NP
Methyl tert-butyl ether	990		21	50	ug/L	189490	50	04/11/2014 19:27	NP
Naphthalene	780		10	250	ug/L	189490	50	04/11/2014 19:27	NP
Toluene	22000		190	500	ug/L	189490	500	04/11/2014 16:00	NP
Xylenes, Total	17000		41	50	ug/L	189490	50	04/11/2014 19:27	NP
Surr: 4-Bromofluorobenzene	84.6		0	66.2-120	%REC	189490	500	04/11/2014 16:00	NP
Surr: 4-Bromofluorobenzene	88		0	66.2-120	%REC	189490	50	04/11/2014 19:27	NP
Surr: Dibromofluoromethane	95.7		0	79.5-121	%REC	189490	50	04/11/2014 19:27	NP
Surr: Dibromofluoromethane	97.6		0	79.5-121	%REC	189490	500	04/11/2014 16:00	NP
Surr: Toluene-d8	87.7		0	77-117	%REC	189490	500	04/11/2014 16:00	NP
Surr: Toluene-d8	88.5		0	77-117	%REC	189490	50	04/11/2014 19:27	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	10000		480	5000	ug/L	189490	50	04/11/2014 19:27	NP
tert-Amyl methyl ether	190	J	50	500	ug/L	189490	50	04/11/2014 19:27	NP
tert-Butyl Alcohol	BRL		340	5000	ug/L	189490	50	04/11/2014 19:27	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	DW-4
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 2:09:00 PM
Lab ID:	1404588-065	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189490	1	04/11/2014 11:27	NP
Ethylbenzene	BRL		0.40	1.0	ug/L	189490	1	04/11/2014 11:27	NP
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189490	1	04/11/2014 11:27	NP
Naphthalene	BRL		0.20	5.0	ug/L	189490	1	04/11/2014 11:27	NP
Toluene	BRL		0.38	1.0	ug/L	189490	1	04/11/2014 11:27	NP
Xylenes, Total	BRL		0.83	1.0	ug/L	189490	1	04/11/2014 11:27	NP
Surr: 4-Bromofluorobenzene	82.8		0	66.2-120	%REC	189490	1	04/11/2014 11:27	NP
Surr: Dibromofluoromethane	107		0	79.5-121	%REC	189490	1	04/11/2014 11:27	NP
Surr: Toluene-d8	91.7		0	77-117	%REC	189490	1	04/11/2014 11:27	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189490	1	04/11/2014 11:27	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189490	1	04/11/2014 11:27	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189490	1	04/11/2014 11:27	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	DW-5
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 11:00:00 AM
Lab ID:	1404588-066	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	3300		19	50	ug/L	189491	50	04/09/2014 17:08	NP
Ethylbenzene	37		0.40	1.0	ug/L	189491	1	04/09/2014 15:53	NP
Methyl tert-butyl ether	940		21	50	ug/L	189491	50	04/09/2014 17:08	NP
Naphthalene	81		0.20	5.0	ug/L	189491	1	04/09/2014 15:53	NP
Toluene	68		0.38	1.0	ug/L	189491	1	04/09/2014 15:53	NP
Xylenes, Total	1000		41	50	ug/L	189491	50	04/09/2014 17:08	NP
Surr: 4-Bromofluorobenzene	90.5		0	66.2-120	%REC	189491	50	04/09/2014 17:08	NP
Surr: 4-Bromofluorobenzene	93.3		0	66.2-120	%REC	189491	1	04/09/2014 15:53	NP
Surr: Dibromofluoromethane	99.9		0	79.5-121	%REC	189491	50	04/09/2014 17:08	NP
Surr: Dibromofluoromethane	96.4		0	79.5-121	%REC	189491	1	04/09/2014 15:53	NP
Surr: Toluene-d8	90.3		0	77-117	%REC	189491	50	04/09/2014 17:08	NP
Surr: Toluene-d8	94		0	77-117	%REC	189491	1	04/09/2014 15:53	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	4300		95	1000	ug/L	189491	10	04/10/2014 14:23	NP
tert-Amyl methyl ether	83		1.0	10	ug/L	189491	1	04/09/2014 15:53	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189491	1	04/09/2014 15:53	NP
Surr: 4-Bromofluorobenzene	89.3		0	66.2-120	%REC	189491	10	04/10/2014 14:23	NP
Surr: Dibromofluoromethane	92.7		0	79.5-121	%REC	189491	10	04/10/2014 14:23	NP
Surr: Toluene-d8	90.3		0	77-117	%REC	189491	10	04/10/2014 14:23	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	DW-6
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 12:18:00 PM
Lab ID:	1404588-067	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	8.5		0.39	1.0	ug/L	189491	1	04/11/2014 01:28	SB
Ethylbenzene	1.6		0.40	1.0	ug/L	189491	1	04/11/2014 01:28	SB
Methyl tert-butyl ether	3.0		0.42	1.0	ug/L	189491	1	04/11/2014 01:28	SB
Naphthalene	BRL		0.20	5.0	ug/L	189491	1	04/11/2014 01:28	SB
Toluene	1.2		0.38	1.0	ug/L	189491	1	04/11/2014 01:28	SB
Xylenes, Total	7.2		0.83	1.0	ug/L	189491	1	04/11/2014 01:28	SB
Surr: 4-Bromofluorobenzene	92.2		0	66.2-120	%REC	189491	1	04/11/2014 01:28	SB
Surr: Dibromofluoromethane	102		0	79.5-121	%REC	189491	1	04/11/2014 01:28	SB
Surr: Toluene-d8	96.4		0	77-117	%REC	189491	1	04/11/2014 01:28	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189491	1	04/11/2014 01:28	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189491	1	04/11/2014 01:28	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189491	1	04/11/2014 01:28	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	DW-7
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 3:17:00 PM
Lab ID:	1404588-068	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	0.52	J	0.39	1.0	ug/L	189491	1	04/11/2014 11:02	NP
Ethylbenzene	BRL		0.40	1.0	ug/L	189491	1	04/11/2014 11:02	NP
Methyl tert-butyl ether	2.6		0.42	1.0	ug/L	189491	1	04/11/2014 11:02	NP
Naphthalene	4.2	J	0.20	5.0	ug/L	189491	1	04/11/2014 11:02	NP
Toluene	0.46	J	0.38	1.0	ug/L	189491	1	04/11/2014 11:02	NP
Xylenes, Total	1.4		0.83	1.0	ug/L	189491	1	04/11/2014 11:02	NP
Surr: 4-Bromofluorobenzene	83.4		0	66.2-120	%REC	189491	1	04/11/2014 11:02	NP
Surr: Dibromofluoromethane	104		0	79.5-121	%REC	189491	1	04/11/2014 11:02	NP
Surr: Toluene-d8	90		0	77-117	%REC	189491	1	04/11/2014 11:02	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189491	1	04/11/2014 11:02	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189491	1	04/11/2014 11:02	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189491	1	04/11/2014 11:02	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	DW-9
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 10:55:00 AM
Lab ID:	1404588-069	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189491	1	04/11/2014 02:24	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189491	1	04/11/2014 02:24	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189491	1	04/11/2014 02:24	SB
Naphthalene	BRL		0.20	5.0	ug/L	189491	1	04/11/2014 02:24	SB
Toluene	BRL		0.38	1.0	ug/L	189491	1	04/11/2014 02:24	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189491	1	04/11/2014 02:24	SB
Surr: 4-Bromofluorobenzene	93.8		0	66.2-120	%REC	189491	1	04/11/2014 02:24	SB
Surr: Dibromofluoromethane	102		0	79.5-121	%REC	189491	1	04/11/2014 02:24	SB
Surr: Toluene-d8	97.1		0	77-117	%REC	189491	1	04/11/2014 02:24	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189491	1	04/11/2014 02:24	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189491	1	04/11/2014 02:24	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189491	1	04/11/2014 02:24	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	SW-1
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 11:58:00 AM
Lab ID:	1404588-070	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	180		0.39	1.0	ug/L	189491	1	04/11/2014 02:52	SB
Ethylbenzene	30		0.40	1.0	ug/L	189491	1	04/11/2014 02:52	SB
Methyl tert-butyl ether	42		0.42	1.0	ug/L	189491	1	04/11/2014 02:52	SB
Naphthalene	6.5		0.20	5.0	ug/L	189491	1	04/11/2014 02:52	SB
Toluene	8.4		0.38	1.0	ug/L	189491	1	04/11/2014 02:52	SB
Xylenes, Total	53		0.83	1.0	ug/L	189491	1	04/11/2014 02:52	SB
Surr: 4-Bromofluorobenzene	98		0	66.2-120	%REC	189491	1	04/11/2014 02:52	SB
Surr: Dibromofluoromethane	97.9		0	79.5-121	%REC	189491	1	04/11/2014 02:52	SB
Surr: Toluene-d8	96.1		0	77-117	%REC	189491	1	04/11/2014 02:52	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	350		9.5	100	ug/L	189491	1	04/11/2014 02:52	SB
tert-Amyl methyl ether	9.5	J	1.0	10	ug/L	189491	1	04/11/2014 02:52	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189491	1	04/11/2014 02:52	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	TRIP BLANK 1
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/4/2014
Lab ID:	1404588-071	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189491	1	04/10/2014 20:46	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189491	1	04/10/2014 20:46	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189491	1	04/10/2014 20:46	SB
Naphthalene	BRL		0.20	5.0	ug/L	189491	1	04/10/2014 20:46	SB
Toluene	BRL		0.38	1.0	ug/L	189491	1	04/10/2014 20:46	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189491	1	04/10/2014 20:46	SB
Surr: 4-Bromofluorobenzene	94.4		0	66.2-120	%REC	189491	1	04/10/2014 20:46	SB
Surr: Dibromofluoromethane	99.3		0	79.5-121	%REC	189491	1	04/10/2014 20:46	SB
Surr: Toluene-d8	96.7		0	77-117	%REC	189491	1	04/10/2014 20:46	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189491	1	04/10/2014 20:46	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189491	1	04/10/2014 20:46	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189491	1	04/10/2014 20:46	SB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	TRIP BLANK 2
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/4/2014
Lab ID:	1404588-072	**Matrix:**	Aqueous

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189491	1	04/10/2014 21:14	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189491	1	04/10/2014 21:14	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189491	1	04/10/2014 21:14	SB
Naphthalene	BRL		0.20	5.0	ug/L	189491	1	04/10/2014 21:14	SB
Toluene	BRL		0.38	1.0	ug/L	189491	1	04/10/2014 21:14	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189491	1	04/10/2014 21:14	SB
Surr: 4-Bromofluorobenzene	94.3		0	66.2-120	%REC	189491	1	04/10/2014 21:14	SB
Surr: Dibromofluoromethane	99.3		0	79.5-121	%REC	189491	1	04/10/2014 21:14	SB
Surr: Toluene-d8	96.2		0	77-117	%REC	189491	1	04/10/2014 21:14	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189491	1	04/10/2014 21:14	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189491	1	04/10/2014 21:14	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189491	1	04/10/2014 21:14	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	FB 1
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 10:01:00 AM
Lab ID:	1404588-073	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189491	1	04/10/2014 19:21	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189491	1	04/10/2014 19:21	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189491	1	04/10/2014 19:21	SB
Naphthalene	BRL		0.20	5.0	ug/L	189491	1	04/10/2014 19:21	SB
Toluene	BRL		0.38	1.0	ug/L	189491	1	04/10/2014 19:21	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189491	1	04/10/2014 19:21	SB
Surr: 4-Bromofluorobenzene	93.7		0	66.2-120	%REC	189491	1	04/10/2014 19:21	SB
Surr: Dibromofluoromethane	101		0	79.5-121	%REC	189491	1	04/10/2014 19:21	SB
Surr: Toluene-d8	96.3		0	77-117	%REC	189491	1	04/10/2014 19:21	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189491	1	04/10/2014 19:21	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189491	1	04/10/2014 19:21	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189491	1	04/10/2014 19:21	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	FB 2
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 2:14:00 PM
Lab ID:	1404588-074	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189491	1	04/10/2014 19:49	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189491	1	04/10/2014 19:49	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189491	1	04/10/2014 19:49	SB
Naphthalene	BRL		0.20	5.0	ug/L	189491	1	04/10/2014 19:49	SB
Toluene	BRL		0.38	1.0	ug/L	189491	1	04/10/2014 19:49	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189491	1	04/10/2014 19:49	SB
Surr: 4-Bromofluorobenzene	96.6		0	66.2-120	%REC	189491	1	04/10/2014 19:49	SB
Surr: Dibromofluoromethane	105		0	79.5-121	%REC	189491	1	04/10/2014 19:49	SB
Surr: Toluene-d8	99.1		0	77-117	%REC	189491	1	04/10/2014 19:49	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189491	1	04/10/2014 19:49	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189491	1	04/10/2014 19:49	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189491	1	04/10/2014 19:49	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	FB 3
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/1/2014 11:49:00 AM
Lab ID:	1404588-075	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	BRL		0.39	1.0	ug/L	189491	1	04/10/2014 20:17	SB
Ethylbenzene	BRL		0.40	1.0	ug/L	189491	1	04/10/2014 20:17	SB
Methyl tert-butyl ether	BRL		0.42	1.0	ug/L	189491	1	04/10/2014 20:17	SB
Naphthalene	BRL		0.20	5.0	ug/L	189491	1	04/10/2014 20:17	SB
Toluene	BRL		0.38	1.0	ug/L	189491	1	04/10/2014 20:17	SB
Xylenes, Total	BRL		0.83	1.0	ug/L	189491	1	04/10/2014 20:17	SB
Surr: 4-Bromofluorobenzene	90.9		0	66.2-120	%REC	189491	1	04/10/2014 20:17	SB
Surr: Dibromofluoromethane	99.4		0	79.5-121	%REC	189491	1	04/10/2014 20:17	SB
Surr: Toluene-d8	98.6		0	77-117	%REC	189491	1	04/10/2014 20:17	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	BRL		9.5	100	ug/L	189491	1	04/10/2014 20:17	SB
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189491	1	04/10/2014 20:17	SB
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189491	1	04/10/2014 20:17	SB

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	DUP A
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 10:15:00 AM
Lab ID:	1404588-076	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	8300		19	50	ug/L	189491	50	04/11/2014 03:41	NP
Ethylbenzene	1500		20	50	ug/L	189491	50	04/11/2014 03:41	NP
Methyl tert-butyl ether	2200		21	50	ug/L	189491	50	04/11/2014 03:41	NP
Naphthalene	650		10	250	ug/L	189491	50	04/11/2014 03:41	NP
Toluene	18000		190	500	ug/L	189491	500	04/11/2014 14:21	NP
Xylenes, Total	20000		41	50	ug/L	189491	50	04/11/2014 03:41	NP
Surr: 4-Bromofluorobenzene	87.3		0	66.2-120	%REC	189491	500	04/11/2014 14:21	NP
Surr: 4-Bromofluorobenzene	90.5		0	66.2-120	%REC	189491	50	04/11/2014 03:41	NP
Surr: Dibromofluoromethane	93.4		0	79.5-121	%REC	189491	500	04/11/2014 14:21	NP
Surr: Dibromofluoromethane	95.8		0	79.5-121	%REC	189491	50	04/11/2014 03:41	NP
Surr: Toluene-d8	86.1		0	77-117	%REC	189491	500	04/11/2014 14:21	NP
Surr: Toluene-d8	88.7		0	77-117	%REC	189491	50	04/11/2014 03:41	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	860	J	480	5000	ug/L	189491	50	04/11/2014 03:41	NP
tert-Amyl methyl ether	660		50	500	ug/L	189491	50	04/11/2014 03:41	NP
tert-Butyl Alcohol	BRL		340	5000	ug/L	189491	50	04/11/2014 03:41	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	DUP B
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/2/2014 12:51:00 PM
Lab ID:	1404588-077	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	150		0.39	1.0	ug/L	189491	1	04/11/2014 12:41	NP
Ethylbenzene	180		0.40	1.0	ug/L	189491	1	04/11/2014 12:41	NP
Methyl tert-butyl ether	510		4.2	10	ug/L	189491	10	04/11/2014 13:06	NP
Naphthalene	140		0.20	5.0	ug/L	189491	1	04/11/2014 12:41	NP
Toluene	39		0.38	1.0	ug/L	189491	1	04/11/2014 12:41	NP
Xylenes, Total	1500		8.3	10	ug/L	189491	10	04/11/2014 13:06	NP
Surr: 4-Bromofluorobenzene	86.1		0	66.2-120	%REC	189491	10	04/11/2014 13:06	NP
Surr: 4-Bromofluorobenzene	98.5		0	66.2-120	%REC	189491	1	04/11/2014 12:41	NP
Surr: Dibromofluoromethane	96.4		0	79.5-121	%REC	189491	1	04/11/2014 12:41	NP
Surr: Dibromofluoromethane	98.5		0	79.5-121	%REC	189491	10	04/11/2014 13:06	NP
Surr: Toluene-d8	89		0	77-117	%REC	189491	10	04/11/2014 13:06	NP
Surr: Toluene-d8	94		0	77-117	%REC	189491	1	04/11/2014 12:41	NP
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	200		9.5	100	ug/L	189491	1	04/11/2014 12:41	NP
tert-Amyl methyl ether	BRL		1.0	10	ug/L	189491	1	04/11/2014 12:41	NP
tert-Butyl Alcohol	BRL		6.8	100	ug/L	189491	1	04/11/2014 12:41	NP

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	DUP C
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 1:20:00 PM
Lab ID:	1404588-078	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					**(SW5030B)**				
Benzene	2300		19	50	ug/L	189491	50	04/11/2014 19:52	NP
Ethylbenzene	580		20	50	ug/L	189491	50	04/11/2014 19:52	NP
Methyl tert-butyl ether	60		21	50	ug/L	189491	50	04/11/2014 19:52	NP
Naphthalene	1100		10	250	ug/L	189491	50	04/11/2014 19:52	NP
Toluene	11000		190	500	ug/L	189491	500	04/11/2014 15:10	NP
Xylenes, Total	14000		41	50	ug/L	189491	50	04/11/2014 19:52	NP
Surr: 4-Bromofluorobenzene	87.4		0	66.2-120	%REC	189491	500	04/11/2014 15:10	NP
Surr: 4-Bromofluorobenzene	88.9		0	66.2-120	%REC	189491	50	04/11/2014 19:52	NP
Surr: Dibromofluoromethane	94.2		0	79.5-121	%REC	189491	50	04/11/2014 19:52	NP
Surr: Dibromofluoromethane	94.3		0	79.5-121	%REC	189491	500	04/11/2014 15:10	NP
Surr: Toluene-d8	86.7		0	77-117	%REC	189491	500	04/11/2014 15:10	NP
Surr: Toluene-d8	90.1		0	77-117	%REC	189491	50	04/11/2014 19:52	NP
Oxygenates (AES SOP OA-11010) SW8260B					**(SW5030B)**				
tert-Amyl alcohol	3900	J	480	5000	ug/L	189491	50	04/11/2014 19:52	NP
tert-Amyl methyl ether	80	J	50	500	ug/L	189491	50	04/11/2014 19:52	NP
tert-Butyl Alcohol	BRL		340	5000	ug/L	189491	50	04/11/2014 19:52	NP

Qualifiers:

*	Value exceeds maximum contaminant level	E	Estimated value above quantitation range
BRL	Not detected at MDL	S	Spike Recovery outside limits due to matrix
H	Holding times for preparation or analysis exceeded	J	Estimated value detected below Reporting Limit
N	Analyte not NELAC certified	>	Greater than Result value
B	Analyte detected in the associated method blank	<	Less than Result value
NC	Not confirmed	Narr	See case narrative

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client:	Crawford Environmental Services	**Client Sample ID:**	DUP D
Project Name:	Clouds Chevron et. al.	**Collection Date:**	4/3/2014 1:40:00 PM
Lab ID:	1404588-079	**Matrix:**	Groundwater

Analyses	Result	Qual	MDL	Reporting Limit	Units	BatchID	DF	Date Analyzed	Analyst
Volatile Organic Compounds by GC/MS SW8260B					(SW5030B)				
Benzene	420		19	50	ug/L	189491	50	04/11/2014 03:20	SB
Ethylbenzene	260		20	50	ug/L	189491	50	04/11/2014 03:20	SB
Methyl tert-butyl ether	BRL		21	50	ug/L	189491	50	04/11/2014 03:20	SB
Naphthalene	370		10	250	ug/L	189491	50	04/11/2014 03:20	SB
Toluene	3300		19	50	ug/L	189491	50	04/11/2014 03:20	SB
Xylenes, Total	6800		41	50	ug/L	189491	50	04/11/2014 03:20	SB
Surr: 4-Bromofluorobenzene	104		0	66.2-120	%REC	189491	50	04/11/2014 03:20	SB
Surr: Dibromofluoromethane	105		0	79.5-121	%REC	189491	50	04/11/2014 03:20	SB
Surr: Toluene-d8	98.1		0	77-117	%REC	189491	50	04/11/2014 03:20	SB
Oxygenates (AES SOP OA-11010) SW8260B					(SW5030B)				
tert-Amyl alcohol	5300		480	5000	ug/L	189491	50	04/11/2014 03:20	SB
tert-Amyl methyl ether	BRL		50	500	ug/L	189491	50	04/11/2014 03:20	SB
tert-Butyl Alcohol	BRL		340	5000	ug/L	189491	50	04/11/2014 03:20	SB

Qualifiers:

- * Value exceeds maximum contaminant level
- BRL Not detected at MDL
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated method blank
- NC Not confirmed
- E Estimated value above quantitation range
- S Spike Recovery outside limits due to matrix
- J Estimated value detected below Reporting Limit
- > Greater than Result value
- < Less than Result value
- Narr See case narrative

Analytical Environmental Services, Inc.

Sample/Cooler Receipt Checklist

Client Accuu Work Order Number 1404588

Checklist completed by WJ 4/4/14
Signature Date

Carrier name: FedEx ✓ UPS __ Courier __ Client __ US Mail __ Other _____

Shipping container/cooler in good condition? Yes ✓ No __ Not Present __

Custody seals intact on shipping container/cooler? Yes __ No __ Not Present ✓

Custody seals intact on sample bottles? Yes __ No __ Not Present ✓

Container/Temp Blank temperature in compliance? (4°C±2)* Yes ✓ No __

Cooler #1 3.5° Cooler #2 _____ Cooler #3 _____ Cooler #4 _____ Cooler#5 _____ Cooler #6 _____

Chain of custody present? Yes ✓ No __

Chain of custody signed when relinquished and received? Yes ✓ No __

Chain of custody agrees with sample labels? Yes ✓ No __

Samples in proper container/bottle? Yes ✓ No __

Sample containers intact? Yes ✓ No __

Sufficient sample volume for indicated test? Yes ✓ No __

All samples received within holding time? Yes ✓ No __

Was TAT marked on the COC? Yes __ No ✓

Proceed with Standard TAT as per project history? Yes ✓ No __ Not Applicable __

Water - VOA vials have zero headspace? No VOA vials submitted __ Yes ✓ No __

Water - pH acceptable upon receipt? Yes ✓ No __ Not Applicable __

Adjusted? _____ Checked by _____

Sample Condition: Good ✓ Other(Explain) _____

(For diffusive samples or AIHA lead) Is a known blank included? Yes __ No ✓

See Case Narrative for resolution of the Non-Conformance.

* Samples do not have to comply with the given range for certain parameters.

\\L\Quality Assurance\Checklists Procedures Sign-Off Templates\Checklists\Sample Receipt Checklists\Sample_Cooler_Receipt_Checklist

Client: Crawford Environmental Services
Project Name: Clouds Chevron et. al.
Workorder: 1404588

ANALYTICAL QC SUMMARY REPORT

BatchID: 189485

Sample ID: MB-189485	Client ID:				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 189485		Analysis Date: 04/09/2014		Seq No: 5585198	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Benzene	BRL	1.0								
Ethylbenzene	BRL	1.0								
Methyl tert-butyl ether	BRL	1.0								
Naphthalene	BRL	5.0								
Toluene	BRL	1.0								
Xylenes, Total	BRL	1.0								
Surr: 4-Bromofluorobenzene	44.91	0	50.00		89.8	70	130			
Surr: Dibromofluoromethane	50.91	0	50.00		102	70	130			
Surr: Toluene-d8	46.05	0	50.00		92.1	70	130			

Sample ID: MB-189485	Client ID:				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: MBLK	TestCode: Oxygenates (AES SOP OA-11010) SW8260B				BatchID: 189485		Analysis Date: 04/09/2014		Seq No: 5585933	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
tert-Amyl alcohol	BRL	100								
tert-Amyl methyl ether	BRL	10								
tert-Butyl Alcohol	BRL	100								

Sample ID: LCS-189485	Client ID:				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 189485		Analysis Date: 04/09/2014		Seq No: 5585188	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Benzene	41.62	1.0	50.00		83.2	70	130			
Ethylbenzene	53.21	1.0	50.00		106	70	130			
Naphthalene	45.29	5.0	50.00		90.6	70	130			
Toluene	43.53	1.0	50.00		87.1	70	130			
Xylenes, Total	153.7	1.0	150.0		102	70	130			
Surr: 4-Bromofluorobenzene	48.92	0	50.00		97.8	70	130			

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Crawford Environmental Services
Project Name: Clouds Chevron et. al.
Workorder: 1404588

ANALYTICAL QC SUMMARY REPORT

BatchID: 189485

Sample ID: LCS-189485	Client ID:				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 189485		Analysis Date: 04/09/2014		Seq No: 5585188	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Dibromofluoromethane	50.05	0	50.00		100	70	130				
Surr: Toluene-d8	48.35	0	50.00		96.7	70	130				

Sample ID: LCS-189485	Client ID:				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: LCS	TestCode: Oxygenates (AES SOP OA-11010) SW8260B				BatchID: 189485		Analysis Date: 04/09/2014		Seq No: 5585926	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
tert-Amyl alcohol	941.3	100	1000		94.1	70	130				
tert-Amyl methyl ether	171.9	10	200.0		85.9	70	130				
tert-Butyl Alcohol	962.7	100	1000		96.3	70	130				

Sample ID: 1404588-010AMS	Client ID: MW-10				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 189485		Analysis Date: 04/09/2014		Seq No: 5585589	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	3765	50	2500	1833	77.3	70.2	138				
Ethylbenzene	3380	50	2500	352.0	121	71.9	133				
Naphthalene	3418	250	2500	687.5	109	54.6	130				
Toluene	6783	50	2500	5651	45.3	70	139				S
Xylenes, Total	15500	50	7500	8516	93.2	70.7	136				
Surr: 4-Bromofluorobenzene	2396	0	2500		95.8	66.2	120				
Surr: Dibromofluoromethane	2362	0	2500		94.5	79.5	121				
Surr: Toluene-d8	2343	0	2500		93.7	77	117				

Sample ID: 1404588-010AMS	Client ID: MW-10				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: MS	TestCode: Oxygenates (AES SOP OA-11010) SW8260B				BatchID: 189485		Analysis Date: 04/09/2014		Seq No: 5586129	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:					
	>	Greater than Result value	<	Less than Result value	B Analyte detected in the associated method blank
	BRL	Below reporting limit	E	Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix	

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client: Crawford Environmental Services
Project Name: Clouds Chevron et. al.
Workorder: 1404588

ANALYTICAL QC SUMMARY REPORT

BatchID: 189485

Sample ID: 1404588-010AMS	Client ID: MW-10	Units: ug/L	Prep Date: 04/09/2014	Run No: 265148
SampleType: MS	TestCode: Oxygenates (AES SOP OA-11010) SW8260B	BatchID: 189485	Analysis Date: 04/09/2014	Seq No: 5586129

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
tert-Amyl alcohol	59760	5000	50000		120	54.6	145				
tert-Amyl methyl ether	10040	500	10000		100	71.1	129				
tert-Butyl Alcohol	64920	5000	50000		130	50.3	149				

Sample ID: 1404588-010AMSD	Client ID: MW-10	Units: ug/L	Prep Date: 04/09/2014	Run No: 265148
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 189485	Analysis Date: 04/09/2014	Seq No: 5585592

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	3510	50	2500	1833	67.1	70.2	138	3765	7.00	20	S
Ethylbenzene	3044	50	2500	352.0	108	71.9	133	3380	10.5	20	
Naphthalene	3107	250	2500	687.5	96.8	54.6	130	3418	9.55	21.4	
Toluene	6307	50	2500	5651	26.2	70	139	6783	7.27	20	S
Xylenes, Total	14120	50	7500	8516	74.7	70.7	136	15500	9.34	20	
Surr: 4-Bromofluorobenzene	2376	0	2500		95.0	66.2	120	2396	0	0	
Surr: Dibromofluoromethane	2408	0	2500		96.3	79.5	121	2362	0	0	
Surr: Toluene-d8	2323	0	2500		92.9	77	117	2343	0	0	

Sample ID: 1404588-010AMSD	Client ID: MW-10	Units: ug/L	Prep Date: 04/09/2014	Run No: 265148
SampleType: MSD	TestCode: Oxygenates (AES SOP OA-11010) SW8260B	BatchID: 189485	Analysis Date: 04/09/2014	Seq No: 5586132

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
tert-Amyl alcohol	55040	5000	50000		110	54.6	145	59760	8.22	23.5	
tert-Amyl methyl ether	9304	500	10000		93.0	71.1	129	10040	7.59	20	
tert-Butyl Alcohol	58470	5000	50000		117	50.3	149	64920	10.4	33.5	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Crawford Environmental Services
Project Name: Clouds Chevron et. al.
Workorder: 1404588

ANALYTICAL QC SUMMARY REPORT

BatchID: 189488

Sample ID: **MB-189488**	Client ID:				Units: **ug/L**		Prep Date: **04/09/2014**		Run No: **265148**	
SampleType: **MBLK**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**				BatchID: **189488**		Analysis Date: **04/09/2014**		Seq No: **5585200**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Benzene	BRL	1.0								
Ethylbenzene	BRL	1.0								
Methyl tert-butyl ether	BRL	1.0								
Naphthalene	BRL	5.0								
Toluene	BRL	1.0								
Xylenes, Total	BRL	1.0								
Surr: 4-Bromofluorobenzene	43.57	0	50.00		87.1	70	130			
Surr: Dibromofluoromethane	51.71	0	50.00		103	70	130			
Surr: Toluene-d8	46.46	0	50.00		92.9	70	130			

Sample ID: **MB-189488**	Client ID:				Units: **ug/L**		Prep Date: **04/09/2014**		Run No: **265148**	
SampleType: **MBLK**	TestCode: **Oxygenates (AES SOP OA-11010) SW8260B**				BatchID: **189488**		Analysis Date: **04/09/2014**		Seq No: **5585934**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
tert-Amyl alcohol	BRL	100								
tert-Amyl methyl ether	BRL	10								
tert-Butyl Alcohol	BRL	100								

Sample ID: **LCS-189488**	Client ID:				Units: **ug/L**		Prep Date: **04/09/2014**		Run No: **265148**	
SampleType: **LCS**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**				BatchID: **189488**		Analysis Date: **04/09/2014**		Seq No: **5585193**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Benzene	42.79	1.0	50.00		85.6	70	130			
Ethylbenzene	52.90	1.0	50.00		106	70	130			
Naphthalene	51.36	5.0	50.00		103	70	130			
Toluene	44.24	1.0	50.00		88.5	70	130			
Xylenes, Total	152.6	1.0	150.0		102	70	130			
Surr: 4-Bromofluorobenzene	48.90	0	50.00		97.8	70	130			

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Crawford Environmental Services
Project Name: Clouds Chevron et. al. ·
Workorder: 1404588

ANALYTICAL QC SUMMARY REPORT

BatchID: 189488

Sample ID: LCS-189488	Client ID:				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 189488		Analysis Date: 04/09/2014		Seq No: 5585193	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Surr: Dibromofluoromethane	50.46	0	50.00		101	70	130			
Surr: Toluene-d8	48.87	0	50.00		97.7	70	130			

Sample ID: LCS-189488	Client ID:				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: LCS	TestCode: Oxygenates (AES SOP OA-11010) SW8260B				BatchID: 189488		Analysis Date: 04/09/2014		Seq No: 5585927	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
tert-Amyl alcohol	1008	100	1000		101	70	130			
tert-Amyl methyl ether	172.4	10	200.0		86.2	70	130			
tert-Butyl Alcohol	1038	100	1000		104	70	130			

Sample ID: 1404588-021AMS	Client ID: MW-23				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 189488		Analysis Date: 04/09/2014		Seq No: 5585585	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Benzene	27160	500	25000	4170	91.9	70.2	138			
Ethylbenzene	30110	500	25000	680.0	118	71.9	133			
Naphthalene	25870	2500	25000	2995	91.5	54.6	130			
Toluene	41790	500	25000	15980	103	70	139			
Xylenes, Total	102200	500	75000	15810	115	70.7	136			
Surr: 4-Bromofluorobenzene	23950	0	25000		95.8	66.2	120			
Surr: Dibromofluoromethane	24790	0	25000		99.1	79.5	121			
Surr: Toluene-d8	23760	0	25000		95.0	77	117			

Sample ID: 1404588-021AMS	Client ID: MW-23				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: MS	TestCode: Oxygenates (AES SOP OA-11010) SW8260B				BatchID: 189488		Analysis Date: 04/09/2014		Seq No: 5586126	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual

Qualifiers:					
	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank		
	BRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded		
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix		
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix			

Analytical Environmental Services, Inc

Date: 16-Apr-14

Client: Crawford Environmental Services
Project Name: Clouds Chevron et. al.
Workorder: 1404588

ANALYTICAL QC SUMMARY REPORT

BatchID: 189488

Sample ID: 1404588-021AMS	Client ID: MW-23	Units: ug/L	Prep Date: 04/09/2014	Run No: 265148
SampleType: MS	TestCode: Oxygenates (AES SOP OA-11010) SW8260B	BatchID: 189488	Analysis Date: 04/09/2014	Seq No: 5586126

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
tert-Amyl alcohol	479400	50000	500000	46630	86.6	54.6	145				
tert-Amyl methyl ether	92130	5000	100000		92.1	71.1	129				
tert-Butyl Alcohol	465400	50000	500000		93.1	50.3	149				

Sample ID: 1404588-021AMSD	Client ID: MW-23	Units: ug/L	Prep Date: 04/09/2014	Run No: 265148
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 189488	Analysis Date: 04/09/2014	Seq No: 5585588

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	25920	500	25000	4170	87.0	70.2	138	27160	4.67	20	
Ethylbenzene	29350	500	25000	680.0	115	71.9	133	30110	2.54	20	
Naphthalene	25590	2500	25000	2995	90.4	54.6	130	25870	1.07	21.4	
Toluene	39870	500	25000	15980	95.5	70	139	41790	4.71	20	
Xylenes, Total	98400	500	75000	15810	110	70.7	136	102200	3.82	20	
Surr: 4-Bromofluorobenzene	24050	0	25000		96.2	66.2	120	23950	0	0	
Surr: Dibromofluoromethane	24280	0	25000		97.1	79.5	121	24790	0	0	
Surr: Toluene-d8	23590	0	25000		94.4	77	117	23760	0	0	

Sample ID: 1404588-021AMSD	Client ID: MW-23	Units: ug/L	Prep Date: 04/09/2014	Run No: 265148
SampleType: MSD	TestCode: Oxygenates (AES SOP OA-11010) SW8260B	BatchID: 189488	Analysis Date: 04/09/2014	Seq No: 5586127

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
tert-Amyl alcohol	508600	50000	500000	46630	92.4	54.6	145	479400	5.90	23.5	
tert-Amyl methyl ether	86160	5000	100000		86.2	71.1	129	92130	6.70	20	
tert-Butyl Alcohol	520600	50000	500000		104	50.3	149	465400	11.2	33.5	

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
DRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Crawford Environmental Services
Project Name: Clouds Chevron et. al.
Workorder: 1404588

ANALYTICAL QC SUMMARY REPORT

BatchID: 189490

Sample ID: MB-189490	Client ID:				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: MBLK	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 189490		Analysis Date: 04/09/2014		Seq No: 5585201	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	BRL	1.0									
Ethylbenzene	BRL	1.0									
Methyl tert-butyl ether	BRL	1.0									
Naphthalene	BRL	5.0									
Toluene	BRL	1.0									
Xylenes, Total	BRL	1.0									
Surr: 4-Bromofluorobenzene	42.67	0	50.00		85.3	70	130				
Surr: Dibromofluoromethane	52.73	0	50.00		105	70	130				
Surr: Toluene-d8	46.71	0	50.00		93.4	70	130				

Sample ID: MB-189490	Client ID:				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: MBLK	TestCode: Oxygenates (AES SOP OA-11010) SW8260B				BatchID: 189490		Analysis Date: 04/09/2014		Seq No: 5585936	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
tert-Amyl alcohol	BRL	100									
tert-Amyl methyl ether	BRL	10									
tert-Butyl Alcohol	BRL	100									

Sample ID: LCS-189490	Client ID:				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 189490		Analysis Date: 04/09/2014		Seq No: 5585194	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	45.73	1.0	50.00		91.5	70	130				
Ethylbenzene	58.40	1.0	50.00		117	70	130				
Naphthalene	49.34	5.0	50.00		98.7	70	130				
Toluene	47.93	1.0	50.00		95.9	70	130				
Xylenes, Total	166.4	1.0	150.0		111	70	130				
Surr: 4-Bromofluorobenzene	48.80	0	50.00		97.6	70	130				

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Analytical Environmental Services, Inc **Date:** 16-Apr-14

Client: Crawford Environmental Services
Project Name: Clouds Chevron et. al.
Workorder: 1404588

ANALYTICAL QC SUMMARY REPORT

BatchID: 189490

Sample ID: LCS-189490	Client ID:				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 189490		Analysis Date: 04/09/2014		Seq No: 5585194	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Surr: Dibromofluoromethane	50.17	0	50.00		100	70	130			
Surr: Toluene-d8	47.61	0	50.00		95.2	70	130			

Sample ID: LCS-189490	Client ID:				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: LCS	TestCode: Oxygenates (AES SOP OA-11010) SW8260B				BatchID: 189490		Analysis Date: 04/09/2014		Seq No: 5585929	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
tert-Amyl alcohol	1014	100	1000		101	70	130			
tert-Amyl methyl ether	174.5	10	200.0		87.2	70	130			
tert-Butyl Alcohol	1104	100	1000		110	70	130			

Sample ID: 1404588-053AMS	Client ID: MW-59				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: MS	TestCode: Oxygenates (AES SOP OA-11010) SW8260B				BatchID: 189490		Analysis Date: 04/09/2014		Seq No: 5586133	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
tert-Amyl alcohol	52970	5000	50000	1575	103	54.6	145			
tert-Amyl methyl ether	8350	500	10000		83.5	71.1	129			
tert-Butyl Alcohol	52150	5000	50000		104	50.3	149			

Sample ID: 1404588-053AMS	Client ID: MW-59				Units: ug/L		Prep Date: 04/09/2014		Run No: 265237	
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 189490		Analysis Date: 04/10/2014		Seq No: 5586754	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Benzene	460.2	10	500.0	20.10	88.0	70.2	138			
Ethylbenzene	827.4	10	500.0	301.6	105	71.9	133			
Naphthalene	508.6	50	500.0	65.30	88.7	54.6	130			
Toluene	447.2	10	500.0		89.4	70	139			
Xylenes, Total	1584	10	1500		106	70.7	136			

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Crawford Environmental Services
Project Name: Clouds Chevron et. al.
Workorder: 1404588

ANALYTICAL QC SUMMARY REPORT

BatchID: 189490

Sample ID: 1404588-053AMS	Client ID: MW-59				Units: ug/L		Prep Date: 04/09/2014		Run No: 265237	
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 189490		Analysis Date: 04/10/2014		Seq No: 5586754	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Surr: 4-Bromofluorobenzene	460.8	0	500.0		92.2	66.2	120			
Surr: Dibromofluoromethane	474.7	0	500.0		94.9	79.5	121			
Surr: Toluene-d8	460.5	0	500.0		92.1	77	117			

Sample ID: 1404588-053AMSD	Client ID: MW-59				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: MSD	TestCode: Oxygenates (AES SOP OA-11010) SW8260B				BatchID: 189490		Analysis Date: 04/09/2014		Seq No: 5586134	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
tert-Amyl alcohol	58190	5000	50000	1575	113	54.6	145	52970	9.40	23.5
tert-Amyl methyl ether	9360	500	10000		93.6	71.1	129	8350	11.4	20
tert-Butyl Alcohol	57120	5000	50000		114	50.3	149	52150	9.09	33.5

Sample ID: 1404588-053AMSD	Client ID: MW-59				Units: ug/L		Prep Date: 04/09/2014		Run No: 265237	
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 189490		Analysis Date: 04/10/2014		Seq No: 5587151	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Benzene	437.7	10	500.0	20.10	83.5	70.2	138	460.2	5.01	20
Ethylbenzene	782.7	10	500.0	301.6	96.2	71.9	133	827.4	5.55	20
Naphthalene	500.2	50	500.0	65.30	87.0	54.6	130	508.6	1.67	21.4
Toluene	425.9	10	500.0		85.2	70	139	447.2	4.88	20
Xylenes, Total	1506	10	1500		100	70.7	136	1584	5.04	20
Surr: 4-Bromofluorobenzene	456.9	0	500.0		91.4	66.2	120	460.8	0	0
Surr: Dibromofluoromethane	470.4	0	500.0		94.1	79.5	121	474.7	0	0
Surr: Toluene-d8	458.5	0	500.0		91.7	77	117	460.5	0	0

Qualifiers:					
>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Crawford Environmental Services
Project Name: Clouds Chevron et. al.
Workorder: 1404588

ANALYTICAL QC SUMMARY REPORT

BatchID: 189491

Sample ID: **MB-189491**	Client ID:				Units: **ug/L**		Prep Date: **04/09/2014**		Run No: **265148**	
SampleType: **MBLK**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**				BatchID: **189491**		Analysis Date: **04/09/2014**		Seq No: **5585204**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Benzene	BRL	1.0								
Ethylbenzene	BRL	1.0								
Methyl tert-butyl ether	BRL	1.0								
Naphthalene	BRL	5.0								
Toluene	BRL	1.0								
Xylenes, Total	BRL	1.0								
Surr: 4-Bromofluorobenzene	42.62	0	50.00		85.2	70	130			
Surr: Dibromofluoromethane	54.64	0	50.00		109	70	130			
Surr: Toluene-d8	46.98	0	50.00		94.0	70	130			

Sample ID: **MB-189491**	Client ID:				Units: **ug/L**		Prep Date: **04/09/2014**		Run No: **265148**	
SampleType: **MBLK**	TestCode: **Oxygenates (AES SOP OA-11010) SW8260B**				BatchID: **189491**		Analysis Date: **04/09/2014**		Seq No: **5585938**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
tert-Amyl alcohol	BRL	100								
tert-Amyl methyl ether	BRL	10								
tert-Butyl Alcohol	BRL	100								

Sample ID: **LCS-189491**	Client ID:				Units: **ug/L**		Prep Date: **04/09/2014**		Run No: **265237**	
SampleType: **LCS**	TestCode: **Volatile Organic Compounds by GC/MS SW8260B**				BatchID: **189491**		Analysis Date: **04/10/2014**		Seq No: **5586628**	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit Qual
Benzene	41.65	1.0	50.00		83.3	70	130			
Ethylbenzene	51.61	1.0	50.00		103	70	130			
Naphthalene	44.61	5.0	50.00		89.2	70	130			
Toluene	42.13	1.0	50.00		84.3	70	130			
Xylenes, Total	152.0	1.0	150.0		101	70	130			
Surr: 4-Bromofluorobenzene	47.61	0	50.00		95.2	70	130			

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Crawford Environmental Services
Project Name: Clouds Chevron et. al.
Workorder: 1404588

ANALYTICAL QC SUMMARY REPORT

BatchID: 189491

Sample ID: LCS-189491	Client ID:				Units: ug/L		Prep Date: 04/09/2014		Run No: 265237	
SampleType: LCS	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 189491		Analysis Date: 04/10/2014		Seq No: 5586628	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Surr: Dibromofluoromethane	48.45	0	50.00		96.9	70	130				
Surr: Toluene-d8	46.96	0	50.00		93.9	70	130				

Sample ID: LCS-189491	Client ID:				Units: ug/L		Prep Date: 04/09/2014		Run No: 265237	
SampleType: LCS	TestCode: Oxygenates (AES SOP OA-11010) SW8260B				BatchID: 189491		Analysis Date: 04/10/2014		Seq No: 5586638	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
tert-Amyl alcohol	977.2	100	1000		97.7	70	130				
tert-Amyl methyl ether	186.7	10	200.0		93.3	70	130				
tert-Butyl Alcohol	978.6	100	1000		97.9	70	130				

Sample ID: 1404588-066AMS	Client ID: DW-5				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: MS	TestCode: Volatile Organic Compounds by GC/MS SW8260B				BatchID: 189491		Analysis Date: 04/09/2014		Seq No: 5585598	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	4804	50	2500	3304	60.0	70.2	138				S
Ethylbenzene	2580	50	2500	30.00	102	71.9	133				
Naphthalene	2344	250	2500	247.0	83.9	54.6	130				
Toluene	2090	50	2500	66.00	80.9	70	139				
Xylenes, Total	8192	50	7500	1031	95.5	70.7	136				
Surr: 4-Bromofluorobenzene	2313	0	2500		92.5	66.2	120				
Surr: Dibromofluoromethane	2320	0	2500		92.8	79.5	121				
Surr: Toluene-d8	2270	0	2500		90.8	77	117				

Sample ID: 1404588-066AMS	Client ID: DW-5				Units: ug/L		Prep Date: 04/09/2014		Run No: 265148	
SampleType: MS	TestCode: Oxygenates (AES SOP OA-11010) SW8260B				BatchID: 189491		Analysis Date: 04/09/2014		Seq No: 5586135	
Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual

Qualifiers:

>	Greater than Result value	<	Less than Result value	B	Analyte detected in the associated method blank
BRL	Below reporting limit	E	Estimated (value above quantitation range)	H	Holding times for preparation or analysis exceeded
J	Estimated value detected below Reporting Limit	N	Analyte not NELAC certified	R	RPD outside limits due to matrix
Rpt Lim	Reporting Limit	S	Spike Recovery outside limits due to matrix		

Client: Crawford Environmental Services
Project Name: Clouds Chevron et. al.
Workorder: 1404588

ANALYTICAL QC SUMMARY REPORT

BatchID: 189491

Sample ID: 1404588-066AMS	Client ID: DW-5	Units: ug/L	Prep Date: 04/09/2014	Run No: 265148
SampleType: MS	TestCode: Oxygenates (AES SOP OA-11010) SW8260B	BatchID: 189491	Analysis Date: 04/09/2014	Seq No: 5586135

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
tert-Amyl alcohol	55970	5000	50000	4148	104	54.6	145				
tert-Amyl methyl ether	8842	500	10000	77.00	87.6	71.1	129				
tert-Butyl Alcohol	52110	5000	50000		104	50.3	149				

Sample ID: 1404588-066AMSD	Client ID: DW-5	Units: ug/L	Prep Date: 04/09/2014	Run No: 265148
SampleType: MSD	TestCode: Volatile Organic Compounds by GC/MS SW8260B	BatchID: 189491	Analysis Date: 04/09/2014	Seq No: 5585600

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
Benzene	5480	50	2500	3304	87.0	70.2	138	4804	13.1	20	
Ethylbenzene	2845	50	2500	30.00	113	71.9	133	2580	9.79	20	
Naphthalene	2435	250	2500	247.0	87.5	54.6	130	2344	3.81	21.4	
Toluene	2344	50	2500	66.00	91.1	70	139	2090	11.5	20	
Xylenes, Total	8936	50	7500	1031	105	70.7	136	8192	8.70	20	
Surr: 4-Bromofluorobenzene	2315	0	2500		92.6	66.2	120	2313	0	0	
Surr: Dibromofluoromethane	2356	0	2500		94.3	79.5	121	2320	0	0	
Surr: Toluene-d8	2336	0	2500		93.4	77	117	2270	0	0	

Sample ID: 1404588-066AMSD	Client ID: DW-5	Units: ug/L	Prep Date: 04/09/2014	Run No: 265148
SampleType: MSD	TestCode: Oxygenates (AES SOP OA-11010) SW8260B	BatchID: 189491	Analysis Date: 04/09/2014	Seq No: 5586136

Analyte	Result	RPT Limit	SPK value	SPK Ref Val	%REC	Low Limit	High Limit	RPD Ref Val	%RPD	RPD Limit	Qual
tert-Amyl alcohol	61000	5000	50000	4148	114	54.6	145	55970	8.59	23.5	
tert-Amyl methyl ether	9779	500	10000	77.00	97.0	71.1	129	8842	10.1	20	
tert-Butyl Alcohol	59060	5000	50000		118	50.3	149	52110	12.5	33.5	

Qualifiers:					
	> Greater than Result value	< Less than Result value	B Analyte detected in the associated method blank
	DRL Below reporting limit	E Estimated (value above quantitation range)	H Holding times for preparation or analysis exceeded
	J Estimated value detected below Reporting Limit	N Analyte not NELAC certified	R RPD outside limits due to matrix
	Rpt Lim Reporting Limit	S Spike Recovery outside limits due to matrix	

APPENDIX E

QAPP Addendum Contractor Checklist

CRAWFORD
ENVIRONMENTAL
SERVICES

UST Programmatic QAPP Contractor Checklist				
Item #:	Item	Yes	No	N/A
1	Is Facility Name, Permit #, and address provided?	Yes		
2	Is UST Owner/Operator name, address, provided?	Yes		
3	Is name, address, & phone number of current property owner provided?	Yes		
4	Is the SCDHEC Certified UST Site Rehabilitation Contractor's name, address, phone number, and certification number provided?	Yes		
5	Is the name, address ,telephone number, and certification number of the well driller that installed the boring/monitoring wells provided?	Yes		
6	Is the name, address, telephone number, and certification number of the certified laboratories performing analytical analyses provided	Yes		
7	Has the facility history be summarized?			N/A
8	Has the regional geology and hydrogeology been summarized?			N/A
9	Are the receptor survey results provided as required?			N/A
10	Has the current use of the site and adjacent land been described?	Yes		
11	Has the site specific geology been described?			N/A
12	Has the primary soil type been described?			N/A
13	Have the field screening results been described?			N/A
14	Has a description of the soil sample collection and preservation been detailed?			N/A
15	Has the field screening methodology been detailed?			N/A
16	Has the monitoring well installation and development dates been provided?			N/A
17	Has the method of well development been detailed? (Table 2)			N/A
18	Has the justification been provided for the locations of the monitoring wells?			N/A
19	Have the monitoring wells been labeled in accordance with the UST QAPP guidelines?			N/A
20	Has the groundwater sampling methodology been detailed?	Yes		
21	Have the groundwater sampling dates and groundwater measurements been provided?	Yes		
22	Has the purging methodology been detailed?	Yes		
23	Has the volume of water purged from each well been provided along with the measurements to verify purging is complete?	Yes		
24	If free-product is present, has the thickness been provided?			N/A
25	Does the report include a brief discussion of the assessment done and the results?	Yes		

UST Programmatic QAPP Contractor Checklist				
26	Does the report include a brief discussion of the aquifer evaluation and the results?			N/A
27	Does the report include a brief discussion of the fate & transport models used?			N/A
28	Are the site-conceptual tables included (Tier 1 risk evaluation)			N/A
29	Have the exposure pathways been analyzed (Tier 2 risk evauluation)			N/A
30	Have the SSTLs for each compound and pathway been calculated? (Tier 2 risk evaluation)			N/A
31	Have recommendations for further action been provided and explained?			N/A
32	Has the soil analytical data for the site been provided in tabular format? (Table 5)			N/A
33	Has the potentiometric data for the site been provided in tabular format?	Yes		
34	Has the current and historical laboratory data been provided in tabular format			N/A
35	Have the aquifer characteristics been provided and summarized on the appropriate form?			N/A
36	Have the Site conceptual model tables been included (Tier 1 risk evaluation)			N/A
37	Has the topographic map been provided with all the required elements?	Yes		
38	Has the site base map been provided with all the required elements?	Yes		
39	Have the CoC maps been provided?	Yes		
40	Have the potentiometric maps been provided?			N/A
41	Have the geologic cross-sections been provided			N/A
42	Have maps showing the predicted migration of the CoCs through time been provided?			N/A
43	Has the site survey been provided and include all necessary elements? (Appendix A)			N/A
44	Have the sampling logs, chain of custody forms and analytical data package been included with all elements? (Appendix B)	Yes		
45	Is the laboratory performing the analyses properly certified? (Appendix B)	Yes		
46	Has the tax map been included with all necessary elements? (Appendix C)			N/A
47	Have the soil/boring field screening logs been provided? (Appendix D)			N/A
48	Have the well completion logs been provided? (Appendix E)			N/A
49	Have the aquifer evaluation forms,data, graphs, equations,etc. been provided? (Appendix F)			N/A
50	Have the disposal manifests been provided? (Appendix G)	Yes		
51	Has a copy of the local zoning regulations been provided? (Appendix H)			N/A

UST Programmatic QAPP Contractor Checklist				
52	Has all fate and transport modeling been provided? (Appendix I)			N/A
53	Have copies of all access agreements obtained by the contractor been provided? (Appendix J)			N/A
54	Has a copy of this form been attached to the final report and are explainations for any missing or incomplete data been provided?	Yes		
Comments:				

TABLES

Table 1: Well Construction and Historical Groundwater Elevation Summary
Table 2: Groundwater Laboratory Analytical Result Summary
Table 3: Site Specific Target Levels

Table 1

Facility Name: Handy Pantry #65 / University Mart & Clouds Chevron — UST Permit ID: 07584 / 07777 / 12352

Address: 2367 Taylor Street Columbia, South Carolina — CES Project Number: 7.0547

Well Construction and Historical Groundwater Elevation Summary

Monitor Well	Well Depth (ft)	Screened Interval		Top of Casing (ft)	Date Measured	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Product Elevation (ft)	Groundwater Elevation (ft)
MW-1	27	17	27	93.89	4/2/2014	NA	DRY	NA	NA	DRY
MW-2	30	20	30	94.70	4/2/2014	NA	21.12	NA	NA	73.58
MW-3	29	19	29	94.45	4/2/2014	NA	21.40	NA	NA	73.05
MW-4	28	18	28	94.85	4/2/2014	NA	21.31	NA	NA	73.54
MW-5	26	16	26	95.26	4/2/2014	NA	DRY	NA	NA	DRY
MW-6	30	20	30	94.96	4/3/2014	NA	22.61	NA	NA	72.35
MW-7	30	20	30	95.93	4/3/2014	NA	23.02	NA	NA	72.91
MW-8	28	18.5	28	94.79	4/3/2014	NA	19.95	NA	NA	74.84
MW-9	30	20	30	92.30	4/2/2014	NA	20.60	NA	NA	71.70
MW-10	28	18	28	85.98	4/1/2014	NA	17.69	NA	NA	68.29
MW-11	30	Unknown		88.46	4/2/2014	NA	18.61	NA	NA	69.85
MW-12	24.65	Unknown		72.80	4/2/2014	NA	4.20	NA	NA	68.60
MW-13	30.1	Unknown		80.44	4/1/2014	NA	11.13	NA	NA	69.31
MW-15	25	15	25	86.44	4/1/2014	**16.60**	**16.00**	**0.60**	**69.84**	70.88*
MW-16	25	15	25	88.19	4/2/2014	NA	17.54	NA	NA	70.65
MW-17	22	20	30	92.45	4/2/2014	NA	22.00	NA	NA	70.45
MW-18	30	20	30	94.81	4/2/2014	NA	23.68	NA	NA	71.13
MW-19	30	20	30	93.96	4/3/2014	NA	23.33	NA	NA	70.63
MW-20	25	15	25	94.12	4/3/2014	NA	21.95	NA	NA	72.17
MW-22	30	20	30	94.25	4/3/2014	NA	21.11	NA	NA	73.14
MW-23	30	20	30	94.43	4/3/2014	NA	23.65	NA	NA	70.78
MW-25	25.6	Unknown		93.09	4/1/2014	NA	19.71	NA	NA	73.38
MW-26	30	Unknown		95.96	4/3/2014	NA	20.01	NA	NA	75.95
MW-27	30	15	30	91.40	4/1/2014	NA	14.65	NA	NA	76.75
MW-28	30	15	30	91.46	4/1/2014	NA	15.63	NA	NA	75.83
MW-29	30	15	30	91.09	4/1/2014	NA	15.51	NA	NA	75.58
MW-30	30	15	30	92.77	4/1/2014	NA	20.50	NA	NA	72.27
MW-31	35	20	35	95.20	4/2/2014	NA	24.41	NA	NA	70.79
MW-32	30	15	30	92.87	4/2/2014	NA	21.28	NA	NA	71.59
MW-33	35	20	35	93.84	4/1/2014	NA	23.18	NA	NA	70.66
MW-34	35	20	35	94.77	4/1/2014	NA	24.06	NA	NA	70.71
MW-35	35	20	35	93.71	4/1/2014	NA	21.35	NA	NA	72.36
MW-36	35	20	35	93.89	4/1/2014	NA	22.84	NA	NA	71.05
MW-37	35	20	35	93.78	4/1/2014	NA	22.24	NA	NA	71.54
MW-38	35	20	35	95.53	4/1/2014	NA	24.61	NA	NA	70.92
MW-39	35	20	35	96.19	4/2/2014	NA	25.59	NA	NA	70.60
MW-40	35	20	35	95.69	4/2/2014	NA	25.29	NA	NA	70.40
MW-41	35	20	35	94.85	4/1/2014	NA	24.70	NA	NA	70.15
MW-42	35	20	35	95.81	4/1/2014	NA	25.35	NA	NA	70.46
MW-43	40	20	40	95.15	4/2/2014	NA	24.00	NA	NA	71.15
MW-44	31	16	31	94.57	4/1/2014	NA	24.42	NA	NA	70.15
MW-45	30	15	30	92.51	4/1/2014	NA	21.22	NA	NA	71.29
MW-46	35	20	35	94.50	4/1/2014	NA	23.55	NA	NA	70.95
MW-48	30	15	30	89.95	4/2/2014	NA	19.70	NA	NA	70.25
MW-49	30	15	30	88.18	4/2/2014	Unable to Access - Locked Gate				
MW-50	30	15	30	84.09	4/2/2014	Unable to Access - Locked Gate				
MW-51	35	20	35	93.91	4/2/2014	NA	21.23	NA	NA	72.68
MW-53	20	5	20	79.60	4/3/2014	NA	9.60	NA	NA	70.00
MW-54	20	5	20	77.58	4/1/2014	NA	11.31	NA	NA	66.27
MW-55	14	4	14	71.22	4/3/2014	NA	2.51	NA	NA	68.71
MW-56	20	5	20	76.39	4/3/2014	NA	5.12	NA	NA	71.27
MW-58	19	4	19	76.37	4/2/2014	Abandoned				
MW-59	17	2	17	68.02	4/2/2014	NA	6.05	NA	NA	61.97
MW-60	14	4	14	67.94	4/2/2014	Unable to Locate				
MW-62	35	20	35	94.05	4/1/2014	NA	22.32	NA	NA	71.73
MW-63	35	20	35	94.65	4/2/2014	NA	23.07	NA	NA	71.58
MW-65	35	20	35	94.04	4/2/2014	Unable to Locate - Paved over				
MW-67	35	20	35	96.10	4/1/2014	NA	24.44	NA	NA	71.66
MW-70	35	20	35	95.49	4/2/2014	NA	24.70	NA	NA	70.79
MW-5AR	28	18	28	94.18	4/1/2014	NA	21.24	NA	NA	72.94
PW-1R	50	45	50	93.75	4/3/2014	NA	23.11	NA	NA	70.64
DW-1	70	65	70	94.66	4/2/2014	NA	45.00	NA	NA	49.66
DW-2	75	70	75	94.02	4/2/2014	NA	44.34	NA	NA	49.68
DW-3	52	47	52	93.75	4/3/2014	NA	24.40	NA	NA	69.35
DW-4	110	105	110	93.79	4/3/2014	NA	44.60	NA	NA	49.19
DW-5	70	65	70	93.74	4/1/2014	NA	44.22	NA	NA	49.52
DW-6	70	65	70	95.90	4/1/2014	NA	45.86	NA	NA	50.04

Table 1

Facility Name: Handy Pantry #65 / University Mart & Clouds Chevron — UST Permit ID: 07584 / 07777 / 12352

Address: 2367 Taylor Street Columbia, South Carolina — CES Project Number: 7.0547

Well Construction and Historical Groundwater Elevation Summary

Monitor Well	Well Depth (ft)	Screened Interval		Top of Casing (ft)	Date Measured	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Product Elevation (ft)	Groundwater Elevation (ft)
DW-7	55	50	55	72.79	4/3/2014	NA	24.00	NA	NA	48.79
DW-8	55	50	55	68.63	4/2/2014	Abandoned				
DW-9	65	60	65	76.47	4/2/2014	NA	25.00	NA	NA	51.47

INA = Information not available

* = GW Elevation Corrected for The Presence of Free Product

n/a = not applicable

CRAWFORD ENVIRONMENTAL SERVICES

Table 2

Facility Name: Handy Pantry #65 / University Mart & Clouds Chevron — UST — 07584 / 07777 / 12352
Address: 2367 Taylor Street Columbia, South Carolina — Crawford Project No. — 7.0547

Groundwater Laboratory Analytical Result Summary

Well ID:	Date:	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	MTBE	Naphthalene	TAA	TAME	TBA
MW-1	4/2/2014	Dry								
MW-2	4/2/2014	170	41	200	960	320	150	230	1	6.8
MW-3	4/2/2014	6900	18000	1200	16000	1800	600	980	560.000	340
MW-4	4/2/2014	<1	<1	<1	<1	3.5	<5	<100	10.000	<100
MW-5	4/2/2014	Dry								
MW-6	4/3/2014	2.6	<1	2.4	10	2.5	4.2	<100	<10	<100
MW-7	4/3/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-8	4/3/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-9	4/2/2014	830	7500	1700	14000	50	590	1700	5000	5000
MW-10	4/1/2014	1800	5700	350	8500	50	690	5000	500.000	5000
MW-11	4/2/2014	2.3	4.1	11	4.1	<1	4.4	120	<10	<100
MW-12	4/2/2014	2.9	0.67	1.6	0.91	18	4.7	630	9.300	<100
MW-13	4/1/2014	0.62	8.8	4.5	86	<1	31	10	<10	<100
MW-15	4/1/2014	0.60-Feet of Free Product								
MW-16	4/2/2014	<1	<1	<1	<1	<1	3.4	<100	<10	<100
MW-17	4/2/2014	280	5100	450	13000	50	850	2200	500.000	5000
MW-18	4/2/2014	1900	7200	630	8300	340	370	4900	70.000	5000
MW-19	4/3/2014	300	1800	490	12000	50	900	610	500.000	5000
MW-20	4/3/2014	1800	11000	460	11000	50	960	3100	65.000	5000
MW-22	4/3/2014	5700	12000	880	23000	50	990	3600	500.000	5000
MW-23	4/3/2014	4200	16000	880	19000	120	1100	5900	500.000	5000
MW-25	4/1/2014	5.5	200	320	4400	<1	1300	170	<10	<100
MW-26	4/3/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-27	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-28	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-29	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-30	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-31	4/2/2014	0.9	<1	<1	<1	2.7	<5	59	<10	<100
MW-32	4/2/2014	0.94	<1	1.9	2.4	<1	6.6	170	<10	<100
MW-33	4/1/2014	560	5200	2500	6900	50	670	4100	500.000	5000
MW-34	4/1/2014	<1	<1	<1	<1	<1	<5	39	<10	<100
MW-35	4/1/2014	3700	4300	2000	6200	160	550	5600	54.000	5000
MW-36	4/1/2014	5.1	<1	38	<1	<1	55	96	<10	<100
MW-37	4/1/2014	<1	<1	<1	<1	<1	3.7	<100	<10	<100
MW-38	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-39	4/2/2014	<1	3.2	2.2	14	<1	3.3	<100	<10	<100
MW-40	4/2/2014	5.8	14	2	580	<1	24	<100	<10	<100
MW-41	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-42	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-43	4/2/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-44	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-45	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-46	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-48	4/2/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-49	4/2/2014	Unable to Access - Locked Gate								
MW-50	4/2/2014	Unable to Access - Locked Gate								
MW-51	4/2/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-53	4/3/2014	<1	<1	<1	<1	<1	4.1	<100	<10	<100
MW-54	4/1/2014	<1	<1	<1	<1	9.6	<5	<100	6.700	<100
MW-55	4/3/2014	10	1	3.5	<1	24	3.9	98	6.400	<100
MW-56	4/3/2014	<1	<1	<1	<1	<1	<5	50	<10	<100
MW-58	4/2/2014	Abandoned								
MW-59	4/2/2014	28	2.8	300	6.4	130	45	2600	42.000	160
MW-60	4/2/2014	Unable to Locate								
MW-62	4/1/2014	0.86	<1	<1	<1	3	3.3	260	<10	<100
MW-63	4/2/2014	<1	<1	<1	<1	<1	5	120	<10	<100
MW-65	4/2/2014	Unable to Locate - Paved over								
MW-67	4/1/2014	<1	<1	<1	<1	<1	5	<100	<10	<100
MW-70	4/2/2014	<1	<1	<1	<1	<1	5	<100	<10	<100
MW-5AR	4/1/2014	12000	13000	2400	13000	70	1000	<5000	160.000	<5000
PW-1R	4/3/2014	460	3400	320	9200	<50	<250	710	<500	<5000
DW-1	4/2/2014	0.45	1.2	1.7	7.2	<1.0	<5.0	<100	<10	<100
DW-2	4/2/2014	<1.0	<1.0	<1.0	<1.0	7.1	4.1	<100	<10	<100
DW-3	4/3/2014	9800	22000	3700	17000	990	780	10000	190.000	<5000
DW-4	4/3/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
DW-5	4/1/2014	3300	68	37	1000	940	81	4300	83.000	<100
DW-6	4/1/2014	8.5	1.2	1.6	7.2	3	5	<100	<10	<100

Table 2

Facility Name:	Handy Pantry #65 / University Mart & Clouds Chevron	UST	07584 / 07777 / 12352
Address:	2367 Taylor Street Columbia, South Carolina	Crawford Project No.	7.0547

Groundwater Laboratory Analytical Result Summary

Well ID:	Date:	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	MTBE	Naphthalene	TAA	TAME	TBA
DW-7	4/3/2014	0.52	0.46	<1.0	1.4	2.6	4.2	<100	<10	<100
DW-8	4/2/2014	Abandoned								
DW-9	4/2/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
SW-1	4/2/2014	180	8.4	30	53	42	6.5	350	9.500	100

BDL= Below Detectable Limit
RBSL= Risk Based Screening Levels
NE= Not Established

CRAWFORD ENVIRONMENTAL SERVICES

1,2 DCA = 1,2 Dichloroethane
J = Estimated value detected below reporting limit

Table 3

Facility Name: Handy Pantry #65 / University Mart & Clouds Chevron — UST — 07584 / 07777 / 12352
Address: 2367 Taylor Street Columbia, South Carolina — Crawford Project No. — 7.0547

Site Specific Target Level Summary

Well ID:	Item	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	MTBE	Naphth	TAA	TAME	TBA	Total	
MW-2	Initial	140.0	280.0	56.0	460.0	380.0	54.0	200.0	9.2	140.0	1719.2	-1269.84%
	SSTL	77.0	280.0	56.0	460.0	380.0	54.0	200.0	9.2	140.0	1656.2	
	Initial > SSTL	63.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	63.0	
	Subsequent	170.0	41.0	200.0	960.0	320.0	150.0	230.0	1.0	6.8	2078.8	
	SSTL	77.0	280.0	56.0	460.0	380.0	54.0	200.0	9.2	140.0	1656.2	
	Subsequent > SSTL	93.0	0.0	144.0	500.0	0.0	96.0	30.0	0.0	0.0	863.0	
MW-3	Initial	3000.0	7400.0	260.0	4500.0	3300.0	260.0	2000.0	340.0	1300.0	22360.0	-600%
	SSTL	111.0	7400.0	260.0	4500.0	1976.0	108.0	2000.0	340.0	1300.0	17995.0	
	Initial > SSTL	2889.0	0.0	0.0	0.0	1324.0	152.0	0.0	0.0	0.0	4365.0	
	Subsequent	6900.0	18000.0	1200.0	16000.0	1800.0	600.0	980.0	560.0	340.0	46380.0	
	SSTL	111.0	7400.0	260.0	4500.0	1976.0	108.0	2000.0	340.0	1300.0	17995.0	
	Subsequent > SSTL	6789.0	10600.0	940.0	11500.0	0.0	492.0	0.0	220.0	0.0	30541.0	
MW-5	Initial	50.0	50.0	50.0	30.5	946.0	50.0	1000.0	100.0	1000.0	3276.5	Dry
	SSTL	50.0	50.0	50.0	30.5	946.0	50.0	1000.0	100.0	1000.0	3276.5	
	Initial > SSTL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Subsequent	Dry										
	SSTL	50.0	50.0	50.0	30.5	946.0	50.0	1000.0	100.0	1000.0	3276.5	
	Subsequent > SSTL	Dry										
MW-9	Initial	4100.0	27000.0	2500.0	19000.0	150.0	960.0	1600.0	2000.0	20000.0	77310.0	77%
	SSTL	35.0	7134.0	2500.0	19000.0	150.0	68.0	809.0	270.0	15628.0	45594.0	
	Initial > SSTL	4065.0	19866.0	0.0	0.0	0.0	892.0	791.0	1730.0	4372.0	31716.0	
	Subsequent	830.0	7500.0	1700.0	14000.0	50.0	590.0	1700.0	5000.0	5000.0	36370.0	
	SSTL	35.0	7134.0	2500.0	19000.0	150.0	68.0	809.0	270.0	15628.0	45594.0	
	Subsequent > SSTL	795.0	366.0	0.0	0.0	0.0	522.0	891.0	4730.0	0.0	7304.0	
MW-10	Initial	740.0	7800.0	2500.0	15000.0	2500.0	950.0	50000.0	5000.0	50000.0	134490.0	93%
	SSTL	24.0	7800.0	2500.0	15000.0	294.0	53.0	793.0	707.0	11042.0	38213.0	
	Initial > SSTL	716.0	0.0	0.0	0.0	2206.0	897.0	49207.0	4293.0	38958.0	96277.0	
	Subsequent	1800.0	5700.0	350.0	8500.0	50.0	690.0	5000.0	500.0	5000.0	27590.0	
	SSTL	24.0	7800.0	2500.0	15000.0	294.0	53.0	793.0	707.0	11042.0	38213.0	
	Subsequent > SSTL	1776.0	0.0	0.0	0.0	0.0	637.0	4207.0	0.0	0.0	6620.0	
MW-12	Initial	1.7	5.0	11.0	5.0	5.6	4.7	370.0	1.5	19.0	423.5	-36140%
	SSTL	1.7	5.0	11.0	5.0	5.6	4.7	370.0	1.5	19.0	423.5	
	Initial > SSTL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.0	
	Subsequent	2.9	0.7	1.6	0.9	18.0	4.7	630.0	9.3	100.0	768.1	
	SSTL	1.7	5.0	11.0	5.0	5.6	4.7	370.0	1.5	19.0	423.5	
	Subsequent > SSTL	1.2	0.0	0.0	0.0	12.4	0.0	260.0	7.8	81.0	362.4	
MW-15	Initial	Free Product										Free Product
	SSTL	16.0	3198.0	3700.0	21680.0	730.0	45.0	492.0	199.0	5838.0	35898.0	
	Initial > SSTL											
	Subsequent	Free Product										
	SSTL	16.0	3198.0	3700.0	21680.0	730.0	45.0	492.0	199.0	5838.0	35898.0	
	Subsequent > SSTL										0.0	

Table 3

Facility Name: Handy Pantry #65 / University Mart & Clouds Chevron — UST — 07584 / 07777 / 12352
Address: 2367 Taylor Street Columbia, South Carolina — Crawford Project No. — 7.0547

Site Specific Target Level Summary

Well ID:	Item	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	MTBE	Naphth	TAA	TAME	TBA	Total	
MW-17	Initial	1400.0	26000.0	2500.0	23000.0	1000.0	1000.0	9400.0	2000.0	20000.0	86300.0	93%
	SSTL	32.0	6631.0	2500.0	21680.0	1000.0	66.0	773.0	263.0	14286.0	47231.0	
	Initial > SSTL	1368.0	19369.0	0.0	1320.0	0.0	934.0	8627.0	1737.0	5714.0	39069.0	
	Subsequent	280.0	5100.0	450.0	13000.0	50.0	850.0	2200.0	500.0	5000.0	27430.0	
	SSTL	32.0	6631.0	2500.0	21680.0	1000.0	66.0	773.0	263.0	14286.0	47231.0	
	Subsequent > SSTL	248.0	0.0	0.0	0.0	0.0	784.0	1427.0	237.0	0.0	2696.0	
MW-18	Initial	1900.0	7200.0	630.0	8300.0	340.0	370.0	4900.0	70.0	5000.0	28710.0	0%
	SSTL	40.0	19326.0	3700.0	21680.0	4260.0	348.0	938.0	4989.0	54462.0	109743.0	
	Initial > SSTL	1860.0	0.0	0.0	0.0	0.0	22.0	3962.0	0.0	0.0	5844.0	
	Subsequent	1900.0	7200.0	630.0	8300.0	340.0	370.0	4900.0	70.0	5000.0	28710.0	
	SSTL	40.0	19326.0	3700.0	21680.0	4260.0	348.0	938.0	4989.0	54462.0	109743.0	
	Subsequent > SSTL	1860.0	0.0	0.0	0.0	0.0	22.0	3962.0	0.0	0.0	5844.0	
MW-19	Initial	300.0	1800.0	490.0	12000.0	50.0	900.0	610.0	500.0	5000.0	21650.0	0%
	SSTL	54.0	11081.0	3700.0	21680.0	16080.0	86.0	1065.0	320.0	26814.0	80880.0	
	Initial > SSTL	246.0	0.0	0.0	0.0	0.0	814.0	0.0	180.0	0.0	1240.0	
	Subsequent	300.0	1800.0	490.0	12000.0	50.0	900.0	610.0	500.0	5000.0	21650.0	
	SSTL	54.0	11081.0	3700.0	21680.0	16080.0	86.0	1065.0	320.0	26814.0	80880.0	
	Subsequent > SSTL	246.0	0.0	0.0	0.0	0.0	814.0	0.0	180.0	0.0	1240.0	
MW-20	Initial	412.0	2930.0	728.0	8820.0	88.7	817.0	2850.0	200.0	2000.0	18845.7	-605%
	SSTL	83.0	2930.0	728.0	8820.0	88.7	108.0	1403.0	200.0	2000.0	16360.7	
	Initial > SSTL	329.0	0.0	0.0	0.0	0.0	709.0	1447.0	0.0	0.0	2485.0	
	Subsequent	1800.0	11000.0	460.0	11000.0	50.0	960.0	3100.0	65.0	5000.0	33435.0	
	SSTL	83.0	2930.0	728.0	8820.0	88.7	108.0	1403.0	200.0	2000.0	16360.7	
	Subsequent > SSTL	1717.0	8070.0	0.0	2180.0	0.0	852.0	1697.0	0.0	3000.0	17516.0	
MW-22	Initial	3300.0	17000.0	2900.0	20000.0	1000.0	640.0	6200.0	130.0	20000.0	71170.0	-42%
	SSTL	90.0	17000.0	2900.0	20000.0	1000.0	112.0	1469.0	130.0	20000.0	62701.0	
	Initial > SSTL	3210.0	0.0	0.0	0.0	0.0	528.0	4731.0	0.0	0.0	8469.0	
	Subsequent	5700.0	12000.0	880.0	23000.0	50.0	990.0	3600.0	500.0	5000.0	51720.0	
	SSTL	90.0	17000.0	2900.0	20000.0	1000.0	112.0	1469.0	130.0	20000.0	62701.0	
	Subsequent > SSTL	5610.0	0.0	0.0	3000.0	0.0	878.0	2131.0	370.0	0.0	11989.0	
MW-23	Initial	4200.0	16000.0	880.0	19000.0	120.0	1100.0	5900.0	500.0	5000.0	52700.0	0%
	SSTL	72.0	14880.0	3700.0	21680.0	33368.0	100.0	1279.0	359.0	38475.0	113913.0	
	Initial > SSTL	4128.0	1120.0	0.0	0.0	0.0	1000.0	4621.0	141.0	0.0	11010.0	
	Subsequent	4200.0	16000.0	880.0	19000.0	120.0	1100.0	5900.0	500.0	5000.0	52700.0	
	SSTL	72.0	14880.0	3700.0	21680.0	33368.0	100.0	1279.0	359.0	38475.0	113913.0	
	Subsequent > SSTL	4128.0	1120.0	0.0	0.0	0.0	1000.0	4621.0	141.0	0.0	11010.0	
MW-25	Initial	5000.0	3000.0	1900.0	23000.0	5000.0	5000.0	100000.0	10000.0	100000.0	252900.0	100%
	SSTL	104.0	3000.0	1900.0	23000.0	5000.0	121.0	1612.0	415.0	60494.0	95646.0	
	Initial > SSTL	4896.0	0.0	0.0	0.0	0.0	4879.0	98388.0	9585.0	39506.0	157254.0	
	Subsequent										0.0	
	SSTL	104.0	3000.0	1900.0	23000.0	5000.0	121.0	1612.0	415.0	60494.0	95646.0	
	Subsequent > SSTL										0.0	

Table 3

Facility Name: Handy Pantry #65 / University Mart & Clouds Chevron — UST — 07584 / 07777 / 12352
Address: 2367 Taylor Street Columbia, South Carolina — Crawford Project No. — 7.0547

Site Specific Target Level Summary

Well ID:	Item	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	MTBE	Naphth	TAA	TAME	TBA	Total	
MW-31	Initial	57.0	90.0	520.0	250.0	12.0	210.0	510.0	50.0	500.0	2199.0	-89067%
	SSTL	51.0	90.0	520.0	250.0	12.0	210.0	510.0	50.0	500.0	2193.0	
	Initial > SSTL	6.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.0	
	Subsequent	5.5	200.0	320.0	4400.0	1.0	1300.0	170.0	10.0	100.0	6506.5	
	SSTL	51.0	90.0	520.0	250.0	12.0	210.0	510.0	50.0	500.0	2193.0	
	Subsequent > SSTL	0.0	110.0	0.0	4150.0	0.0	1090.0	0.0	0.0	0.0	5350.0	
MW-33	Initial	520.0	7200.0	1500.0	7200.0	500.0	410.0	3200.0	1000.0	10000.0	31530.0	-87%
	SSTL	53.0	7200.0	1500.0	7200.0	500.0	410.0	1136.0	1000.0	10000.0	28999.0	
	Initial > SSTL	467.0	0.0	0.0	0.0	0.0	0.0	2064.0	0.0	0.0	2531.0	
	Subsequent	560.0	5200.0	2500.0	6900.0	50.0	670.0	4100.0	500.0	5000.0	25480.0	
	SSTL	53.0	7200.0	1500.0	7200.0	500.0	410.0	1136.0	1000.0	10000.0	28999.0	
	Subsequent > SSTL	507.0	0.0	1000.0	0.0	0.0	260.0	2964.0	0.0	0.0	4731.0	
MW-35	Initial	4400.0	2000.0	1700.0	3500.0	300.0	580.0	5300.0	51.0	5000.0	22831.0	-57%
	SSTL	56.0	2000.0	1700.0	3500.0	300.0	542.0	1181.0	51.0	5000.0	14330.0	
	Initial > SSTL	4344.0	0.0	0.0	0.0	0.0	38.0	4119.0	0.0	0.0	8501.0	
	Subsequent	3700.0	4300.0	2000.0	6200.0	160.0	550.0	5600.0	54.0	5000.0	27564.0	
	SSTL	56.0	2000.0	1700.0	3500.0	300.0	542.0	1181.0	51.0	5000.0	14330.0	
	Subsequent > SSTL	3644.0	2300.0	300.0	2700.0	0.0	8.0	4419.0	3.0	0.0	13374.0	
MW-37	Initial	240.0	34.0	270.0	240.0	11.0	220.0	850.0	50.0	44.0	1959.0	63%
	SSTL	90.0	34.0	270.0	240.0	11.0	220.0	850.0	50.0	44.0	1809.0	
	Initial > SSTL	150.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	150.0	
	Subsequent	1.0	1.0	1.0	1.0	1.0	3.7	100.0	10.0	100.0	218.7	
	SSTL	90.0	34.0	270.0	240.0	11.0	220.0	850.0	50.0	44.0	1809.0	
	Subsequent > SSTL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	56.0	56.0	
MW-39	Initial	13.0	1300.0	460.0	4200.0	250.0	330.0	5000.0	500.0	5000.0	17053.0	100%
	SSTL	13.0	1300.0	460.0	4200.0	250.0	330.0	1607.0	500.0	5000.0	13660.0	
	Initial > SSTL	0.0	0.0	0.0	0.0	0.0	0.0	3393.0	0.0	0.0	3393.0	
	Subsequent	1.0	3.2	2.2	14.0	1.0	3.3	100.0	10.0	100.0	234.7	
	SSTL	13.0	1300.0	460.0	4200.0	250.0	330.0	1607.0	500.0	5000.0	13660.0	
	Subsequent > SSTL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MW-40	Initial	290.0	2900.0	650.0	7100.0	500.0	530.0	10000.0	1000.0	10000.0	32970.0	100%
	SSTL	113.0	2900.0	650.0	7100.0	500.0	530.0	1876.0	1000.0	10000.0	24669.0	
	Initial > SSTL	177.0	0.0	0.0	0.0	0.0	0.0	8124.0	0.0	0.0	8301.0	
	Subsequent	5.8	14.0	2.0	580.0	1.0	24.0	100.0	10.0	100.0	836.8	
	SSTL	113.0	2900.0	650.0	7100.0	500.0	530.0	1876.0	1000.0	10000.0	24669.0	
	Subsequent > SSTL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
MW-41	Initial	260.0	1000.0	1100.0	1000.0	1000.0	420.0	20000.0	2000.0	20000.0	46780.0	100%
	SSTL	257.0	1000.0	1100.0	1000.0	1000.0	420.0	3234.0	2000.0	20000.0	30011.0	
	Initial > SSTL	3.0	0.0	0.0	0.0	0.0	0.0	16766.0	0.0	0.0	16769.0	
	Subsequent	1.0	1.0	1.0	1.0	1.0	5.0	100.0	10.0	100.0	220.0	
	SSTL	257.0	1000.0	1100.0	1000.0	1000.0	420.0	3234.0	2000.0	20000.0	30011.0	
	Subsequent > SSTL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Table 3

Facility Name: Handy Pantry #65 / University Mart & Clouds Chevron — UST 07584 / 07777 / 12352
Address: 2367 Taylor Street Columbia, South Carolina — Crawford Project No. 7.0547

Site Specific Target Level Summary

Well ID:	Item	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	MTBE	Naphth	TAA	TAME	TBA	Total	
MW-54	Initial	5.0	5.0	5.0	5.0	5.0	5.0	100.0	10.0	100.0	240.0	-1%
	SSTL	5.0	5.0	5.0	5.0	5.0	5.0	110.0	2.0	14.0	156.0	
	Initial > SSTL	0.0	0.0	0.0	0.0	0.0	0.0	0.0	8.0	86.0	94.0	
	Subsequent	1.0	1.0	1.0	1.0	9.6	5.0	100.0	6.7	100.0	225.3	
	SSTL	5.0	5.0	5.0	5.0	5.0	5.0	110.0	2.0	14.0	156.0	
	Subsequent > SSTL	0.0	0.0	0.0	0.0	4.6	0.0	0.0	4.7	86.0	95.3	
MW-58	Initial	4.8	25.0	20.0	25.0	93.0	11.0	1800.0	15.0	100.0	2093.8	Abandoned
	SSTL	4.8	25.0	20.0	25.0	51.0	11.0	279.0	15.0	100.0	530.8	
	Initial > SSTL	0.0	0.0	0.0	0.0	42.0	0.0	1521.0	0.0	0.0	0.0	
	Subsequent	Abandoned										
	SSTL	4.8	25.0	20.0	25.0	51.0	11.0	279.0	15.0	100.0	530.8	
	Subsequent > SSTL	Abandoned										
MW-65	Initial	420.0	398.0	234.0	262.0	16.4	168.0	648.0	50.0	500.0	2696.4	Unable to Locate
	SSTL	326.0	398.0	234.0	262.0	16.4	168.0	648.0	50.0	500.0	2602.4	
	Initial > SSTL	94.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	Subsequent	Unable to Locate - Paved Over										
	SSTL	326.0	398.0	234.0	262.0	16.4	168.0	648.0	50.0	500.0	2602.4	
	Subsequent > SSTL	Unable to Locate - Paved Over										
MW-5AR	Initial	9200.0	1000.0	1400.0	4400.0	160.0	810.0	1300.0	1000.0	10000.0	29270.0	-265%
	SSTL	83.0	1000.0	1400.0	4400.0	160.0	108.0	1300.0	381.0	10000.0	18832.0	
	Initial > SSTL	9117.0	0.0	0.0	0.0	0.0	702.0	0.0	619.0	0.0	10438.0	
	Subsequent	12000.0	13000.0	2400.0	13000.0	70.0	1000.0	5000.0	160.0	5000.0	51630.0	
	SSTL	83.0	1000.0	1400.0	4400.0	160.0	108.0	1300.0	381.0	10000.0	18832.0	
	Subsequent > SSTL	11917.0	12000.0	1000.0	8600.0	0.0	892.0	3700.0	0.0	0.0	38109.0	
PW-1R	Initial	460.0	3400.0	320.0	9200.0	50.0	250.0	710.0	500.0	5000.0	19890.0	0%
	SSTL	58.0	11928.0	3700.0	21680.0	290.0	19298.0	1114.0	330.0	29344.0	87742.0	
	Initial > SSTL	402.0	0.0	0.0	0.0	0.0	0.0	0.0	170.0	0.0	572.0	
	Subsequent	460.0	3400.0	320.0	9200.0	50.0	250.0	710.0	500.0	5000.0	19890.0	
	SSTL	58.0	11928.0	3700.0	21680.0	290.0	19298.0	1114.0	330.0	29344.0	87742.0	
	Subsequent > SSTL	402.0	0.0	0.0	0.0	0.0	0.0	0.0	170.0	0.0	572.0	
DW-3	Initial	2600.0	19000.0	2200.0	10000.0	1000.0	620.0	3600.0	2000.0	20000.0	61020.0	-193%
	SSTL	45.0	8470.0	2200.0	10000.0	1000.0	620.0	3600.0	2000.0	20000.0	47935.0	
	Initial > SSTL	2555.0	10530.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	13085.0	
	Subsequent	9800.0	22000.0	3700.0	17000.0	990.0	780.0	10000.0	190.0	5000.0	69460.0	
	SSTL	45.0	8470.0	2200.0	10000.0	1000.0	620.0	3600.0	2000.0	20000.0	47935.0	
	Subsequent > SSTL	9755.0	13530.0	1500.0	7000.0	0.0	160.0	6400.0	0.0	0.0	38345.0	
SW-1	Initial	130.0	2.8	23.0	36.0	17.0	6.5	340.0	2.6	23.0	580.9	-88%
	SSTL	5.0	2.8	23.0	36.0	17.0	6.5	240.0	2.6	23.0	355.9	
	Initial > SSTL	125.0	0.0	0.0	0.0	0.0	0.0	100.0	0.0	0.0	225.0	
	Subsequent	180.0	8.4	30.0	53.0	42.0	6.5	350.0	9.5	100.0	779.4	
	SSTL	5.0	2.8	23.0	36.0	17.0	6.5	240.0	2.6	23.0	355.9	
	Subsequent > SSTL	175.0	5.6	7.0	17.0	25.0	0.0	110.0	6.9	77.0	423.5	

SSTL = Site Specific Target Level
RBSL= Risk Based Screening Levels
MtBE= Methyl Tert-Butyl Ether
n/a = not applicable
0.0 - Excluded from Calculations

CRAWFORD ENVIRONMENTAL SERVICES

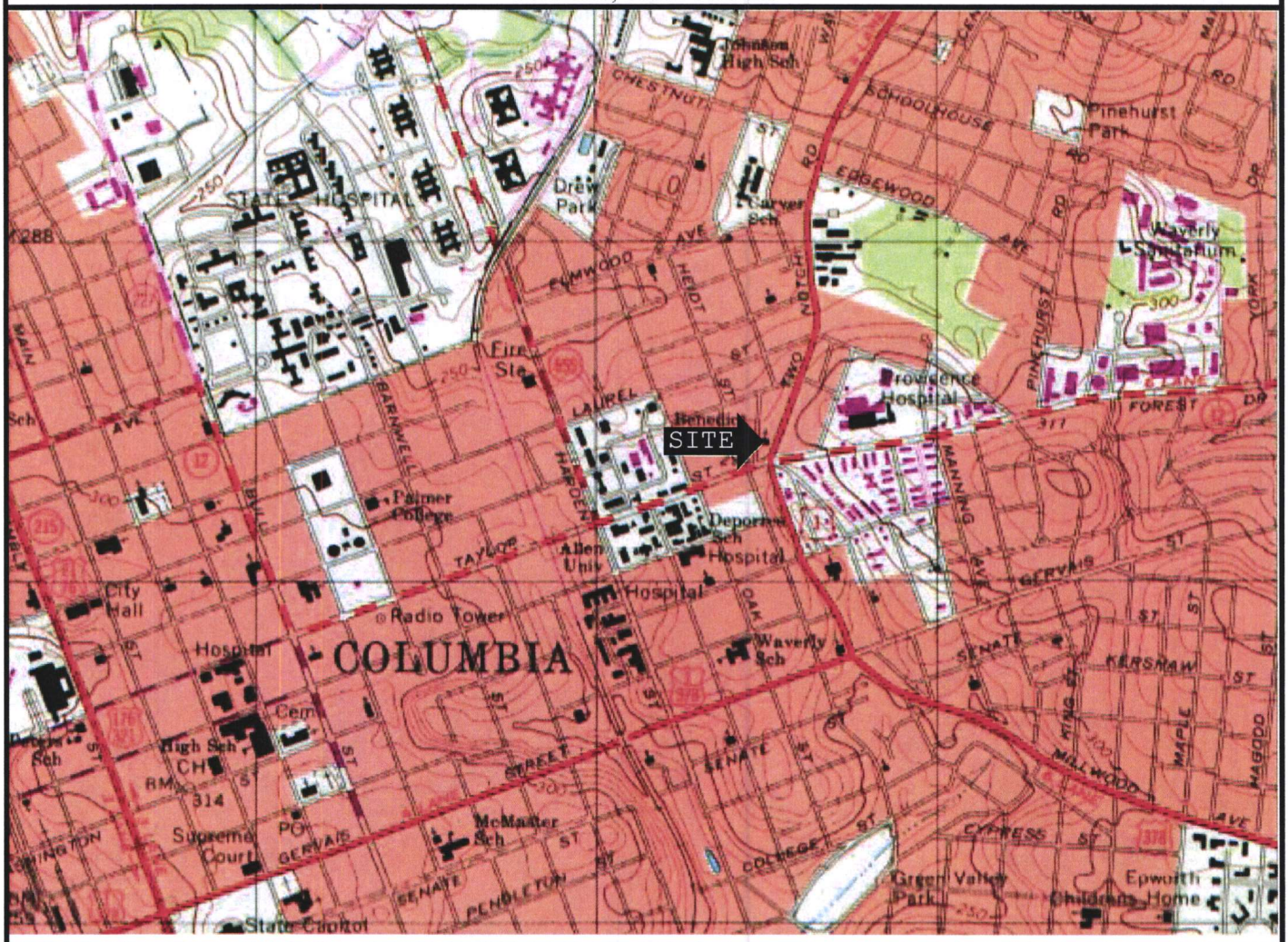
Initial>SSTL	421858.00
Subsequent>SSTL	197041.20
COC Reduction	53.29%

Figures

Figure 1: Topographic Map
Figure 2: Site Facility Base Map
Figure 3: Chemicals of Concern Map
Figure 4: Groundwater Elevation Map

FIGURE 1

Site Location Map
Handy Pantry #65 / University Mart / Clouds Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina



CRAWFORD ENVIRONMENTAL SERVICES

15 Church Avenue, SW
Roanoke Virginia, 24011

540-343-6256 (office) 540-343-6259 (fax)

NORTH COLUMBIA, SOUTH CAROLINA

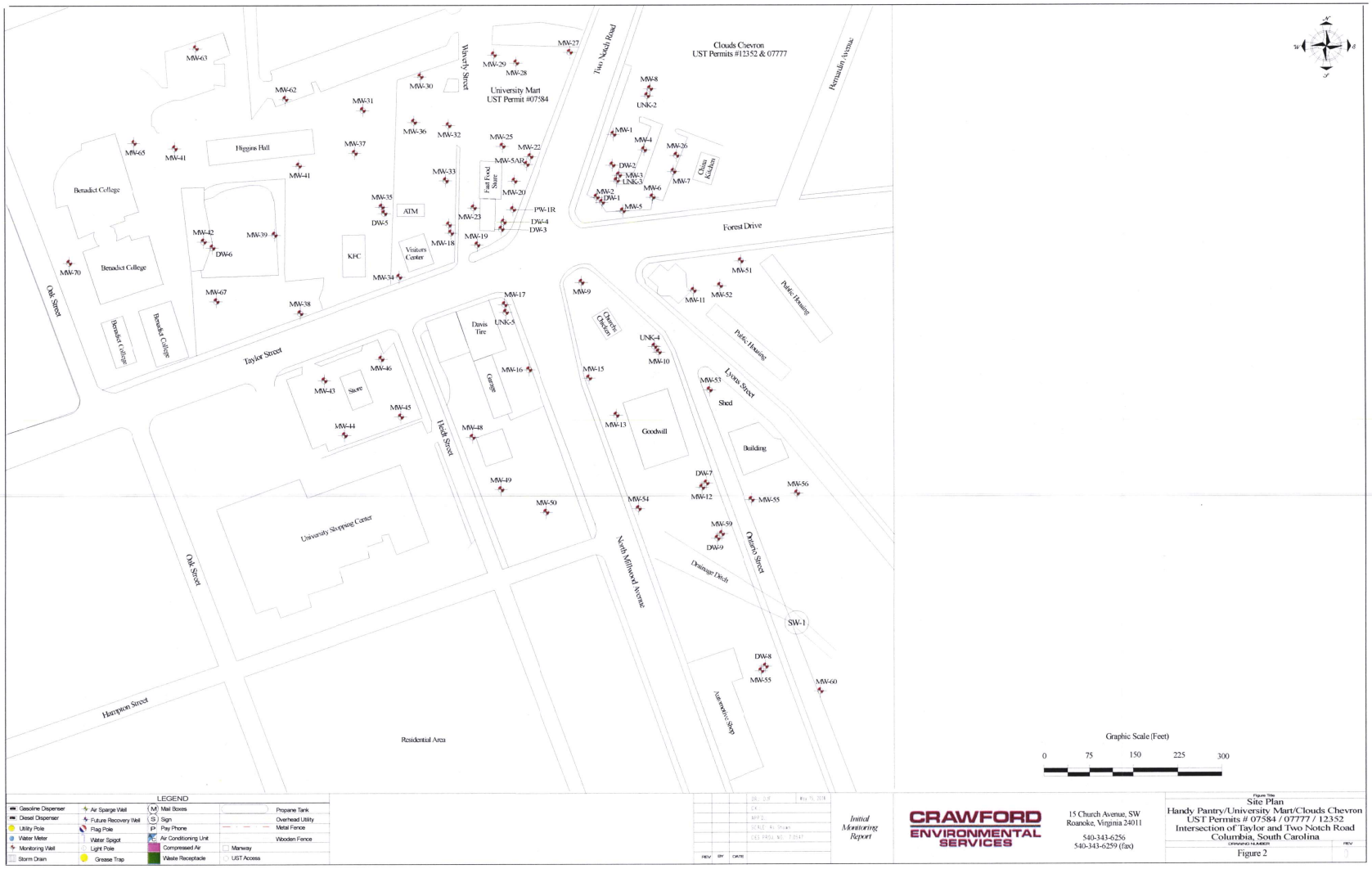
Source: U.S.G.S. Topographic Map of the Columbia North Quadrangle, Virginia, 7.5 Minute Series (1977, revised 1988)
Scale: 1:24,000 Contour Interval: 20 Feet
Vertical Datum: National Geodetic Vertical Datum 1929
Horizontal Datum: North American Datum1927

Project: Initial Monitoring Report

Client: SCDHEC

CES Job #: 7.0547

Latitude:
034"00'42.72"N
Longitude:
081"01'00.13"W



Clouds Chevron
UST Permits #12352 & 07777
University Mart
UST Permit #07584
Two Notch Road
Bernardin Avenue
Waverly Street
Forest Drive
Taylor Street
Oak Street
Heidt Street
North Millwood Avenue
Ontario Street
Lyons Street
Hampton Street
Residential Area
Higgins Hall
Benedict College
Fast Food Store
ATM
KFC
Visitors Center
Davis Tire
Store
Garage
Church's Chicken
Goodwill
Shed
Building
Public Housing
Chan Kitchen
University Shopping Center
Drainage Ditch
Automotive Shop
SW-1
MW-1
MW-2
MW-3
MW-4
MW-5
MW-5AR
MW-6
MW-7
MW-8
MW-9
MW-10
MW-11
MW-12
MW-13
MW-15
MW-16
MW-17
MW-18
MW-19
MW-20
MW-22
MW-23
MW-25
MW-26
MW-27
MW-28
MW-29
MW-30
MW-31
MW-32
MW-33
MW-34
MW-35
MW-36
MW-37
MW-38
MW-39
MW-41
MW-42
MW-43
MW-44
MW-45
MW-46
MW-48
MW-49
MW-50
MW-51
MW-52
MW-53
MW-54
MW-55
MW-56
MW-59
MW-60
MW-62
MW-63
MW-65
MW-67
MW-70
UNK-2
UNK-3
UNK-4
UNK-5
DW-1
DW-2
DW-3
DW-4
DW-5
DW-6
DW-7
DW-8
DW-9
PW-1R
Graphic Scale (Feet)
0
75
150
225
300
LEGEND
Gasoline Dispenser
Diesel Dispenser
Utility Pole
Water Meter
Monitoring Well
Storm Drain
Air Sparge Well
Future Recovery Well
Flag Pole
Water Spigot
Light Pole
Grease Trap
Mail Boxes
Sign
Pay Phone
Air Conditioning Unit
Compressed Air
Waste Receptacle
Propane Tank
Overhead Utility
Metal Fence
Wooden Fence
Manway
UST Access
REV
BY
DATE
Initial Monitoring Report
CRAWFORD ENVIRONMENTAL SERVICES
15 Church Avenue, SW
Roanoke, Virginia 24011
540-343-6256
540-343-6259 (fax)
Figure Title
Site Plan
Handy Pantry/University Mart/Clouds Chevron
UST Permits # 07584 / 07777 / 12352
Intersection of Taylor and Two Notch Road
Columbia, South Carolina
DRAWING NUMBER
Figure 2
REV



Well ID	Date	Benzene	Toluene	Ethylbenzene	Xylenes (Total)	MTBE	Naphthalene	TAA	TAME	TBA
MW-1	4/2/2014	Dry								
MW-2	4/2/2014	170	41	200	960	320	150	230	1	6.8
MW-3	4/2/2014	6900	18000	1200	16000	1800	600	980	560.000	340
MW-4	4/2/2014	<1	<1	<1	<1	3.5	<5	<100	10.000	<100
MW-5	4/2/2014	Dry								
MW-6	4/3/2014	2.6	<1	2.4	10	2.5	4.2	<100	<10	<100
MW-7	4/3/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-8	4/3/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-9	4/2/2014	830	7500	1700	14000	50	590	1700	5000	5000
MW-10	4/1/2014	1800	5700	350	8500	50	690	5000	500.000	5000
MW-11	4/3/2014	2.3	4.1	11	4.1	<1	4.4	120	<10	<100
MW-12	4/2/2014	2.9	0.67	1.6	0.91	18	4.7	630	9.300	<100
MW-13	4/1/2014	0.62	8.8	4.5	86	<1	31	10	<10	<100
MW-15	4/1/2014	0.60-Feet of Free Product								
MW-16	4/2/2014	<1	<1	<1	<1	<1	3.4	<100	<10	<100
MW-17	4/2/2014	280	5100	450	13000	50	860	2200	500.000	5000
MW-18	4/2/2014	1900	7200	630	8300	340	370	4900	70.000	5000
MW-19	4/3/2014	300	1800	490	12000	50	900	610	500.000	5000
MW-20	4/3/2014	1800	11000	460	11000	50	960	3100	65.000	5000
MW-22	4/3/2014	5700	12000	880	23000	50	990	3600	500.000	5000
MW-23	4/3/2014	4200	16000	880	19000	120	1100	5900	500.000	5000
MW-25	4/1/2014	5.5	200	320	4400	<1	1300	170	<10	<100
MW-26	4/3/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-27	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-28	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-29	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-30	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-31	4/2/2014	0.9	<1	<1	<1	2.7	<5	59	<10	<100
MW-32	4/2/2014	0.94	<1	1.9	2.4	<1	6.6	170	<10	<100
MW-33	4/3/2014	560	5200	2500	6900	50	670	4100	500.000	5000
MW-34	4/1/2014	<1	<1	<1	<1	<1	<5	39	<10	<100
MW-35	4/3/2014	3700	4300	2000	6200	160	560	5600	54.000	5000
MW-36	4/1/2014	5.1	<1	38	<1	<1	55	96	<10	<100
MW-37	4/1/2014	<1	<1	<1	<1	<1	3.7	<100	<10	<100
MW-38	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-39	4/2/2014	<1	3.2	2.2	14	<1	3.3	<100	<10	<100
MW-40	4/2/2014	5.8	14	2	580	<1	24	<100	<10	<100
MW-41	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-42	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-43	4/2/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-44	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-45	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-46	4/1/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-48	4/2/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-49	4/2/2014	Unable to Access - Locked Gate								
MW-50	4/2/2014	Unable to Access - Locked Gate								
MW-51	4/2/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
MW-53	4/3/2014	<1	<1	<1	<1	<1	4.1	<100	<10	<100
MW-54	4/1/2014	<1	<1	<1	<1	9.6	<5	<100	6.700	<100
MW-55	4/3/2014	10	1	3.5	<1	24	3.9	98	6.400	<100
MW-56	4/3/2014	<1	<1	<1	<1	<1	<5	50	<10	<100
MW-58	4/2/2014	Abandoned								
MW-59	4/2/2014	28	2.8	300	6.4	130	45	2600	42.000	160
MW-60	4/2/2014	Unable to Locate								
MW-62	4/1/2014	0.86	<1	<1	<1	3	3.3	260	<10	<100
MW-63	4/2/2014	<1	<1	<1	<1	5	120	<10	<100	
MW-65	4/2/2014	Unable to Locate - Paved over								
MW-67	4/1/2014	<1	<1	<1	<1	<1	5	<100	<10	<100
MW-70	4/2/2014	<1	<1	<1	<1	<1	5	<100	<10	<100
MW-5AR	4/1/2014	12000	13000	2400	13000	70	1000	<5000	160.000	<5000
PW-1R	4/3/2014	460	3400	320	9200	<50	<250	710	<500	<5000
DW-1	4/2/2014	0.45	1.2	1.7	7.2	<1.0	<5.0	<100	<10	<100
DW-2	4/2/2014	<1.0	<1.0	<1.0	<1.0	7.1	4.1	<100	<10	<100
DW-3	4/3/2014	9800	22000	3700	17000	990	780	10000	190.000	<5000
DW-4	4/3/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
DW-5	4/1/2014	3300	68	37	1000	940	81	4300	83.000	<100
DW-6	4/1/2014	8.5	1.2	1.6	7.2	3	5	<100	<10	<100
DW-7	4/3/2014	0.52	0.46	<1.0	1.4	2.6	4.2	<100	<10	<100
DW-8	4/2/2014	Abandoned								
DW-9	4/2/2014	<1	<1	<1	<1	<1	<5	<100	<10	<100
SW-1	4/2/2014	180	8.4	30	53	42	6.5	350	9.500	100

Initial Monitoring Report

CRAWFORD ENVIRONMENTAL SERVICES
15 Church Avenue, SW
Roanoke, Virginia 24011
540-343-6256
540-343-6259 (fax)

Figure Title
Concentrations of Concern Map
Handy Pantry/University Mart/Clouds Chevron
UST Permits # 07584 / 07777 / 12352
Intersection of Taylor and Two Notch Road
Columbia, South Carolina

Figure 3



Monitor Well	Top of Casing (ft)	Date Measured	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Product Elevation (ft)	Groundwater Elevation (ft)
MW-1	93.89	4/2/2014	NA	DRY	NA	NA	DRY
MW-2	94.70	4/2/2014	NA	21.12	NA	NA	73.58
MW-3	94.45	4/2/2014	NA	21.40	NA	NA	73.05
MW-4	94.85	4/2/2014	NA	21.31	NA	NA	73.54
MW-5	95.26	4/2/2014	NA	DRY	NA	NA	DRY
MW-6	94.96	4/3/2014	NA	22.61	NA	NA	72.35
MW-7	95.93	4/3/2014	NA	23.02	NA	NA	72.91
MW-8	94.79	4/3/2014	NA	19.95	NA	NA	74.84
MW-9	92.30	4/2/2014	NA	20.60	NA	NA	71.70
MW-10	85.98	4/1/2014	NA	17.69	NA	NA	68.29
MW-11	88.46	4/2/2014	NA	18.61	NA	NA	69.85
MW-12	72.80	4/2/2014	NA	4.20	NA	NA	68.60
MW-13	80.44	4/1/2014	NA	11.13	NA	NA	69.31
MW-15	86.44	4/1/2014	**16.60**	**16.00**	**0.60**	**69.84**	70.88*
MW-16	88.19	4/2/2014	NA	17.54	NA	NA	70.65
MW-17	92.45	4/2/2014	NA	22.00	NA	NA	70.45
MW-18	94.81	4/1/2014	NA	23.68	NA	NA	71.13
MW-19	93.96	4/3/2014	NA	23.33	NA	NA	70.63
MW-20	94.12	4/3/2014	NA	21.95	NA	NA	72.17
MW-22	94.25	4/3/2014	NA	21.11	NA	NA	73.14
MW-23	94.43	4/3/2014	NA	23.65	NA	NA	70.78
MW-25	93.09	4/1/2014	NA	19.71	NA	NA	73.38
MW-26	95.96	4/3/2014	NA	20.01	NA	NA	75.95
MW-27	91.40	4/1/2014	NA	14.65	NA	NA	76.75
MW-28	91.46	4/1/2014	NA	15.63	NA	NA	75.83
MW-29	91.09	4/1/2014	NA	15.51	NA	NA	75.58
MW-30	92.77	4/1/2014	NA	20.50	NA	NA	72.27
MW-31	95.20	4/2/2014	NA	24.41	NA	NA	70.79
MW-32	92.87	4/2/2014	NA	21.28	NA	NA	71.59
MW-33	93.84	4/1/2014	NA	23.18	NA	NA	70.66
MW-34	94.77	4/1/2014	NA	24.06	NA	NA	70.71
MW-35	93.71	4/1/2014	NA	21.35	NA	NA	72.36
MW-36	93.89	4/1/2014	NA	22.84	NA	NA	71.05
MW-37	93.78	4/1/2014	NA	22.24	NA	NA	71.54
MW-38	95.53	4/1/2014	NA	24.61	NA	NA	70.92
MW-39	96.19	4/2/2014	NA	25.59	NA	NA	70.60
MW-40	95.69	4/2/2014	NA	25.29	NA	NA	70.40
MW-41	94.85	4/1/2014	NA	24.70	NA	NA	70.15
MW-42	95.81	4/1/2014	NA	25.35	NA	NA	70.46
MW-43	95.15	4/2/2014	NA	24.00	NA	NA	71.15
MW-44	94.57	4/1/2014	NA	24.42	NA	NA	70.15
MW-45	92.51	4/1/2014	NA	21.22	NA	NA	71.29
MW-46	94.50	4/1/2014	NA	23.55	NA	NA	70.95
MW-48	89.95	4/2/2014	NA	19.70	NA	NA	70.25
MW-49	88.18	4/2/2014	Unable to Access - Locked Gate				
MW-50	84.09	4/2/2014	Unable to Access - Locked Gate				
MW-51	93.91	4/2/2014	NA	21.23	NA	NA	72.68
MW-53	79.60	4/3/2014	NA	9.69	NA	NA	70.00
MW-54	77.58	4/1/2014	NA	11.31	NA	NA	66.27
MW-55	71.22	4/3/2014	NA	2.51	NA	NA	68.71
MW-56	76.39	4/3/2014	NA	5.12	NA	NA	71.27
MW-58	76.37	4/2/2014	Abandoned				
MW-59	68.02	4/2/2014	NA	6.05	NA	NA	61.97
MW-60	67.94	4/2/2014	Unable to Locate				
MW-62	94.05	4/1/2014	NA	22.32	NA	NA	71.73
MW-63	94.65	4/2/2014	NA	23.07	NA	NA	71.58
MW-65	94.04	4/2/2014	Unable to Locate - Paved over				
MW-67	96.10	4/1/2014	NA	24.44	NA	NA	71.66
MW-70	95.49	4/2/2014	NA	24.70	NA	NA	70.79
MW-5AR	94.18	4/1/2014	NA	21.24	NA	NA	72.94
PW-1R	93.75	4/3/2014	NA	23.11	NA	NA	70.64
DW-1	94.66	4/2/2014	NA	45.00	NA	NA	49.66
DW-2	94.02	4/2/2014	NA	44.34	NA	NA	49.68
DW-3	93.75	4/3/2014	NA	24.40	NA	NA	69.35
DW-4	93.79	4/3/2014	NA	44.60	NA	NA	49.19
DW-5	93.74	4/1/2014	NA	44.22	NA	NA	49.52
DW-6	95.90	4/1/2014	NA	45.86	NA	NA	50.04
DW-7	72.79	4/3/2014	NA	24.00	NA	NA	48.79
DW-8	68.63	4/2/2014	Abandoned				
DW-9	76.47	4/2/2014	NA	25.00	NA	NA	51.47

LEGEND

Gasoline Dispenser	Air Sparge Well	Mail Boxes	Propane Tank
Diesel Dispenser	Future Recovery Well	Sign	Overhead Utility
Utility Pole	Flag Pole	Pay Phone	Metal Fence
Water Meter	Water Spigot	Air Conditioning Unit	Wooden Fence
Monitoring Well	Light Pole	Compressed Air	Manway
Storm Drain	Grease Trap	Waste Receptacle	UST Access

Initial Monitoring Report

CRAWFORD ENVIRONMENTAL SERVICES
15 Church Avenue, SW
Roanoke, Virginia 24011
540-343-6256
540-343-6259 (fax)

Figure Title
Groundwater Elevation Map
Handy Pantry/University Mart/Clouds Chevron
UST Permits # 07584 / 07777 / 12352
Intersection of Taylor and Two Notch Road
Columbia, South Carolina

Figure 4

May 16, 2014



Mr. John Bryant
State of South Carolina
Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

RE: Corrective Action Plan Implementation
Handy Pantry #65/University Mart & Cloud's Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina
UST Permit # 07584 / 07777 / 12352

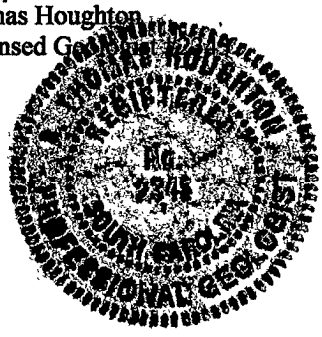
Dear Mr. Bryant:

Enclosed please find one copy of the *Corrective Action Plan* Implementation (CAP-IMP) prepared by Crawford Environmental Services, Inc. (CES) for the referenced site. Should you have any questions regarding the enclosed material, or if additional information is required, please feel free to contact me or Charlie Crawford at 540.343.6256.

Best Regards,

Daniel J. Fisher
Division Manager

B. Thomas Houghton
SC Licensed Geologist



cc:

CRAWFORD
ENVIRONMENTAL
SERVICES

CORRECTIVE ACTION PLAN IMPLEMENTATION

Handy Pantry #65/University Mart & Cloud's Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina
UST Permit # 07584 / 07777 / 12352

Submitted To:
Mr. John Bryant
State of South Carolina
Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Prepared For:
Mr. John Bryant
State of South Carolina
Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

May 16, 2014
CES Job Number: 7.0547

Prepared By:
Daniel J. Fisher
Division Manager

Reviewed By:
Charles F. Crawford
President

Approved By:
B. Thomas Houghton
Licensed Geologist

CRAWFORD ENVIRONMENTAL SERVICES

TABLE OF CONTENTS

EXECUTIVE SUMMARY ii

1.0 INTRODUCTION 1

1.1 Site Description 1

1.2 Adjacent Properties 1

1.3 Topography 2

2.0 REMEDIATION SYSTEM DESIGN 2

2.1 Re-Activation of Existing Remedial Components 2

3.0 FUTURE REMEDIAL ACTIVITIES 3

3.1 Surfactant Enhanced Recovery Events 3

3.2 Chemical Oxidation 3

3.3 Biological Injections 4

4.0 MONITORING SCHEDULES 4

4.1 Remedial Monitoring Schedule 4

4.2 Post-Operational Schedule 4

5.0 SUMMARY AND RECOMMENDATIONS 5

LIST OF TABLES

Table 1. *Summary of Adjacent Properties* *1*
Table 2. *Summary of Operational Monitoring Schedule* *4*

LIST OF APPENDICES

Figures
Figure 1. *Site Location*
Figure 2. *Site Plan*
Figure 3. *Tax Map*
Figure 4. *Injection Point Location Map*

Appendix A. *Photo-Documentation*
Appendix B. *Well Completion Logs*

SIGNATURE/CERTIFICATION PAGE

Prepared By:

Name: Daniel J. Fisher, Division Manager

Signature: _____

Reviewed By:

As a registered geologist, I certify that I am a qualified groundwater professional, as defined by the South Carolina Board of Registration for Geologists. All off the information in this plan and in all of the attachments is true, accurate, complete, and in accordance with applicable State Rules and Regulations.

Name: B. Thomas Houghton, P.G. – SC Licensed Geologist #23

Signature: _____

Approved By:

I certify that I have prepared or supervised preparation of the attached report, that it has been prepared in accordance with industry practices and standards, and that the information contained herein is truthful and accurate to the best of my knowledge.

Name: Charles F. Crawford III – President

Signature: _____

Company: Crawford Environmental Services, Inc.
15 Church Avenue, SW
Roanoke, Virginia 24011
(540) 343-6256 [phone]
(540) 343-6259 [facsimile]

1.0 INTRODUCTION

On behalf of the South Carolina Department of Health and Environmental Control (SCDHEC), Crawford Environmental Services, Inc. (CES) has prepared a Corrective Action Plan Implementation (CAP-IMP) report for the Handy Pantry #65/University Mart and Cloud's Chevron properties located proximal to the intersection of Two Notch Road and Taylor Street in Columbia, South Carolina.

1.1 Site Description

The subject property is located in a primarily commercial area of Columbia, South Carolina (Figure 1). The subject sites, operating as Handy Pantry #65/University Mart and former Cloud's Chevron, is bordered by light commercial properties in all directions. A site plan depicting pertinent features of the subject property is provided as Figure 2.

1.2 Adjacent Properties

As part of CAP development activities, CES reviewed the applicable tax maps for the site and surrounding area. Properties maintaining the presence of monitoring wells and/or those with confirmed petroleum releases are presented in Table 1. A copy of the tax map with the corresponding tax map number is included as Figure 3.

Table 1.

Summary of Adjacent Properties

Tax Map #	I.D. #	Owner Name	Address
R11412-10-16	1	Mr. Mahesh Patel	2367 Taylor Street, Columbia, SC
R11412-09-014A	2	Mr. Andrew Diggins	1600 Block Two Notch Road, Columbia, SC
R11412-09-13	3	Mr. Andrew Diggins	1600 Block Two Notch Road, Columbia, SC
R11411-02-01	4	Ms. Bette Gordon Bateman & Mr. John Bateman	2436 Taylor Street, Columbia, SC
R11411-01-02	5	2368 Taylor Street LLC.	2368 Taylor Street, Columbia, SC
R11411-01-03	6	2368 Taylor Street LLC.	1512 Heidt Street, Columbia, SC
R11411-01-01	7	Chang Moon Sueng	2358 Taylor Street, Columbia, SC
R11408-10-31	8	Mr. Soloman Addico	2361 Taylor Street, Columbia, SC
R11408-10-30	9	Mr. Soloman Addico	1613 Waverly Street, Columbia, SC
R11408-10-29	10	Mr. Soloman Addico	1617 Waverly Street, Columbia, SC
R11407-06-01	11	Mr. Soloman Addico	1616 Oak Street, Columbia, SC
R11407-06-03	12	Mr. Soloman Addico	1604 Oak Street, Columbia, SC
R11407-06-02	13	Mr. Soloman Addico	2305 Taylor Street, Columbia, SC
R11408-10-12	14	Allen University	2315 Taylor Street, Columbia, SC
R11408-10-31	15	Sylvan Food Systems, Inc.	2349 Taylor Street, Columbia, SC
R11411-03-01	16	Ms. Linda Warren	1527 Lyon Street, Columbia, SC
R11411-03-02	17	Ms. Linda Warren	1510 Lyon Street, Columbia, SC

Table 1 (Cont'd).

Summary of Adjacent Properties

Tax Map #	I.D. #	Owner Name	Address
R11411-04-01	18	Gilbert Walker	1505 Garden Plaza, Columbia, SC
R11411-02-02	19	1500 Millwood Ave LLC.	1527 Ontario Street, Columbia, SC
R11411-02-03	20	John M. Suddeth	Ontario Street, Columbia SC
R11407-07-02	21	Fung Lau	2324 Taylor Street, Columbia, SC

1.3 Topography

The subject site is located within the jurisdictional limits of Richland County, South Carolina and is situated within the Piedmont Physiographic Province. According to the U.S. Geological Survey 7.5 Minute Series Topographic Map of the North Columbia Quadrangle, South Carolina, the site elevation is approximately 293.0 feet above mean sea level.

2.0 REMEDIATION SYSTEM DESIGN

In accordance with the CAP dated March 21, 2014, CES performed maintenance activities on the three existing remedial systems (Shed 1, Shed 2, and Shed 3) located at the subject site to facilitate continued remediation via air sparging (AS) and soil vapor extraction (SVE). Details of the activities are provided below;

2.1 Re-Activation of Existing Remedial Components

CES mobilized to the subject site on April 18, 2014 to perform site cleaning, inspections of the remedial systems, and to secure the remedial systems. Approximately 15-cubic yards of debris was removed from the areas proximal to remedial sheds #1 and #3. Following clearing operations, the sheds were secured and the above ground piping was inspected for signs of failure. CES remobilized to the subject site on May 5, 2014 with an Atlas Copco Certified Compressor Technician to perform routine maintenance of the AS compressors located at remedial sheds #1, #2, and #3. Each compressor had a full service including; replacement of lubricants, filters, and drive belts. Following receipt of the notice to proceed on May 8, 2014, CES placed the remedial system back into operation on May 16, 2014. Due to the elevated temperatures during the summer months, CES has programmed the remedial systems to operate between 8:00 PM and 8:00 AM. The air sparge compressors have been initially set to delivery 2.5 cubic feet per minute (CFM) to each of the 58 on- and off-site air sparge wells. The existing soil vapor extraction units were inspected for proper operation and set to operate in conjunction with the air sparging. CES will conduct weekly visits of the air sparge / SVE systems for the first three months of operation to ensure proper operation. Photo-documentation of the CAP-IMP activities are included as Appendix A. Existing air sparge well completions logs are included as Appendix B with their corresponding locations shown on Figure 4.

3.0 FUTURE REMEDIAL ACTIVITIES

Following approximately one quarter of operation of the existing remedial systems, CES will evaluate site data to determine if additional remedial activities are warranted. Proposed additional remedial measures are presented below;

3.1 Surfactant Enhanced Recovery Events

Should site conditions indicate the presence of free-phase petroleum, CES will mobilize to the subject site and install a maximum of six free-product recovery wells. Eight-inch diameter soil borings will be installed utilizing hollow-stem auger techniques to facilitate the construction of six, four-inch recovery / injection wells. Each recovery / injection point will be installed to approximately 35.0 feet below ground surface (bgs). Recovery / injection wells will be equipped with screened intervals from approximately two feet above source area contaminants to the terminal depth of the boring. Each recovery / injection point will maintain an estimated eight-inch diameter waterproof manway installed within an estimated two foot by two foot concrete pad. Proposed recovery / injection point locations are presented on Figure 4.

Following installation of the injections wells, CES will mobilize to the site with remedial injection equipment and approximately 60-gallons of PetroSolv Surfactant (PetroSolv). CES will mix a 3.0% surfactant solution utilizing approximately 50-gallons of PetroSolv and approximately 600-gallons of potable water (acquired on-site). Over an estimated period of one to three days, CES will inject approximately 660-gallons of surfactant solution to injection points IW-1, IW-2, IW-3, IW-4, IW-5, and IW-6. During these injection events, CES will utilize a surge block to actively pressurize the surfactant solution into the formation creating direct contact with the free- and adsorbed-phase compounds. Following completion of the injection activities, CES will utilize a vacuum truck to extract approximately 150-gallons of petroleum impacted groundwater from each of the referenced injection wells.

3.2 Chemical Oxidation

Following achievement of the 60% concentrations of concern (COC) milestone, CES proposes to use a dilute Fenton's reagent process at the subject site to oxidize adsorbed- and dissolved-phase petroleum constituents in the subsurface The Fenton's reagent process utilizes a metal catalyst (ferrous sulfate) and hydrogen peroxide to produce hydroxyl radicals. These hydroxyl radicals rapidly oxidize petroleum hydrocarbons upon contact, ultimately producing by-products of carbon dioxide, water, and dissolved oxygen. Residual petroleum hydrocarbon mass and simple organic acids usually remain after the chemical oxidation process but can be treated with biological amendments. Fenton's reagent process is shown in the following steps:

$$(1)\ Fe^{2+} + H_2O_2 \rightarrow Fe^{3+} + OH\cdot + OH^-$$
$$(2)\ Fe^{3+} + H_2O_2 \rightarrow Fe^{2+} + OOH\cdot + H^+$$

The hydrogen peroxide will be injected into the estimated 58 existing air-sparge wells utilizing the existing piping as subsurface conveyance conduits. The six recovery / injection wells referenced in

Section 3.1 also will be utilized for the injection of hydrogen peroxide on an as needed basis. The injection events will be performed episodically until an approximate COC reduction of 75-80% is achieved. CES estimates that each ChemOx injection event can be completed in approximately one to two weeks, however, the duration of these events will be controlled by the site's ability to sustain the desired rates of injection. CES estimates that approximately 3,000-gallons of 5.0% hydrogen peroxide solution will be utilized at the subject site.

3.3 Biological Injections

Directly following the final ChemOx injection, the holding tank will be cleansed prior to the introduction of bacteria and nutrient-amended water. CES will utilize the PetroBac™ product bundle which contains a TPH Bacterial Consortium and Enzyme Accelerator. The NutriMax™ nutrient mix also will be utilized to increase biological degradation of the hydrocarbon mass at the site. Over the course of an estimated three to five days, CES will inject approximately 1,000 lbs. of CBN nutrients and approximately 20 gallons of A2 bacteria mixed with an estimated 3,500-gallons of potable water. The biological amendments will be gravity fed to the injection points in order to facilitate physical contact with the adsorbed-phase compounds. The amendments will react with the residual TPH mass to produce carbon dioxide and water as by-products.

4.0 MONITORING SCHEDULES

4.1 Remedial Monitoring Schedule

The remedial operation and monitoring (O & M) schedule presented below has been developed to assess the overall effectiveness and operating efficiency of the implemented remedial techniques. Table 2 is a summary of the O & M schedule for the corrective action efforts to be implemented at the subject sites in Columbia, South Carolina.

Table 2.

Summary of Remedial Operation & Monitoring Schedule

Location	Frequency	Parameters	Methods	Media
SVE and system components	Weekly inspections for first month; bi-monthly thereafter	N/A	Routine system O&M	N/A
SVE vapor effluents	Weekly inspections for first month; bi-monthly thereafter	TPH	PID	Vapor
On- and Off-site Monitoring Wells	Semi-Annually from the Date of the CAP-IMP Report	BTEX, Naphthalene, MTBE, TAA, TAME, TBA.	8260B, 8260-OXY	Groundwater

4.2 Post-Operational Schedule

Following achievement of the third interim Chemical of Concern (CoC) concentration goal for 30 consecutive days, CES will complete two quarters of post corrective action monitoring to ensure that dissolved-phase endpoints have been maintained. Upon verification of endpoint maintenance for two consecutive quarters, CES will mobilize to the subject site to remove/abandon all assessment and corrective action equipment. This process will include removal of the injection equipment and abandonment of all on- and off-site monitoring/injection wells.

5.0 SUMMARY AND RECOMMENDATIONS

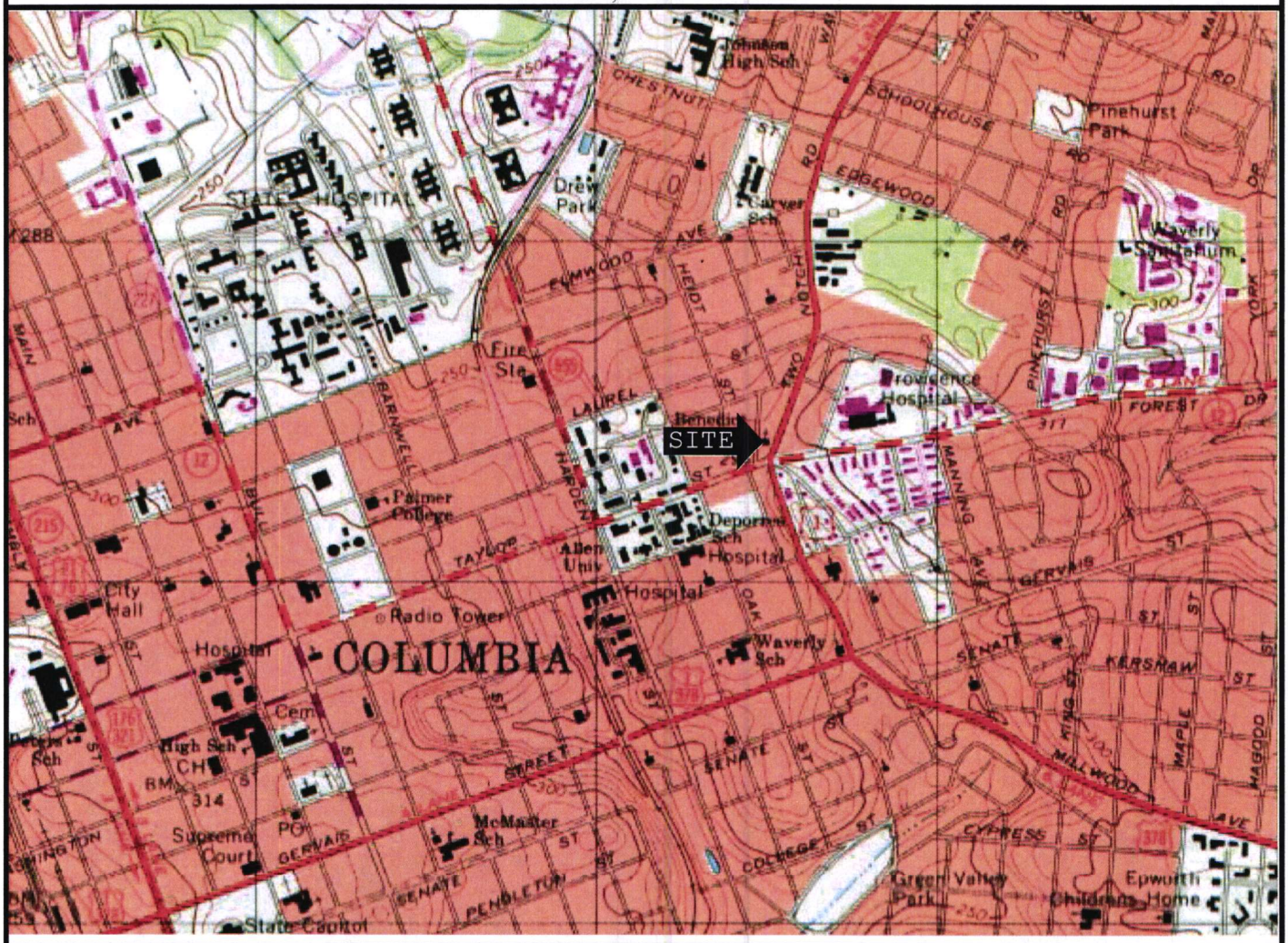
During the first quarter of CAP implementation, the existing remedial systems were re-activated on May 16, 2014. CES is currently scheduled to mobilize to the subject site weekly to perform system inspections to ensure proper operation. This CAP-IMP is being submitted to Mr. John Bryant of the South Carolina Department of Health and Environmental Control UST Management Department.

Figures

Figure 1 – Topographic Map
Figure 2 – Site Map
Figure 3 – Tax ID Map
Figure 4 – Injection Point Location Map

FIGURE 1

Site Location Map
Handy Pantry #65 / University Mart / Clouds Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina



CRAWFORD ENVIRONMENTAL SERVICES

15 Church Avenue, SW
Roanoke Virginia, 24011

540-343-6256 (office) 540-343-6259 (fax)

NORTH COLUMBIA, SOUTH CAROLINA

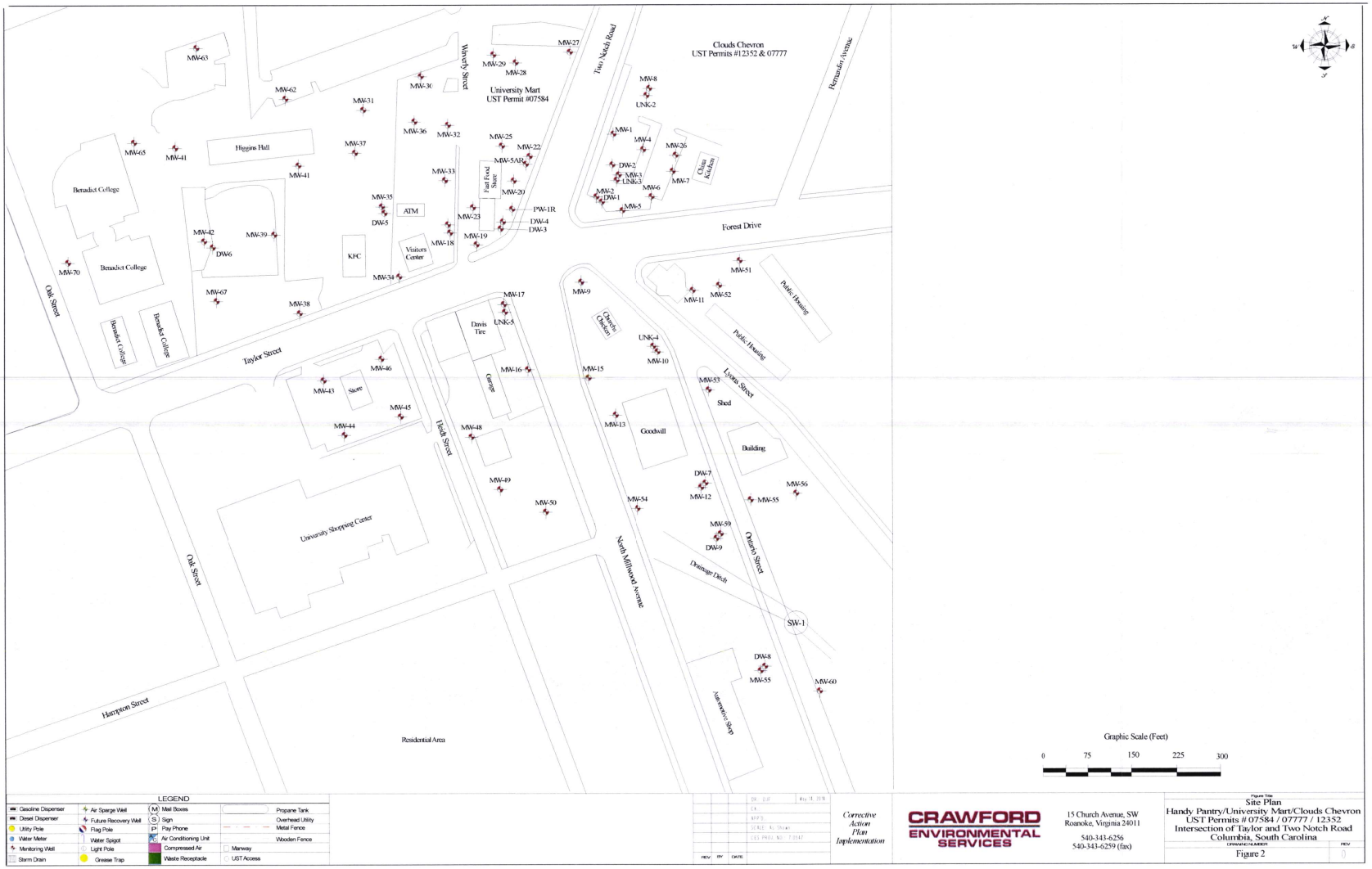
Source: U.S.G.S. Topographic Map of the Columbia North Quadrangle, Virginia, 7.5 Minute Series (1977, revised 1988)
Scale: 1:24,000 Contour Interval: 20 Feet
Vertical Datum: National Geodetic Vertical Datum 1929
Horizontal Datum: North American Datum1927

Project: Corrective Action Plan Implementation

Client: SCDHEC

CES Job #: 7.0547

Latitude:
034"00'42.72"N
Longitude:
081"01'00.13"W



LEGEND

Gasoline Dispenser	Air Sparge Well	Mail Boxes	Propane Tank
Diesel Dispenser	Future Recovery Well	Sign	Overhead Utility
Utility Pole	Flag Pole	Pay Phone	Metal Fence
Water Meter	Water Spigot	Air Conditioning Unit	Wooden Fence
Monitoring Well	Light Pole	Compressed Air	Manway
Storm Drain	Grease Trap	Waste Receptacle	UST Access

REV	BY	DATE

Corrective Action Plan Implementation

CRAWFORD ENVIRONMENTAL SERVICES

15 Church Avenue, SW
Roanoke, Virginia 24011

540-343-6256
540-343-6259 (fax)

Figure Title
Site Plan
Handy Pantry/University Mart/Clouds Chevron
UST Permits # 07584 / 07777 / 12352
Intersection of Taylor and Two Notch Road
Columbia, South Carolina

DRAWING NUMBER
Figure 2

REV
0



REV	BY	DATE
	DR.: DJF	May 14, 2014
	CK.:	
	APP'D.: CFC	
	SCALE: NA	
	CES PROJ. NO.: 7.0547	

Corrective Action Plan Implementation

CRAWFORD ENVIRONMENTAL SERVICES

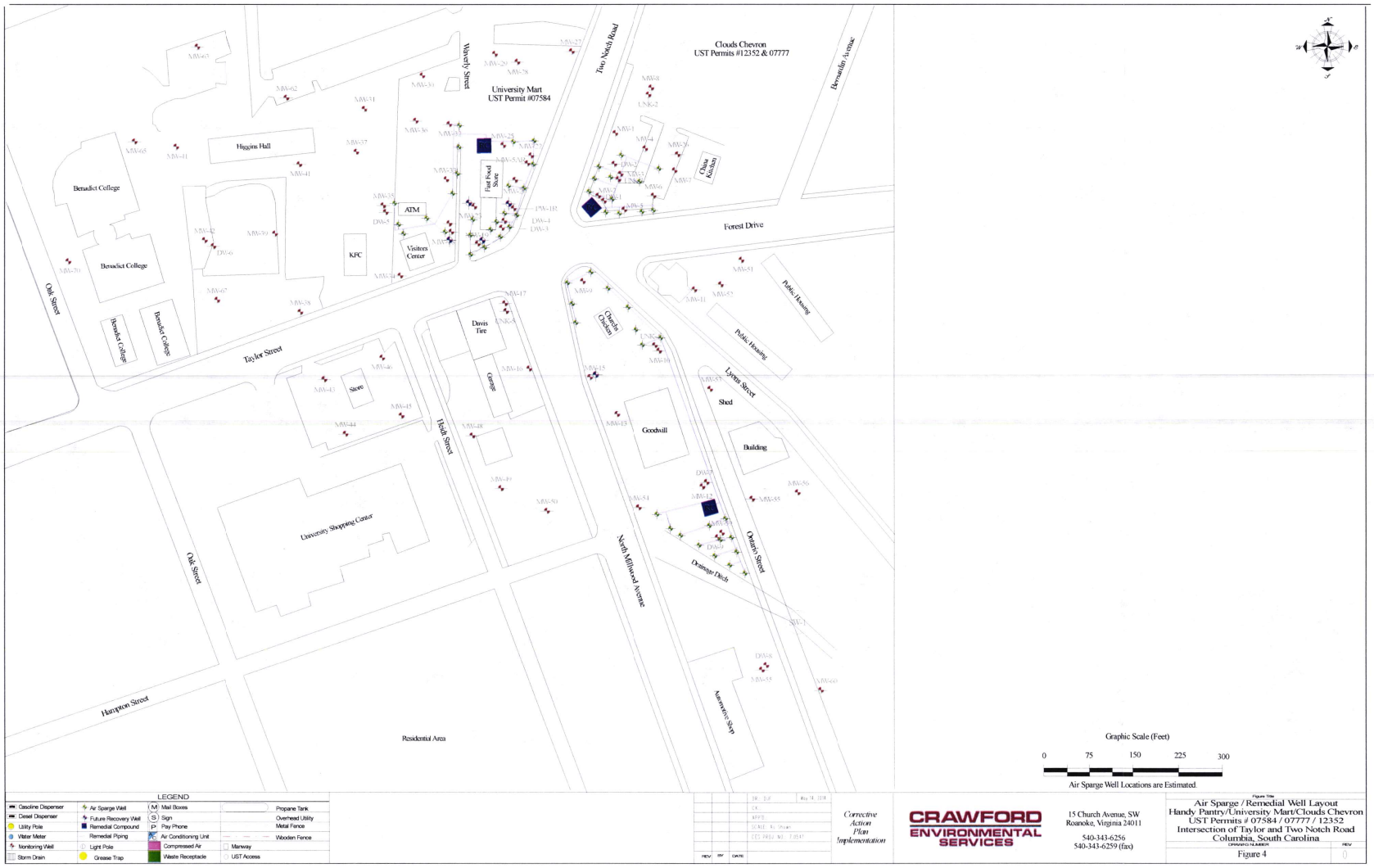
15 Church Avenue, SW
Roanoke, Virginia 24011

540-343-6256
540-343-6259 (fax)

Figure Title

Tax Map
Handy Pantry/University Mart/Clouds Chevron
UST Permits # 07584 / 07777 / 12352
Intersection of Taylor and Two Notch Road
Columbia, South Carolina

DRAWING NUMBER	REV
Figure 3	0



Corrective Action Plan Implementation

CRAWFORD ENVIRONMENTAL SERVICES
15 Church Avenue, SW
Roanoke, Virginia 24011
540-343-6256
540-343-6259 (fax)

Figure Title
Air Sparge / Remedial Well Layout
Handy Pantry/University Mart/Clouds Chevron
UST Permits # 07584 / 07777 / 12352
Intersection of Taylor and Two Notch Road
Columbia, South Carolina

DRAWING NUMBER: Figure 4
REV: 0

Appendix A

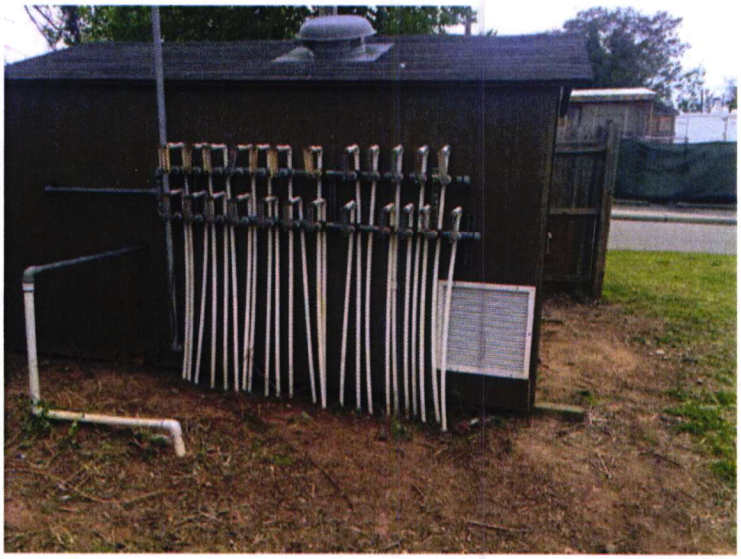
Photo-Documentation

CAP-IMP Photographic Documentation
Handy Pantry #65 / University Mart & Clouds Chevron
2367 Taylor Street
Columbia, South Carolina 29209



Clouds Chevron # 1

View of Remedial Shed #1 following clearing activities.



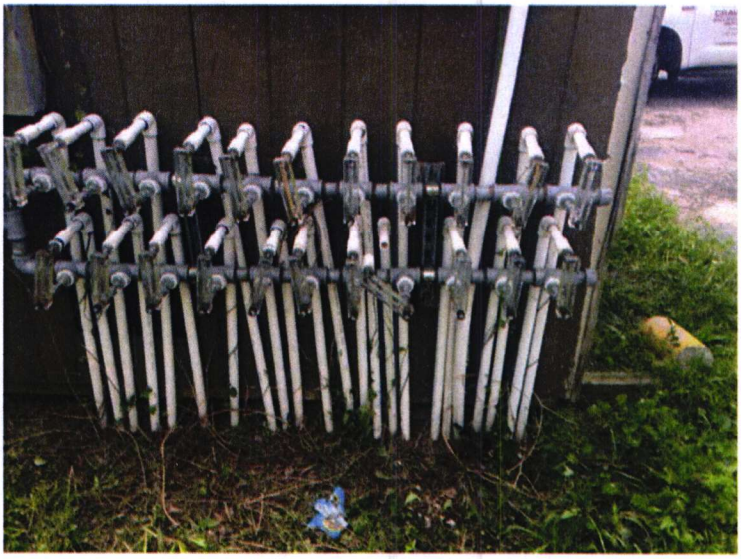
Clouds Chevron # 2

View of Remedial Manifold at Remedial Shed #1.



Clouds Chevron # 3

View of Remedial Shed #3 following clearing activities.



Clouds Chevron # 4

View of Remedial Manifold at Remedial Shed #1 prior to repairs.

Appendix B

Well Completion Records

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

RECEIVED
JAN 18 2007

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-1
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877
UNDERGROUND STORAGE TANK PROGRAM

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes ☑ No
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected upon completion ☐ Yes ☑ No Type: Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

RECEIVED
JAN 18 2007
UNDERGROUND STORAGE TANK PROGRAM

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-2
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

RECEIVED
JAN 18 2007

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

UNDERGROUND STORAGE TANK PROGRAM

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-3
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-4
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-5
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-6
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-7
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-8
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2486 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-9
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)436-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-10
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-11
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-12
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)436-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-13
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/26/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
_____ in. to _____ feet depth
Height: Above/Below Surface _____
Weight _____
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
_____ ft. and _____ ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
_____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
_____ ft. after ____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other _____
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. ___ direction
_____ Type well disinfected ☐ Yes Type: _____
_____ unpon completion ☑ No Amount: _____

18. PUMP: Date Installed: _____ Not Installed ☑
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe _____ ft. Capacity _____ gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-14
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2486 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-15
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2486 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-16
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Steve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley (Authorized Representative) Date: 12/27/2006

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-17
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-18
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
_____ in. to _____ feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
_____ ft. and _____ ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
_____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
_____ ft. after _____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. ___ direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)436-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-19
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes ☑ No
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-20
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-21
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
_____ in. to _____ feet depth
Height: Above/Below Surface _____
Weight _____
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
_____ ft. and _____ ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
_____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
_____ ft. after ____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other _____
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. ___ direction
Type well disinfected ☐ Yes Type: _____
unpon completion ☑ No Amount: _____

18. PUMP: Date Installed: _____ Not Installed ☑
Mfr. Name: _____ Model No.: _____
H.P. ____ Volts _____ Length of drop pipe _____ ft. Capacity _____ gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-22
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-23
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
___ in. to ___ feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
___ ft. and ___ ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
___ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
___ ft. after ___ hrs. Pumping ___ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ___ ft. ___ direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. ___ Volts ___ Length of drop pipe ___ ft. Capacity ___ gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:28045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-24
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-25
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-26
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2486 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-27
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) 45 ft. Date Started: 9/28/2006 Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
_____ in. to _____ feet depth
Height: Above/Below Surface _____
Weight _____
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
_____ ft. and _____ ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL _____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
_____ ft. after ____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other _____
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. ___ direction
Type well disinfected ☐ Yes Type: _____
unpon completion ☑ No Amount: _____

18. PUMP: Date Installed: _____ Not Installed ☑
Mfr. Name: _____ Model No.: _____
H.P. ____ Volts _____ Length of drop pipe _____ ft. Capacity _____ gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-28
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/26/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-29
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
_____ in. to _____ feet depth
Height: Above/Below Surface _____
Weight _____
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
_____ ft. and _____ ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
_____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
_____ ft. after ____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other _____
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. ___ direction
_____ Type well disinfected ☐ Yes Type: _____
unpon completion ☑ No Amount: _____

18. PUMP: Date Installed: _____ Not Installed ☑
Mfr. Name: _____ Model No.: _____
H.P. ____ Volts ____ Length of drop pipe _____ ft. Capacity _____ gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-30
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/26/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-31
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/26/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 834
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-32
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-33
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-34
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-35
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Steve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-36
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-37
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes ☑ No
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)436-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:28045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-38
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 In. to 45 feet depth
In. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-39
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) 45 ft. Date Started: 9/28/2006 Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-40
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-41
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes ☑ No
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-42
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysi ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-43
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-44
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/26/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)436-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-45
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes ☑ No
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-46
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-47
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)436-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-48
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/26/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-49
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-50
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/26/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes ☑ No
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-51
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-52
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-53
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

8. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) **Date Started:** 9/28/2006
45 ft. **Date Completed:** 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-54
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2387 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-55
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) **Date Started:** 9/28/2006
45 ft. **Date Completed:** 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-56
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/26/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
_____ in. to _____ feet depth
Height: Above/Below Surface _____
Weight _____
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
_____ ft. and _____ ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
_____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
_____ ft. after ____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other _____
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. ___ direction
Type well disinfected upon completion ☐ Yes ☑ No Type: _____ Amount: _____

18. PUMP: Date Installed: _____ Not Installed ☑
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe _____ ft. Capacity _____ gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-57
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: AS-58
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	27'	27'
Yellow to gray clayey sand (wet)	18'	45'
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
45 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 1"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 45 feet depth
_____ in. to _____ feet depth
Height: Above/Below Surface _____
Weight _____
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 4"
Slot/Gauge: .020 Length: 20'
Set Between: 1 ft. and 10 ft.
_____ ft. and _____ ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
_____ ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
_____ ft. after ____ hrs. Pumping _____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield: _____

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 44 ft. to 45 ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other _____
Depth: From 10 ft. to 40 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: _____ ft. ___ direction
_____ Type well disinfected ☐ Yes Type: _____
_____ upon completion ☑ No Amount: _____

18. PUMP: Date Installed: _____ Not Installed ☑
Mfr. Name: _____ Model No.: _____
H.P. _____ Volts _____ Length of drop pipe _____ ft. Capacity _____ gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)436-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: RW-1
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34° 00.77 Longitude: 81° 00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	35	35
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/26/2006
35 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 25 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: .020 Length: 10'
Set Between: 25 ft. and 35 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 24 ft. to 35 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 0 ft. to 24 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

DHEC — PROMOTE PROTECT PROSPER

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: RW-2
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34° 00.77 Longitude: 81° 00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	35	35
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
35 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 25 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: .020 Length: 10'
Set Between: 25 ft. and 35 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 24 ft. to 35 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 0 ft. to 24 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected upon completion ☐ Yes ☑ No Type: Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine ☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley (Authorized Representative) Date: 12/27/2006

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: RW-3
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	35	35
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) 35 ft. **Date Started:** 9/28/2006
Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 25 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: .020 Length: 10'
Set Between: 25 ft. and 35 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surface after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 24 ft. to 35 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 0 ft. to 24 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

Water Well Record
Bureau of Water
2600 Bull St., Columbia, SC 29201-1708; (803)898-4300

1. WELL OWNER INFORMATION:
Name: Palmetto Environmental Group, Inc. (last) (first)
Address: P. O. Box 427
City: Elgin State: SC Zip:29045
Telephone: Work: Home:

2. LOCATION OF WELL: RW-4
Name: Handy Pantry #65/Cloud's Chevron/Site
Street Address: 2367 Taylor St./1600 Two Notch
City: Columbia, SC Zip:
COUNTY: Richland
Latitude: 34°00.77 Longitude: 81°00.97

3. SYSTEM NAME: **SYSTEM NUMBER:**

4. CUTTING SAMPLES: ☐ Yes ☑ No
Geophysical Logs: ☐ Yes ☑ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
Red/brown clayey sand	35	35
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

6. PERMIT NUMBER: 877

7. USE:
☐ Residential ☐ Public Supply ☑ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☐ Monitoring Well ☐ Replacement

8. WELL DEPTH (completed) Date Started: 9/28/2006
35 ft. Date Completed: 12/15/2006

9. ☐ Mud Rotary ☐ Jetted ☑ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable Tool ☐ Other

10. CASING: ☐ Threaded ☑ Welded
Diam.: 2"
Type: ☑ PVC ☐ Galvanized ☐ Steel ☐ Other
0 in. to 25 feet depth
in. to feet depth
Height: Above/Below Surface
Weight
Drive Shoe? ☐ Yes ☑ No

11. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: .020 Length: 10'
Set Between: 25 ft. and 35 ft.
ft. and ft.
Sieve Analysis ☐ Yes (please enclose) ☑ No

12. STATIC WATER LEVEL
ft. below land surgace after 24 hours

13. PUMPING LEVEL Below Land Surface
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☑ No
Yield:

14. WATER QUALITY
Chemical Analysis ☐ Yes ☑ No Bacterial Analysis ☐ Yes No ☑
Please enclose lab results

15. ARTIFICIAL FILTER (filter pack) ☑ Yes ☐ No
Installed from 24 ft. to 35 ft.
Effective size Uniformity Coefficient

16. WELL GROUTED? ☑ Yes ☐ No
☑ Neat Cement ☐ Sand Cement ☐ Concrete ☐ Other
Depth: From 0 ft. to 24 ft.

17. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
unpon completion ☑ No Amount:

18. PUMP: Date Installed: Not Installed ☑
Mfr. Name: Model No.:
H.P. Volts Length of drop pipe ft. Capacity gpm
Type: ☐ Submersible ☐ Jet (shallow) ☐ Turbine
☐ Jet (deep) ☐ Reciprocating ☐ Centrifugal

19. WELL DRILLER: Robyn Barkley CERT. NO.: 934
Address: 2485 Watson
Elgin, SC 29045
Telephone No.: (803)438-1331

20. WATER WELL CONTRACTOR'S CERTIFICATION: This well was drilled under my direction and this report is true to the best of my knowledge and belief.

Signed: Robyn Barkley Date: 12/27/2006
Authorized Representative

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment



CRAWFORD ENVIONMENTAL SERVICES
MR CHARLES F. CRAWFORD, III
15 CHURCH AVENUE SW
ROANOKE, VA 24011

MAY 2 7 2014

Re: **Corrective Action Status Report Review**
UST Permit # 07584, University Mart, 2367 Taylor St., Columbia, SC
Release #1 reported January 30, 1991; CA#47811
Release #2 reported April 17, 1998; CA#47812
UST Permit # 07777, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 31, 1991; CA#47813
UST Permit # 12352, Clouds Chevron, 1600 Two Notch Rd., Columbia, SC
Release reported December 30, 1991; CA#47814
Contract #IFB-5400007095-1/30/2014-EMW; PO # 4600322226
Richland County

Dear Mr. Crawford:

The Underground Storage Tank Management Division understands that corrective action commenced on May 16, 2014 when the former remedial system was placed back into operation. Therefore, the 36-month "Site Incentive Period" also commenced on May 16, 2014. As outlined in Specific Requirement #3 of the bid solicitation, a 10% incentive will be paid to Crawford Environmental Services provided that corrective action at the referenced facility is completed on or before midnight on May 17, 2017.

The next Corrective Action System Evaluation (CASE) Report is due on or before August 23, 2014.

On all correspondence regarding this site, please reference the UST Permit #07584, 07777, or 12352. If you have any questions, please contact me by phone at (803) 898-0606, by fax at (803) 898-0673, or via email at bryantjc@dhec.sc.gov.

Sincerely,

John Bryant, Hydrogeologist
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management

Document Receipt Information

☒ Hard Copy ☒ CD ☐ Email

Date Received 2-19-15

Permit Number 07584 / 07777 / 12352

Project Manager Sonya UTZ

Name of Contractor CRAWford Environment

UST Certification Number

Docket Number 251 tech (07584) 185 tech (07777) 120 tech (12352)

Scanned

CASE - November 2014 (Sampling Date)

CRAWFORD
ENVIRONMENTAL
SERVICES

February 13, 2015

Ms. Sonya Utz
Corrective Action Section
UST Management Division
Bureau of Land and Waste Management
South Carolina Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

RE: Corrective Action System Evaluation – November 2014 (Sampling Date)
Handy Pantry #65/University Mart & Cloud's Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina
UST Permit # 07584 / 07777 / 12352

Dear Ms. Utz:

Enclosed please find one copy of the November 2014 Corrective Action System Evaluation (CASE) report prepared by Crawford Environmental Services, Inc. (CES) for the referenced site. Should you have any questions regarding the enclosed material, or if additional information is required, please feel free to contact Charlie Crawford or myself at 540.343.6256.

Best Regards,

Daniel Fisher
Division Manager

cc:

CRAWFORD
ENVIRONMENTAL
SERVICES

Corrective Action System Evaluation Report

Handy Pantry #65/University Mart & Cloud's Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina
UST Permit # 07584 / 07777 / 12352
February 13, 2015
Revision 0

CORRETIVE ACTION SYSTEM EVALUATION REPORT

Handy Pantry #65/University Mart & Cloud's Chevron
Intersection of Taylor Street and Two Notch Road
Columbia, South Carolina
UST Permit # 07584 / 07777 / 12352

Submitted To:
Ms. Sonya Utz
State of South Carolina
Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

Prepared For:
Ms. Sonya Utz
State of South Carolina
Department of Health and Environmental Control
2600 Bull Street
Columbia, South Carolina 29201

February 13, 2015
CES Job Number: 7.0547

Prepared By:
Daniel J. Fisher
Division Manager

Reviewed By:
Charles F. Crawford
President / CEO

Approved By:
B. Thomas Houghton
P.G. #2343



CRAWFORD ENVIRONMENTAL SERVICES

1.0 Facility Information……..3
1.1 Project Information Summary……3
1.2 Facility Information……..3
1.2.1 Site Address……3
1.2.2 Owner Operator Information……3
1.2.3 Contractor Information……..3
1.2.4 Laboratory Information……..3
2.0 Corrective Action Activities……..……4
2.1 Corrective Action Activities Summary……..…..4
2.1.1 Groundwater Sampling……..……5
3.0 Summary……6

Tables
Table 1: Well Construction and Historical Groundwater Elevation Summary
Table 2: Groundwater Laboratory Analytical Result Summary
Table 3: Site Specific Target Level Summary

Figures
Figure 1: Topographic Map
Figure 2: Site Facility Base Map
Figure 3 Groundwater Chemicals of Concern
Figure 4 Groundwater Elevation Map

Appendix A - Purge Water Disposal Manifest
Appendix B – Groundwater Sampling Data Sheets
Appendix C - Laboratory Data Reports, Chain of Custodies and Field Data Information Sheets
Appendix D - Data Verification Checklist

1.0 Facility Information

The subject property is located in a primarily commercial area of Columbia, South Carolina (Figure 1). The subject sites, operating as Handy Pantry #65/University Mart and former Cloud's Chevron, is bordered by light commercial properties in all directions. A site plan depicting pertinent features of the subject property is provided as Figure 2.

1.1 Project Information Summary:

1.2.1 Site Address

Handy Pantry #65 / University Mart / Clouds Chevron
2367 Taylor Street
Columbia, South Carolina

1.2.2 Property Owner Information

Mr. Mahesh Patel
2367 Taylor Street
Columbia, South Carolina

Mr. Andrew Diggins
1600 Block Two Notch Road
Columbia, South Carolina

1.2.3 Contractor Information

Crawford Environmental Services
15 Church Avenue, SW
Roanoke, Virginia 24011
1 (540) 343-6256
Contractor Number: UCC-0388

1.2.4 Laboratory Information

Access Analytical, Inc. (AA)
7478 Carlisle Street
Irmo, SC 29063
1 (803) 781-4243
SC Certification: 32575001

Analytical Environmental Services Inc. (AES)
3785 Presidential Pkwy.
Atlanta, GA 30340
1 (770) 457-8177
SC Certification: 98016003

2.0 Corrective Action Activities

Corrective Action activities at the facility for this phase of work included the following:

-Regular O&M of the Air Sparge / Soil Vapor Extraction Systems.
-Bi-Annual Sampling Event

2.1 Water Sample Collection

A comprehensive groundwater sampling event, including; recording equilibrated static water levels, product thicknesses, and the collection of chemical samples was completed by CES personnel on November 10/11/12/13, 2014. CES personnel utilized an electronic water level indicator for water level measurements and an oil/water interface probe for free phase product measurements. Samples for the shallow wells were collected utilizing disposable polyethylene bailers. Shallow wells that exhibited groundwater above the screened bracket were purged of at least three well volumes or purged till dry before sample collection. Deep and intermediate wells exhibiting groundwater above the screened bracket were purged utilizing submersible pumps with dedicated tubing. For sample collection, disposable polyethylene bailers were lowered slowly to the top of the water column (after purging in some cases) allowed to fill one volume, then removed. Disposal records for the 105-gallons of purge water generated are included as Appendix A. Groundwater was then transferred to the appropriate sampling containers and was then placed in coolers, maintaining 4˚C, and delivered to an independent laboratory. Groundwater chemical samples were submitted to Access Analytical, Inc., {SC Certification: 32575001} for analysis.

2.1.1 Groundwater Sampling

Equilibrated static water levels and free-product thicknesses were recorded for monitoring MW-2, MW-3, MW-4, MW-5AR, MW-6, MW-7, MW-8, MW-9, MW-11, MW-12, MW-13, MW-16, MW-17, MW-18, MW-19, MW-20, MW-22, MW-23, MW-25, MW-26, MW-27, MW-28, MW-29, MW-30, MW-31, MW-32, MW-33, MW-34, MW-35, MW-36, MW-37, MW-38, MW-39, MW-40, MW-41, MW-42, MW-43, MW-44, MW-45, MW-46, MW-51, MW-53, MW-59, MW-62, MW-67, MW-70, PWR-1, DW-1, DW-2, DW-3, DW-4, DW-5, DW-6, DW-7 and DW-9 Samples were collected by CES personnel (B. Ewing / M. Price). Groundwater sampling data sheets are included as Appendix B.

During the referenced sampling event, CES was unable to access monitoring wells MW-48, MW-49, MW-50, MW-54, MW-55, MW-60, MW-63 and MW-65. Monitoring wells MW-10 and MW-15 maintained free phase petroleum and were not sampled. Monitoring wells MW-1 and MW-5 did not maintain sufficient water columns to collect groundwater samples. CES also utilized a metal detector to locate the wells, however, the overgrown site conditions did not permit the location of the aforementioned monitoring wells.

CES sampled the monitoring wells, as part of the November, 11/12/13, sampling events, for the following chemical analyses: Benzene/Toluene/Ethylbenzene/Xylenes (BTEX), naphthalene, Methyl Tert-Butyl Ether (MTBE), Tert-Amyl Methyl Ether (TAME), Tert-Butyl Alcohol (TBA), and Tert-Amyl Alcohol (TAA).

During the sampling event CES collected duplicate samples of MW-2, MW-25, and MW-MW-30 on November 11, 12, and 13, 2014, respectively. Review of the duplicate samples collected from aforementioned monitoring well samples did not yield significant data gaps.

In addition to duplicate samples, CES also collected field blank samples at the conclusion of the sample events on November 11, 12, and 13, 2014. The samples were collected at the conclusion of the day to be representative of all samples that were collected during that day.

Table 2 presents the laboratory data for the submitted groundwater samples collected as part of this assessment. The groundwater isoconcentration maps are included as Figure 3. The groundwater elevation map is included as Figure 4.

3.0 Summary

During the corrective action activities performed at the subject property, CES conducted a comprehensive groundwater monitoring event, in an effort to determine the effectiveness of the current corrective action plan. The qualitative and quantitative data collected from recent assessment activities indicates the following regarding current site conditions;

1. An SSTL reduction value of 65.17% has been calculated for the monitoring wells that were sampled during this sampling event.

2. Free-phase petroleum was observed at monitoring wells MW-10 and MW-15.

3. Based on the results of the previous sampling events, CES is scheduled to install injection wells proximal to MW-10 and MW-15 to perform limited surfactant injection / extraction events. CES estimates well installation will begin in early March 2015 with injections following as soon as the permit to operate is received.

Tables

Table 1: Summary of Groundwater Elevation Data
Table 2: Summary of Groundwater Analytical Data
Table 3: Site Specific Target Levels Summary