D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

DIVISION
UNDERGROUND STORAGE TANK MANAGEMENT

Phone (803) 734-5331 Fax (803) 734-3604

Certified Mail
Z 068 427 094

Hucks Plaza
Attention: Homer Hucks
1102 3rd Avenue S
Myrtle Beach, SC 29577-5543

SEP 03 1998



Re: 501 Amoco
Facility ID #05156
Notice of Violation
Horry County

Dear Mr. Hucks:

The Division of Underground Storage Tank (UST) Management of the South Carolina Department of Health and Environmental Control directed you to complete an Initial Ground-Water Assessment (IGWA) in June 1998. To date, the required report has not been received. In accordance with Section 280.65 of the South Carolina Underground Storage Tank Regulations, the assessment must be conducted as documented chemicals of concern are above the risk-based-screening levels.

The enclosed Owner/Operator Lead Information Sheet should be completed and returned to my attention within 10 days. Upon submittal of the information sheet, a cost proposal number will be assigned under which the IGWA invoice will be submitted to the Department upon completion of work. The IGWA report will be due within 60 days after the cost proposal number is issued. **However, if the information sheet is not returned within 10 days, enforcement procedures will be initiated.**

Please reference **Facility ID #05156** in all correspondence concerning this project. If you have any questions or need additional information, please call Rodney Wilson at 1-800-826-5435 (within SC only) or (803) 734-2844. Thank you for your time and cooperation in this matter.

Sincerely,

Owner/Operator Assistance Section
Assessment & Corrective Action Branch
Division of Underground Storage Tank Management

Rodney L. Wilson, Hydrogeologist

Lee A. Monts, Manager

enc: Information Sheet

cc: Technical File

UNDERGROUND STORAGE TANK (UST) OWNER/OPERATOR LEAD INFORMATION SHEET

1. CONTRACTOR OF CHOICE

As the UST Owner/Operator of **Facility ID #05156**, I would like to use the contractor or person(s)* listed below and request that they represent me for: (check one)

☐ IGWA (Initial Ground-Water Assessment)

☐ all future assessments scopes. **

Name of Contractor/Person(s) _____

Address _____

_____

_____

Telephone Number _____

Note: Site rehabilitation activities must be performed by a SCDHEC Certified Site Rehabilitation Contractor in accordance with R.61-98.

*indicate if the person listed is your own employee

** if you would like the contractor to perform all future assessment activities at this and/or other UST sites that have confirmed releases, please provide a list of all sites on your letterhead and provide the information requested in items 2 and 3 below within the context of the letter.

2. FINANCIAL OR FAMILIAL RELATIONSHIP

Does a financial or familial relationship, as defined below, exist between you and the contractor/person that you listed above? _____ Yes _____ No (please initial)

Financial Relationship: A connection or association through a material interest of sources of income which exceed five percent of annual gross income from a business entity.

Familial Relationship: A connection or association by family or relatives, in which a family member or relative has a material interest. Family or relatives include: father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, grandchild, great grandchild, step grandparent, step great grandparent, step grandchild, step great grandchild, or fiancee.

3. PAYMENT

You can pay the contractor and, upon the submittal of the canceled check (or a notarized statement from the contractor), be compensated from the SUPERB Account, or have payment issued directly from us to the contractor.

I request that payment be made to me after I have paid the contractor. _____ Yes _____ No (please initial)
I request that payment be made directly to the contractor. _____ Yes _____ No (please initial)

Note: All costs must receive prior financial approval from the Department regardless of payment option.

Underground Storage Tank Owner/Operator Signature _____

Date _____

RW

Z 068 427 094

- US Postal Service

Receipt for Certified Mail

No Insurance Coverage Provided.

Do not use for International Mail *(See reverse)*

Sent to Homer Hucks	
Street & Number 1102 3rd Ave. S.	
Post Office, State, & ZIP Code Myrtle Bch, SC 29577-	
Postage	$ 5543
Certified Fee	
Special Delivery Fee	
Restricted Delivery Fee	
Return Receipt Showing to Whom & Date Delivered	
Return Receipt Showing to Whom, Date, & Addressee's Address	
TOTAL Postage & Fees	$
Postmark or Date 05756 SEP 03 1998	

PS Form **3800**, April 1995

Stick postage stamps to article to cover First-Class postage, certified mail fee, and charges for any selected optional services *(See front)*

1. If you want this receipt postmarked, stick the gummed stub to the right of the return address leaving the receipt attached, and present the article at a post office service window or hand it to your rural carrier *(no extra charge)*

2. If you do not want this receipt postmarked, stick the gummed stub to the right of the return address of the article, date, detach, and retain the receipt, and mail the article

3. If you want a return receipt, write the certified mail number and your name and address on a return receipt card, Form 3811, and attach it to the front of the article by means of the gummed ends if space permits. Otherwise, affix to back of article. Endorse front of article **RETURN RECEIPT REQUESTED** adjacent to the number

4. If you want delivery restricted to the addressee, or to an authorized agent of the addressee, endorse **RESTRICTED DELIVERY** on the front of the article

5. Enter fees for the services requested in the appropriate spaces on the front of this receipt. If return receipt is requested, check the applicable blocks in item 1 of Form 3811

6. Save this receipt and present it if you make an inquiry.

102595-97-B-0145

PS Form **3800**, April 1995 *(Reverse)*

D H E C

PROMOTE PROTECT PROSPER

2600 Bull Street

Columbia, SC 29201-1708

DIVISION OF UST MGMT.

Return Service Requested

CERTIFIED

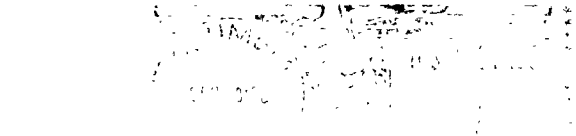
RETURNED TO SENDER

068 427 094

Unclaimed

MAIL

(Do Not Remail in this envelope)





the right of the return address

SENDER:

- Complete items 1 and/or 2 for additional services.
- Complete items 3, 4a, and 4b.
- Print your name and address on the reverse of this form so that we can return this card to you.
- Attach this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number.
- The Return Receipt will show to whom the article was delivered and the date delivered.

05156

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Hucks Plaza
Attn: Homer Hucks
1102 3rd Ave. S.
Myrtle Beach, SC 29577-5543

4a. Article Number

Z 068 421 094

4b. Service Type

- ☐ Registered
- ☒ Certified
- ☐ Express Mail
- ☐ Insured
- ☐ Return Receipt for Merchandise
- ☐ COD

7. Date of Delivery

5. Received By: *(Print Name)*

8. Addressee's Address *(Only if requested and fee is paid)*

6. Signature: *(Addressee or Agent)*

X

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

PS Form **3811**, December 1994 102595-98-B-0229 Domestic Return Receipt

20% POST

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

DIVISION OF UNDERGROUND STORAGE TANK MANAGEMENT

Phone (803) 734-5331 Fax (803) 734-3604

Certified Mail
Z 068 427 094

Hucks Plaza
Attention: Homer Hucks
1102 3rd Avenue S
Myrtle Beach, SC 29577-5543

SEP 03 1998

Re: 501 Amoco
Facility ID #05156
Notice of Violation
Horry County

Dear Mr. Hucks:

The Division of Underground Storage Tank (UST) Management of the South Carolina Department of Health and Environmental Control directed you to complete an Initial Ground-Water Assessment (IGWA) in June 1998. To date, the required report has not been received. In accordance with Section 280.65 of the South Carolina Underground Storage Tank Regulations, the assessment must be conducted as documented chemicals of concern are above the risk-based-screening levels.

The enclosed Owner/Operator Lead Information Sheet should be completed and returned to my attention within 10 days. Upon submittal of the information sheet, a cost proposal number will be assigned under which the IGWA invoice will be submitted to the Department upon completion of work. The IGWA report will be due within 60 days after the cost proposal number is issued. **However, if the information sheet is not returned within 10 days, enforcement procedures will be initiated.**

Please reference **Facility ID #05156** in all correspondence concerning this project. If you have any questions or need additional information, please call Rodney Wilson at 1-800-826-5435 (within SC only) or (803) 734-2844. Thank you for your time and cooperation in this matter.

Sincerely,

Owner/Operator Assistance Section
Assessment & Corrective Action Branch
Division of Underground Storage Tank Management

Rodney L. Wilson, Hydrogeologist

Lee A. Monts, Manager

enc: Information Sheet

cc: Technical File

RECEIVED
SEP 28 1998
DIVISION OF UNDERGROUND STORAGE TANK MGMT.

Southeastern Env nmental

323 Main Street, Conway, S.C. 29526 • (843)248-3533 • (800)257-3533 • Fax (843)248-5034

RECEIVED
NOV 17 1999
DIVISION OF UNDERGROUND
STORAGE TANK MGMT.

November 17, 1999

SC DHEC
Attn: Charles J. Williams, Project Manager
UST Management Division
2600 Bull Street
Columbia, SC 29201

RE: Daniel Todd
Site ID #05156

Mr. Wiliams:

Enclosed please find the UST site closure report for the above referenced site.

Please call should you have any questions.

Thank you,

Lori J. Grainger
Southeastern Environmental, Inc.

LJG/s

enclosure

#05156 Rodney

SENDER:

- Complete items 1 and/or 2 for additional services
- Complete items 3, 4a, and 4b
  your name and address on the reverse of this form so that we can return this
  o you
  h this form to the front of the mailpiece, or on the back if space does not permit.
- Write *"Return Receipt Requested"* on the mailpiece below the article number
- The Return Receipt will show to whom the article was delivered and the date delivered 05156

I also wish to receive the following services (for an extra fee):

1. ☐ Addressee's Address
2. ☐ Restricted Delivery

Consult postmaster for fee.

3. Article Addressed to:

Homer Hucks
5720 Creekside Dr
Myrtle Beach, SC 29575

4a. Article Number

7099 3220 0008 7885 7276

4b. Service Type

☐ Registered ☑ Certified
☐ Express Mail ☐ Insured
☐ Return Receipt for Merchandise ☐ COD

7. Date of Delivery

MYRTLE BEACH SC AUG 29 2000 29588 USPS

5. Received By: *(Print Name)*

Homer Hucks

6. Signature: *(Addressee or Agent)*

X Homer Hucks

8. Addressee's Address *(Only if requested and fee is paid)*

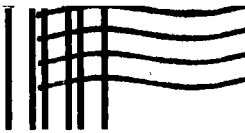
PS Form **3811,** December 1994 102595-98-B-0229 Domestic Return Receipt

Is your RETURN ADDRESS completed on the reverse side?

Thank you for using Return Receipt Service.

UNITED STATES POSTAL SERVICE





First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-1

• Print your name, address, and ZIP Code in this box •

DIVISION OF UST MANAGEMENT
S[illegible] DEPARTMENT OF HEALTH AND
ENVIRONMENTAL CONTROL
2600 BULL STREET
COLUMBIA, SC [illegible]01

RECEIVED
AUG 30 2000
Bureau of Underground
Storage Tank Management

R Wilson

U.S. Postal Service

CERTIFIED MAIL RECEIPT

(Domestic Mail Only; No Insurance Coverage Provided)

7099 3220 0008 7885 7276

Article Sent To:

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	**$**

AUG 25 2000

Postmark Here

05156 PWilson

Name (Please Print Clearly) (To be completed by mailer)

Homer Hucks

Street, Apt. No.; or PO Box No.

5720 Creekside Dr.

City, State, ZIP+ 4

Myrtle Beach, SC 29575

PS Form 3800, July 1999 — See Reverse for Instructions

Certified Mail Provides:

- A mailing receipt
- A unique identifier for your mailpiece
- A signature upon delivery
- A record of delivery kept by the Postal Service for two years

Important Reminders:

- Certified Mail may ONLY be combined with First-Class Mail or Priority Mail.
- Certified Mail is not available for any class of international mail.
- NO INSURANCE COVERAGE IS PROVIDED with Certified Mail. For valuables, please consider Insured or Registered Mail.
- For an additional fee, a Return Receipt may be requested to provide proof of delivery. To obtain Return Receipt service, please complete and attach a Return Receipt (PS Form 3811) to the article and add applicable postage to cover the fee. Endorse mailpiece "Return Receipt Requested". To receive a fee waiver for a duplicate return receipt, a USPS postmark on your Certified Mail receipt is required.
- For an additional fee, delivery may be restricted to the addressee or addressee's authorized agent. Advise the clerk or mark the mailpiece with the endorsement "Restricted Delivery".
- If a postmark on the Certified Mail receipt is desired, please present the article at the post office for postmarking. If a postmark on the Certified Mail receipt is not needed, detach and affix label with postage and mail.

IMPORTANT: Save this receipt and present it when ma inquiry.

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

BUREAU OF
UNDERGROUND STORAGE TANK MANAGEMENT

Phone (803) 898-4350 Fax (803) 898-4330

Certified Mail
7099 3220 0008 7885 7276

Homer Hucks
5720 Creekside Dr
Myrtle Beach, SC 29575

AUG 25 2000

Re: 501 Amoco
UST Permit # 05156
Release Date: December 31, 1991
Availability of SUPERB Funding
Horry County



Dear Mr. Hucks:

The Bureau of Underground Storage Tank (UST) Management of the South Carolina Department of Health and Environmental Control (SCDHEC) has reviewed the departmental file, and currently, the release reported on December 31, 1991 at the referenced site has a priority classification of 5B. In order to determine what risk the release may pose to human health and the environment, State Undergorund Petroleum Environmental Response Bank (SUPERB) funds are being made available to implement the next necessary scope of work. The scope of work to be implemented is a **Tier I Assessment.**

To proceed with the qualification process for the SUPERB Act, the following information is required:

- Written confirmation of the existence or non-existence of an environmental insurance policy for this site. **This information must be signed by the responsible party and a notary public.** For your convenience, an insurance statement form has been enclosed. If an environmental insurance policy existed at the time of the release, a copy of the policy with all endorsements must be submitted with the insurance statement.

Our records do not indicate that you have selected a contractor to perform assessment activities at this site. If you wish to select your own contractor, please indicate your choice on the enclosed Information Sheet and return to my attention within 10 days of the date of this letter in order for the necessary technical and financial approvals to be issued. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor. **Note: approval from the Department must be issued before work begins.** To assist in finding a certified contractor, a list of companies for your consideration is enclosed.

If you wish, the SCDHEC can directly procure the services of a site rehabilitation contractor on your behalf. If you prefer this method of implementing the necessary scope of work, please complete the enclosed Permission form (within 10 days fo the date of this letter) for SCDHEC and its contractor to access the property. Submittal of the enclosed Information Sheet is not required if you select this method.

On all correspondence regarding this facility and scope of work, please reference UST Permit #05156. If you have any questions concerning this correspondence, please contact me at (803) 898-4327 or 1-800-826-5435 (within South Carolina only).

Sincerely,

Rodney L. Wilson, Hydrogeologist
Owner/Operator Assistance Section
Assessment and Corrective Action Branch
Bureau of Underground Storage Tank Management

enc: Information Sheet
Permission Form
Insurance Statement Form
Certified Contractors List

cc: Technical File

DHEC/UST/000823/RLW/05156.option



09/21/2000 14:52:47

SC DHEC UST Finance Sect
Contractor Listing Report
For CLASS 1 and 2 work

CERTIFIED CONTRACTORS LIST

Cert#	Firm\Owner	Address	City	St	Zip	Phone	Class1	Class2
150	A E DRILLING SERVICES	TWO UNITED WAY	GREENVILLE	SC	29607	(864)288-1986	N	Y
133	ACCREDITED ENV TECH INC	28 NO PENNELL ROAD	MEDIA	PA	19063	(610)891-0114	N	Y
117	ADVANCED REMEDIATION	PO BOX 8128	SUMTER	SC	29150	(803)773-1933	Y	Y
241	ADVANTAGE ENV CONSULTING INC	210 THREE FORKS PLACE	GREENVILLE	SC	29609	(864)235-3555	Y	Y
149	ADVENT ENVIRONMENTAL INC	ONE POSTON RD STE 320	CHARLESTON	SC	29407	(803)556-3886	Y	Y
151	AEROSTAR ENVIRONMENTAL	11200 ST JOHNS IND PKWY 1	JACKSONVILLE	FL	32246	(904)565-2820	Y	Y
152	AEROSTAR ENVIRONMENTAL SV	1041 JOHNNIE DODDS BLVD STE 5C	MT PLEASANT	SC	29464	(843)971-2689	N	Y
153	AGRA ENVIRONMENTAL INC	PO BOX 5611	CARY	NC	27512	(919)468-3261	Y	Y
29	ALBRECHT & ASSOCIATES	PO BOX 189	MT. PLEASANT	SC	29465	(843)856-8450	Y	Y
200	ALLIED CONSULTING GROUP INC	1275 KENNESTONE CIRCLE STE 400	MARIETTA	GA	30066	(770)919-0969	Y	Y
37	ALPHA ENVIRONMENTAL SCIENCES	400 DELLWOOD ROAD SUITE A-2	WAYNESVILLE	NC	28786	(828)452-3449	Y	Y
218	ALPHA ENVIRONMENTAL SCIENSES	PO BOX 31	WAYNESVILLE	NC	28786	(843)795-1220	Y	Y
172	ALTURA ENVIRONMENTAL	1300 SOUTH MINE ST SUITE 150	CHARLOTTE	NC	28203	(704)358-0744	Y	Y
231	APEX ENVIRONMENTAL INC	227 GATEWAY DRIVE SUITE 113-B	AIKEN	SC	29803	(803)652-6166	N	N
209	APPLIED EARTH SCIENCES	814 DAVIDSON DR	CONCORD	NC	28025	(704)795-7075	Y	Y
155	APPLIED TECHNOLOGY & MGMT	260 WEST COLEMAN BLVD STE A	MT PLEASANT	SC	29464	(843)884-8750	Y	Y
1	AQUATERRA ENGINEERING	4901 WATERS EDGE DRIVE	RALEIGH	NC	27606	(919)859-9987	Y	Y
230	AQUATERRA ENGINEERING INC	228 WESTINGHOUSE BLVD, STE 108	CHARLOTTE	NC	28273	(704)504-0900	Y	Y
101	ARCADIS GERAGHTY & MILLER	830 COLONY PKY	AIKEN	SC	29803	(803)649-3981	Y	Y
4	ARM ENVIRONMENTAL	1210 1ST ST SOUTH EXTENSION	COLUMBIA	SC	29209	(803)783-3314	Y	Y
184	ARMSTRONG GEOLOG & ENGINEERING	4325 PLEASANT VALLEY RD ST 111	RALEIGH	NC	27612	(919)786-9603	Y	Y
154	ASSOC ENVIRON CONSULT & ENGIN	PO BOX 31952	RALEIGH	NC	27622	(800)947-8378	N	Y
38	ATC ASSOCIATES INC	6512 FALLS OF NEUSE ROAD	RALEIGH	NC	27615	(919)871-0999	Y	Y
44	ATC ASSOCIATES INC	1300 WILLIAMS DRIVE	MARIETTA	GA	30066	(770)427-9456	Y	Y
148	ATLANTA ENVIRONMENTAL MGT	2580 NORTHEAST EXPRESSWAY	ATLANTA	GA	30345	(404)329-9006	Y	Y
143	BALTEC ASSOCIATESS INC	69 FIELDS LANE	BREWSTER	NY	10509	(914)273-2626	N	Y
238	BARKER FILTRATION INC	4884-B SUNSET BOULEVARD	LEXINGTON	SC	29072	(803)796-1802	N	Y
236	BAT ASSOCIATES INC	5151 BROOK HOLLOW PKWY	NORCROSS	GA	30071	(770)242-3908	Y	Y
183	BE&K TERRANEXT	135 TECHNOLOGY PKWY STE 200	NORCROSS	GA	30092	(770)449-5594	Y	Y
160	BECHTEL ENVIRONMENTAL	PO BOX 350	OAK RIDGE	TN	37831	(865)220-6413	Y	Y
126	BLASLAND-BOUCK & LEE	3700 REGENCY PKWY SUITE 140	CARY	NC	27511	(919)469-1952	Y	Y
95	BLUE RIDGE ENVIRONMENTAL	406 BEAUMONDE AVENUE	SHELBY	NC	28150	(704)482-2111	Y	Y
92	BONDURANT ENVIRON CONSULTANTS	PO BOX 361301	BIRMINGHAM	AL	35236	(205)824-0858	Y	Y
10	BUNNELL-LAMMONS ENG, INC	1200 WOODRUFF ROAD SUITE B-7	GREENVILLE	SC	29607	(864)288-1265	Y	Y
147	BURNS & MCDONNELL WASTE	PO BOX 419173	KANSAS CITY	MO	64141	(816)333-8787	Y	Y
144	BUXTON ENVIRONMENTAL INC	PO BOX 11550	CHARLOTTE	NC	29220	(704)522-1508	Y	Y
6	C&L CONSULTANTS INC	PO BOX 50307	COLUMBIA	SC	29250	(803)482-3844	Y	Y
129	C-MAR INC	5742 SW 51 TERRACE	MIAMI	FL	33155	(305)662-7848	N	Y
96	CAROLINA ENVIRON INC	6316-C ST ANDREWS RD	COLUMBIA	SC	29212	(803)731-0400	Y	Y
2	CAROLINA ENVIRONMENTAL ASSOC.	PO BOX 473628	CHARLOTTE	NC	28247	(704)540-9665	N	Y
64	CAROLINA GEOLOGICAL	619 GARMONY ROAD	COLUMBIA	SC	29212	(803)750-4917	Y	Y
87	CATLIN ENGINEERS & SCIENTISTS	1051 JOHNNIE DODDS BLVD STE C	MT PLEASANT	SC	29464	(800)762-7004	Y	Y
88	CATLIN ENGINEERS & SCIENTISTS	PO BOX 10279	WILMINGTON	NC	28405	(910)452-5861	Y	Y
89	CATLIN ENGINEERS & SCIENTISTS	2165 WEST PARK COURT SUITE M	STONE MOUNTAIN	GA	30087	(770)469-1888	N	Y

09/21/2000 14:52:47

SC DHEC UST Finance Sect
Contractor Listing Report
For CLASS 1 and 2 work

Cert#	Firm\Owner	Address	City	St	Zip	Phone	Class1	Class2
39	CBM ENVIRONMENTAL	377 CAROWINDS BLVD. ST118	FORT MILL	SC	29715	(803)548-5989	Y	Y
30	CLARK ENVIRONMENTAL	PO BOX 10136	WILMINGTON	NC	28405	(910)602-3900	Y	Y
190	CLAYTON GROUP SERVICES	3380 CHASTAIN MEADOWS PKWY NW	KENNESAW	GA	30144	(770)499-7500	Y	Y
198	CLAYTON GROUP SERVICES	PO BOX 30216	SAVANNAH	GA	31410	(912)234-2201	Y	Y
169	COASTAL ENGINEERING	PO BOX 20056	CHARLESTON	SC	29413	(843)723-3808	Y	Y
65	CONSULTECH ENVIRONMENTAL	1800 MACLEOD DR SUITE F	LAWRENCEVILLE	GA	30043	(678)377-0400	Y	Y
139	COOPER ENVIRONMENTAL INC	2300 SARDIS ROAD NORTH STE Q	CHARLOTTE	NC	28227	(704)845-2000	Y	Y
237	CRA ENGINEERING INC	4215-I STUART ANDREW BOULEVARD	CHARLOTTE	NC	29217	(704)676-0502	Y	Y
188	CRA INC	4205-C STUART ANDREW BOULEVARD	CHARLOTTE	NC	28217	(704)676-0502	Y	Y
47	CRA SERVICES	4915 S SHERWOOD FOREST BV	BATON ROUGE	LA	70816	(504)292-9007	Y	Y
168	CSRA TESTING & ENGINEERING	1005 EMMETT ST SUITE A	AUGUSTA	GA	30904	(706)733-6960	Y	Y
219	CUSTOM SOLUTIONS INTL INC	902 CLINT MOORE RD. #208	BOCA RATON	FL	33487	(561)998-1699	N	Y
63	CYPRESS BAY GEO SER INC	262 GEOLOGY LANE	WALTERBORO	SC	29488	(800)591-5971	Y	Y
97	DAMES & MOORE	5301 77 CENTER DR #41	CHARLOTTE	NC	28217	(803)750-0966	Y	Y
79	DAVIS & BROWN	PO BOX 15038	QUINBY	SC	29506	(843)665-6746	Y	Y
119	DAVIS & FLOYD	240 STONERIDGE DR STE 200	COLUMBIA	SC	29210	(803)254-4337	Y	Y
189	DELTA ENVIRONMENTAL CONSULTS	1201 SOUTH 16TH STREET SUITE B	WILMINGTON	NC	28401	(704)888-8570	Y	Y
164	DSATLANTIC CORPORATION	1370 BROWNING RD CTR V STE 130	COLUMBIA	SC	29210	(803)798-0145	Y	Y
98	DUKE POWER COMPANY	CODE EC12ZB PO BOX 1006	CHARLOTTE	NC	28201	(704)373-3719	Y	Y
66	DUNCAN ENVIRONMENTAL	10817-C TWO NOTCH RD	ELGIN	SC	29045	(803)788-4333	Y	Y
13	EARTH MANAGEMENT	PO BOX 24287	COLUMBIA	SC	29224	(803)736-3800	Y	Y
35	EARTH TECH INC	2694-A LAKE PARK DRIVE	NO CHARLESTON	SC	29418	(843)572-5600	Y	Y
45	EARTH TECH INC	311-J SOUTH WESTGATE DRIVE	GREENSBORO	NC	27407	(910)299-9998	Y	Y
36	EARTH TECH INC	10 PATEWOOD DRIVE SUITE 500	GREENVILLE	SC	29615	(864)234-3000	Y	Y
220	EC GROUP, LLC (THE)	201 EAST ORCHARD STREET	HAMMONTON	NJ	08037	(609)704-9990	N	Y
91	ECOLOGICAL SERVICES INC	620 N 1-85,SVC RD	CHARLOTTE	NC	28216	(704)399-4000	Y	Y
125	ECOLOGY & ENVIRONMENT	1950 COMMONWEALTH LANE	TALLAHASSEE	FL	32303	(904)574-1400	Y	Y
67	EMERALD, INC	PO BOX 3050	SUMTER	SC	29151	(803)773-5454	Y	Y
12	EMS ENVIRONMENTAL	117 S HOOVER RD	DURHAM	NC	27703	(919)596-0470	N	Y
181	ENECOTECH INC	1580 LINCOLN STREET STE 1000	DENVER	CO	80202	(303)861-2200	Y	Y
179	ENSAFE INC	5730 SUMMER TREES DRIVE	MEMPHIS	TN	38134	(901)372-7962	Y	Y
178	ENSAFE INC	935 HOUSTON NORTHCUTT BLVD	MT PLEASANT	SC	29464	(843)884-0029	Y	Y
203	ENSR CONSULTING & ENGINEERING	2700 WYCLIFF ROAD	RALEIGH	NC	27607	(919)571-0669	Y	Y
15	ENV ASPECS	4805 GREEN ROAD SUITE 103	RALEIGH	NC	27616	(919)850-2200	Y	Y
31	ENV CORP OF AMERICA	9045 NINE MCFARLAND DR	ALPHARETTA	GA	30004	(770)667-2040	Y	Y
99	ENV HYDROGELOGICAL CONSU	PO BOX 902	RED SPRINGS	NC	28377	(910)843-4456	Y	Y
16	ENV SOLUTIONS GROUP INC	PO BOX 41109	CHARLESTON	SC	29423	(843)767-4514	Y	Y
244	ENVIRO SCAN	PO BOX 1855	MURRELLS INLET	SC	29576	(843)357-3730	Y	Y
134	ENVIRO-LOGICAL SOLUTIONS	1147 PLEASANT OAKS DR.	MT. PLEASANT	SC	29464	(843)881-8524	Y	Y
14	ENVIRO-TEST SERVICES INC	7435 BROAD RVR RD STE 103	IRMO	SC	29063	(803)732-5770	Y	Y
173	ENVIRO/CONSULTANTS GROUP	262 CHAPMAN RD STE 103A	NEWARK	DE	19702	(610)269-6906	N	Y
228	ENVIRONMENTAL MGMT & CONSULTIN	352-A RALEIGH STREET	HOLLY SPRINGS	NC	27540	(919)557-5001	Y	Y
146	ENVIRONMENTAL MONITORING	PO BOX 901	HARTWELL	GA	30643	(706)376-5000	Y	Y
197	ENVIRONMENTAL STRATEGIES CORP	11911 FREEDOM DR STE 900	RESTON	VA	20194	(703)709-6500	Y	Y

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Cert#	Firm\Owner	Address	City	St	Zip	Phone	Class1	Class2
240	EPIC ENGINEERING INC	1341 CANTON ROAD STE A	MARIETTA	GA	30066	(770)528-0200	Y	Y
68	ERM SOUTHEAST	498 WANDO PARK BLVD. #100	MOUNT PLEASANT	SC	29464	(843)856-4270	Y	Y
86	ERM-SOUTHEAST INC	7300 CARMEL EXEC PARK STE 200	CHARLOTTE	NC	28226	(704)541-8345	Y	Y
52	ESE	9741-F SOUTHERN PINE BLVD	CHARLOTTE	NC	28273	(704)527-9603	Y	Y
90	EXCALIBUR ENVIRONMENTAL	105 PERRY AVENUE	SIMPSONVILLE	SC	29681	(864)967-9744	Y	Y
118	EXCEL ENVIRONMENTAL ASSOC	PO BOX 6172	GASTONIA	NC	28056	(704)853-0800	Y	Y
140	F&ME	PO BOX 5855	COLUMBIA	SC	29250	(803)254-4540	Y	Y
100	FLETCHER GROUP INC	322 SOUTH MAIN STREET	GREENVILLE	SC	29601	(864)421-9999	Y	Y
69	FLUOR DANIEL GTI	11560 GREAT OAKS WAY STE 500	ALPHARETTA	GA	30022	(770)475-8994	Y	Y
17	FORCE & ASSOCIATES INC	138 MIDDLEBROOK DRIVE	LEXINGTON	SC	29072	(803)359-7847	Y	Y
174	FOSTER WHEELER ENVIRO CORP	302 RESEARCH DRIVE	NORCROSS	GA	30092	(770)825-7134	Y	Y
72	FROEHLING & ROBERTSON	P O BOX 17186	GREENVILLE	SC	29606	(864)271-2840	Y	Y
71	FROEHLING & ROBERTSON	2806 NORTH GRAHAM STREET	CHARLOTTE	NC	28206	(704)376-1596	Y	Y
213	GAIATECH INC	3343 PEACHTREE RD NE STE 330	ATLANTA	GA	30326	(404)812-0001	Y	Y
85	GANNETT FLEMING INC	2743 PERIMETER PKY B-100-350	AUGUSTA	GA	30909	(706)855-1085	Y	Y
245	GARCO, INC.	PO BOX 1907	ASHEBORO	NC	27204	(336)683-0911	N	N
132	GB ROBBINS INC	145 JANELLE LANE	JACKSONVILLE	FL	32211	(904)355-5566	Y	Y
48	GENERAL ENGINEERING	2040 SAVAGE RD	CHARLESTON	SC	29417	(843)769-7378	Y	Y
73	GEO-ENVIRO CONSULTANTS INC	11704 REAMES ROAD	CHARLOTTE	NC	28269	(704)596-8788	Y	Y
74	GEOLOGICAL RESOURCES INC	4913 ALBERMARLE ROAD STE 101	CHARLOTTE	NC	28205	(704)563-1663	Y	N
62	GEOMETRICS INC	7250 GARNERS FERRY RD STE 200	COLUMBIA	SC	29209	(803)783-9001	Y	Y
141	GMA	101-E WOODWINDS INDUSTRIAL CT	CARY	NC	27511	(919)481-2631	Y	Y
196	GME ENGINEERING	1200 WOODRUFF ROAD, C-23	GREENVILLE	SC	29607	(864)627-0123	Y	Y
194	GOLDER ASSOCIATES INC	3730 CHAMBLEE TUCKER ROAD	ATLANTA	GA	30341	(770)496-1893	Y	Y
171	GREEN EARTH INC	PO BOX 2207	GREER	SC	29652	(864)879-7952	N	Y
242	GROUND TECHNOLOGICAL SERVICES	18637 NORTHLINE DRIVE STE G	CORNELIUS	NC	28031	(704)987-8378	Y	Y
32	H2O ENVIRONMENTAL INC	130 CENTRUM DR STE 3B	IRMO	SC	29063	(803)749-4080	Y	Y
49	HANDEX OF THE CAROLINAS	3600-G WOODPARK BLVD	CHARLOTTE	NC	28206	(704)598-7900	Y	Y
127	HARDING LAWSON ASSOC INC	1400 CENTER POINT BLVD STE 158	KNOXVILLE	TN	37932	(423)531-1922	Y	Y
182	HARDING LAWSON ASSOC INC	2533 GREER ROAD SUITE 6	TALLAHASSEE	FL	32308	(850)656-1293	Y	Y
163	HASELOW ENGINEERING	1075 BROOKHAVEN DRIVE	AIKEN	SC	29803	(803)502-0020	Y	Y
102	HAYES SEAY & MATTERN	181 E EVANS STREET SUITE 23	FLORENCE	SC	29506	(843)669-4491	Y	Y
75	HDR ENGINEERING INC	128 S TRYON STREET SUITE 1400	CHARLOTTE	NC	28202	(704)338-1800	Y	Y
76	HEPACO INC	PO BOX 26308	CHARLOTTE	NC	28221	(704)598-9787	Y	Y
103	HOLLEY CONSULTANTS INC	4343 SHALLOWFORD SUITE D-3	MARIETTA	GA	30062	(770)993-0809	Y	Y
7	HRP/SPECTRUM INC	7001-J PELHAM RD.	GREENVILLE	SC	29615	(800)752-3922	Y	Y
225	HSA ENGINEERS & SCIENTIST	23 B SHERIDAN PARK CIRCLE	BLUFFTON	SC	29910	(843)815-5120	Y	Y
224	HULSEY, MCCORMICK & WALLACE	508 BONANZA CIRCLE	PIEDMONT	SC	29673	(864)269-0890	Y	Y
27	INTEGRATED SCIENCE & TECH	1349 OLD HWY 41 STE 225	MARIETTA	GA	30060	(770)425-3080	Y	Y
28	INTEGRATED SCIENCE & TECH	2154 NO CENTER ST SUITE 306-C	NO CHARLESTON	SC	29406	(843)824-6983	Y	Y
77	IT CORPORATION	3710 LANDMARK DR STE 200	COLUMBIA	SC	29204	(803)782-9932	Y	Y
70	IT CORPORATION OF NC INC	1000 PERIMETER PK DR ST I	MORRISVILLE	NC	27560	(919)467-2227	Y	Y
137	J K SERVICES INC	13209 WHITE BIRCH TERRACE	DAVIDSON	NC	28036	(704)896-0265	N	Y
3	J L ROGERS & CALCOTT ENG	PO BOX 5655	GREENVILLE	SC	29606	(864)232-1556	Y	Y

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Cert#	Firm\Owner	Address	City	St	Zip	Phone	Class1	Class2
104	JORDAN JONES & GOULDING	145 KING STREET SUITE 407	CHARLESTON	SC	29401	(843)722-0300	Y	Y
18	KATAWBA ENVIRONMENTAL	P O BOX 11228	ROCK HILL	SC	29730	(803)327-0469	Y	Y
8	KLEEN SITES GEOSERVICES	171 LOTT COURT	WEST COLUMBIA	SC	29169	(803)791-1996	Y	Y
191	KOESTER ENVIRONMENTAL ERVICE	14649 HIGHWAY 41 NORTH	EVANSVILLE	IN	[illegible]1	(812)867-0100	N	Y
192	KOESTER ENVIRONMENTAL SRV	2115 CHAPMAN RD STE 115	CHATTANOOGA	TN	37421	(423)892-8700	N	Y
193	KOESTER ENVIRONMENTAL SRV	1600 WASHINGTON STREET	ORANGE PARK	FL	32073	(703)780-9683	N	Y
106	LAW ENGINEERING	FOUR INTERCHANGE BLVD	GREENVILLE	SC	29607	(864)288-5116	Y	Y
105	LAW ENGINEERING & ENV	2801 YORKMONT RD STE 100	CHARLOTTE	NC	28208	(704)357-8600	Y	Y
123	LEGGETTE BRASHEARS & GRAHAM	10014 NO DALE MABRY HWY	TAMPA	FL	33618	(813)968-5882	Y	Y
165	LEVINE FRICKE RECON INC	3382 CAPITAL CIRCLE NE	TALLAHASSEE	FL	32308	(805)422-2555	Y	Y
33	LORRIS ENVIRONMENTAL INC	1016 WOODROW ST	COLUMBIA	SC	29205	(803)252-2288	Y	Y
50	MARSHALL MILLER & ASSOC.	PO BOX 848	BLUEFIELD	WV	24605	540 322-5467	Y	Y
210	MAXIM TECHNOLOGIES INC	7608 LABARRINGTON BOULEVARD	POWELL	TN	37849	(423)938-6912	Y	Y
215	MAXIM TECHNOLOGIES INC	124 OLD MILL ROAD SUITE I	GREENVILLE	SC	29607	(864)627-8450	Y	Y
177	MEADE ENGINEERING & ENVIR	6128-L BROOKSHIRE BLVD	CHARLOTTE	NC	28216	(704)398-9805	Y	Y
216	MERIDIAN HYDROTECHNICAL SVCS	710 HAVERHILL COURT	WEST COLUMBIA	SC	29169	(803)808-0880	Y	Y
78	MID-ATLANTIC ASSOCIATES	409 ROGERS VIEW COURT	RALEIGH	NC	27610	(919)250-9918	Y	Y
9	MIDLANDS ENVIRONMENTAL	PO BOX 6946	COLUMBIA	SC	29260	(803)782-0062	Y	Y
107	MOORE AND SONS ENVIRON SERVICE	PO BOX 23583	COLUMBIA	SC	29224	(803)786-1109	Y	Y
226	MOUNTAIN ENVIRONMENTAL SERVICE	PO BOX 148	WAYNESVILLE	NC	28786	(828)456-5189	Y	Y
156	MS ENVIRONMENTAL CONSUL	5618 SUPERIOR DRIVE SUITE E	BATON ROUGE	LA	70816	(225)296-0291	N	Y
83	NESCO	521 CLEMSON ROAD	COLUMBIA	SC	29229	(803)699-1976	Y	Y
157	NESCO	11300 43RD ST NORTH	CLEARWATER	FL	33762	(727)541-6656	N	Y
161	NESCO	ROUTE 8 BOX 377	SO CHARLESTON	WV	25309	(304)744-7836	N	Y
222	NESCO ENVIRONMENTAL	6736 ROCKY FALLS ROAD	CHARLOTTE	NC	28211	(704)442-1365	N	N
108	NICHOLS INDUSTRIES	610 ELM STREET	NICEVILLE	FL	32578	(850)678-1644	N	Y
158	NINE SPRINGS ENVIROMENTAL	2817 FISH HATCHERY ROAD	MADISON	WI	53713	(608)273-9499	Y	Y
204	OGDEN ENV & ENG SCVS	3800 EZELL ROAD, STE. 100	NASHVILLE	TN	37211	(615)333-0630	Y	Y
205	OGDEN ENV & ENG SVCS CO	P.O. BOX 3142	HUNTERSVILLE	NC	28070	(704)875-3570	Y	Y
51	OMEGA ENVIRONMENTAL	1960-C PARKER COURT	STONE MOUNTAIN	GA	30087	(770)972-9111	Y	Y
239	PANGEAN SOLUTIONS INC	185 STOCKWOOD DRIVE STE 100	WOODSTOCK	GA	30188	(770)926-8883	Y	Y
56	PARSONS ENGINEERING SCIEN	290 ELWOOD DAVIS RD	LIVERPOOL	NY	13088	(315)451-9560	Y	Y
94	PERRY, PYRON & MCCOWN	PO BOX 2478	DAPHNE	AL	36526	(334)990-9000	Y	Y
186	PETROLEUM ENV CONSULTANTS	3810 STATESVILLE AVE	CHARLOTTE	NC	28206	(704)335-8801	Y	Y
217	PHILLIP W SHOOPMAN	4 LAKE VALLEY COURT	SIMPSONVILLE	SC	29681	(864)297-5013	N	Y
233	PHOENIX GROUP	2358 TREESCAPE DRIVE	CHARLESTON	SC	29414	(843)225-5646	Y	Y
138	PIEDMONT GEOLOGIC	6003 CHAPEL HILL ROAD STE 113	RALEIGH	NC	27607	(919)854-9700	Y	Y
109	PRESCOTT ENVIRONMENTAL ASSOC	312 W FRANKLIN ST SUITE 4	CHAPEL HILL	NC	27516	(919)942-8006	N	Y
199	PRIESTER & ASSOCIATES INC	1345 GARNER LANE STE A-105	COLUMBIA	SC	29210	(803)798-4377	Y	Y
243	PROGRESSIVE ENG & CONSTR INC	7827 N DALE MABRY HWY STE 104	TAMPA	FL	33614	(813)930-0669	Y	Y
227	PYRAMID ENVIRONMENTAL CONSULT.	2340 SADDLESPRINGS DRIVE	ALPHARETTA	GA	30004	(678)366-1919	Y	Y
185	PYRAMID ENVIRONMENTAL INC	700 N EUGENE STREET	GREENSBORO	NC	27401	(336)335-3174	Y	Y
5	QORE	3 TECHNOLOGY CIRCLE	COLUMBIA	SC	29203	(803)935-1700	Y	Y
235	QUANTUM ENVIRONMENTAL INC	2200 GATEWAY CTR BLVD STE 205	MORRISVILLE	NC	27560	(919)469-9795	Y	Y

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For CLASS 1 and 2 work

Cert#	Firm\Owner	Address	City	St	Zip	Phone	Class1	Class2
170	RADIAN INTERNATIONAL	PO BOX 201088	AUSTIN	TX	78720	(512)454-4797	Y	Y
232	RBR DRILLING	236 BRACWICK ROAD	COLUMBIA	SC		(803)732-7561	N	Y
130	RESEARCH MGMT CONSULTANTS	3688 CLEARVIEW AVE SUITE 125	ATLANTA	GA	30340	(770)452-1022	N	Y
166	RESOLVE ENVIRONMENTAL SERVICE	410 EAST FRANKLIN STREET	MONROE	NC	28112	(704)289-5881	Y	Y
221	RINDT MCDUFF ASSOCIATES INC	334 CHEROKEE STREET	MARIETTA	GA	30060	(770)427-8123	N	N
214	RMT INC	100 VERDAE BLVD	GREENVILLE	SC	29607	(803)281-0030	Y	Y
175	ROY F WESTON INC	5405 METRIC PLACE SUITE 200	NORCROSS	GA	30092	(770)263-5419	Y	Y
176	ROY F WESTON INC	1635 PUMPHREY AVENUE	AUBURN	AL	36832	(334)826-6100	Y	Y
60	S & ME INC CHARLOTTE	PO BOX 7668	CHARLOTTE	NC	28241	704-523-4726	Y	Y
58	S & ME INC COLUMBIA	134 SUBER ROAD	COLUMBIA	SC	29210	(803)714-0006	Y	Y
59	S & ME INC MT PLEASANT	840 LOW COUNTRY BLVD	MT PLEASANT	SC	29464	(843)884-0005	Y	Y
61	S & ME INC SAVANNAH	905 EAST 69TH STREET	SAVANNAH	GA	31405	(912)353-8885	Y	Y
57	S & ME INC SPARTANBURG	155 TRADD STREET	SPARTANBURG	SC	29301	(864)574-2360	Y	Y
20	SAEDACCO	10401 JOHN PRICE RD	CHARLOTTE	NC	28273	(704)827-5500	N	Y
81	SANTEE COOPER SCPSA	PO BOX 2946101	MONCKS CORNER	SC	29461	(843)761-8000	Y	Y
116	SCDHEC BUREAU OF UST MGMT	2600 BULL ST	COLUMBIA	SC	29201	(803)734-5331	Y	Y
53	SCHNABEL ENGINEERING ASSO	104 CORPORATE BLVD SUITE 420	WEST COLUMBIA	SC	29169	(803)796-6240	Y	Y
110	SCIENCE APPLICATIONS INTL	6310 ALLENTOWN BLVD	HARRISBURG	PA	17112	(717)901-8100	Y	Y
145	SCRA ENV ENTERPRISE GROUP	1899 NORTH HOBSON AVENUE	NO CHARLESTON	SC	29405	(843)743-6777	Y	Y
211	SECOR INTERNATIONAL INC	515A SO FRY ROAD SUITE 407	KATY	TX	77450	(281)492-6583	N	Y
212	SECOR INTERNATIONAL INC	1403 BOMBAY LANE	ROSWELL	GA	30076	(770)569-9181	Y	Y
41	SEI ENVIRONMENTAL INC	3021 MCNAUGHTON DIVE SUITE 9	COLUMBIA	SC	29223	(803)788-2535	Y	Y
19	SHIELD ENVIRONMENTAL	2848 I-85 S STE F	CHARLOTTE	NC	28208	(800)395-5220	Y	Y
195	SMITH MONITORING & MAINTENANCE	145 MERRILL AVENUE	DECATUR	GA	30030	(404)371-9332	Y	Y
128	SOUTHEAST TECHNICAL SERVICES	6308 WRIGHTSVILLE AVENUE	WILMINGTON	NC	28403	(910)509-7570	Y	Y
82	SOUTHEASTERN ENVIRON	323 MAIN STREET	CONWAY	SC	29526	(843)248-3533	Y	Y
120	SPERO CORP	206 RIVERSIDE COURT	GREER	SC	29650	(864)879-7634	Y	Y
93	STAR ENVIRONMENTAL	1 CIRCLE STREET	GREAT FALLS	SC	29055	(803)482-2584	Y	Y
208	STEVENSON & PALMER ENGINEERING	PO BOX 13845	SAVANNAH	GA	31416	(912)355-9603	Y	Y
42	TERRA TECH ENTERPRISES	14156 RIVER RD	PENSACOLA	FL	32507	(904)492-0913	Y	Y
136	TERRAINE ENVIRONMENTAL	PO BOX 471868	CHARLOTTE	NC	28247	(704)889-0004	Y	Y
223	TERRY ENVIRONMENTAL SERVICES	PO BOX 41784	CHARLESTON	SC	29423	(800)325-0605	Y	Y
201	TETRA TECH NUS	1401 OVEN PARK DRIVE STE 102	TALLAHASSEE	FL	32312	(850)656-5458	N	Y
23	TETRA TECH NUS INC	2046 W PARK PLACE BLVD STE A	STONE MOUNTAIN	GA	30087	(770)413-0965	Y	Y
24	TETRA TECH NUS INC	800 OAK RIDGE TURNPIKE	OAKRIDGE	TN	37830	(423)483-9900	Y	Y
25	TETRA TECH NUS INC	900 TRAIL RIDGE ROAD	AIKEN	SC	29803	(800)368-5497	Y	Y
34	TRC ENVIRONMENTAL CORP	6340 QUADRANGLE DRIVE	CHAPEL HILL	NC	27514	(919)419-7500	Y	Y
187	TRIANGLE ENVIRONMENTAL	500 GLENWOOD AVENUE	RALEIGH	NC	27603	(704)529-5551	Y	Y
142	TRIBBLE & RICHARDSON INC	4875 RIVERSIDE DRIVE	MACON	GA	31210	(912)474-6100	Y	Y
111	TRIGON ENGINEERING CONSUL	PO BOX 18846	GREENSBORO	NC	27409	(336)668-0093	Y	Y
112	TURNER HART & HICKMAN PC	501 MINUET LAN STE 101	CHARLOTTE	NC	28217	(704)523-5280	Y	Y
122	URS GREINER WOODWARD CLYDE	3109 POPLARWOOD CT ST 301	RALEIGH	NC	27604	(919)850-9511	Y	Y
206	US ARMY ENG DISTRICT SAVANNAH	PO BOX 889 ATT EN-GG O'KELLEY	SAVANNAH	GA	31402	(912)652-5311	Y	Y
113	US ENVIRONMENTAL GROUP	2301 NW 33RD CT STE 115	POMPANO BEACH	FL	33069	(954)979-3400	Y	Y

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159	US GEOLOGICAL SURVEY	720 GRACERN ROAD SUITE 129	COLUMBIA	SC	29210	(803)750-6100	Y	Y
114	UTTS ENVIRONMENTAL	PO BOX 8148	GREENVILLE	NC	27835	(800)500-2046	Y	Y
167	V E AMICK & ASSOCIATES	220 STONERIDGE DR STE 405	COLUMBIA	SC	29210	(803)929-1181	Y	Y
21	VEETECH	942 MILLBROOK AVENUE SUITE 6	AIKEN	SC	29803	(803)641-0085	N	Y
207	VEETECH	1240 SE MAYNARD RD SUITE 203	CARY	NC	27511	(919)388-0037	N	Y
124	WESTINGHOUSE SAVANNAH RIVER CO	BLDG 742-A SAVANNAH RIVER SITE	AIKEN	SC	29808	(803)725-1531	Y	Y
229	WETLANDS ENVIRONMENTAL	2411 OAK STREET SUITE 302	MYRTLE BEACH	SC	29577	(843)448-2009	N	Y
84	WILLMER ENGINEERING INC	3772 PLEASANTDALE RD STE 165	ATLANTA	GA	30340	(770)939-0089	Y	Y
202	WILSON ENVIRONMENTAL MGMT	507 MARY CHARLOTTE DRIVE	CHARLOTTE	NC	28262	(704)549-8928	Y	Y
22	WRIGHT PADGETT & ASSOCIATES	1017 CHUCK DAWLEY BLVD	CHARLESTON	SC	29464	(843)571-0575	Y	Y
234	ZAPATA ENGINEERING	1100 KENILWORTH AVENUE	CHARLOTTE	NC	28204	(704)358-8240	Y	Y

Number of Records : 231

As of the above date, this is a listing of contractors who are Certified to perform assessment and corrective action of confirmed releases on underground storage tanks (UST) in South Carolina. Inclusion of a person or company on this list does not constitute any guarantee of services by SCDHEC.

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, SC 29201
Phone (803) 898-4350 Fax (803) 898-4330

Certified Mail
7099 3220 0008 7885 7276

NOV 15 2000

Homer Hucks
5720 Creekside Dr
Myrtle Beach, SC 29575



Re: 501 Amoco
UST Permit # 05156
Release Date: December 31, 1991
Notice of Violation
Horry County

Dear Mr. Hucks:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control directed you to complete a Tier I Assessment in August 2000. To date, the required report has not been received. In accordance with Section 280.65 of the South Carolina Underground Storage Tank Regulations, the assessment must be conducted as documented chemicals of concern are above the risk-based-screening levels.

The enclosed Owner/Operator Lead Information Sheet or Right of Entry/Permission Form should be completed and returned to my attention within 10 days. Upon submittal of the Information Sheet or Right of Entry/Permission Form, a cost agreement number will be assigned under which the Tier I Assessment invoice will be submitted to the Department upon completion of work. The Tier I Assessment report will be due within 60 days after the cost agreement number is issued. **However, if either the Information Sheet or the Right of Entry and Permission Form is not returned within 10 days, enforcement procedures will be initiated.**

Please reference **UST Permit #05156** in all correspondence concerning this project. If you have any questions or need additional information, please call me at 1-800-826-5435 (within SC only) or (803) 898-4327. Thank you for your time and cooperation in this matter.

Sincerely,

Rodney L. Wilson, Hydrogeologist
Owner/Operator Assistance Section
Assessment & Corrective Action Division
Underground Storage Tank Program

enc: Information Sheet
Certified Contractors List
Right of Entry/Permission Form (2)

cc: Technical File

DHEC/UST/001115/rlw/05156.nov

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, SC 29201
Phone (803) 898-4350 Fax (803) 898-4330

Certified Mail
7099 3220 0008 7885 7276

NOV 15 2000

Homer Hucks
5720 Creekside Dr
Myrtle Beach, SC 29575

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Dear Mr. Hucks:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control directed you to complete a Tier I Assessment in August 2000. To date, the required report has not been received. In accordance with Section 280.65 of the South Carolina Underground Storage Tank Regulations, the assessment must be conducted as documented chemicals of concern are above the risk-based-screening levels.

The enclosed Owner/Operator Lead Information Sheet or Right of Entry/Permission Form should be completed and returned to my attention within 10 days. Upon submittal of the Information Sheet or Right of Entry/Permission Form, a cost agreement number will be assigned under which the Tier I Assessment invoice will be submitted to the Department upon completion of work. The Tier I Assessment report will be due within 60 days after the cost agreement number is issued. **However, if either the Information Sheet or the Right of Entry and Permission Form is not returned within 10 days, enforcement procedures will be initiated.**

Please reference **UST Permit #05156** in all correspondence concerning this project. If you have any questions or need additional information, please call me at 1-800-826-5435 (within SC only) or (803) 898-4327. Thank you for your time and cooperation in this matter.

Sincerely,

Rodney L. Wilson, Hydrogeologist
Owner/Operator Assistance Section
Assessment & Corrective Action Division
Underground Storage Tank Program

enc: Information Sheet
Certified Contractors List
Right of Entry/Permission Form (2)

cc: Technical File

DHEC/UST/001115/rlw/05156.nov

PROPERTY OWNER

RIGHT OF ENTRY -**UST Permit #05156**

If you are the Property Owner or are the authorized representative for that person, but did not own the former or existing underground storage tanks at the time the release was reported, please complete this form.

I, _____, certify that I am the legal owner of the property identified below or serve as the authorized representative for the property owner. I authorize the South Carolina Department of Health and Environmental Control (SCDHEC), or a contractor selected by SCDHEC, to enter this property at reasonable times only to conduct assessment and corrective action activities, as required. The contractor will be designated as the contractor for the UST owner or operator for only the required environmental site rehabilitation activities. Compensation to the contractor will be from the SUPERB Account and I will have no obligation to pay the contractor. I understand that SCDHEC will notify me of all activities that are necessary prior to their initiation and will promptly provide to me a summary of the data upon request.

Name of Facility _____Phone # _____

Street Address of Facility _____

Town, City, District, Suburb _____

Name of nearest intersecting street, road, highway, alley

_____

Is this facility within the city limits? (yes or no) _____

Is this facility serviced by a public water or sewer utility? (yes or no) _____, if no, please provide the name of a person we can contact that can assist in the location of private water and septic tank lines Name_____, phone number _____

Were underground storage tanks previously removed from the ground at this facility? (yes or no) _____, if yes, please provide the name of a person we can contact that can assist in the location of the former underground storage tank excavation _____, Phone number _____

Is the property currently leased or rented to someone? (yes or no) _____, if yes, please provide their name _____ and phone number _____ and let them know about the pending assessment activities. If vehicles or other mobile structures are parked over the former or existing underground storage tanks, they should be moved before SCDHEC's contractor gets to the site.

NAME of property owner (Please Print):_____

Phone Number (home)_____ (work)_____

Current Mailing Address _____

Signature of Property Owner: _____

Witness:_____

Date:_____ Month _____ Day _____ Year

UNDERGROUND STORAGE TANK OWNER

PERMISSION FORM -**UST Permit #05156**

If you are the owner of the former or existing underground storage tanks or are designated as their authorized representative, but do not own the property, please complete this form.

I, _____ certify that I am the legal owner of the underground storage tank(s) located at the facility identified below or serve as the authorized representative for the UST owner. I grant permission to the South Carolina Department of Health and Environmental Control (SCDHEC) to secure on my behalf services of a contractor to conduct assessment and corrective action activities, as required. The contractor will be designated as my contractor for only the required environmental site rehabilitation activities. Compensation to the contractor will be from the SUPERB Account and I will have no obligation to pay the contractor. I understand that SCDHEC will be responsible for obtaining right-of-entry from the property owner and notifying me of all activities that are necessary prior to their initiation and will promptly provide to me a copy of each environmental report. I understand that I may choose to select my own contractor at the completion of any phase of work by notifying the Underground Storage Tank Program in writing.

Name of Facility _____Phone # _____

Street Address of Facility _____

Town, City, District, Suburb _____

Name of nearest intersecting street, road, highway, alley

_____

Is this facility within the city limits? (yes or no) _____

Were underground storage tanks previously removed from the ground at this facility? (yes or no) _____, if yes, please provide the name and phone number of a person we can contact that can assist in the location of the former underground storage tank excavation. Name _____, Phone number _____

Is the property currently leased or rented to someone? (yes or no) _____, if yes, please provide their name _____ and phone number _____ and let them know about the pending assessment activities. If vehicles or other mobile structures are parked over the former or existing underground storage tanks, they should be moved before SCDHEC's contractor gets to the site.

NAME of UST owner (Please Print):_____

Phone Number (home)_____ (work)_____

Signature of Underground Storage Tank Owner:_____

Witness:_____

Date:_____ Month _____ Day _____ Year

UNDERGROUND STORAGE TANK (UST) OWNER/OPERATOR LEAD INFORMATION SHEET

1. CONTRACTOR OF CHOICE

As the UST Owner/Operator of **UST Permit #05156,** I would like to use the contractor or person(s)* listed below and request that they represent me for: (check one)

☐ Tier I Assessment)
☐ all future assessments scopes. **

Name of Contractor/Person(s) _____

Address _____

_____

_____

Telephone Number _____

Note: Site rehabilitation activities must be performed by a SCDHEC Certified Site Rehabilitation Contractor in accordance with R.61-98.

*indicate if the person listed is your own employee

** if you would like the contractor to perform all future assessment activities at this and/or other UST sites that have confirmed releases, please provide a list of all sites on your letterhead and provide the information requested in items 2 and 3 below within the context of the letter.

2. FINANCIAL OR FAMILIAL RELATIONSHIP

Does a financial or familial relationship, as defined below, exist between you and the contractor/person that you listed above? _____ Yes _____ No (please initial)

Financial Relationship: A connection or association through a material interest of sources of income which exceed five percent of annual gross income from a business entity.

Familial Relationship: A connection or association by family or relatives, in which a family member or relative has a material interest. Family or relatives include: father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, grandchild, great grandchild, step grandparent, step great grandparent, step grandchild, step great grandchild, or fiancee.

3. PAYMENT

You can pay the contractor and, upon the submittal of the canceled check (or a notarized statement from the contractor), be compensated from the SUPERB Account, or have payment issued directly from us to the contractor.

I request that payment be made to me after I have paid the contractor. _____ Yes _____ No (please initial)
I request that payment be made directly to the contractor. _____ Yes _____ No (please initial)

Note: All costs must receive prior financial approval from the Department regardless of payment option.

Underground Storage Tank Owner/Operator Signature _____

Date _____

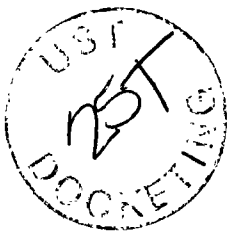
D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, SC 29201
Phone (803) 898-4350 Fax (803) 898-4330

Certified Mail
7099 3220 0008 7885 7276

NOV 17 2000

Homer Hucks
5720 Creekside Dr
Myrtle Beach, SC 29575



Re: 501 Amoco
UST Permit # 05156
Release Date: December 31, 1991
Notice of Violation
Horry County

Dear Mr. Hucks:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control directed you to complete a Tier I Assessment in August 2000. To date, the required report has not been received. In accordance with Section 280.65 of the South Carolina Underground Storage Tank Regulations, the assessment must be conducted as documented chemicals of concern are above the risk-based-screening levels.

The enclosed Owner/Operator Lead Information Sheet or Right of Entry/Permission Form should be completed and returned to my attention within 10 days. Upon submittal of the Information Sheet or Right of Entry/Permission Form, a cost agreement number will be assigned under which the Tier I Assessment invoice will be submitted to the Department upon completion of work. The Tier I Assessment report will be due within 60 days after the cost agreement number is issued. **However, if either the Information Sheet or the Right of Entry and Permission Form is not returned within 10 days, enforcement procedures will be initiated.**

Please reference **UST Permit #05156** in all correspondence concerning this project. If you have any questions or need additional information, please call me at 1-800-826-5435 (within SC only) or (803) 898-4327. Thank you for your time and cooperation in this matter.

Sincerely,

Rodney L. Wilson, Hydrogeologist
Owner/Operator Assistance Section
Assessment & Corrective Action Division
Underground Storage Tank Program

enc: Information Sheet
Certified Contractors List
Right of Entry/Permission Form (2)

cc: Technical File

DHEC/UST/001115/rlw/05156.nov

UNDERGROUND STORAGE TANK (UST) OWNER/OPERATOR LEAD INFORMATION SHEET

1. CONTRACTOR OF CHOICE

As the UST Owner/Operator of Facility ID # 05156, I would like to use the contractor or person(s)* listed below and request that they represent me for:

☐ _____ Assessment.

☒ All future assessment scopes. **

Name of Contractor/Person(s) Southeastern Environmental, Inc.

Address 323 Main Street

Conway, South Carolina 29526

Telephone Number 1-843-248-3533

Note: After September 20, 1997, rehabilitation activities must be performed by a SC Certified Site Rehabilitation Contractor.

*indicate if the person listed is your own employee

** if you would like the contractor to perform all future assessment activities at this and/or other UST sites that have confirmed releases, please provide a list of all sites on your letterhead and provide the information requested in items 2 and 3 below within the context of the letter.

2. FINANCIAL OR FAMILIAL RELATIONSHIP

Does a financial or familial relationship, as defined below, exist between you and the contractor/person that you listed above? _____ Yes X No (please initial)

Financial Relationship: A connection or association through a material interest of sources of income which exceed five percent of annual gross income from a business entity.

Familial Relationship: A connection or association by family or relatives, in which a family member or relative has a material interest. Family or relatives include: father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, grandchild, great grandchild, step grandparent, step great grandparent, step grandchild, step great grandchild, or fiancee.

3. PAYMENT Amnesty Site, 100% coverage

The first $25,000.00 in eligible site rehabilitation costs will be applied against the applicable SUPERB deductible, upon submittal of the canceled check (front and back) or a notarized statement from the contractor verifying payment.

For eligible costs exceeding the $25,000.00 deductible, you can pay the contractor and, upon the submittal of the canceled check (front and back) or a notarized statement from the contractor verifying payment, be compensated from the SUPERB Account, or have payment issued directly from the SUPERB Account to the contractor. (check one)

_____ For eligible costs exceeding the deductible, I request that payment be made to me after I have paid the contractor.

__X__ For eligible ~~costs exceeding the deductible~~, I request that payment be made directly to the contractor.

(Note: all costs must receive prior financial approval from the Department regardless of payment option.)

Underground Storage Tank Owner/Operator Signature Homer Hucks

Date 1-10-99

SENDER: *COMPLETE THIS SECTION*

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits. 05156

1. Article Addressed to:

Homer Hucks
5720 Creekside Dr
Myrtle Beach, SC 29575

COMPLETE THIS SECTION ON DELIVERY

A. Received by *(Please Print Clearly)* | B. Date of Delivery

C. Signature

X ☐ Agent ☐ Addressee

D. Is delivery address different from item 1? ☐ Yes
If YES, enter delivery address below: ☐ No

3. Service Type
☐ Certified Mail ☐ Express Mail
☐ Registered ☐ Return Receipt for Merchandise
☐ Insured Mail ☐ C.O.D.

4. Restricted Delivery? *(Extra Fee)* ☐ Y

2. Article Number *(Copy from service label)* 7099 3220 0008 7885 7269

PS Form 3811, July 1999 Domestic Return Receipt 102595-99-M-1789

UNITED STATES POSTAL SERVICE



First-Class Mail
Postage & Fees Paid
USPS
Permit No. G-10

• Sender: Please print your name, address, and ZIP+4 in this box •

BUREAU OF US[illegible]AIR
SC DEPARTMENT OF HEAL[illegible]AND
ENVIRONMENTAL CONTROL
2600 BULL STREET
COLUMBIA, SC 29201

RWilson

U.S. Postal Service

CERTIFIED MAIL RECEIPT

nestic Mail Only; No Insurance Coverage Provided)

7099 3220 0008 72[illegible] 7269

Article Sent To:

Homer Hucks

Postage	$
Certified Fee	
Return Receipt Fee (Endorsement Required)	
Restricted Delivery Fee (Endorsement Required)	
Total Postage & Fees	**$**

Postmark Here

RWilson
05156

Name (Please Print Clearly) (To be completed by mailer)

Homer Hucks

Street, Apt. No.; or PO Box No.

5720 Creekside Dr.

City, State, ZIP+ 4

Myrtle Beach, SC 29575

PS Form 3800, July 1999 See Reverse for Instructions

Certified Mail Provides:

- A mailing receipt
- A unique identifier for your mailpiece
- A signature upon delivery
- A record of delivery kept by the Postal Service for two years

Important Reminders:

- Certified Mail may ONLY be combined with First-Class Mail or Priority Mail.
- Certified Mail is not available for any class of international mail.
- NO INSURANCE COVERAGE IS PROVIDED with Certified Mail. For valuables, please consider Insured or Registered Mail.
- For an additional fee, a Return Receipt may be requested to provide proof of delivery. To obtain Return Receipt service, please complete and attach a Return Receipt (PS Form 3811) to the article and add applicable postage to cover the fee. Endorse mailpiece "Return Receipt Requested". To receive a fee waiver for duplicate return receipt, a USPS postmark on your Certified Mail receipt is required.
- For an additional fee, delivery may be restricted to the addressee or addressee's authorized agent. Advise the clerk or mark the mailpiece with the endorsement "Restricted Delivery".
- If a postmark on the Certified Mail receipt is desired, please present the article at the post office for postmarking. If a postmark on the Certified Mail receipt is not needed, detach and affix label with postage and mail.

IMPORTANT: Save this receipt and present it when making an inquiry.

u of UST Mgmt.
H E C
E PROTECT PROSPER
Bull Street
bia, SC 29201

ervice Requested

CERTIFIED MAIL

7099 3220 0008 7885 7269

RECEIVED

DEC 0 6 2000

Storage Tank Management

Name
1st Notice 11-15
2nd Notice 11-27
Return 12-3

in this envelope

PRINTED ON RECYCLED P.

PLACE STICKER AT TOP OF ENVELOPE
TO THE RIGHT OF RETURN ADDRESS.

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STOR TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, SC 29201
Phone (803) 898-4350 Fax (803) 898-4330

Certified Mail
7099 3220 0008 7878 5272

Homer Hucks
5720 Creekside Dr
Myrtle Beach, SC 29575

DEC 20 2000



Re: 501 Amoco
UST Permit # 05156
MWA #13528
Release Date: December 31, 1991
Horry County

Dear Mr. Hucks:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC) has reviewed the departmental file, and currently, the release reported on December 31, 1991 at the referenced site has a priority classification of 5B. To determine what risk the release may pose to the environment and public health, and in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations, implementation of the scope of work as outlined in the enclosed Tier I Assessment document is necessary. Since the above scope of work is detailed in the Tier I Assessment document, a separate plan is not required.

Implementation of the Tier I Assessment should proceed upon receipt of this correspondence. **Please note that all rehabilitation activities associated with a UST release must be performed by a SCDHEC certified site rehabilitation contractor as required by R.61-98, and all applicable South Carolina certification requirements apply to laboratory services and report preparation as well.** The required monitoring well approval is enclosed. Please be advised that only EPA Method 8260B will be accepted for purgeable aromatics. Tax map information and the location of receptors on the applicable topographic map are required as part of the Tier I Assessment Report. The Tier I Assessment should be submitted within 60 days from the date of this letter.

The Bureau grants preapproval for the transportation of the investigative derived waste (virgin petroleum contaminated soil and groundwater) from the referenced site to a permitted treatment facility. All contaminated investigated derived waste must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest and approval letter from the receiving facility must be included as an appendix to the final report. If the levels of petroleum contamination based on laboratory analysis are below treatment levels, please contact the project manager for approval to dispose of the investigative derived waste on site.

On all correspondence regarding this site and scope of work, please reference UST Permit #05156. If you have any questions concerning this correspondence, please contact Rodney Wilson at (803) 898-4327 or 1-800-826-5435 (within South Carolina only).

Sincerely,

Rodney L. Wilson
Owner/Operator Assistance Section
Assessment and Corrective Action Branch
Bureau of Underground Storage Tank Management

enc: Monitoring Well Approval
Tier I Assessment Guidance Document
Certified Contractors List

cc: Technical File (copy of Monitoring Well Approval)
Financial File

DHEC/UST/001220/RLW/05156.T1access

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORA TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, SC 29201
Phone (803) 898-4350 Fax (803) 898-4330

Certified Mail
7099 3220 0008 7878 5272

Homer Hucks
5720 Creekside Dr
Myrtle Beach, SC 29575

DEC 20 2000

Re: 501 Amoco
UST Permit # 05156
MWA #13528
Release Date: December 31, 1991
Horry County

Dear Mr. Hucks:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC) has reviewed the departmental file, and currently, the release reported on December 31, 1991 at the referenced site has a priority classification of 5B. To determine what risk the release may pose to the environment and public health, and in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations, implementation of the scope of work as outlined in the enclosed Tier I Assessment document is necessary. Since the above scope of work is detailed in the Tier I Assessment document, a separate plan is not required.

Implementation of the Tier I Assessment should proceed upon receipt of this correspondence. **Please note that all rehabilitation activities associated with a UST release must be performed by a SCDHEC certified site rehabilitation contractor as required by R.61-98, and all applicable South Carolina certification requirements apply to laboratory services and report preparation as well.** The required monitoring well approval is enclosed. Please be advised that only EPA Method 8260B will be accepted for purgeable aromatics. Tax map information and the location of receptors on the applicable topographic map are required as part of the Tier I Assessment Report. The Tier I Assessment should be submitted within 60 days from the date of this letter.

The Bureau grants preapproval for the transportation of the investigative derived waste (virgin petroleum contaminated soil and groundwater) from the referenced site to a permitted treatment facility. All contaminated investigated derived waste must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest and approval letter from the receiving facility must be included as an appendix to the final report. If the levels of petroleum contamination based on laboratory analysis are below treatment levels, please contact the project manager for approval to dispose of the investigative derived waste on site.

On all correspondence regarding this site and scope of work, please reference UST Permit #05156. If you have any questions concerning this correspondence, please contact Rodney Wilson at (803) 898-4327 or 1-800-826-5435 (within South Carolina only).

Sincerely,

Rodney L. Wilson
Owner/Operator Assistance Section
Assessment and Corrective Action Branch
Bureau of Underground Storage Tank Management

enc: Monitoring Well Approval
Tier I Assessment Guidance Document
Certified Contractors List

cc: Technical File (copy of Monitoring Well Approval)
Financial File

DHEC/UST/001220/RLW/05156.T1access

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

Monitoring Well Installation Approval Form

Date of Issue: December 20, 2000 Approval No.: 13528

Approval is hereby granted to:
(On behalf of): Homer Hucks
UST Permit #: 05156
County: Horry

This approval is for the construction of three (3) Type II monitoring well(s) in accordance with the South Carolina Well Standards and Regulations. The well(s) are to be constructed within the shallow aquifer for the intended purpose of monitoring ground-water quality and/or water level(s) at the referenced facility. Approval is provided with the following conditions:

1. The latitude and longitude, surveyed elevations, boring and/or geologist logs and actual (as built) construction details for each well will be submitted with the technical report.

2. Each well will be labeled with an identification plate constructed of a durable material affixed to the casing or surface pad where it is readily visible. The plate will provide monitoring well I.D.#, date of construction, static water level, and driller name and state certification #.

3. Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, development and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regard to contents, source, and date of activity.

4. A minimum of forty-eight (48) hours prior to initiation of drilling activities, please provide notice to Rodney Wilson at (803) 898-4327 or wilsonrl@columb26.dhec.state.sc.us.

5. Please provide ground-water quality analytical data (chemical analysis and/or water level(s)) and associated measurements (i.e., in-situ field measurements) to me with the technical report.

6. Monitoring wells and temporary monitoring wells will be installed by or under the direct supervision of a licensed well driller certified by the State of South Carolina.

7. Monitoring wells and temporary monitoring wells will be abandoned by or under the direct supervision of a licensed well driller certified by the State of South Carolina. Temporary monitoring wells shall not remain in place for longer than 30 days from the date of installation. Monitoring wells may be abandoned only upon concurrence by this Program.

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. Please remember to have a copy of this approval on the site during well installation.

Approved by: _____

Rodney L. Wilson, Hydrogeologist
Owner/Operator Assistance Section
Underground Storage Tank Program

cc: Waccamaw District EQC
Homer Hucks
Technical File

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORA TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, SC 29201
Phone (803) 898-4350 Fax (803) 898-4330

Certified Mail
7099 3220 0008 7878 5272

Homer Hucks
5720 Creekside Dr
Myrtle Beach, SC 29575

DEC 20 2000

Re: 501 Amoco
UST Permit # 05156
MWA #13528
Release Date: December 31, 1991
Horry County

Dear Mr. Hucks:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC) has reviewed the departmental file, and currently, the release reported on December 31, 1991 at the referenced site has a priority classification of 5B. To determine what risk the release may pose to the environment and public health, and in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations, implementation of the scope of work as outlined in the enclosed Tier I Assessment document is necessary. Since the above scope of work is detailed in the Tier I Assessment document, a separate plan is not required.

Implementation of the Tier I Assessment should proceed upon receipt of this correspondence. **Please note that all rehabilitation activities associated with a UST release must be performed by a SCDHEC certified site rehabilitation contractor as required by R.61-98, and all applicable South Carolina certification requirements apply to laboratory services and report preparation as well.** The required monitoring well approval is enclosed. Please be advised that only EPA Method 8260B will be accepted for purgeable aromatics. Tax map information and the location of receptors on the applicable topographic map are required as part of the Tier I Assessment Report. The Tier I Assessment should be submitted within 60 days from the date of this letter.

The Bureau grants preapproval for the transportation of the investigative derived waste (virgin petroleum contaminated soil and groundwater) from the referenced site to a permitted treatment facility. All contaminated investigated derived waste must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. A copy of the disposal manifest and approval letter from the receiving facility must be included as an appendix to the final report. If the levels of petroleum contamination based on laboratory analysis are below treatment levels, please contact the project manager for approval to dispose of the investigative derived waste on site.

On all correspondence regarding this site and scope of work, please reference UST Permit #05156. If you have any questions concerning this correspondence, please contact Rodney Wilson at (803) 898-4327 or 1-800-826-5435 (within South Carolina only).

Sincerely,

Rodney L. Wilson
Owner/Operator Assistance Section
Assessment and Corrective Action Branch
Bureau of Underground Storage Tank Management

enc: Monitoring Well Approval
Tier I Assessment Guidance Document
Certified Contractors List

cc: Technical File (copy of Monitoring Well Approval)
Financial File

DHEC/UST/001220/RLW/05156.T1access

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

Monitoring Well Installation Approval Form

Date of Issue: December 20, 2000 Approval No.: 13528

Approval is hereby granted to:
(On behalf of): Homer Hucks
UST Permit #: 05156
County: Horry

This approval is for the construction of three (3) Type II monitoring well(s) in accordance with the South Carolina Well Standards and Regulations. The well(s) are to be constructed within the shallow aquifer for the intended purpose of monitoring ground-water quality and/or water level(s) at the referenced facility. Approval is provided with the following conditions:

1. The latitude and longitude, surveyed elevations, boring and/or geologist logs and actual (as built) construction details for each well will be submitted with the technical report.

2. Each well will be labeled with an identification plate constructed of a durable material affixed to the casing or surface pad where it is readily visible. The plate will provide monitoring well I.D.#, date of construction, static water level, and driller name and state certification #.

3. Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, development and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regard to contents, source, and date of activity.

4. A minimum of forty-eight (48) hours prior to initiation of drilling activities, please provide notice to Rodney Wilson at (803) 898-4327 or wilsonrl@columb26.dhec.state.sc.us.

5. Please provide ground-water quality analytical data (chemical analysis and/or water level(s)) and associated measurements (i.e., in-situ field measurements) to me with the technical report.

6. Monitoring wells and temporary monitoring wells will be installed by or under the direct supervision of a licensed well driller certified by the State of South Carolina.

7. Monitoring wells and temporary monitoring wells will be abandoned by or under the direct supervision of a licensed well driller certified by the State of South Carolina. Temporary monitoring wells shall not remain in place for longer than 30 days from the date of installation. Monitoring wells may be abandoned only upon concurrence by this Program.

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. Please remember to have a copy of this approval on the site during well installation.

Approved by: _____

Rodney L. Wilson, Hydrogeologist
Owner/Operator Assistance Section
Underground Storage Tank Program

cc: Waccamaw District EQC
Homer Hucks
Technical File

SOUTHEASTERN ENVIRONMENTAL, INC.
323 MAIN STREET
CONWAY, SOUTH CAROLINA
29526

843-248-3533 843-248-5034(FAX)

UST 27 DOCKETING

FACSIMILE TRANSMITTAL SHEET

TO:	FROM:
Rodney Wilson	Lori J. Grainger
COMPANY:	DATE:
SC DHEC	01/29/01
FAX NUMBER:	TOTAL NO. OF PAGES INCLUDING COVER:
1-803-898-4330	03
PHONE NUMBER:	SENDER'S REFERENCE NUMBER:
RE:	YOUR REFERENCE NUMBER:
Insurance and Financial Form For Homer Hucks.	

☐ URGENT ☐ FOR REVIEW ☐ PLEASE COMMENT ☐ PLEASE REPLY ☐ PLEASE RECYCLE

NOTES/COMMENTS:

Rodney-The originals are in the mail..
Lori

RECEIVED
JAN 29 2001
Bureau of Underground
Storage Tank Management

05756

B321

PWA13526

UNDERGROUND STORAGE TANK (UST) OWNER/OPERATOR LEAD INFORMATION SHEET

1. CONTRACTOR OF CHOICE

As the UST Owner/Operator of Facility ID # 05156, I would like to use the contractor or person(s)* listed below and request that they represent me for:

☐ _____ Assessment.

☒ All future assessment scopes. **

Name of Contractor/Person(s) Southeastern Environmental, Inc.

Address 323 Main Street
Conway, South Carolina 29526

Telephone Number 1-843-248-3533

Note: After September 20, 1997, rehabilitation activities must be performed by a SC Certified Site Rehabilitation Contractor.

*indicate if the person listed is your own employee

** if you would like the contractor to perform all future assessment activities at this and/or other UST sites that have confirmed releases, please provide a list of all sites on your letterhead and provide the information requested in items 2 and 3 below within the context of the letter.

2. FINANCIAL OR FAMILIAL RELATIONSHIP

Does a financial or familial relationship, as defined below, exist between you and the contractor/person that you listed above? ____ Yes X No [illegible] (please initial)

Financial Relationship: A connection or association through a material interest of sources of income which exceed five percent of annual gross income from a business entity.

Familial Relationship: A connection or association by family or relatives, in which a family member or relative has a material interest. Family or relatives include: father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, son-in-law, daughter-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, grandchild, great grandchild, step grandparent, step great grandparent, step grandchild, step great grandchild, or fiancee.

3. PAYMENT Amnesty Site, 100% coverage

The first $25,000.00 in eligible site rehabilitation costs will be applied against the applicable SUPERB deductible, upon submittal of the canceled check (front and back) or a notarized statement from the contractor verifying payment.

For eligible costs exceeding the $25,000.00 deductible, you can pay the contractor and, upon the submittal of the canceled check (front and back) or a notarized statement from the contractor verifying payment, be compensated from the SUPERB Account, or have payment issued directly from the SUPERB Account to the contractor. (check one)

____ For eligible costs exceeding the deductible, I request that payment be made to me after I have paid the contractor.

X For eligible ~~costs exceeding the deductible~~, I request that payment be made directly to the contractor.

(Note: all costs must receive prior financial approval from the Department regardless of payment option.)

Underground Storage Tank Owner/Operator Signature Homer Hucks

Date 1-12-09

INSURANCE STATEMENT FORM

UST Permit #10344 is potentially eligible to receive state monies to assist you in site rehabilitation, if required. Before eligibility for State Underground Petroleum Environmental Response Bank (SUPERB) funds can be determined, written confirmation of the existence or non-existence of an environmental insurance policy other than self-insurance for this site is required. Please complete the following information:

√ I do not have any insurance other than self-insurance or SUPERB that would cover releases from underground storage tanks.

____ I have an insurance policy other than self-insurance that covers releases from underground storage tanks.

My policy provider is: _____
The policy deductible is: _____
The policy limit is: _____

If you have this type of insurance, please include a copy of the policy with this report.

Signature: Noreen Hucks

Date: 1-29-01

To be Completed by Notary Public:

Sworn before me this 29th day of Jan 2001

Lori Anne Grainger
(Name)

Notary Public for the state of SC.

My commission expires MY COMMISSION EXPIRES MARCH 18, 2009.

Please affix State Seal if you are commissioned outside South Carolina.

Lori Anne Grainger

RW

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FEB 0 1 2001

of Underground
Storage Tank Management

INSURANCE STATEMENT FORM

UST Permit #~~10344~~ 05156 RW is potentially eligible to receive state monies to assist you in site rehabilitation, if required. Before eligibility for State Underground Petroleum Environmental Response Bank (SUPERB) funds can be determined, written confirmation of the existence or non-existence of an environmental insurance policy other than self-insurance for this site is required. Please complete the following information:

__√__ I do not have any insurance other than self-insurance or SUPERB that would cover releases from underground storage tanks.

____ I have an insurance policy other than self-insurance that covers releases from underground storage tanks.

My policy provider is: _____
The policy deductible is: _____
The policy limit is: _____

If you have this type of insurance, please include a copy of the policy with this report.

Signature: Warren Hucks

Date: 1-29-01

To be Completed by Notary Public:

Sworn before me this 29th day of Jan, ~~19~~ 2001

Lori Anne Grainger
(Name)

Notary Public for the state of SC.

My commission expires MY COMMISSION EXPIRES MARCH 18, 2009.

Please affix State Seal if you are commissioned outside South Carolina.

Lori Anne Grainger

UST 20T

NOV.21'2000 14:41 18038984330 DIV UST MGMT #6596 P.003/003

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, SC 29201
Phone (803) 898-4350 Fax (803) 898-4330

Homer Hucks
5720 Creekside Dr
Myrtle Beach, SC 29575

MAR 0 2 2001



Re: 501 Amoco
UST Permit # 05156; Cost Agreement #13321; MWA #13528
Release Date: December 31, 1991
Tier I Assessment Approval
Horry County

Dear Mr. Hucks:

The Underground Storage Tank (UST) Program has reviewed the release at your site and understands that you plan to proceed with site rehabilitation activities.

A **Tier I Assessment** is the next scope of work deemed necessary to characterize any possible risk to human health or to sensitive environmental receptors. Since the above scope of work is detailed in the Tier I Assessment Guidance Document, a separate plan is not required. The cost agreement has been approved for $9,880.00. The required Monitoring Well Approval form has been provided to your environmental consultant, and a copy is enclosed for your records.

Implementation of the Tier I Assessment may proceed upon receipt of this correspondence. Please note that all applicable South Carolina certification requirements apply to the laboratory services, well installation, and report preparation. **Please be advised that only EPA Method 8260B will be accepted for purgeable aromatics. Tax map information and the location of receptors on the applicable topographic map are required as part of the Tier I Report. A copy of the Tier I document is enclosed for your information.**

The Tier I Assessment report and associated invoice should be submitted within **60 days from the date of this letter.** If the invoice is not submitted **within 120 days** from the date of this correspondence, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

The Bureau grants preapproval for transportation of virgin petroleum contaminated groundwater/soil from the referenced site to a permitted treatment facility. The contaminated groundwater/soil must be properly stored in labeled containers or covered with plastic as appropriate. The contaminated groundwater/soil must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. 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 final report. If the levels of petroleum contamination based on laboratory analysis are below risk-based screening levels, please contact the project manager for approval to dispose of soil and/or ground water on site. The SUPERB Account will not compensate for transportation or treatment of clean soil and/or ground water.

On all correspondence regarding this facility and scope of work, please reference **UST Permit #05156** and **Cost Agreement #13321.** If you have any questions concerning this correspondence, please contact Rodney Wilson at (803) 898-4327 or 1-800-826-5435 (within South Carolina only).

Sincerely,

Rodney L. Wilson, Hydrogeologist
Owner/Operator Assistance Section
Assessment and Corrective Action Division
Underground Storage Tank Program

enc: Tier I Assessment Document
Tier I Assessment Invoice (form #3665)
Monitoring Well Approval (copy)

cc: Southeastern Environmental, Inc., 323 Main Street, Conway, SC, 29526 (w/ enc)
Technical File (copy of Monitoring Well Approval)
Financial File
Daniel Todd, 1121 Fiminton Drive, Watkinsville, GA 30677

DHEC/UST/010130/rlw/05156.approval

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

MAR 0 2 2001

Monitoring Well Installation Approval Form

Date of Issue: December 20, 2000 Approval No.: 13528

Approval is hereby granted to:	Southeastern Environmental, Inc.
(On behalf of):	Homer Hucks
UST Permit #:	05156
County:	Horry

This approval is for the construction of three permanent monitoring wells in accordance with the South Carolina Well Standards and Regulations. The wells are to be constructed within the surficial aquifer for the intended purpose of monitoring ground-water quality and/or water level(s) at the referenced facility. Approval is provided with the following conditions:

1. The latitude and longitude, surveyed elevations, boring and/or geologist logs and actual (as built) construction details for each well will be submitted with the technical report.

2. Each well will be labeled with an identification plate constructed of a durable material affixed to the casing or surface pad where it is readily visible. The plate will provide monitoring well I.D.#, date of construction, static water level, and driller name and state certification #.

3. Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, development and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regard to contents, source, and date of activity.

4. A minimum of forty-eight (48) hours prior to initiation of drilling activities, please provide notice to Rodney Wilson at (803) 898-4327 or wilsonrl@columb26.dhec.state.sc.us.

5. Please provide ground-water quality analytical data (chemical analysis and/or water level(s)) and associated measurements (i.e., in-situ field measurements) to me with the technical report.

6. Monitoring wells and temporary monitoring wells will be installed by or under the direct supervision of a licensed well driller certified by the State of South Carolina.

7. Monitoring wells and temporary monitoring wells will be abandoned by or under the direct supervision of a licensed well driller certified by the State of South Carolina. Temporary monitoring wells shall not remain in place for longer than 30 days from the date of installation. Monitoring wells may be abandoned only upon concurrence by this Program.

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. Please remember to have a copy of this approval on the site during well installation.

Approved by: _____

Rodney L. Wilson, Hydrogeologist
Owner/Operator Assistance Section
Underground Storage Tank Program

cc: Waccamaw District EQC
Homer Hucks
Technical File

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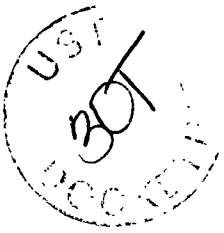
2600 Bull Street
Columbia, SC 29201-1708

UNDERGROUND STORAGE TANK PROGRAM
BUREAU OF LAND AND WASTE MANAGEMENT
2600 Bull Street, Columbia, SC 29201
Phone (803) 898-4350 Fax (803) 898-43308-4330



Homer Hucks
5720 Creekside Dr
Myrtle Beach, SC 29575

Re: 501 Amoco
UST Permit # 05156
Tier I Assessment Report Received July 13, 2001
Horry County

Dear Mr. Hucks:

The Underground Storage Tank (UST) Program has reviewed the referenced Tier I Assessment Report. Currently, the release reported on December 31, 1991 at the referenced site has a priority classification of 3BF. Therefore, State Underground Petroleum Environmental Response Bank (SUPERB) funds are available to implement the next necessary scope of work. The scope of work to be implemented is a **Tier II Assessment**.

Our records show that you have selected Southeastern Environmental, Inc. as the contractor to perform assessment activities at the site for the necessary scope of work. Please have your contractor complete and submit the enclosed Assessment Component Cost Proposal form and Tier II Assessment Plan form within thirty days of the date of this letter. Every component may not be necessary to complete the above scope of work. The SUPERB allowable cost for each component is included on the Assessment Component Cost Proposal form.

On all correspondence or inquiries regarding this project, please reference **UST Permit #05156**. If you have any questions, please feel free to contact me at (803) 898-4327 or 1 (800) 826-5435 (within South Carolina only).

Sincerely,

Rodney L. Wilson, Hydrogeologist
Owner/Operator Assistance Section
Assessment and Corrective Action Division
Underground Storage Tank Program

enc: Tier II Assessment Plan
Assessment Component Cost Proposal

cc: Southeastern Environmental, Inc., 323 Main Street, Conway, SC 29526 (w/ enc.)
Technical File
Daniel Todd, 1121 Simonton Drive, Watkinsville, GA 30677

DHEC/UST/010718/rlw/05156.req

Southeastern Environmental
323 Main Street
Conway, SC 29526

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JUL 13 2001
Underground Storage Tank Program

UST 32T

TIER ONE ASSESMENT REPORT

Hucks Plaza

1432 Highway 501
Myrtle Beach, South Carolina 29575

Site ID# 405156

Submitted to:
Bureau of Underground Storage Tank Management
South Carolina department of Health and Environmental Control
2600 Bull Street
Columbia South Carolina 29201

This report has been reviewed by:

Name Douglas D. Nelson 391 July 2, 2001
Registered Professional Geologist Registration # Date

Signature Douglas D Nelson July 2, 2001
Date

SCDHEC Certificate # 82

TIER ONE ASSESMENT REPORT OF FINDINGS
DIVISION OF UNDERGROUND STORAGE TANK MANAGEMENT

I. INTRODUCTION

A. Owner/Operator Information

Facility Name: Hucks Plaza UST Permit # 105156

Name: Hucks Plaza

Address: 1432 Highway 501, Myrtle Beach, S.C. 29575

Telephone Number:

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B. Property Owner Information

UST owner

Name: Homer Hucks

Address: 5720 Creekside Dr., Myrtle Beach, S.C. 29575

Telephone Number: (843) 236-8643

Property Owner
Daniel Todd
1121 Simonton Dr
Watkinsville, GA 30677

C. Contractor Information

Name: Bruce Newell, Southeastern Environmental, Inc.

Address: 323 Main Street, Conway, S.C. 29526

Telephone Number: (843) 248-3533

D. Site Information

Address: 1432 Highway 501, Myrtle Beach, S.C. 29575

Description of Adjacent Land Use (Commercial, residential, rural, etc.) Include documentation (e.g. zoning regulations) as appropriate.

Light commerce.

Predicted Future Land Use (including site and adjacent area):

Light commerce.

E. Site History

Date Release Reported to SCDHEC: December 31, 1991

Estimated Quantity of Product Released: Unknown

Cause of Release: Leaky tanks and piping suspected

UST #	Product	Date Installed	Currently in use	Date Removed
1	Gasoline	Unknown	No	Abandoned in place 10-15-99
2	Gasoline	Unknown	No	Abandoned in place 10-15-99
3	Gasoline	Unknown	No	Abandoned in place 10-15-99
4				
5				
6				
7				

Other releases at this site? Yes ☐ No ☒

If Yes, Date Release Reported to SCDEHEC:

Status of Release: Source and cause have been eliminated.

No Further Action Date: Pending.

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Underground Storage Tank Program

II. SITE CHARACTERISTICS

A. Site Geography

Describe the topography of the site and surrounding area (slope, vegetation, bodies of water, major land features, etc.)

The region surrounding the site is flat with little relief. Surface slope is indistinct within 1000 feet. Drainage toward the southeast is accomplished with surface ditches and storm drains. The vegetation is limited to grass and weed in small undeveloped strips to the north and the grass and shrub median to U.S. 501. There are no bodies of water within 1000 feet.

Mean Elevation of Site: Approximately 21 feet above sea level NGVD 1929.

Additional Comments:

B. Exposure Analysis

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

Description of Receptor	Distance/Direction from Site
Lakes, Ponds, streams, wetlands	None
Public, Private or Irrigation Wells	None reported
Underground Structures	None
Ditch	38 feet Northeast

Provide any additional comments necessary to complete the exposure analysis.

C. 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
Municipal Water Line		
Sanitary Sewer		
Storm Water Drain	38 Feet south with catchament basin	Unknown
Electrical Line	Between Building and Pump Island	
Communications Cable		

Additional Comments:

Location of underground utilities not detailed above could not be ascertained.

D. Site Geology

Provide a brief description of the regional geology and hydrogeology:

The site is in the lower Coastal Plain province. Mesozoic and most Tertiary Coastal Plain strata are gently inclined toward the coast. In the Myrtle Beach region, post depositional uplift along the Cape Fear Arch has created gradients toward the south. Surficial horizontal sediments of the lower Coastal Plain have been formed by multiple Pliocene and Pleistocene depositional events. Horry County exemplifies many coastal depositional features with localized post depositional erosion. Natural surface runoff from the site would be slow and directed toward the east. Slow surface runoff and evaporation would be the major hydrologic pathways as ground water slopes are low. Ground water recharge would be high in sandy sediments that extended to underlying Tertiary units.

Provide a brief description of the site specific geology and stratigraphy:

The surface materials are unweathered gray sand to clayey sandy. The U.S.D.A. soil survey places this site on the border between Centenary and Lakeville series soils. These soils are well drained rapidly permeable sandy Coastal Plain deposits in flat areas. These gray sandy surficial deposits become increasingly clayey below 3 feet. From about 5 below the surface, a partly oxidized clay extends to about 13 feet. Gray clay continues beyond the depth drilled. These clays are part of the Pleistocene Socastee Formation of unknown total thickness at this location. Typically, about 20 feet below the surface, Tertiary semi indurated arenaceous carbonates would be encountered. Cretaceous age rocks would be encountered at 50 to 70 feet. This site is not a significant aquifer recharge zone because of the low conductivity of the clayey Pleistocene deposits.

E. Soil Boring Data

Drilling Dates: April 20, 2001

Provide a brief justification for the location of the soil borings:

SB-1 Dispenser Island

SB-2 Dispenser Island

SB-3 Piping

SB-4 UST 1

SB-5 UST 2

SB-6 UST 3

SB-7 UST area

SB-8 Background

Standard Operating Procedures for Field Screening:

Eight soil borings were performed as field screening locations selected to evaluate the horizontal extent of hydrocarbon impact to the shallow ground water. The borings were performed to depths ranging from 20 to 25 feet. Samples were collected using stainless steel hand augers to retrieve soil samples at the desired depth. Saturated soil samples were collected in resealable plastic bags, using sterile procedures and vapors were analyzed using an organic vapor analyzer (OVA-FID). The samples exhibiting the highest OVA readings were put in sample jars provided by a SC certified laboratory, and put in an ice-packed cooler. The hand augers are then cleaned with a concentrated liquid soap, and sterilized with alcohol before moving onto the next soil boring. When the sampling procedure was completed, all of the bottled soil samples were packaged and sent (on ice) to a SC certified laboratory.

UST Area Borings

Borehole SB-4 Sampling date 04-20-01 Sample Depth 2.0 ft.

Split Spoon Interval (ft)	Field Screening Results (mg/kg)	Lithology (soil type, color, rocks/minerals present	Soil Conditions (dry, moist, etc; petroleum odor)
2.0 Ft	5000+	Gray fine sand 10YR 3/1	Strong gas odor

Borehole SB-5 Sampling date 04-20-01 Sample Depth 2.0 ft.

Split Spoon Interval (ft)	Field Screening Results (mg/kg)	Lithology (soil type, color, rocks/minerals present	Soil Conditions (dry, moist, etc; petroleum odor)
2.0 Ft	5000+	Gray fine sand 10YR 3/1	Strong gas odor

Borehole SB-6 Sampling date 04-20-01 Sample Depth 2.0 ft.

Split Spoon Interval (ft)	Field Screening Results (mg/kg)	Lithology (soil type, color, rocks/minerals present	Soil Conditions (dry, moist, etc; petroleum odor)
2.0 Ft	5000+	Tan fine sand 10YR 3/5	Strong gas odor

Borehole SB-7 Sampling date 04-20-01 Sample Depth 2.0 ft.

Split Spoon Interval (ft)	Field Screening Results (mg/kg)	Lithology (soil type, color, rocks/minerals present	Soil Conditions (dry, moist, etc; petroleum odor)
2.0 Ft	5000+	Gray fine – med. sand 10YR 3/1, 5/3	Strong gas odor

Piping and Dispenser Area Borings

Borehole SB-1 Sampling date 04-20-01 Sample Depth 2.0 ft.

Split Spoon Interval (ft)	Field Screening Results (mg/kg)	Lithology (soil type, color, rocks/minerals present	Soil Conditions (dry, moist, etc; petroleum odor)
2.0 Ft	5000+	Gray fine – med. sand 10YR 3/1	Strong gas odor

Borehole SB-2 Sampling date 04-20-01 Sample Depth 2.0 ft.

Split Spoon Interval (ft)	Field Screening Results (mg/kg)	Lithology (soil type, color, rocks/minerals present	Soil Conditions (dry, moist, etc; petroleum odor)
2.0 Ft	5000+	Brown/gray fine sand 10YR 3/1, 5/3	Strong gas odor

Piping and Dispenser Area Borings

Borehole SB-3 Sampling date 04-20-01 Sample Depth 2.0 ft.

Split Spoon Interval (ft)	Field Screening Results (mg/kg)	Lithology (soil type, color, rocks/minerals present	Soil Conditions (dry, moist, etc; petroleum odor)
2.0 Ft	5000+	Gray fine sand 10YR 3/1	Strong gas odor

Background Boring

Borehole SB-8 Sampling date 04-20-01 Sample Depth 2.0 ft.

Split Spoon Interval (ft)	Field Screening Results (mg/kg)	Lithology (soil type, color, rocks/minerals present	Soil Conditions (dry, moist, etc; petroleum odor)
2.0 Ft	1600	Dark gray sandy loam 10YR 3/1	Roots, 500ppm Methane

Enter the soil analytical data for each soil boring for all COC in the table below and on the following page. Enter the appropriate RBSL for the soil type from Tables B-3, G-4 and B-6 in SCDHEC Risk-Based Corrective Action (RBCA) for Petroleum Releases Guidance Document.

COC mg/kg	RBSL	SB-1	SB-2	SB-3	SB-4	SB-5	SB-6	SB-7	SB-8
Benzene	0.005	0.146	0.0251	0.0134	2.010	0.964	BDL	BDL	0.0114
Toluene	0.478	6.990	0.101	0.0601	51.600	29.600	25.000	BDL	0.0650
Ethylbenzene	0.364	5.740	0.507	0.181	7.790	6.420	5.400	BDL	0.0255
Xylenes	11.119	45.900	0.665	0.0724	74.800	73.000	38.500	BDL	0.1397
Total BTEX		58.630	1.2981	0.3269	136.20	109.98	68.900	BDL	0.2416
Naphthalene	0.052	8.700	3.600	5.030	8.190	9.840	7.920	BDL	BDL
Benzo(a)anthracene	17.687	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(b)flouranthene	7.042	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Benzo(k)flouranthene	55.93	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Chrysene	3.146	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Dibenz(a,h)anthracene	21.265	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
TPH (EPA 3550)	N/A				146				
TOC (Background SB)	N/A								5970

RBSL for clay soil < 5 feet from worst case soil sample to ground water.

Discuss the horizontal and vertical extent of COC in the soil.

The entire area sampled has values of one or more CoC above the RBSL. The highest values are at the south end of the dispenser island and the three borings nearest the UST's. The sandy surface sediments may be contributing to the lateral migration more than the slug test results would suggest. Vertical extent of CoC in the soil can not be determined from these uniformly shallow (2 feet) soil samples.

Additional Comments:

Chemical analysis from soil boring #7 does not match the driller's field description and field measurements.

F. Chemicals of Concern – Ground Water

Provide well installation information in the table below.

MW #	Installation Date	Development Date	Sampling Date
MW-1	April 23, 2001	April 27, 2001	April 27, 2001
MW-2	April 23, 2001	April 27, 2001	April 27, 2001
MW-3	April 23, 2001	April 27, 2001	April 27, 2001

Table II F-2. Soil analytical data for each monitoring well for all COC.

COC (mg/kg)	RBSL	MW-1	MW-2	MW-3	
Depth of Sample (feet)		2.0 feet	2.0 feet	2.0 feet	
Benzene	0.005	0.0282	BDL	0.0411	
Toluene	0.478	0.00706	BDL	0.142	
Ethylbenzene	0.364	0.0146	BDL	0.113	
Xylenes	11.119	0.0415	BDL	0.3027	
Total BTEX		0.22276	BDL	0.5988	
Naphthalene	0.052	0.00864	BDL	0.0189	
Benzo(a)anthracene	17.687	BDL	BDL	BDL	
Benzo(b)fluranthene	7.042	BDL	BDL	BDL	
Benzo(k)fluranthene	55.93	BDL	BDL	BDL	
Chrysene	3.146	BDL	BDL	BDL	
Dibenzo(a,h)anthracene	21.265	BDL	BDL	BDL	
Lead	N/A				
EDB	N/A				

DETECTION LIMITS

5 µg/L



Summarize the monitoring well and ground-water data in the table below.

MW#	TOC Elevation (ft*)	Screened Interval (ft)	Depth to Water (ft)	Water Table Elevation (ft)
MW-1	20.87	4-14	6.08	14.79
MW-2	21.44	4-14	6.65	14.79
MW-3	21.44	4-14	6.18	15.26

*Elevations are referenced to NGVD 1929

Enter field data measurements (temperature, pH, conductivity) taken during well purging on the form provided. Complete for each well.

Enter dissolved oxygen measurements for each well in the table below.

	MW-1	MW-2	MW-3	
Dissolved Oxygen (ml/l)	5.1	5.3	3.3	

Enter the ground water analytical data for each monitoring well for all CoC in the table below. If free product is present, indicate the measured thickness to the nearest 0.01 feet.

COC (ug/l)	RBSL	MW-1	MW-2	MW-3	
Free Product Thickness	None	None	None	None	
Benzene	5	519	BDL	8410	
Toluene	1000	537	112000	35100	
Ethylbenzene	700	118	1560	1090	
Xylenes	10,000	478	7170	5240	
Total BTEX	N/A	1652	120730	49840	
MTBE	40	BDL	44.5	366	
Naphthalene	25	BDL	165	154	
Benzo(a)anthracene	10	BDL	BDL	BDL	
Benzo(b)fluranthene	10	BDL	BDL	BDL	
Benzo(k)fluranthene	10	BDL	BDL	BDL	
Chrysene	10	BDL	BDL	BDL	
Dibenzo(a,h)anthracene	10	BDL	BDL	BDL	
Ferrous Iron mg/L	N/A	1.6	BDL	0.8	
Lead mg/L	Site Specific	0.014	0.020	0.017	
Nitrates mg/L	N/A	1.87	0.66	0.5	
Sulfates mg/L	N/A	9.85	15.6	9.5	

Additional Comments:

G. Aquifer Characteristics

Hydraulic Conductivity 1.18×10^{-6} ft/sec by the Bouwer and Rice slug test method.

Hydraulic Gradient 0.00646 (34.09 ft/mi.) down toward 125.8 degrees magnetic (South East)

Porosity 0.20

Estimated Seepage Velocity 1.20 ft/yr.

Complete the slug test form and include in Appendix D of the report. Include all data, graphs, and equations used to derive the aquifer characteristics and hydrologic parameters (hydraulic conductivity, seepage velocity, hydraulic gradient, etc.) in Appendix D.

III Tier 1 Evaluation

A. Current Land Use

Identify any potential receptors or human exposure pathways (e.g. basements, contaminated soils from UST closures, etc.) within a 1000-foot radius for current land use.

Media (for Exposure)	Exposure Route	Pathway Selected for Evaluation	Exposure point or Reason for Non-Selection	Data Requirements
Air	Inhalation	No	Contaminated area is paved.	
	Explosion Hazard	No		
Ground-Water	Ingestion	No	No ground water is withdrawn from the contaminated area.	
	Dermal Contact	No		
	Volatile Inhalation	No		
Surface Water	Ingestion	No	Contaminated area is paved.	
	Dermal Contact	No		
	Volatile Inhalation	No		
Surficial Soil	Ingestion	No		Determine the extent of CoC contamination in the soil. Determine the extent of CoC contamination in the ground water.
	Dermal contact	No		
	Volatile Inhalation	No		
	Leaching to Ground-water	Yes		
Subsurface Soil	Ingestion	No		Determine the extent of CoC contamination in the soil. Determine the extent of CoC contamination in the ground water.
	Dermal Contact	No		
	Volatile Inhalation	No		
	Leaching to Ground-water	Yes		

B. Future Land Use

Identify any potential receptors or human exposure pathways (e.g. basements, contaminated soils from UST closures, etc.) within a 1000-foot radius for current land use.

Media (for Exposure)	Exposure Route	Pathway Selected for Evaluation	Exposure point or Reason for Non-Selection	Data Requirements
Air	Inhalation	No	Contaminated area is paved.	
	Explosion Hazard	No		
Ground-Water	Ingestion	No	No ground water is withdrawn from the contaminated area.	
	Dermal Contact	No		
	Volatile Inhalation	No		
Surface Water	Ingestion	No	Contaminated area is paved.	
	Dermal Contact	No		
	Volatile Inhalation	No		
Surficial Soil	Ingestion	No		Determine the extent of CoC contamination in the soil. Determine the extent of CoC contamination in the ground water.
	Dermal contact	No		
	Volatile Inhalation	No		
	Leaching to Ground-water	Yes		
Subsurface Soil	Ingestion	No		Determine the extent of CoC contamination in the soil. Determine the extent of CoC contamination in the ground water.
	Dermal Contact	No		
	Volatile Inhalation	No		
	Leaching to Ground-water	Yes		

Recommendations for further action:

1 Determine the aerial extent of contaminated soil by expanding the extent of soil borings.

2 Determine the aerial and vertical extent of contaminated ground water through installation and sampling of additional monitoring wells. These wells should be sampled for water table elevation and CoC in the ground water and soils. One soil sample from just below the water table in a highly contaminated areas should be taken and analyzed for CoC. At least one telescoping well should be installed and sampled.

Maps and Figures

A. Figures

Figure 1 - Topographic Map

Figure 2 - Scaled Site Location Map

Figure 3 - Surveyed Site Map

Figure 4 - Soil CoC Site Map

Figure 5 - Ground Water CoC Site Map

B. Appendices

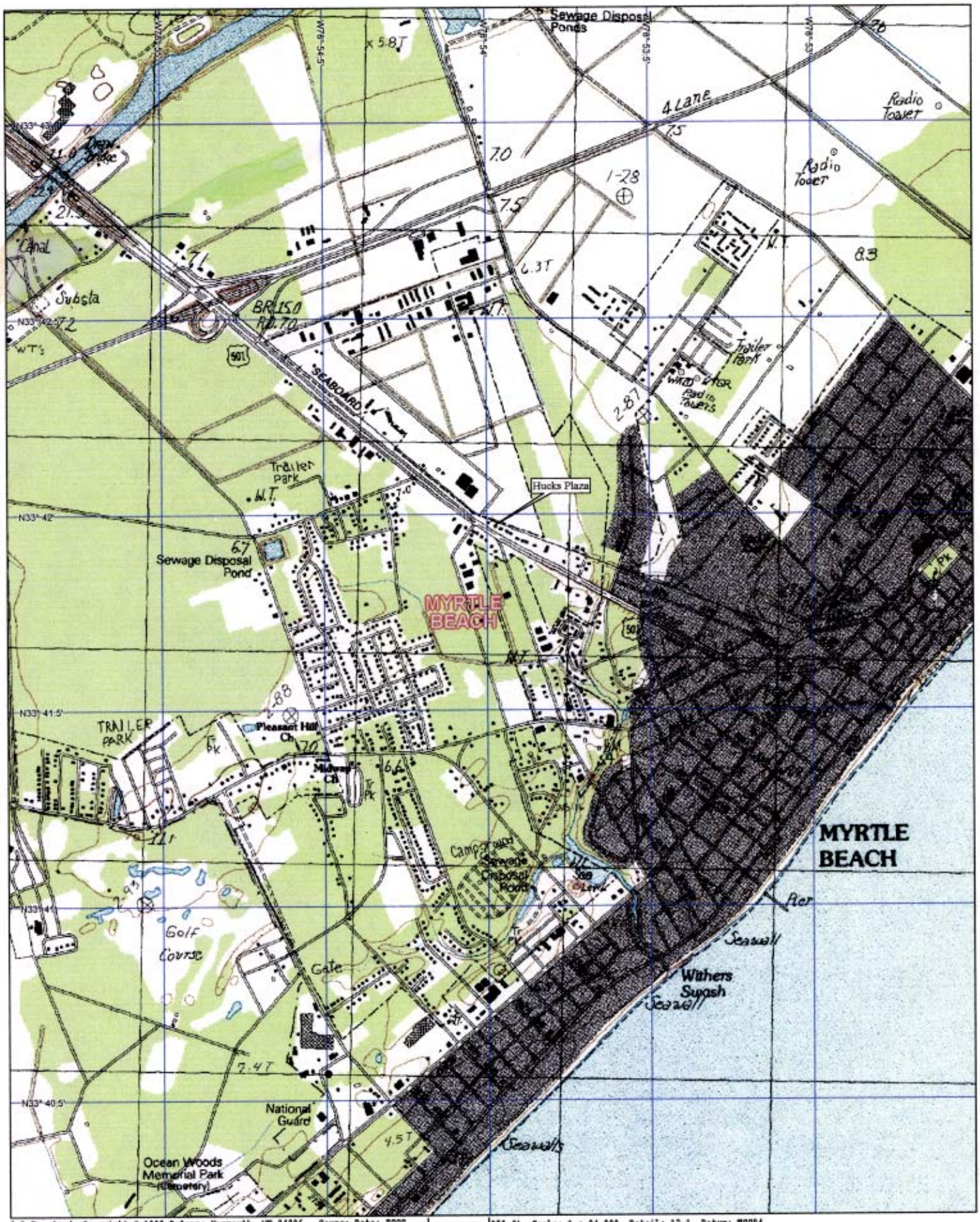
Appendix A - Soil Boring Logs

Appendix B - Monitoring Well Construction Logs

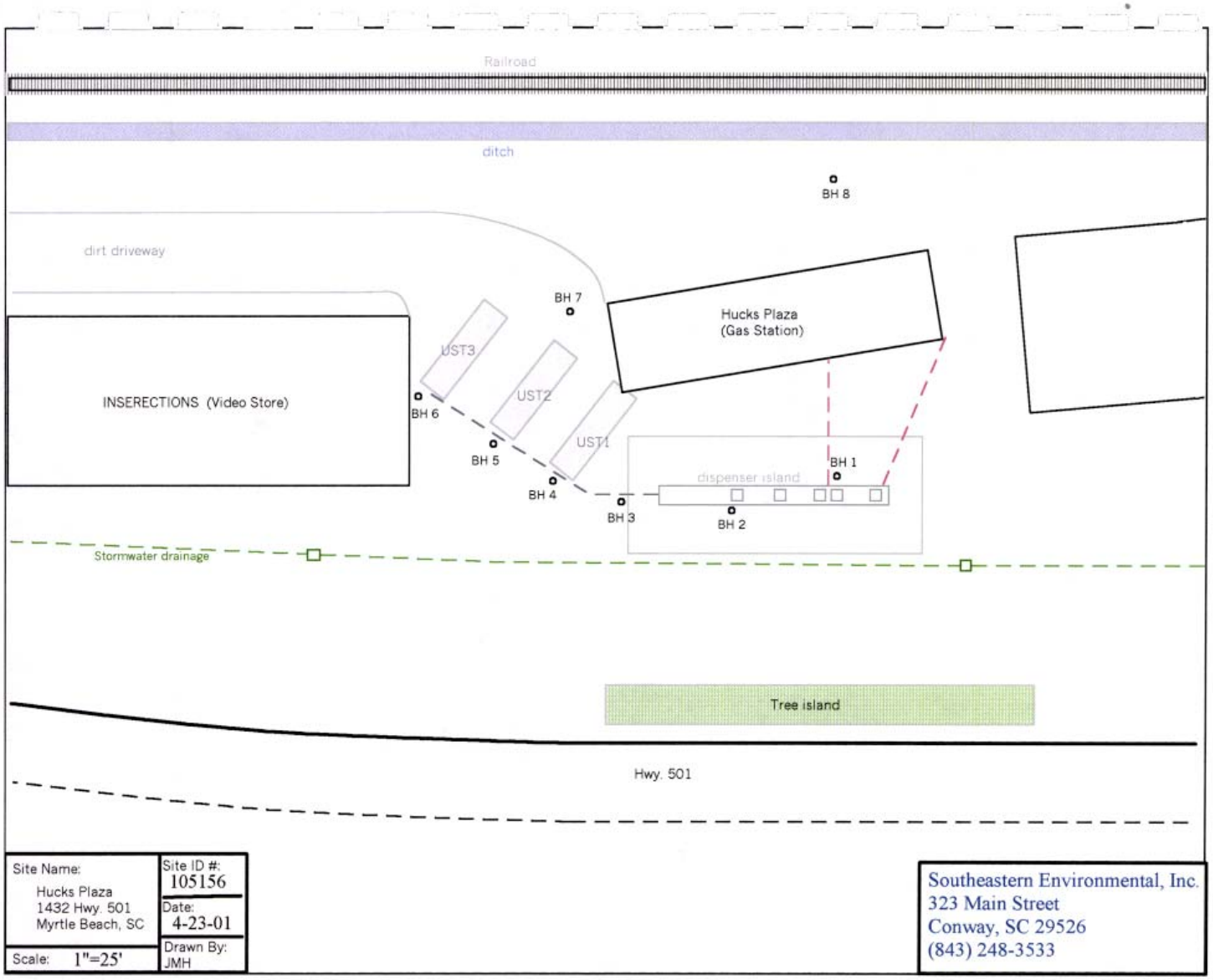
Appendix C - Laboratory Data

Appendix D - Aquifer Calculations

Appendix E - Soil and water disposal manifests

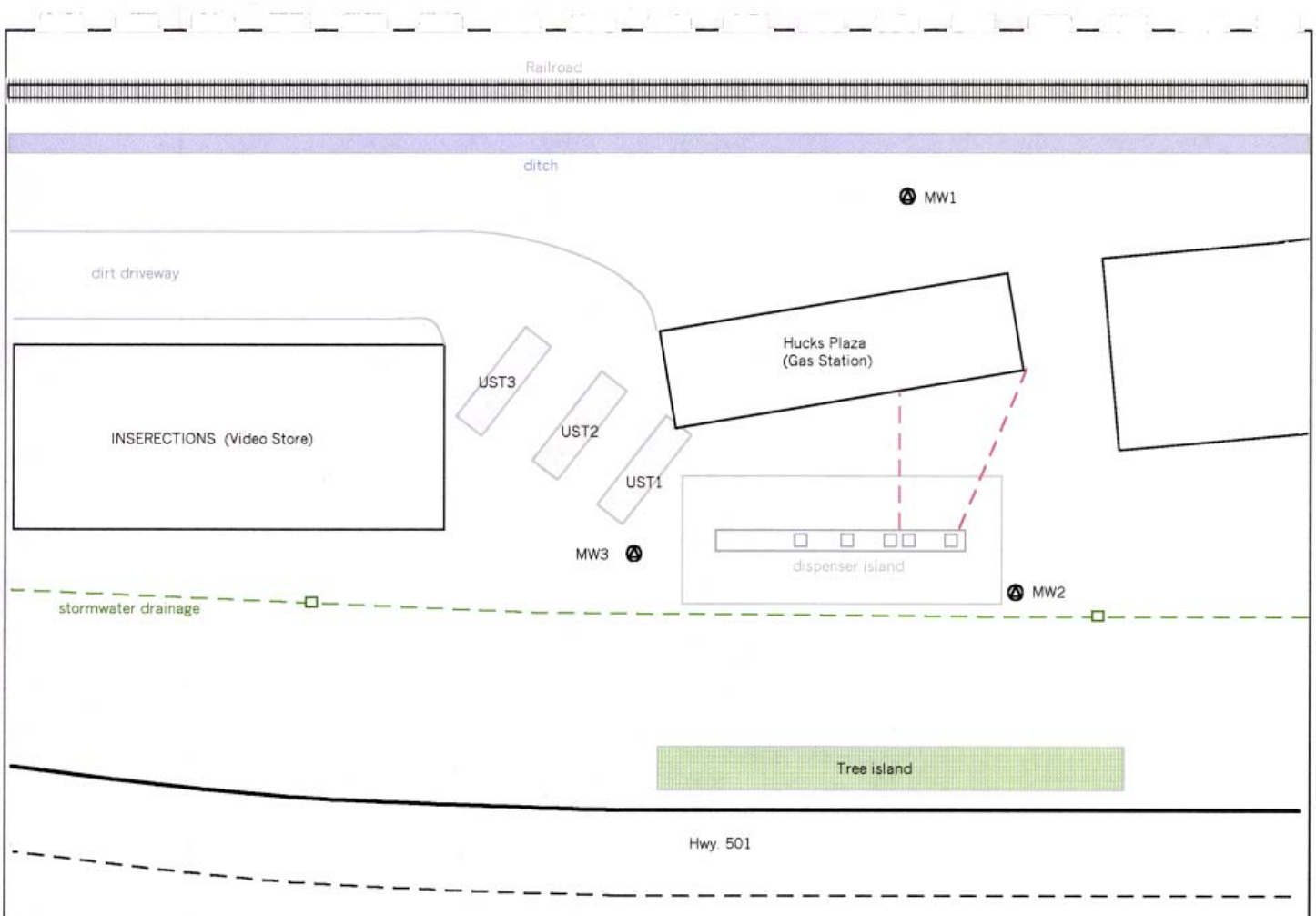


3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS 950 ft Scale: 1 : 24,000 Detail: 13-1 Datum: WGS84



Site Name: Hucks Plaza 1432 Hwy. 501 Myrtle Beach, SC	Site ID #: 105156
	Date: 4-23-01
Scale: 1"=25'	Drawn By: JMH

Southeastern Environmental, Inc.
323 Main Street
Conway, SC 29526
(843) 248-3533



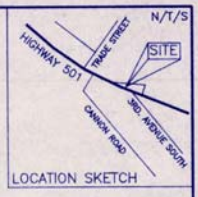
Site Name: Hucks Plaza 1432 Hwy. 501 Myrtle Beach, SC	Site ID #: 105156
	Date: 4-23-01
Scale: 1"=25'	Drawn By: JMH

Southeastern Environmental, Inc.
323 Main Street
Conway, SC 29526
(843) 248-3533

MAP of
"HUCKS PLAZA"
MYRTLE BEACH, HORRY COUNTY, S. C.

SCALE: 1"= 30' MAY 29, 2001

HESTER LAND SURVEYING COMPANY INC.
726 8TH. AVENUE NORTH MYRTLE BEACH S.C. 29577
PHONE (843) 448-4133 FAX (843) 946-9271

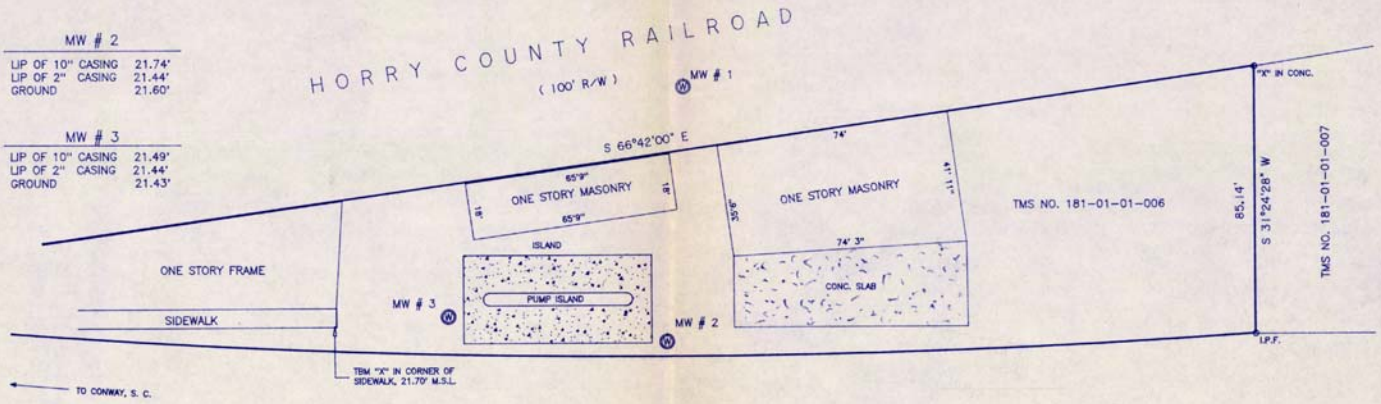


LOCATION SKETCH

MW # 1	
LIP OF 10" CASING	21.26'
LIP OF 2" CASING	20.87'
GROUND	21.19'

MW # 2	
LIP OF 10" CASING	21.74'
LIP OF 2" CASING	21.44'
GROUND	21.60'

MW # 3	
LIP OF 10" CASING	21.49'
LIP OF 2" CASING	21.44'
GROUND	21.43'

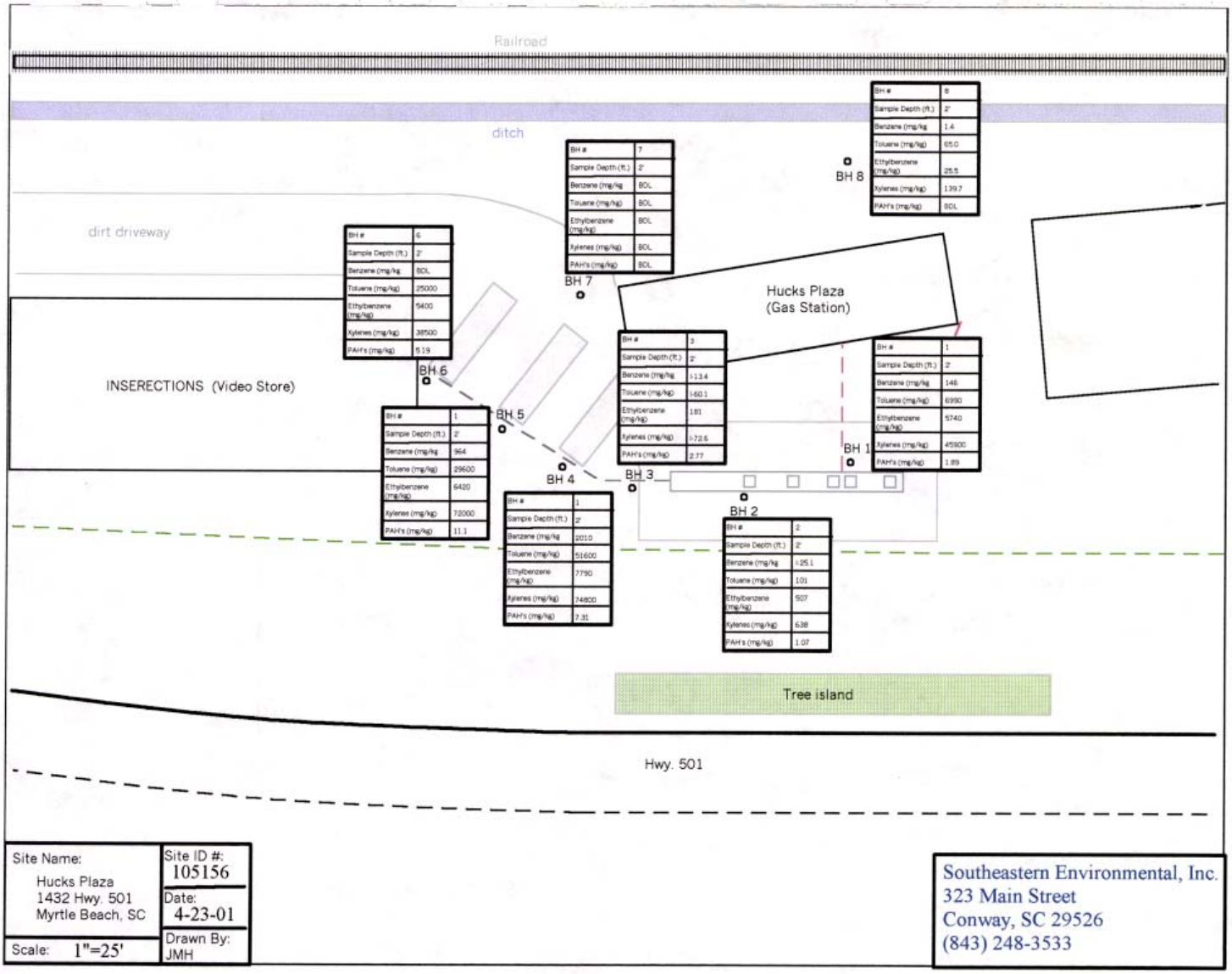


HIGHWAY NO. 501

PROJECT NO. 11940
FILE: HUCKS-P

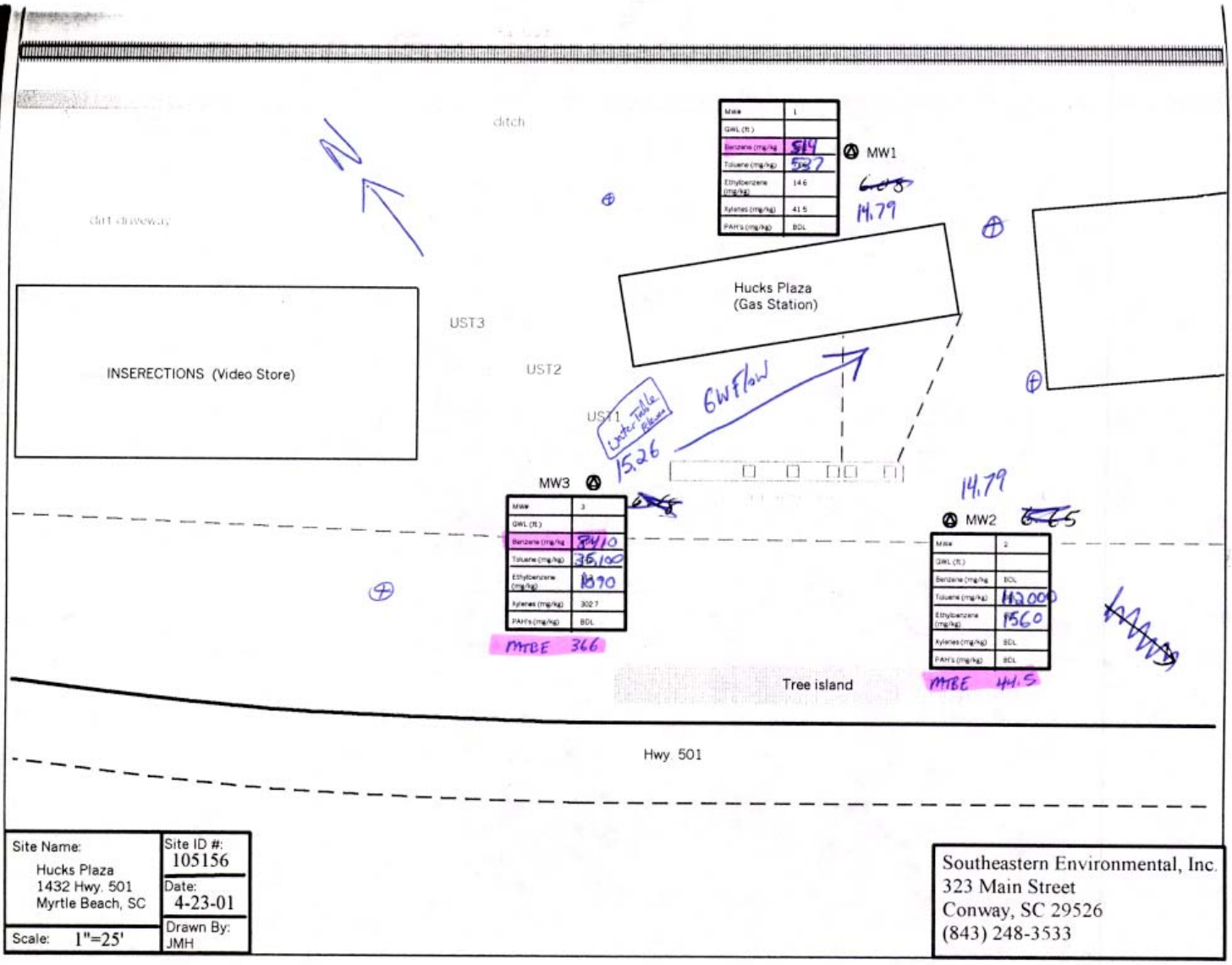
30 0 30 60 90
GRAPHIC SCALE – FEET

L. J. (ALEX) HESTER, P. L. S., LIC. NO. 3321



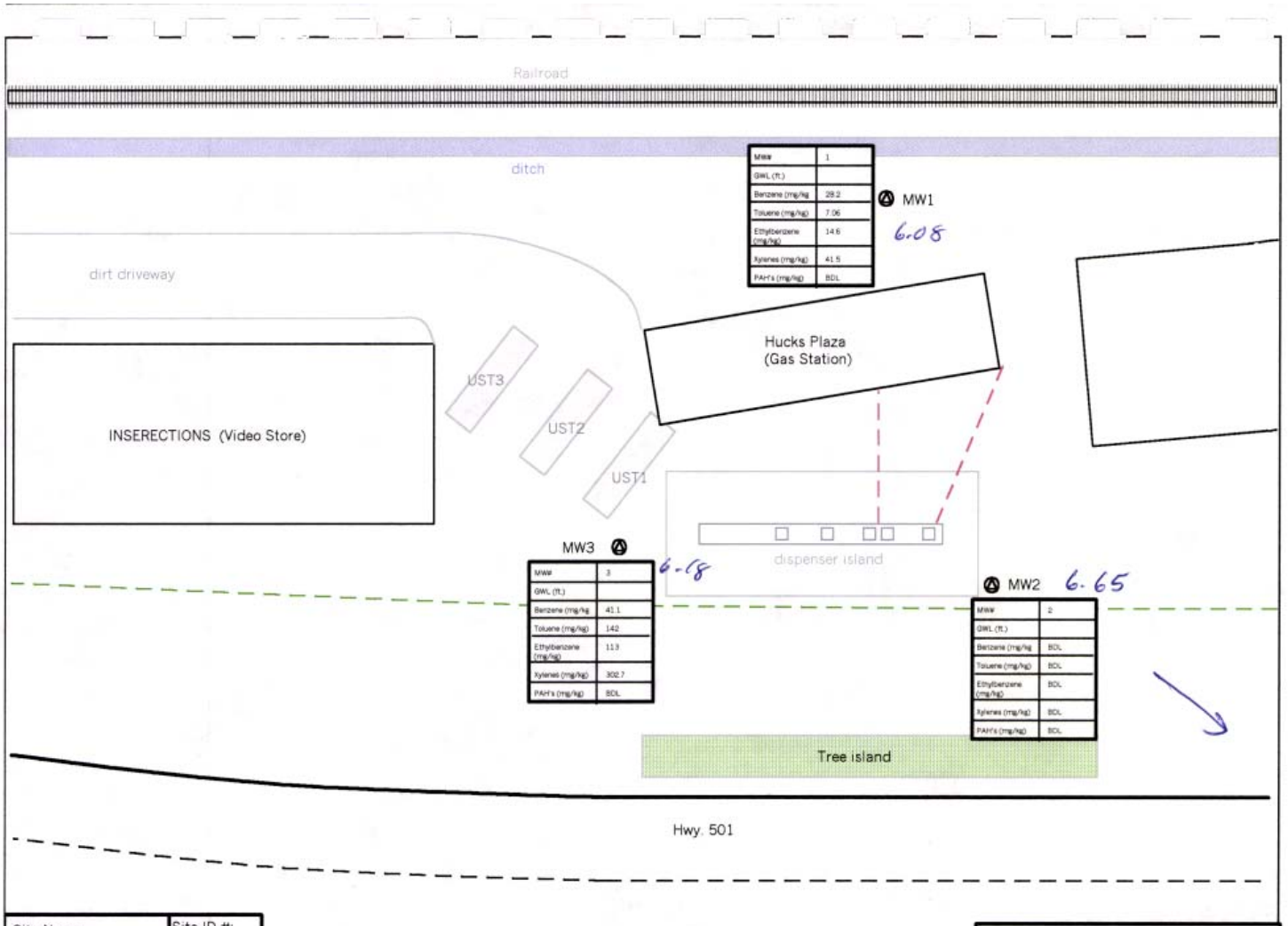
Site Name: Hucks Plaza 1432 Hwy. 501 Myrtle Beach, SC	Site ID #: 105156
	Date: 4-23-01
Scale: 1"=25'	Drawn By: JMH

Southeastern Environmental, Inc.
323 Main Street
Conway, SC 29526
(843) 248-3533



Site Name: Hucks Plaza 1432 Hwy. 501 Myrtle Beach, SC	Site ID #: 105156
Scale: 1"=25'	Date: 4-23-01
	Drawn By: JMH

Southeastern Environmental, Inc.
323 Main Street
Conway, SC 29526
(843) 248-3533



MW#	1
GWL (ft.)	
Benzene (mg/kg)	28.2
Toluene (mg/kg)	7.06
Ethylbenzene (mg/kg)	14.6
Xylenes (mg/kg)	41.5
PAH's (mg/kg)	BDL

MW#	3
GWL (ft.)	
Benzene (mg/kg	41.1
Toluene (mg/kg)	142
Ethylbenzene (mg/kg)	113
Xylenes (mg/kg)	302.7
PAH's (mg/kg)	BDL

MW#	2
GWL (ft.)	
Benzene (mg/kg	BDL
Toluene (mg/kg)	BDL
Ethylbenzene (mg/kg)	BDL
Xylenes (mg/kg)	BDL
PAH's (mg/kg)	BDL

Site Name: Hucks Plaza 1432 Hwy. 501 Myrtle Beach, SC	Site ID #: 105156
	Date: 4-23-01
Scale: 1"=25'	Drawn By: JMH

Southeastern Environmental, Inc.
323 Main Street
Conway, SC 29526
(843) 248-3533

Southeastern Environmental, INC.

HAND AUGER / SOIL BORING LOG

Job Location: Hucks Plaza

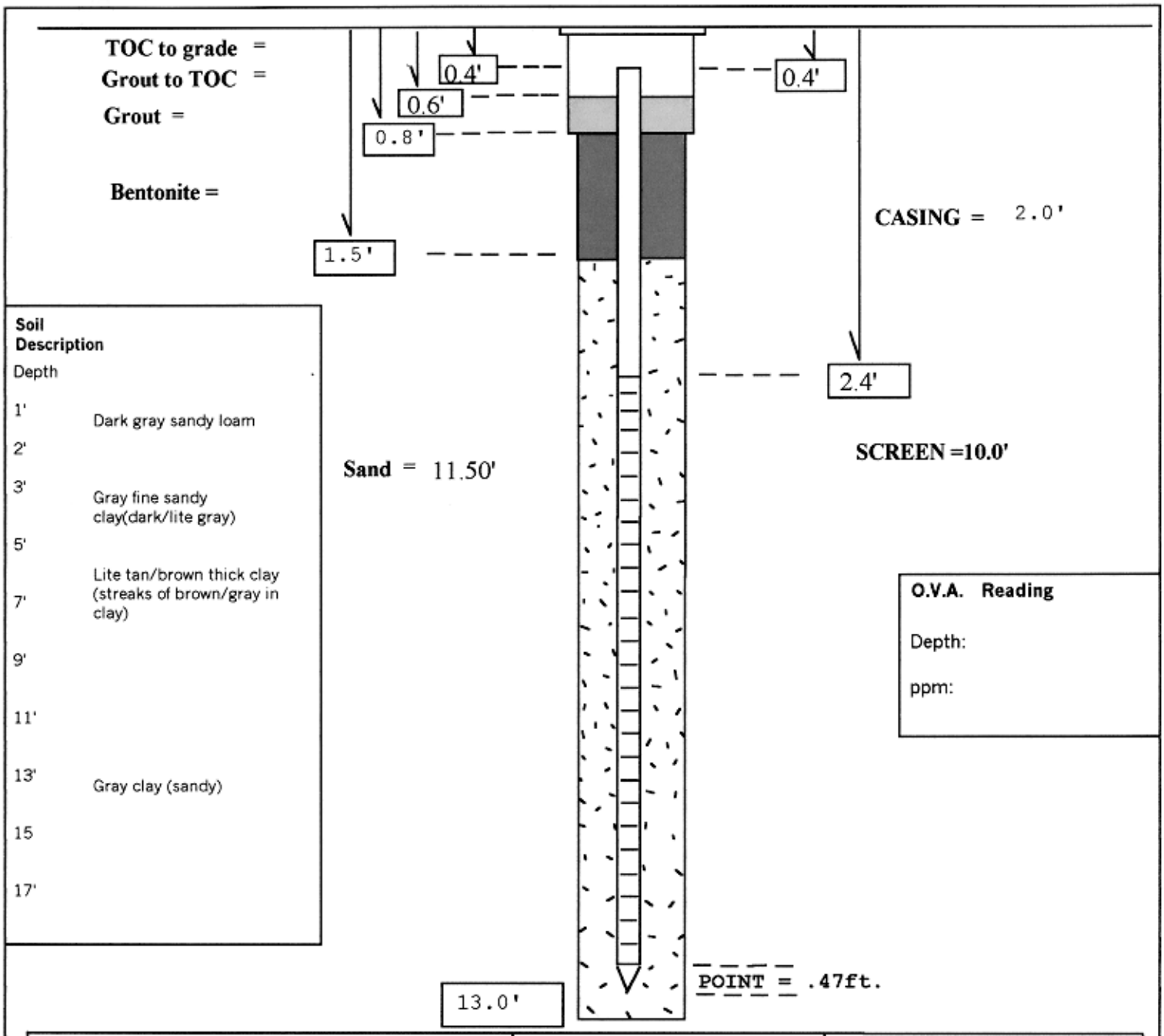
Date: 4-20-01

Water Table: 2.5-3.0'

Samples Taken By: JH, EH, CP

Job Type: Tier I

Bore Hole	Sample Depth (ft.)	OVA (ppm)	Soil Description	Muncell Type	Comments	Time
1	2'	5000+	Gray fine-med. sand	10YR 3/1	Strong gas odor	
2	2'	5000+	Brown/gray fine sand	10YR 3/1 10YR 5/3	Strong gas odor	
3	2'	5000+	Gray fine sand	10YR 3/1	Strong gas odor	
4	2'	5000+	Gray fine sand	10YR 3/1	Strong gas odor	
5	2'	5000+	Dark gray fine sand	10YR 3/1	Strong gas odor	
6	2'	5000+	Tan fine sand	10YR 3/5	Strong gas odor	
7	2'	5000+	Gray fine-med. Sand	10YR 3/1 10YR 5/3	Strong gas odor	
8	2'	1600	Dark gray sandy loam	10YR 3/1	Roots, 500ppm methane	



Soil Description Depth	
1'	Dark gray sandy loam
2'	
3'	Gray fine sandy clay(dark/lite gray)
5'	
7'	Lite tan/brown thick clay (streaks of brown/gray in clay)
9'	
11'	
13'	Gray clay (sandy)
15	
17'	

O.V.A. Reading

Depth:

ppm:

SOUTHEASTERN ENVIRONMENTAL	**Driller:** ERH/JMH/CP	**Driller Lic.#: 880**
Client: Hucks Plaza	**Location:** 1102 Third Ave. South	
Date: 4-23-01	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 12.87'
Well # : MW-1	**Receptors/comments:** Back ground well	

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL: MW-1
County: Horry System Name: Hucks Plaza
Latitude: Longitude:
Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

SEE ATTached sheet

2. CUTTING SAMPLES: ☐ Yes ☐ No

Geophysical Logs: ☐ Yes (please enclose) ☐ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTached sheet		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:

4. OWNER OF WELL: Hucks Plaza
Address: 1102 Third Ave. South Myrtle Beach, SC.
Telephone No.:

Engineer: Bruce G. Newell
Address: 323 Main St. Conway, S.C. 29526
Telephone No.: 843-248-3533

5. WELL DEPTH (completed) 12.87 ft. Date Started: 4-23-01 Date Completed: 4-23-01

6. ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply–Permit No. ____ ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☐ Test Well ☒ Monitor Well ☐ ____

8. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0.4' in. to 2.4' ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 2.4' ft. and 12.4' ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

10. STATIC WATER LEVEL
____ ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

12. WATER QUALITY
Chemical Analysis ☒ Yes ☐ No Bacterial Analysis ☐ Yes ☒ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☒ Yes ☐ No
Installed from 1.5' ft. to 13.0' ft.
Effective size ____ Uniformity Coefficient ____

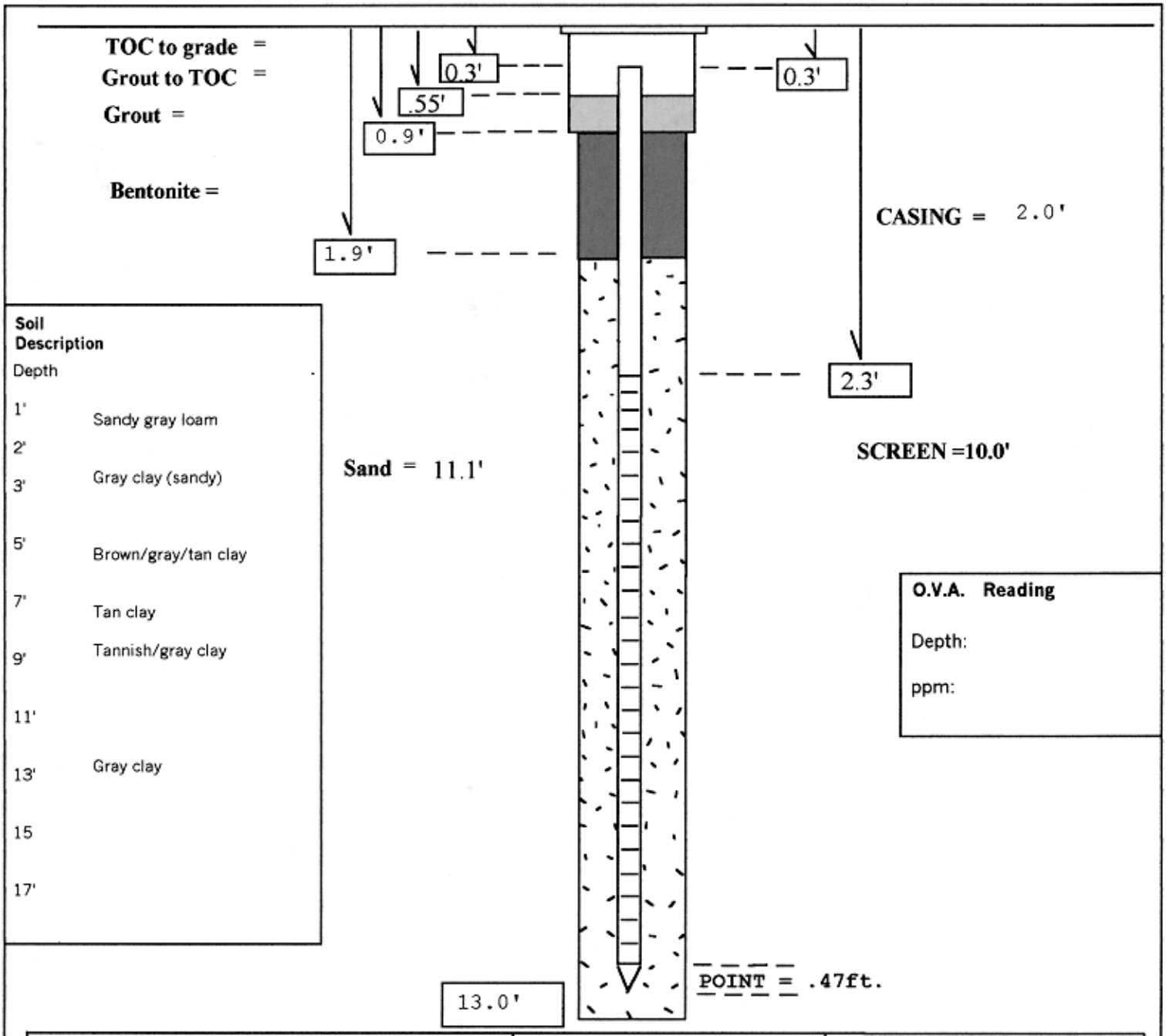
14. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☐ Concrete ☒ Other Bentonite
Depth: From 0.8' ft. to 1.5' ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction ____
Type well disinfected ☐ Yes Type: ____
upon completion ☐ No Amount: ____

16. 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

17. 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.
Registered Business Name: SEI Date: 5-4-01
Address: 323 Main St. Conway, S.C. 29526
Signed: ____ Cert. No.: 880
Authorized Representative

EC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)



SOUTHEASTERN ENVIRONMENTAL	**Driller:** EH/JH/CP	**Driller Lic.#: 880**
Client: Hucks Plaza	**Location:** 1102 Third Ave. South	
Date: 4-23-01	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 12.77'
Well # : MW-2	**Receptors/comments:** Down flow well	

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL: MW-2
County: Horry System Name: Hucks PLAZA
Latitude: Longitude:
Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

SEE ATTACHED SHEET

2. CUTTING SAMPLES: ☐ Yes ☐ No

Geophysical Logs: ☐ Yes (please enclose) ☐ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
SEE ATTACHED SHEET		

*Indicate Water Bearing Zones

(Use a 2nd sheet if needed)

3. REMARKS:

4. OWNER OF WELL: Hucks PLAZA
Address: 1102 Third Ave. South Myrtle Beach, SC.
Telephone No.:

Engineer: Bruce G. Newell
Address: 323 Main St. Conway, S.C. 29526
Telephone No.: 843-248-3533

5. WELL DEPTH (completed) 12.77' ft. Date Started: 4-23-01 Date Completed: 4-23-01

6. ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE: ☐ Domestic ☐ Public Supply–Permit No. ☐ Industry ☐ Irrigation ☐ Air Conditioning ☐ Commercial ☐ Test Well ☒ Monitor Well ☐

8. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0.3' in. to 2.3' ft. depth
in. to ft. depth
Height: Above/Below Surface ft.
Weight lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 2.3' ft. and 12.3' ft.
ft. and ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

10. STATIC WATER LEVEL
ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
ft. after hrs. Pumping G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield:

12. WATER QUALITY
Chemical Analysis ☒ Yes ☐ No Bacterial Analysis ☐ Yes ☒ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☒ Yes ☐ No
Installed from 1.9' ft. to 13.0' ft.
Effective size Uniformity Coefficient

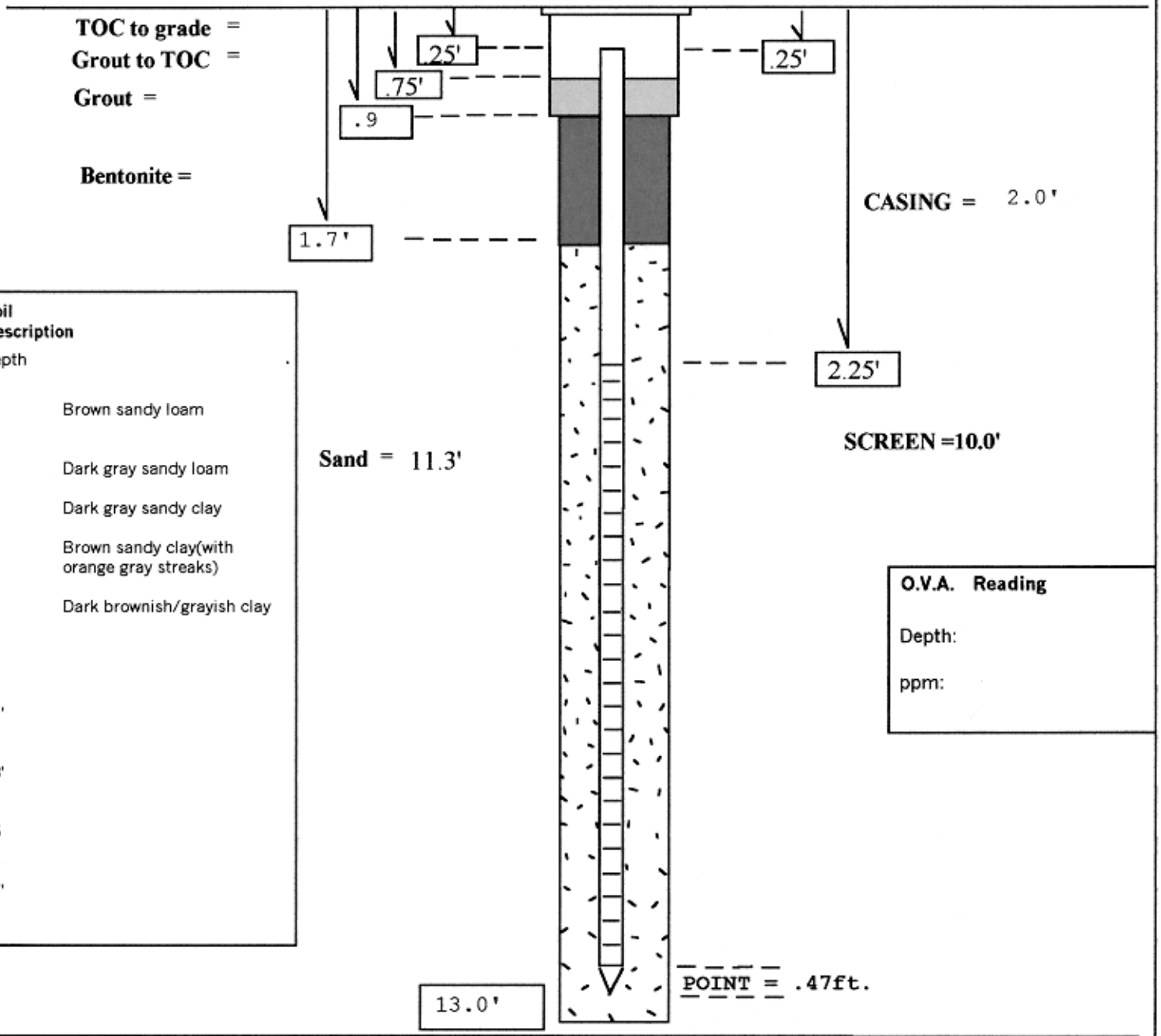
14. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☐ Concrete ☒ Other Bentonite
Depth: From 0.9' ft. to 1.9' ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ft. direction
Type well disinfected ☐ Yes Type:
upon completion ☐ No Amount:

16. 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

17. 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.
Registered Business Name: SEI Date: 5-4-01
Address: 323 Main St. Conway, S.C. 29526
Signed: Authorized Representative Cert. No.: 880

IEC 1903 (10/96) COPY 1 MAIL TO: S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (ADDRESS ABOVE)



SOUTHEASTERN ENVIRONMENTAL	**Driller:** EH/CP/JH	**Driller Lic.#: 880**
Client: Hucks Plaza	**Location:** 1102 Third Ave. South	
Date: 4-23-01	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 12.72'
Well # : MW-3	**Receptors/comments:**	

DHEC
PROMOTE PROTECT PROSPER

Water Well Record
Bureau of Water
2600 Bull Street, Columbia, SC 29201-1708; (803) 734-5300

1. LOCATION OF WELL: MW-3
County: Horry
System Name: Hucks Plaza
Latitude:
Longitude:
Distance and Direction from Road Intersections:

Street Address & City of Well Location:

Sketch Map:

SEE ATTached sheet

2. CUTTING SAMPLES: ☐ Yes ☐ No

Geophysical Logs: ☐ Yes (please enclose) ☐ No

Formation Description	*Thickness of Stratum	Depth to Bottom of Stratum
See Attached sheet		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

3. REMARKS:

4. OWNER OF WELL: Hucks Plaza
Address: 1102 Third Ave. South Myrtle Beach, SC.
Telephone No.:

Engineer: Bruce G. Newell
Address: 323 Main St. Conway, S.C. 29526
Telephone No.: 843-248-3533

5. WELL DEPTH (completed) 12.72' ft. Date Started: 4-23-01 Date Completed: 4-23-01

6. ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. USE:
☐ Domestic ☐ Public Supply–Permit No. ____ ☐ Industry
☐ Irrigation ☐ Air Conditioning ☐ Commercial
☐ Test Well ☒ Monitor Well ☐ ____

8. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
.25' in. to 2.25' ft. depth
____ in. to ____ ft. depth
Height: Above/Below Surface ____ ft.
Weight ____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

9. SCREEN
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 2.25' ft. and 12.25' ft.
____ ft. and ____ ft.
NOTE: MULTIPLE SCREENS USE SECOND SHEET
Sieve Analysis ☐ Yes (please enclose) ☐ No

10. STATIC WATER LEVEL
____ ft. below land surface after 24 hours

11. PUMPING LEVEL Below Land Surface.
____ ft. after ____ hrs. Pumping ____ G.P.M.
Pumping Test: ☐ Yes (please enclose) ☐ No
Yield: ____

12. WATER QUALITY
Chemical Analysis ☒ Yes ☐ No Bacterial Analysis ☐ Yes ☒ No
Please enclose lab results.

13. ARTIFICIAL FILTER (gravel pack) ☒ Yes ☐ No
Installed from 1.7' ft. to 13.0' ft.
Effective size ____ Uniformity Coefficient ____

14. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☐ Sand Cement ☐ Concrete ☒ Other Bentonite
Depth: From 0.9' ft. to 1.7' ft.

15. NEAREST SOURCE OF POSSIBLE CONTAMINATION: ____ ft. ____ direction
____ Type well disinfected ☐ Yes Type: ____
upon completion ☐ No Amount: ____

16. 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

17. 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.
Registered Business Name: SEI Date: 5-4-01
Address: 323 Main St. Conway, S.C. 29526
Signed: ____ Cert. No.: 880
Authorized Representative

Access Analytical - Chain of Custody Record

Project Submission #: 01/4-1158 OLD# 163509 / 163516

PO #:

Company Name: Southeastern Environmental, Inc.

Address: 323 Main Street

City: Conway State: SC Zip: 29526

Project Name: Hucks Plaza

Report To: Bruce G. Newell

REQUESTED LAB ANALYSIS:

ACCESS ANALYTICAL, INC.

1248 Lake Murray Blvd.
Irmo, SC 29063

Phone: (803) 781-4243
Fax: 781-4303
Toll Free (888) 315-4243

Sample Label	Date Collected	Time Collected	Matr	# of Cont	PARAMETER	BTEX	Naphthalene	PAH	TPH	TOC			NOTES / COMMENTS
BH 1	4-20-01		S	3		✓	✓	✓		163509			2' 5000+ ppm
BH 2	↓		↓	↓		✓	✓	✓		163510			2' 5000+ ppm
BH 3						✓	✓	✓		163511			2' 5000+ ppm
BH 4						✓	✓	✓	✓	163512			2' 5000+ ppm
BH 5						✓	✓	✓		163513			2' 5000+ ppm
BH 6						✓	✓	✓		163514			2' 5000+ ppm
BH 7						✓	✓	✓		163515			2' 5000+ ppm
BH 8	↓		↓	↓		✓	✓	✓		✓ 163516			background = 1600 roots 2'

As per Client TPH By SCDRC [illegible] 4/24/01

Turnaround Time Requested:	Samples Recd. on Ice?	Project Location:	Relinquished By:	Date:	Time:	Received By:
✓ Std. (5-7 Bus. days)	Yes	✓ SC	Jared Hendrix	4-20-01	4/23/01	[illegible] 1000
RUSH*	No	NC				
*Date Required:		Other (specify)				

Original Copy - Returned w/Report
Yellow Copy - Access Analytical Copy
Pink Copy - Client Copy

Pg____of____

Access Analytical, Inc.

Access Analytical - Chain of Custody Record

Project Submission #: 01A-1537 ORDER 166345/166347 PO #:

Company Name: Southeastern Environmental

Address: 323 Main Street

City: Conway State: SC Zip: 29526

Project Name: Hucks Plaza

Report To: Bruce G Newell

REQUESTED LAB ANALYSIS:

Sample Label	Date Collected	Time Collected	Matr	# of Cont	PARAMETER: BTEX	Naphthalene	PAH					NOTES / COMMENTS
MW1	4-23-01		S	3	✓	✓	✓					166345
MW2	↓		↓	↓	✓	✓	✓					166346
MW3	↓		↓	↓	✓	✓	✓					166347

ACCESS ANALYTICAL, INC.

1248 Lake Murray Blvd.
Irmo, SC 29063

Phone: (803) 781-4243
Fax: 781-4303
Toll Free (888) 315-4243

Turnaround Time Requested:

✓ Std. *(5-7 Bus. days)*

___RUSH*

*Date Required:_____

Samples Recd. on Ice?

___Yes

___No

Project Location:

✓ SC

___NC

___Other _____(specify)

Relinquished By:	Date:	Time:	Received By:
Chuck Pfahler	4-27-01		4/30/01 1022

Original Copy - Returned w/Report
Yellow Copy - Access Analytical Copy
Pink Copy - Client Copy

Access Analytical - Chain of Custody Record

Project Submission #: 0114-1537 COC# 166345/166347

PO #:

Company Name: Southeastern Environmental

Address: 323 Main Street

City: Conway State: SC Zip: 29526

Project Name: Hucks Plaza

Report To: Bruce G Newell

REQUESTED LAB ANALYSIS:

Sample Label	Date Collected	Time Collected	Matr	# of Cont	PARAMETER: BTEX	Naphthalene	PAH					NOTES / COMMENTS
MW1	4-23-01		S	3	✓	✓	✓					166345
MW2	↓		↓	↓	✓	✓	✓					166346
MW3	↓		↓	↓	✓	✓	✓					166347

Access Analytical, Inc.
1248 Lake Murray Blvd.
Irmo, SC 29063
Phone: (803) 781-4243
Fax: 781-4303
Toll Free (888) 315-4243

Turnaround Time Requested:

✓ Std. *(5-7 Bus. days)*

___RUSH*

*Date Required:_____

Samples Recd. on Ice?

___Yes

___No

Project Location:

✓ SC

___NC

___Other _____(specify)

Relinquished By:	Date:	Time:	Received By:
Chuck Pfahler	4-27-01		[signature] 4/30/01 1022

Original Copy - Returned w/Report
Yellow Copy - Access Analytical Copy
Pink Copy - Client Copy

Access Analytical - Chain of Custody Record

Project Submission #: 01/4-1536 (SW) ADD# 166342/166344 PO #:

Company Name: Southeastern Environmental, Inc.	REQUESTED LAB ANALYSIS:	Access Analytical, Inc.
Address: 323 Main Street		1248 Lake Murray Blvd. Irmo, SC 29063
City: Conway State: SC Zip: 29526		Phone: (803) 781-4243 Fax: 781-4303 Toll Free (888) 315-4243
Project Name: HUCKS PLAZA		
Report To: Bruce G. Newell		

Sample Label	Date Collected	Time Collected	Matr	# of Cont	PARAMETER: BTEX	Naphthalene	MTBE	EDB	PAH	Ferrous Iron	Nitrates	Sulfates	NOTES / COMMENTS
MW1	4-27-01		W	6	✓	✓	✓	✓	✓	✓	✓	✓	166342
MW2	↓		↓	↓	✓	✓	✓	✓	✓	✓	✓	✓	166343
MW3	↓		↓	↓	✓	✓	✓	✓	✓	✓	✓	✓	166344
Extra Bottle Recvd		for Pb	as per		partly	out to	run	$				4/30/01	

Turnaround Time Requested:	Samples Recd. on Ice?	Project Location:	Relinquished By:	Date:	Time:	Received By:
✓ Std. (5-7 Bus. days)	___Yes	✓ SC	Chuck Hahler	4-27-01		Sue Gist 4/30/01 1020
___RUSH*	___No	___NC				
*Date Required:		___Other ___(specify)				

Original Copy - Returned w/Report
Yellow Copy - Access Analytical Copy
Pink Copy - Client Copy

Pg____of____

MHL2SD7L2A

Access Analytical - Chain of Custody Record

Project Submission #:_____ PO #:

Company Name: Southeastern Environmental

Address: 323 Main Street.

City: Conway State: SC Zip: 29526

Project Name: Huck Plaza.

Report To: Bruce G. Newell

REQUESTED LAB ANALYSIS:

Sample Label	Date Collected	Time Collected	Matr	# of Cont	PARAMETER: Methane	Carbon Dioxide
MW1	4-27-01		W	2	✓	✓
MW2	4-27-01		↓	↓	✓	✓
MW3	4-27-01		↓	↓	✓	✓

NOTES / COMMENTS

Access Analytical, Inc.
1248 Lake Murray Blvd.
Irmo, SC 29063
Phone: (803) 781-4243
Fax: 781-4303
Toll Free (888) 315-4243

Turnaround Time Requested:

✓ Std. *(5-7 Bus. days)*

___RUSH*

*Date Required:_____

Samples Recd on Ice?

___Yes

↘ No

Project Location:

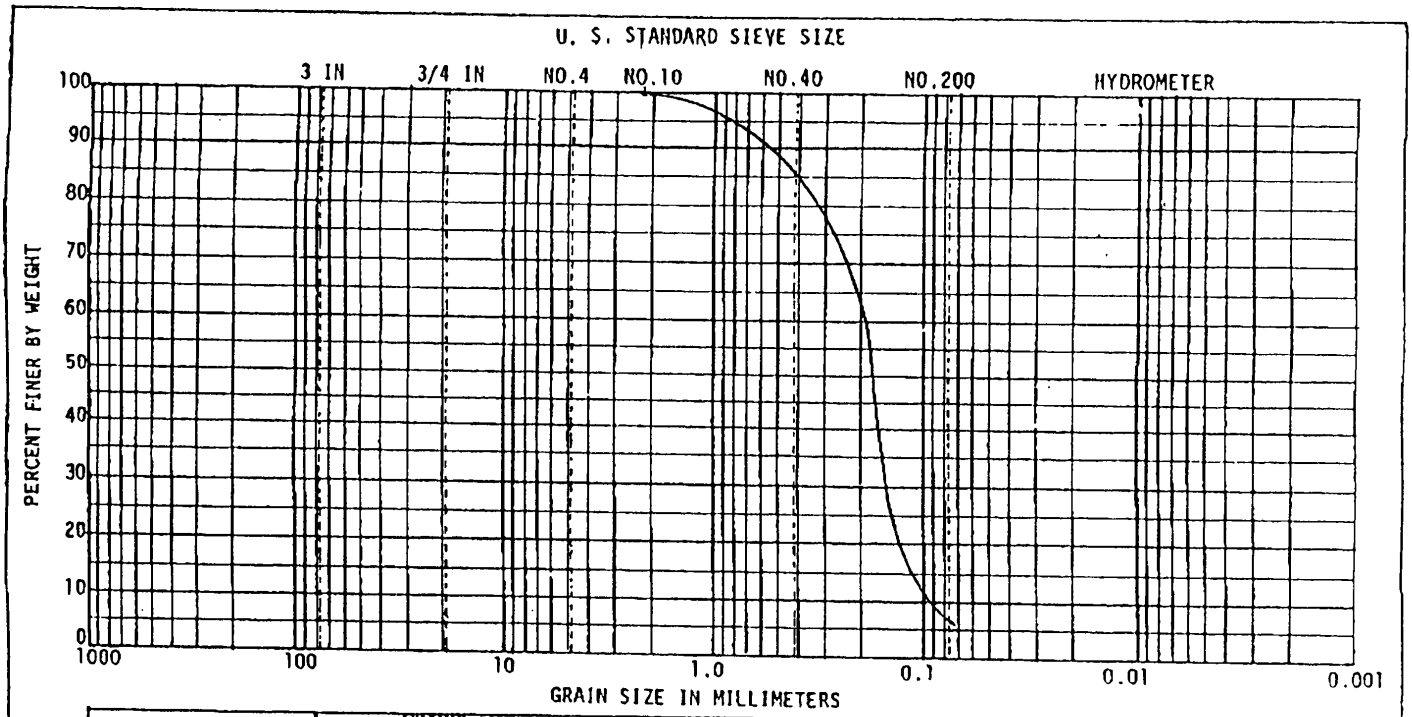
✓ SC

___NC

___Other _____(specify)

Relinquished By:	Date:	Time:	Received By:
Chuck Pfahler	4-27-01		
	4/30/01	11Am	Melissa Estes (Access)

Original Copy - Returned w/Report
Yellow Copy - Access Analytical Copy
Pink Copy - Client Copy



SAMPLE	DEPTH	CLASSIFICATION	NAT WC	LL	PL	PI
B114	2'	Grey Silty Fine to Medium SAND				

GRAIN SIZE DISTRIBUTION

HUCKS PLAZA

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

GEO-SYSTEMS DESIGN & TESTING, INC.
GEOTECHNICAL SERVICES AND MATERIALS TESTING
P.O. Box 2656 West Columbia, South Carolina 29171

Access Analytical - Chain of Custody Record

Project Submission #: _____ PO #: _____

Company Name: Southeastern Environmental

Address: 323 Main Street

City: Conway State: SC Zip: 29526

Project Name: Hucks Plaza

Report To: Bruce G. Newell

REQUESTED LAB ANALYSIS:

PARAMETER: Grain Size Analysis

Sample Label	Date Collected	Time Collected	Matr	# of Cont		NOTES / COMMENTS
BH 4	4-20-01		S	1	✓	2'

Access Analytical, Inc.
1248 Lake Murray Blvd.
Irmo, SC 29063
Phone: (803) 781-4243
Fax: 781-4303
Toll Free (888) 315-4243

Turnaround Time Requested:
✓ Std. *(5-7 Bus. days)*
___RUSH*
*Date Required: _____

Samples Recd. on Ice?
___Yes
___No

Project Location:
___SC
___NC
___Other _____(specify)

Relinquished By:	Date:	Time:	Received By:
[signature]	4-20-01		

Original Copy - Returned w/Report
Yellow Copy - Access Analytical Copy
Pink Copy - Client Copy

Southeastern Environmental, INC.

WATER TESTING LOG

Job Location: Hucks Plaza

Date: 4-27-01

Samples Taken By: JH, EH, CP

Job Type: Tier I

WELL #	G.W.T. Depth	TEMP. (C)	Conduct (S)	pH	DO_2	Comments	Time
1	6.08′	16.5	537	6.4	5.1		
		16.9	554	6.4			
		16.9	449	6.4			
		16.9	450	6.2			
		16.9	422	6.3			
		16.9	428	6.2			
		16.9	407	6.4			
2	6.65′	21.6	374	6.5	5.3		
		21.9	522	6.5			
		21.9	210	6.5			
		21.9	568	6.5			
		21.9	497	6.5			
		21.9	573	6.5			
3	6.18′	20.0	859	6.5	3.3		
		19.8	890	6.5			
		19.8	366	6.6			
		19.9	761	6.5			
		20.0	912	6.5			
		20.0	867	6.5			
		20.0	587	6.6			

* Disposal Method of Water: barreled on site.

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis BOUWER-RICE's method	Page 2 Project: Hucks Plaza Evaluated by:	Date: 04.05.2001

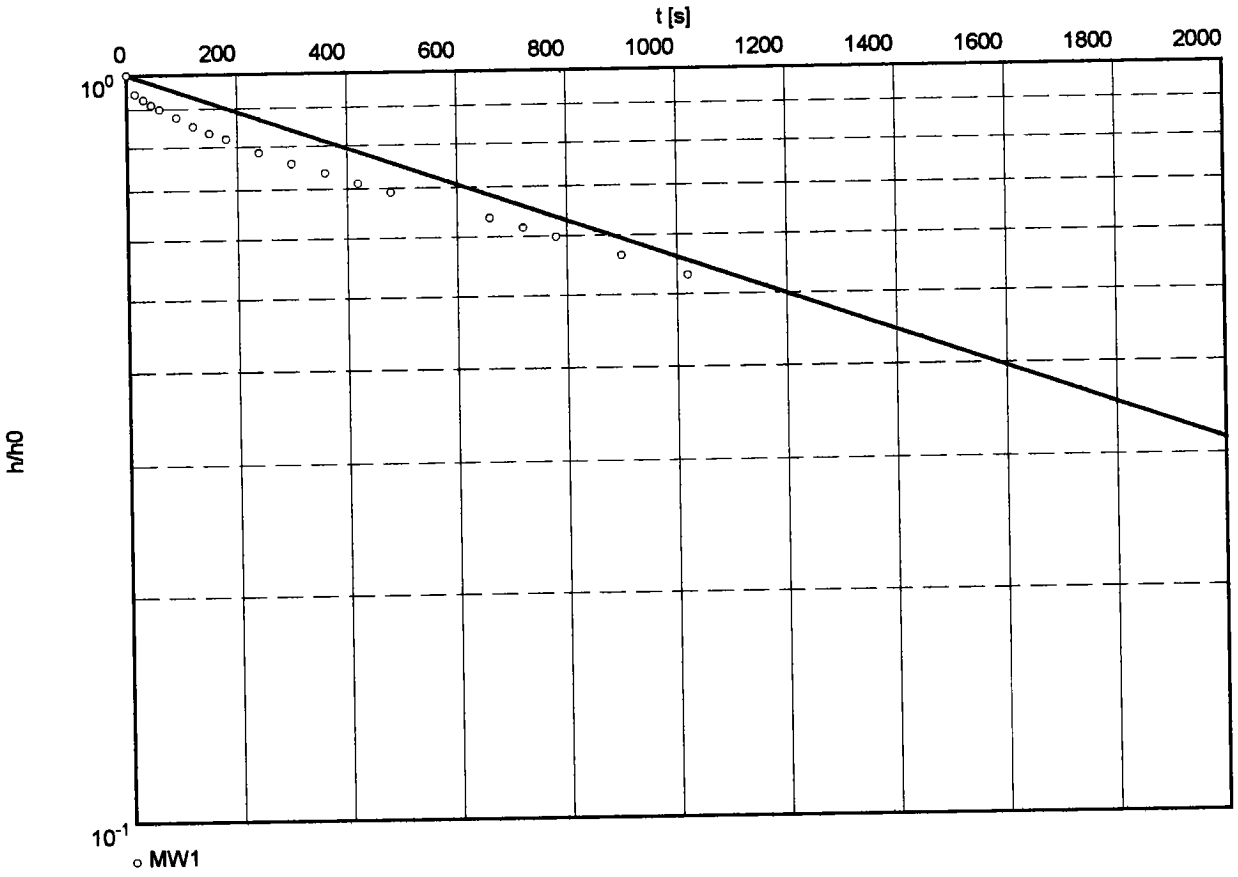
Slug Test No. 1	Test conducted on: 4-27-01
1	MW1

Static water level: 6.08 ft below datum

	Pumping test duration [s]	Water level [ft]	Drawdown [ft]
1	0	10.50	4.42
2	15	10.25	4.17
3	30	10.17	4.09
4	45	10.11	4.03
5	60	10.05	3.97
6	90	9.95	3.87
7	120	9.85	3.77
8	150	9.77	3.69
9	180	9.70	3.62
10	240	9.55	3.47
11	300	9.43	3.35
12	360	9.33	3.25
13	420	9.22	3.14
14	480	9.13	3.05
15	660	8.89	2.81
16	720	8.80	2.72
17	780	8.72	2.64
18	900	8.57	2.49
19	1020	8.42	2.34

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph (519)746-1798	slug/bail test analysis BOUWER-RICE's method	Page 1 Project: Hucks Plaza Evaluated by: | Date: 04.05.2001

Slug Test No. 1	Test conducted on: 4-27-01
1	



Hydraulic conductivity [ft/s]: 8.19×10^{-7}

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo, Ontario, Canada ph.(519)746-1796	slug/bail test analysis HVORSLEV's method	Page 2 Project: Hucks Plaza Evaluated by:	Date: 04.05.2001

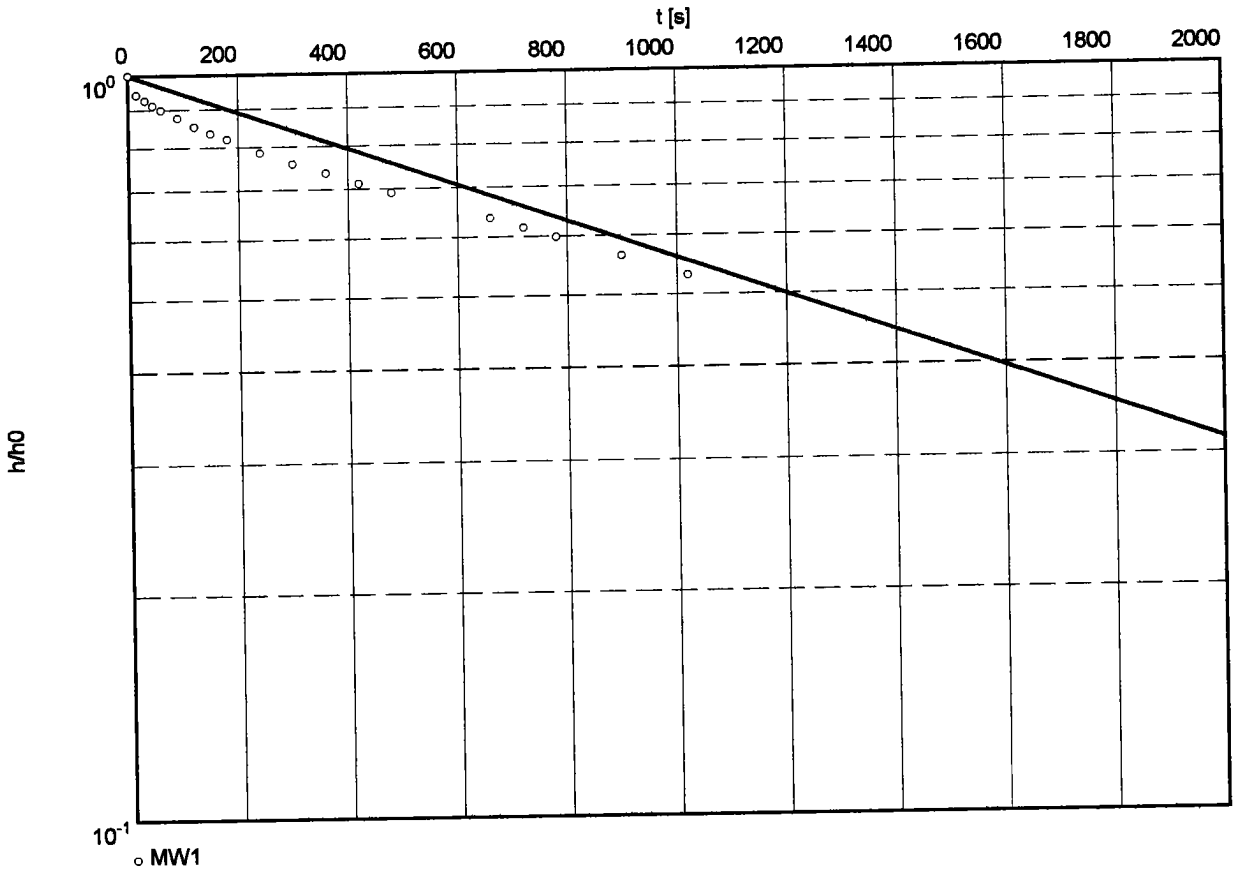
Slug Test No. 1	Test conducted on: 4-27-01
1	MW1

Static water level: 6.08 ft below datum

	Pumping test duration [s]	Water level [ft]	Change in Waterlevel [ft]
1	0	10.50	4.42
2	15	10.25	4.17
3	30	10.17	4.09
4	45	10.11	4.03
5	60	10.05	3.97
6	90	9.95	3.87
7	120	9.85	3.77
8	150	9.77	3.69
9	180	9.70	3.62
10	240	9.55	3.47
11	300	9.43	3.35
12	360	9.33	3.25
13	420	9.22	3.14
14	480	9.13	3.05
15	660	8.89	2.81
16	720	8.80	2.72
17	780	8.72	2.64
18	900	8.57	2.49
19	1020	8.42	2.34

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis HVORSLEV's method	Page 1 Project: Hucks Plaza Evaluated by: / Date: 04.05.2001

Slug Test No. 1	Test conducted on: 4-27-01
1	



Hydraulic conductivity [ft/s]: 1.55×10^{-6}

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis BOUWER-RICE's method	Page 2 Project: Hucks Plaza Evaluated by:	Date: 04.05.2001

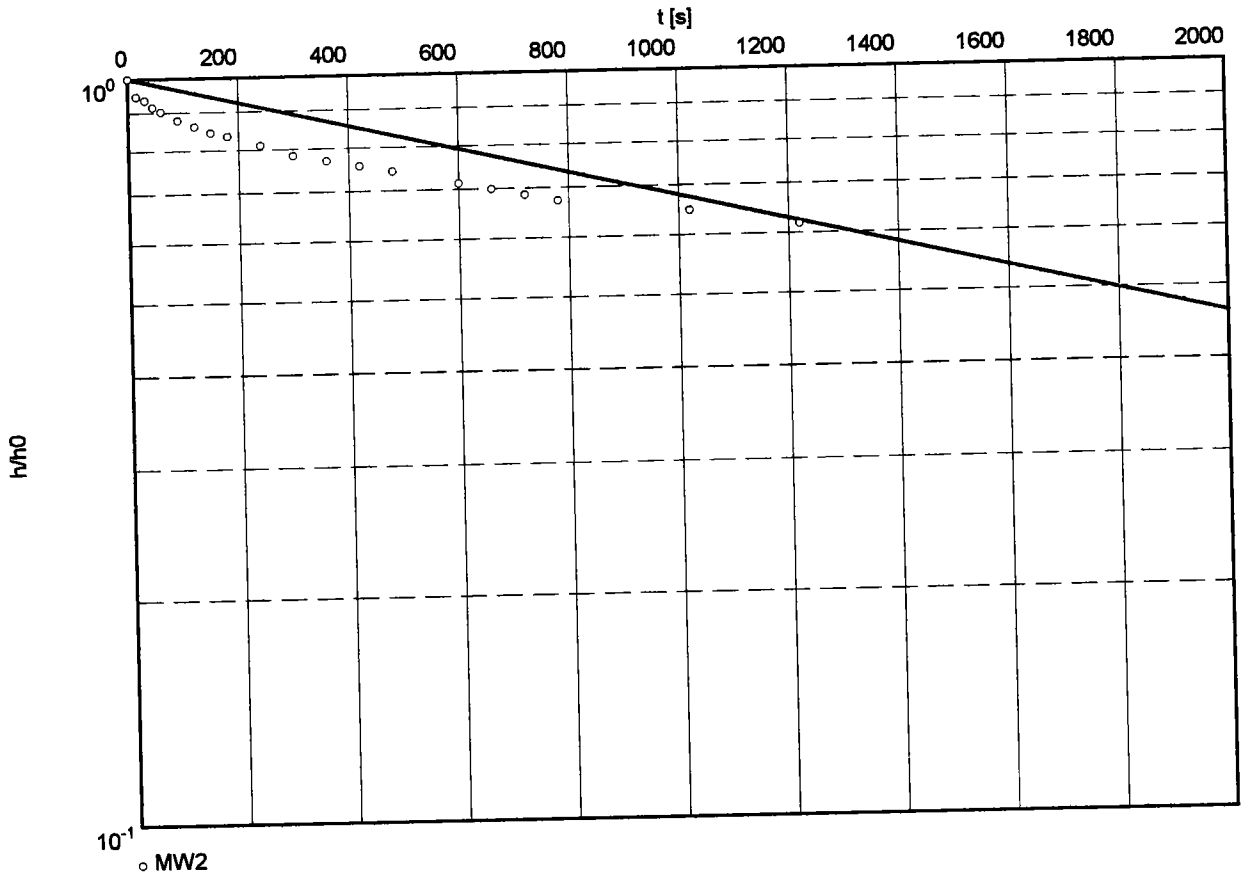
Slug Test No. 1	Test conducted on: 4-27-01
2	MW2

Static water level: 6.65 ft below datum

	Pumping test duration [s]	Water level [ft]	Drawdown [ft]
1	0	9.60	2.95
2	15	9.44	2.79
3	30	9.41	2.76
4	45	9.35	2.70
5	60	9.31	2.66
6	90	9.24	2.59
7	120	9.19	2.54
8	150	9.14	2.49
9	180	9.11	2.46
10	240	9.04	2.39
11	300	8.96	2.31
12	360	8.92	2.27
13	420	8.88	2.23
14	480	8.84	2.19
15	600	8.75	2.10
16	660	8.71	2.06
17	720	8.67	2.02
18	780	8.63	1.98
19	1020	8.56	1.91
20	1220	8.47	1.82

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis BOUWER-RICE's method	Page 1	
		Project: Hucks Plaza	
		Evaluated by:	Date: 04.05.2001

Slug Test No. 1	Test conducted on: 4-27-01
2	



Hydraulic conductivity [ft/s]: 1.84×10^{-6}

Waterloo Hydrogeologic
180 Columbia St. W.
Waterloo,Ontario,Canada
ph (519)746-1798

slug/bail test analysis
HVORSLEV's method

Project: Hucks Plaza

Evaluated by:

Date: 04.05.2001

Slug Test No. 1

Test conducted on: 4-27-01

2

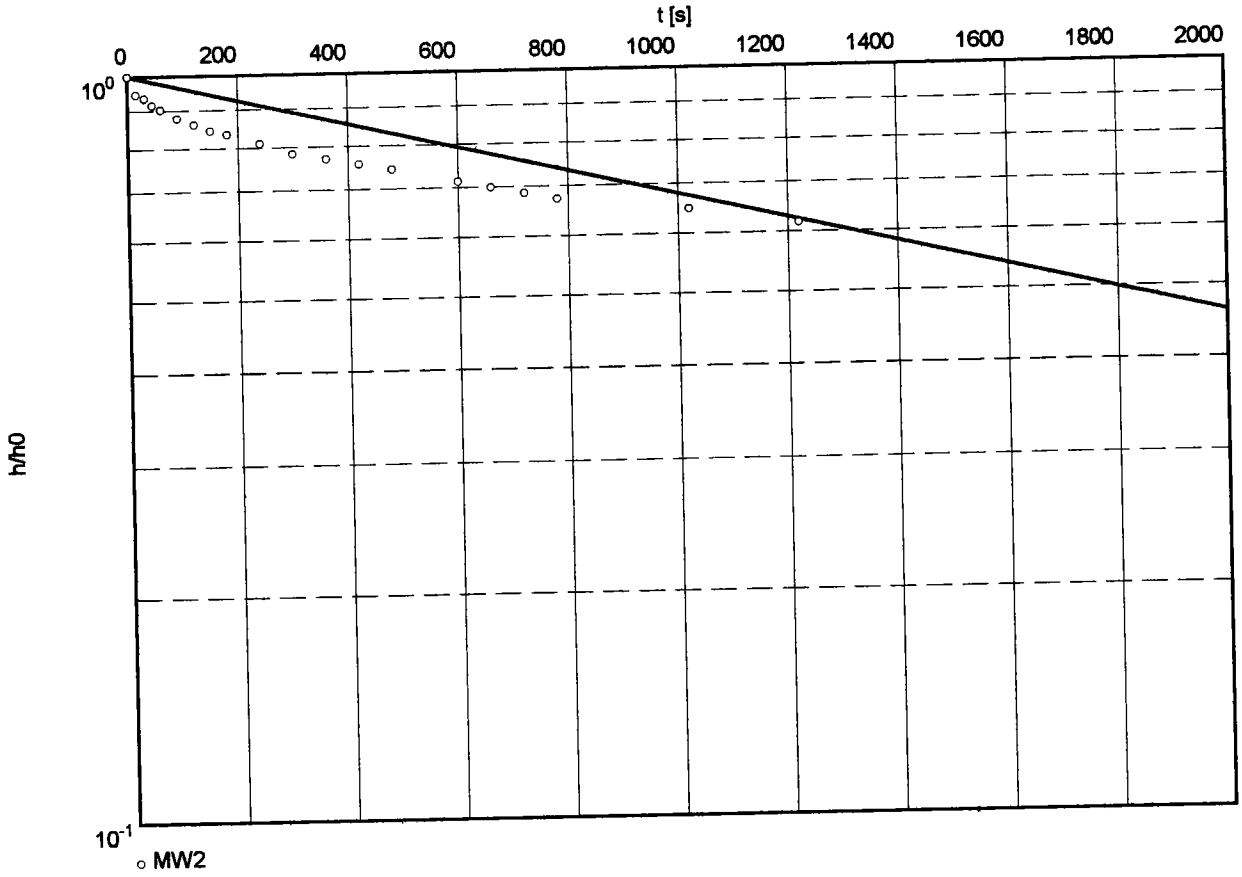
MW2

Static water level: 6.65 ft below datum

	Pumping test duration [s]	Water level [ft]	Change in Waterlevel [ft]
1	0	9.60	2.95
2	15	9.44	2.79
3	30	9.41	2.76
4	45	9.35	2.70
5	60	9.31	2.66
6	90	9.24	2.59
7	120	9.19	2.54
8	150	9.14	2.49
9	180	9.11	2.46
10	240	9.04	2.39
11	300	8.96	2.31
12	360	8.92	2.27
13	420	8.88	2.23
14	480	8.84	2.19
15	600	8.75	2.10
16	660	8.71	2.06
17	720	8.67	2.02
18	780	8.63	1.98
19	1020	8.56	1.91
20	1220	8.47	1.82

Waterloo Hydrogeologic 180 Columbia St. W. Waterloo,Ontario,Canada ph (519)746-1798	slug/bail test analysis HVORSLEV's method	Page 1	
		Project: Hucks Plaza	
		Evaluated by:	Date: 04.05.2001

Slug Test No. 1	Test conducted on: 4-27-01
2	



Hydraulic conductivity [ft/s]: 5.94×10^{-7}

SUMMARY of SLUG TEST

South Carolina
Department of Health and Environmental control (DHEC)

Site Data

SITE ID:# 105156 COUNTY Horry

FACILITY NAME Hucks Plaza

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 Manually with Water level Indicator
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 – 1	MW – 2	MW – 3	
Initial Rise/Drawdown in well (feet)	4.42	2.95		
Radius of Well Casing (feet)	0.08	0.08		
Effective Radius of Well (feet)	0.167	0.167		
Static Saturated Aquifer Thickness (feet)	20	20		
Length of Well Screen (feet)	10	10		
Static Height of Water column in Well (ft)	6.92	6.35		

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 – 1	MW – 2	MW – 3
Hydraulic conductivity	8.17×10^{-7}	1.84×10^{-6}	

Thickness of the aquifer used to calculate hydraulic conductivity was 20 feet.
The aquifer is _____ confined _____semi-confined X water table (Check as appropriate).

The estimated seepage velocity is 1.20 feet per year based on
A hydraulic conductivity of 1.18×10^{-6} ft/sec, a hydraulic gradient of 0.00646, and
A porosity of 20 per cent for Clay soil (list type i.e. silty sand, clay, etc.)

Southeastern Soil Recovery

MANIFEST - NON-HAZARDOUS SOILS

Date of Shipment:	Responsible for Payment:	Transporter Truck #:	Project #:	Load #:
4/30/01	VARIOUS UST SITE		2001084	

Generator's Name & Billing Address: VARIOUS UST SITES	Generators Phone No.: Person to Contact: Fax No.:
Consultant's Name & Billing Address: SOUTHEASTERN ENVIRON, INC. 323 MAIN STREET CONWAY SC 29526	Consultant's Phone No.: (843) 248-3533 Person to Contact: LORI GRAINGER Fax No.: (843) 248-5034
Generation Site (Transport from): (Name & Address) HUCKS PLAZA SITE ID# 05156 2 DRUMS	Site Phone No.: Person to Contact: Fax No.:
Designated Facility (Transport to): (Name & Address) SSR, INC. HWY 78-101 MELLICHAMP RD. SUMMERVILLE, SC 29483	Facility Phone No.: (843) 875-0530 Person to Contact: Plant Operator Fax No.: (843) 566-7068
Transporter Name & Mailing Address: 3R OF CHARLESTON, INC. PO BOX 1443 238 EAGLE DRIVE GOOSE CREEK SC 29445	Transporter's Phone No.: 843-824-0711 Person to Contact: JEFF TRUESDALE Fax No.: 843-824-2565

Generator's and/or consultant's certification: I/We certify that the soil referenced herein has been taken entirely from those soils described in the Material Acceptance/Contract Form completed and certified by me/us for the Generation Site shown above.

Print or Type Name: Generator ☐ Consultant ☐	Signature & Date: Month Day Year
Charles A Pfahler III	Charles A Pfahler III 5 1 01

Transporter's certification: I/We acknowledge receipt of the soil described above and certify that such soil is being delivered in exactly the same condition as when received.

Print or Type Name:	Signature & Date: Month Day Year
Ben Ryan	Ben Ryan 5 1 01

Recycling Facility certifies the receipt of the soil by this manifest.

Print or Type Name:	Signature & Date: Month Day Year

White – Generator Retain Yellow – Transporter Retain Pink – Recycling Facility Retain

BRUNING 44-241 36990-1

DATE COMPLETE
DEED CHANGES
FIELD CHECK

OUT OF CITY
IN CITY
(OLD SOCASTEE HIGHWAY)
S.C. HIGHWAY No. 707
U.S. HIGHWAY No. 501
MB CITY LIMITS
CITY LIMITS
CANNON STREET
CANNON STREET EXT
STOCKHOLDER AVE
DANIEL ISLAND SD III
SEE TMS 181-05
SEE TMS 181
See TMS 181-00-01-016

TAX MAP COMPILED FROM RECORDED PLATS AND FIELD RESEARCH. BUILDINGS ARE NOT PLOTTED FOR LOCATION. SCALE 1" = 200'

TAX MAP PREPARED BY THE HORRY COUNTY ASSESSOR'S OFFICE AND THE EXCLUSIVE RIGHT TO SELL THIS MAP.

COUNTY LINE
MUNICIPAL LINE
BLOCK DIVISION
BLOCK NO. (2)
PARCEL NO. 2
SUBDIVISION NAME
MATCH LINE

SCALE
DISTRICT
PREPARED BY
PHOTO
OVERLAY
MAPPER

MAP TO APPROXIMATE LOCATION
HORRY COUNTY, S.C.
TAX MAP NO.

181-05
UPDATED 11-2

Southeastern Envir nental

323 Main Street, Conway, S.C. 29526 • (803) 248-3533 • (800) 257-3533 • Fax (803) 248-5034

RECEIVED
AUG 1 0 2001
Underground Storage
Tank Program

August 8, 2001

SC DHEC
Attn: Rodney Wilson, Project Manager
2600 Bull Street
Columbia, SC 29201-1708

RE: Hucks Plaza
501 Amoco
UST Permit #05156

Rodney:

Please find enclosed the Tier II Plan and Assessment Component Cost Agreement in regards to the above referenced site.

If you should have any questions feel free to contact me.

Thank you,

Stephanie L. Helburn
Southeastern Environmental, Inc.

Enclosure: As stated.

D H E C
PROMOTE PROTECT PROSPER

Tier II Pl
Division of Underground Storage Tank Management

UST Permit #: 05156 County: Horry Facility Name: 501 Amoco Huck's Plaza

Facility Address: 1432 Highway 501 Myrtle Beach, SC 29577

Responsible Party: Homer Hucks Address: 5720 Creekside Dr. Myrtle Bch, SC 2957

No. USTs: 3 Removed? _____ (date) Replaced? _____ (date)

Current use of facility/property: Convenience Store (UST's abandoned in place)

Current property owner name: Danny Todd

Current property owner address: 1121 Simonton Dr. Watkinsville, GA 30677

Field Screening Methodology

Specify the field screening methodology to be used. The use of field screening methods to optimize the number and location of permanent wells is required.

Soil samples will be screened using OVA/FID. Worst Case from each boring will be sent to a certified lab for analysis.

Permanent monitoring wells will be installed after site screening.

Water samples will be taken from each monitoring well and sent to a certified lab for analysis.

Permanent Monitoring Wells (estimate number and total completed depth)

of shallow wells: 10 @ 15' Total depth: 150'

# of deep wells: 1 @ 55' Total depth: 55' (if necessary)

Comments, if warranted: _____

Analyses

List the analytical parameters (e.g., BTEX, MTBE) and estimated number.

WATER		SOIL	
BTEX, Napth, MTBE	14	BTEX, Napth, MTBE	11
PAH's	14	PAH's	11
Lead	14	TPH	1
EDB	14	TOC	1
Nitrate	14	Grain Size	1
Sulfate	14		
Methane	14		
Ferrous Iron	14		

Implementation Schedule

Start up date: ASAP Completion date: 120 days from approval of cost proposal

Report submittal date: _____

UST Permit #: 05156 Facility Name: 501 Amoco ck's Plaza

Site Maps

1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.

2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:

North arrow	Legend with facility name and address, UST Permit number, date, and a bar scale
Location of property lines	Streets or highways (indicate names and numbers)
Location of buildings	Identification of located buildings
Paved areas on or adjacent to site	Location of all present and former ASTs and USTs
Previous soil sampling locations	Underground and above ground utilities on or adjacent to site
Previous monitoring well locations	Location of any other potential receptor

Aquifer Characterization (check one and provide explanation for choice)

Pump test: _____ Slug tests: 3

Slug tests will be performed on the permanent monitoring wells to define the aquifer characteristics for this site.

Comparison to the hydrometer/ grain size test will be made.

Small Volume Disposal Type and Method

Soil: Soil will be stored in 55 gallon drums and removed to the proper location after analysis are received.

Purge water: Any groundwater collected from the monitoring wells will be stored in 55 gallon drums on site while arrangements for disposal are made.

Additional comments:

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

Hucks Plaza
Mr. Homer Hucks
1102 3rd Ave. South
Myrtle Beach, SC 29577

Re: 501 Amoco, 1432 Hwy 501, Myrtle Beach, SC 29566
UST Permit #05156, CP #14774, MWA #15473
Release Reported Dec. 31, 1991
Tier II Assessment Plan received Aug. 10, 2001
Cost Proposal received Aug. 10, 2001
Horry County

Dear Mr. Hucks:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC) recognizes your commitment to continue work at this site utilizing your own contractor. The UST Program has reviewed the referenced Tier II assessment plan and cost proposal submitted by Southeastern Environmental.

Assessment activities at the site should begin immediately upon receipt of this letter. Characterization of all exposure pathways should be completed using field screening points. Based on the field screening results, monitoring wells should be installed in appropriate locations to monitor the migration of chemicals of concern (CoC) along these pathways and for rehabilitation. **Please contact the department prior to well installation for concurrence regarding the final well locations.** Cost Proposal #14774 has been approved for the amount shown on the enclosed cost proposal form. Please note that the approved cost proposal has been amended from the one submitted.

- Items 10b and 11q, r, u, w, and x have been eliminated.
- Item 12b has been reduced to two slug tests.
- All footage for well installation has been approved, however, the State Underground Petroleum Environmental Response Bank (SUPERB) Account will not pay for wells that are not technically justified.

Southeastern Environmental can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank Account. Please note that all applicable South Carolina certification requirements apply to the laboratory services, well installation, and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor. Approval to install 10 shallow and 1 deep ground water monitoring wells has been provided to your environmental consultant; a copy is enclosed for your records.

A Report of Findings and the invoice is due within 90 days from the date of this letter. An interim

well drilling invoice may be submitted for this scope of work. If the invoice and completed report are not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the Department is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the Department for the cost to be paid. The SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, SCDHEC reserves the right to question and/or reject costs if deemed unreasonable. The SCDHEC reserves the right to audit project records at any time during the project or after completion of work.

The Bureau grants preapproval for transportation of virgin petroleum contaminated soil and groundwater from the referenced site to a permitted treatment facility. The contaminated soil or groundwater must be properly stored in labeled containers or covered with plastic as appropriate. The contaminated soil and/or ground water must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. 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 final report. If the levels of petroleum contamination based on laboratory analysis are below risk-based screening levels, please contact the project manager for approval to dispose of soil and/or ground water on site. The SUPERB Account will not compensate for transportation or treatment of clean soil and/or ground water.

On all correspondence concerning this site, please reference UST Permit #05156 and CP #14774. If there are any questions concerning this project, please contact me at (803) 898-4327 or (800) 826-5435 (within South Carolina only).

Sincerely,

Travis Williams

Travis Williams, Hydrogeologist
Owner/Operator Assistance Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Finance Approved Cost Proposal (ACP)
Monitoring Well Approval (MWA)

cc: Technical/Read Files (w/MWA)
Financial File (w/ACP)
Southeastern Environmental, 323 Main Street, Conway, SC 29526 (w/original MWA & ACP)

SCDHEC/UST/09-20-01/tmw/05156/tier2cp#14774

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

Monitoring Well Installation Approval Form

Date of Issue: Sept. 20, 2001 Approval No.: 15473

Approval is hereby granted to: Southeastern Environmental
(On behalf of): Hucks Plaza
UST Permit #: 05156
County: Horry

This approval is for the construction of 11 permanent monitoring wells in accordance with the construction plans and technical specifications outlined in the Tier II Assessment Document. The well(s) are to be constructed within the surficial aquifer for the intended purpose of monitoring ground-water quality and/or water level(s) at the referenced facility. Approval is provided with the following conditions:

1. The latitude and longitude, surveyed elevations, boring and/or geologist logs and actual (as built) construction details for each well will be submitted with the technical report.
2. Each well will be labeled with an identification plate constructed of a durable material affixed to the casing or surface pad where it is readily visible. The plate will provide monitoring well I.D.#, date of construction, static water level, and driller name and state certification #.
3. Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, development and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regard to contents, source, and date of activity.
4. **A minimum of forty-eight (48) hours prior to initiation of drilling activities, please provide notice to Travis Williams at (803) 898-4327 or williatm@dhec.state.sc.us.**
5. Please provide ground-water quality analytical data (chemical analysis and/or water level(s)) and associated measurements (i.e., in-situ field measurements) to me with the technical report.
6. Monitoring wells and temporary monitoring wells will be installed by or under the direct supervision of a licensed well driller certified by the State of South Carolina.
7. Monitoring wells and temporary monitoring wells will be abandoned by or under the direct supervision of a licensed well driller certified by the State of South Carolina. Temporary monitoring wells shall not remain in place for longer than 30 days from the date of installation. Monitoring wells may be abandoned only upon concurrence by this Division.

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. Please remember to have a copy of this approval on the site during well installation.

Approved by: Travis Williams

Travis Williams, Hydrogeologist
Owner/Operator Assistance Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

cc: Waccamaw EQC District
Hucks Plaza

SCDHEC/UST/09-20-01/tmw/05156/mwa15473

at 10/10/03

SUPERB RECOVERABLE COST PROPOSAL CHECKLIST

!!! Update payment code, task screen, punch list, status, etc. in tracking system !!!

UST Permit Name: 501 Amoco ID# 05156 Surber

Date Release Reported: April 23, 1993 Release #: 1 Project Manager: TMWilliams

Priority Class (Circle): Emergency / 1 2A 2B 3A **3B** 4A 4B 5

Category: Assessment ■ ACA (8___) ☐ MNA (901) ☐

Description of Work: Tier II

Cost Proposal #: 14774 Amount Approved: 37,214.00

Cost Proposal Type

Commited/Currently Funded (RS) ■

To SUPERB Recoverable $25,000 Deductible (R25)

Committed (CP>$25K) ☐

Prior total toward $25K: _____

To complete $25K: _____

Over $25K: _____

Non-committed (CP<$25K): ☐

Cost Proposal Duration

■ 4 Months (120 Days) ☐ 2 Months (60 Days)

☐ Other _____

Payee & Address:

Southeastern Environmental

323 Main St.

Conway, SC 29526

Contractor Certification #: UCC-0082

Rate Schedule:

State Lead		O/O Lead	
☐ IGWA	PO# 228368	■ SUPERB Allowable	
☐ Tier I	PO# 292862	☐ Analytical	PO# 179220
☐ Tier II	PO# 272275	☐ GAC	PO# 252493
☐ Analytical	PO# 179220	☐ Other	
☐ Sampling	PO# 247174		
☐ GAC	PO# 252493		
☐ Other			

See revised plan received 8-6-03

Project Manager: Travis Williams Date: 9/26/2003

Accountant: _____ Date: _____

Financial Supervisor: _____ Date: _____

Technical Supervisor: _____ Date: _____

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASSESSMENT COMPONENT COST AGREEMENT
SOUTH CAROLINA
Department of Health and Environmental Control
Underground Storage Tank Program
State Underground Petroleum Environmental Response Bank Account

Facility Name 501 Amoco Huck's Plaza
UST Permit # 05156 Cost Agreement # _____

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1.Plan*				
A. Plan Preparation	1 ✓	x	$100.00	$ 100.00
B. Tax Maps	1 ✓	x	$50.00	$ 50.00
2.Receptor Survey *		x	$500.00	$
3. Comprehensive Survey		x	$1,000.00	$
4. Mob/Demob (List Component #)				
A. Equipment	2 ✓	x	$500.00	$ 1,000.00
B. Personnel	4 ✓	x	$250.00	$ 1,000.00
5. Soil Borings (hand auger)*		feet x	$14.00	$
6. Soil Borings (drilled)	(includes collection and quantification)			
and Field Screening*	500 ✓	feet x	$17.00	$ 8,500.00
7. Soil Leachability Model		x	$200.00	$
8. Abandonment*	500 ✓	feet x	$4.00	$ 2,000.00
9. Well Installation*	(includes drilling costs)			
A. Water Table (hand auger)		feet x	$20.00	$
B. Water Table (drilled) 10 @ 15'	150 ✓	feet x	$38.00	$ 5,700.00
C. Telescoping 1 @ 55'	55 ✓	feet x	$58.00	$ 3,190.00
D. Rock Drilling		feet x	$58.00	$
10. Sample Collection*				
A.Ground-water	14 ✓	samples x	$55.00	$ 770.00
B. Air/Vapor	~~0 15~~ J.W.	samples x	$90.00	$ ~~1,350.00~~ 0
11. Analyses-Groundwater	(See Analytical Methodology for analyses)			
A. BTEX+Napth.+MTBE	14 ✓	samples x	$100.00	$ 1,400.00
B. Rush BTEX analysis		samples x	$120.00	$
C. BTEX+napth.+MTBE Trimethylbenzene		samples x	$135.00	$
D. PAH's	14 ✓	samples x	$120.00	$ 1,680.00
E. Lead	14 ✓	samples x	$20.00	$ 280.00
F. EDB	14 ✓	samples x	$55.00	$ 770.00
G. 8 RCRA Metals		samples x	$140.00	$
H.TPH (9070)		samples x	$55.00	$
I. pH		samples x	$10.00	$
J. BOD		samples x	$40.00	$
K. Nitrate	14 ✓	samples x	$20.00	$ 280.00
L. Sulfate	14 ✓	samples x	$20.00	$ 280.00
M. Ferrous Iron	14 ✓	samples x	$20.00	$ 280.00
N. Methane	14 ✓	samples x	$110.00	$ 1,540.00
O. Organic Lead		samples x	$100.00	$
P. 8 Oxygenates		samples x	$85.00	$

Continue on back of page

11. Analyses-Soil				
Q. BTEX + Napth.	~~0~~ ~~XX~~ 11	samples x	$100.00	$ 1,100.00 ~~0~~
R. PAH's	~~0~~ 11	samples x	$120.00	$ 1,320.00 ~~0~~
S. 8 RCRA Metals		samples x	$150.00	$
T. TPH (9071)	J.W.	samples x	$60.00	$
U. TPH (3550)	~~0~~ X	samples x	$65.00	$ 65.00 ~~0~~
V. TPH (5035)		samples x	$65.00	$
W. Grain size/hydrometer	~~0~~ X	samples x	$75.00	$ 75.00 ~~0~~
X. Total Organic Carbon	~~0~~ X	samples x	$35.00	$ 35.00 ~~0~~
12. Aquifer Characterization*				
A. Pumping Test		hours x	$120.00	$
B. Slug Test	J.W. ~~3~~ 2	tests x	$150.00	$ ~~900.00~~ 300
13. Free Product Recovery Rate Test*		tests x	$120.00	$
14. Fate/Transport Modeling				
A. Mathematical Model		models x	$300.00	$
B. Computer Model	1 ✓	models x	$500.00	500.00
15. Risk Evaluation				
A. Tier 1		x	$300.00	$
B. Tier II	1 ✓	x	$500.00	$ 500.00
16. Subsequent Survey*	1 ✓	x	$260.00	$ 260.00
17. Disposal				
A. Wastewater				
1. Purging/Sampling	10 ✓	drums x	$90.00	$ 900.00
2. Pumping Test		gallons x	$0.60	$
B. Free Product		drums x	$110.00	$
C. Soil (Treatment/Disposal)		tons x	$50.00	$
18. Miscellaneous *				
Soil Disposal	12 ✓	~~drums~~	$90.00	$ 1,080.00
		x		$
		x		$
19. Report/Project Management and Coordination	0.15	x	$36,905.00	~~$ 5,535.75~~
20. TOTAL				$ 42,440.75

*The appropriate mobilization cost can be added to complete these tasks, as necessary

32,360
4854.00
37214.00

SOUTHEASTERN ENVIRONMENTAL INC.
323 Main Street
Conway, South Carolina 29526
Phone: (843) 248-3533
FAX: (843) 248-5034

UST 351 DOCKETING

RECEIVED
AUG 0 6 2003
Underground Storage Tank Program

FAX MESSAGE / COVER SHEET

DATE: 8/5/03

TO: Lee Monts

FAX #: 803-896-6245

FROM: Chuck Stabler

OF PAGES: 5 (Including Cover Page)

RE: Huck's Plaza Revised Tier II Plan.
UST Permit # 05156

COMMENTS:

Please take a look at this revised Tier II Plan. The cost is substantially lower. Hopefully it will be coming up for review soon and maybe accepted.

Thank you
Chuck

CONFIDENTIALITY NOTICE:
The information contained in this transmission is privileged and confidential. It is intended only for the use of the individual or entity named above. If you are not the intended recipient or an authorized agent or employee of the intended recipient who has been authorized to deliver this facsimile, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone, and arrangements will be made to return the message. Thank you!

08/06/03 04:32 FAX 843 248 5034 S.E. ENVIRONMENTL 001

D H E C

PROMOTE PROTECT PROSPER

Tier II Plan

Division of Underground Storage Tank Management

UST Permit #: 05156 County: Horry Facility Name: Huck's Plaza

Facility Address: 1432 Hwy. 501, Myrtle Beach, SC 29577

Responsible Party: Homer Hucks

No. UST's: 3 Removed? _____ (Date) Replaced? _____ (Date)

Current use of facility/property: Convenience Store (UST's Abandoned in place)

Current property owner name: Danny Todd

Current property address: 1121 Simonton Dr, Watkinsville, GA 30677

Field Screening Methodology

Specify the filed screening methodology to be used. The use of field screening methods to optimize the number and location of permanent wells is required.

Soil samples will be screened using OVA/FID. Worst Case from each boring will be sent to a certified lab for analysis.
Permanent monitoring wells will be installed after site screening.
Water samples will be taken from each monitoring well and sent to a certified lab for analysis.

Permanent Monitoring Wells (Estimate number and total completed depth)

# of shallow wells: 8 Total depth: 120

# of deep wells: 1 Total depth: 45

Comments, if warranted:

Analyses

List the analytical parameters (e.g., BTEX, MTBE) and estimated number.

WATER		SOIL	
BTEX +NAPTH+MTBE	12	BTEX +NAPTH+MTBE	8
PAH's		PAH's	
Lead	12	TPH (3550)	
EDB's	12	Grain Size/Hydrometer	
Nitrate	12	TOC	
Sulfate	12		
Ferrous Iron	12		
Methane			

RECEIVED

AUG 0 6 2003

Underground Storage Tank Program

Implementation Schedule

Start Up Date: ASAP Completion Date: 120 days from approval of cost proposal

Report Submittal Date: _____

08/06/03 04:32 FAX 843 248 5034 S.E. ENVIRONMENTL 002

D H E C

PROMOTE PROTECT PROSPER

Tier II Plan
Division of Underground Storage Tank Management

UST Permit# 05156 Facility Name: Huck's Plaza

Site Maps

1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.

2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:

North Arrow	Legend with facility name and address, UST permit number, date and a bar scale
Location of property lines	Streets or highways (indicate names and numbers)
Location of buildings	Identification of located buildings
Paved areas on or adjacent to site	Location of all present and former AST's and UST's
Previous soil sampling locations	Underground and aboveground utilities on or adjacent to site
Previous monitoring well locations	Location of any other potential receptor

Aquifer Characterization

Pump Test: _____ Slug Tests: 3

Slug tests will be performed on the permanent monitoring wells to define the aquifer characterization for this site.

Small Volume Disposal Type and Method

Soil: Soil will be stored in 55-gallon drums and removed to the proper location after analyses are received.

Water: Any groundwater collected from the monitoring wells will be stored in 55-gallon drums on site while arrangements for disposal are made.

Additional Comments

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASSESSMENT COMPONENT COST AGREEMENT SOUTH CAROLINA

Department of Health and Environmental Control
Underground Storage Tank Program
State Underground Petroleum Environmental Response Bank Account

Facility Name : Huck's Plaza Revised Tier II Plan 08-05-03

UST Permit # : 05156 Cost Agreement # : _____

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1.Plan*				
A. Plan Preparation	1	X	$100.00	$ 100.00
B. Tax Maps	1	X	$50.00	$ 50.00
2. Receptor Survey		X	$500.00	$
3. Comprehensive Survey		X	$1,000.00	$
4. Mob/Demob (List Component #)				$1000
A. Equipment	~~3~~ 2	X	$500.00	~~$ 1,500.00~~
B. Personnel	4	X	$250.00	$ 1,000.00
5. Soil Borings (hand auger)*	300	Feet X	$14.00	$ 4,200.00
6. Soil Borings (drilled)	(includes collection and quantification)			
and Field Screening*		Feet X	$17.00	$
7. Soil Leachability Model		X	$200.00	$
8. Abandonment*	300	Feet X	$4.00	$1,200.00
9. Well Installation*	(includes drilling costs)			
A. Water Table (hand auger)		Feet X	$20.00	$
B. Water Table (drilled) 8 MW's @ 15	120	Feet X	$38.00	$ 4,560.00
C. Telescoping	45	Feet X	$58.00	$ 2,610.00
D. Rock Drilling		Feet X	$58.00	$
10. Sample Collection*				
A.Ground-water	12	Samples X	$55.00	$ 660.00
B. Air/Vapor		Samples X	$90.00	$
11. Analyses-Groundwater	(see Analytical Methodology for analyses)			
A. BTEX+Napth.+MTBE	12	Samples X	$100.00	$ 1,200.00
B. Rush BTEX analysis		Samples X	$120.00	$
C. BTEX+napth.+MTBE Trimethylbenzene		Samples X	$135.00	$
D. PAH's		Samples X	$120.00	$
E. Lead	12	Samples X	$20.00	$ 240.00
F. EDB	12	Samples X	$55.00	$ 660.00
G. 8 RCRA Metals		Samples X	$140.00	$
H.TPH (9070)		Samples X	$55.00	$
I. Ph		Samples X	$10.00	$
J. BOD		Samples X	$40.00	$
K. Nitrate	~~12~~ 4	Samples X	$20.00	$ 240.00
L. Sulfate	~~12~~ 4	Samples X	$20.00	$ 240.00
M. Ferrous Iron	~~12~~ 4	Samples X	$20.00	$ 240.00
N. Methane	4 ?	Samples X	$110.00	$
O. Organic Lead		Samples X	$100.00	$
P. 8 Oxygenates		Samples X	$85.00	$

Continue on back of page

08/06/03 04:32 FAX 843 248 5034 S.E. ENVIRONMENTL 004

11. Analyses-Soil				
Q. BTEX + Napth.	~~8~~ 0	Samples X	$100.00	$ 800.00
R. PAH's		~~Samples X~~	~~$120.00~~	$
S. 8 RCRA Metals		Samples X	$150.00	$
T. TPH (9071)		Samples X	$60.00	$
U. TPH (3550)		Samples X	$65.00	$
V. TPH (5035)		Samples X	$65.00	$
W. Grain size/hydrometer		Samples X	$75.00	$
X. Total Organic Carbon		Samples X	$35.00	$
12. Aquifer Characterization*				
A. Pumping Test		Hours X	$120.00	$
B. Slug Test	3	Tests X	$150.00	$ 450.00
13. Free Product Recovery Rate Test*		Tests X	$120.00	$
14. Fate/Transport Modeling				
A. Mathematical Model		Models X	$300.00	$
B. Computer Model	1	Models X	$500.00	$ 500.00
15. Risk Evaluation				
A. Tier I		X	$300.00	$
B. Tier II	1	X	$500.00	$ 500.00
16. Subsequent Survey*	1	X	$260.00	$ 260.00
17. Disposal				
A. Wastewater				
1. Purging/Sampling	4	Drums X	$90.00	$ 360.00
2. Pumping Test		Gallons X	$0.60	$
B. Free Product		Drums X	$110.00	$
C. Soil (Treatment/Disposal)		Tons X (Drums)	$50.00	$
18. Miscellaneous *		X		$ 250.00
SOIL DISPOSAL	5	Drums	$90.00	~~$ 2,250.00~~
		X		$
19. Report/Project Management and Coordination	0.15	X	$ 23,820.00	$ 3573.00
20. **TOTAL**				**$ 27,393.00**

*The appropriate mobilization cost can be added to complete these tasks, as necessary

Southeastern Environmental

323 Main Street, Conway, SC 29526 • (843) 248-3533 • (800) 257-3533 • Fax: (843) 248-5034

August 5, 2003

Sinker

SC DHEC
Attn: Lee Monts
2600 Bull Street
Columbia, SC 29201

RE: Huck's Plaza
Site ID #05156

Lee Monts:

Please find enclosed the revised Tier II Plan and Assessment Component Cost Agreement in regards to the above referenced site.

Sincerely,

Chuck Pfahler
Southeastern Environmental, Inc.

Enclosure: As state.

RECEIVED
AUG 07 2003
UNDERGROUND STORAGE
TANK PROGRAM

D H E C

PROMOTE PROTECT PROSPER

Tier II Plan

Division of Underground Storage Tank Management

UST Permit #: 05156 County: Horry Facility Name: Huck's Plaza

Facility Address: 1432 Hwy. 501, Myrtle Beach, SC 29577

Responsible Party: Homer Hucks

No. UST's: 3 Removed? _____ (Date) Replaced? _____ (Date)

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Water samples will be taken from each monitoring well and sent to a certified lab for analysis.

Permanent Monitoring Wells (Estimate number and total completed depth)

# of shallow wells: 8 Total depth: 120

# of deep wells: 1 Total depth: 45

Comments, if warranted:

Analyses

List the analytical parameters (e.g., BTEX, MTBE) and estimated number.

WATER		SOIL	
BTEX +NAPTH+MTBE	12	BTEX +NAPTH+MTBE	8
PAH's		PAH's	
Lead	12	TPH (3550)	
EDB's	12	Grain Size/Hydrometer	
Nitrate	12	TOC	
Sulfate	12		
Ferrous Iron	12		
Methane			

Implementation Schedule

Start Up Date: ASAP Completion Date: 120 days from approval of cost proposal

Report Submittal Date: _____

RECEIVED

AUG 0 7 2003

UNDERGROUND STORAGE TANK PROGRAM

D H E C

PROMOTE PROTECT PROSPER

Tier II Plan
Division of Underground Storage Tank Management

UST Permit# 05156 . Facility Name: Huck's Plaza .

Site Maps

1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.

2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:

North Arrow	Legend with facility name and address, UST permit number, date and a bar scale
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Additional Comments

D H E C

PROMOTE PROTECT PROSPER

South Carolina Department of Health and Environmental Control

ASSESSMENT COMPONENT COST AGREEMENT SOUTH CAROLINA

Department of Health and Environmental Control
Underground Storage Tank Program
State Underground Petroleum Environmental Response Bank Account

Facility Name : Huck's Plaza Revised Tier II Plan 08-05-03 .
UST Permit # : 05156 . Cost Agreement # : .

ITEM	QUANTITY	UNIT	UNIT PRICE	TOTAL
1.Plan*				
A. Plan Preparation	1	X	$100.00	$ 100.00
B. Tax Maps	1	X	$50.00	$ 50.00
2. Receptor Survey		X	$500.00	$
3. Comprehensive Survey		X	$1,000.00	$
4. Mob/Demob (List Component #)				
A. Equipment	3	X	$500.00	$ 1,500.00
B. Personnel	4	X	$250.00	$ 1,000.00
5. Soil Borings (hand auger)*	300	Feet X	$14.00	$ 4,200.00
6. Soil Borings (drilled)	(includes collection and quantification)			
and Field Screening*		Feet X	$17.00	$
7. Soil Leachability Model		X	$200.00	$
8. Abandonment*	300	Feet X	$4.00	$1,200.00
9. Well Installation*	(includes drilling costs)			
A. Water Table (hand auger)		Feet X	$20.00	$
B. Water Table (drilled) 8 MW's @ 15	120	Feet X	$38.00	$ 4,560.00
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D. Rock Drilling		Feet X	$58.00	$
10. Sample Collection*				
A.Ground-water	12	Samples X	$55.00	$ 660.00
B. Air/Vapor		Samples X	$90.00	$
11. Analyses-Groundwater	(see Analytical Methodology for analyses)			
A. BTEX+Napth.+MTBE	12	Samples X	$100.00	$ 1,200.00
B. Rush BTEX analysis		Samples X	$120.00	$
C. BTEX+napth.+MTBE Trimethylbenzene		Samples X	$135.00	$
D. PAH's		Samples X	$120.00	$
E. Lead	12	Samples X	$20.00	$ 240.00
F. EDB	12	Samples X	$55.00	$ 660.00
G. 8 RCRA Metals		Samples X	$140.00	$
H.TPH (9070)		Samples X	$55.00	$
I. Ph		Samples X	$10.00	$
J. BOD		Samples X	$40.00	$
K. Nitrate	12	Samples X	$20.00	$ 240.00
L. Sulfate	12	Samples X	$20.00	$ 240.00
M. Ferrous Iron	12	Samples X	$20.00	$ 240.00
N. Methane		Samples X	$110.00	$
O. Organic Lead		Samples X	$100.00	$
P. 8 Oxygenates		Samples X	$85.00	$

Continue on back of page

11. Analyses-Soil Q. BTEX + Napth.	8	Samples X	$100.00	$ 800.00
R. PAH's		Samples X	$120.00	$
S. 8 RCRA Metals		Samples X	$150.00	$
T. TPH (9071)		Samples X	$60.00	$
U. TPH (3550)		Samples X	$65.00	$
V. TPH (5035)		Samples X	$65.00	$
W. Grain size/hydrometer		Samples X	$75.00	$
X. Total Organic Carbon		Samples X	$35.00	$
12. Aquifer Characterization* A. Pumping Test		Hours X	$120.00	$
B. Slug Test	3	Tests X	$150.00	$ 450.00
13. Free Product Recovery Rate Test*		Tests X	$120.00	$
14. Fate/Transport Modeling A. Mathematical Model		Models X	$300.00	$
B. Computer Model	1	Models X	$500.00	$ 500.00
15. Risk Evaluation A. Tier 1		X	$300.00	$
B. Tier II	1	X	$500.00	$ 500.00
16. Subsequent Survey*	1	X	$260.00	$ 260.00
17. Disposal A. Wastewater 1. Purging/Sampling	4	Drums X	$90.00	$ 360.00
2. Pumping Test		Gallons X	$0.60	$
B. Free Product		Drums X	$110.00	$
C. Soil (Treatment/Disposal)		Tons X (Drums)	$50.00	$
18. Miscellaneous *		X		$
SOIL DISPOSAL	5	Drums	$90.00	$ 2,250.00
		X		$
19. Report/Project Management and Coordination	0.15	X	$ 23,820.00	$ 3573.00
20. **TOTAL**				**$ 27,393.00**

*The appropriate mobilization cost can be added to complete these tasks, as necessary

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

OCT 13 2003



HUCKS PLAZA
MR HOMER HUCKS
1102 3RD AVE SOUTH
MYRTLE BEACH SC 29577

Re: 501 Amoco, 1432 Hwy 501, Myrtle Beach, SC 29566
UST Permit #05156, CA #14774, MWA #UMW-15473
Release Reported Dec. 31, 1991
Tier II Assessment Plan received Aug. 5, 2003
Cost Agreement received Aug. 5, 2003
Horry County

Dear Mr. Hucks:

The Underground Storage Tank (UST) Program of the South Carolina Department of Health and Environmental Control (SCDHEC) recognizes your commitment to continue work at this site utilizing your own contractor. The UST Program has reviewed the referenced Tier II assessment plan and cost agreement submitted by Southeastern Environmental.

Assessment activities at the site should begin immediately upon receipt of this letter. Characterization of all exposure pathways should be completed using field screening points. Based on the field screening results, monitoring wells should be installed in appropriate locations to monitor the migration of chemicals of concern (CoC) along these pathways and for rehabilitation. **Please contact the department prior to well installation for concurrence regarding the final well locations.** Cost Agreement #14774 has been approved for the amount shown on the enclosed cost proposal form. Please note that the approved cost agreement has been amended from the one submitted.

- Item 4a has been reduced to two equipment mobilizations.
- Items 11k, l and m have been reduced to four analyses.
- Item 11n has been increased to four analyses for consistency with items 11k, l and m.
- Item 11q has been eliminated.
- Item 18 (soil disposal) has been modified from that submitted to adhere to the SUPERB Allowable Costs Document. Costs to be paid for disposal of five drums of soil is $250 at $50 per drum.
- All footage for well installation has been approved, however, the State Underground Petroleum Environmental Response Bank (SUPERB) Account will not pay for wells that are not technically justified.

Southeastern Environmental can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank Account. Please note that all applicable South Carolina certification requirements apply to the laboratory services, well installation, and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site

Rehabilitation Contractor. Approval to install 10 shallow and 1 deep ground water monitoring wells has been provided to your environmental consultant; a copy is enclosed for your records.

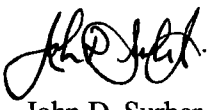
A Report of Findings and the invoice is due within 90 days from the date of this letter. An interim well drilling invoice may be submitted for this scope of work. If the invoice and completed report are not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the Program is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the Program for the cost to be paid. The SCDHEC reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, SCDHEC reserves the right to question and/or reject costs if deemed unreasonable. The SCDHEC reserves the right to audit project records at any time during the project or after completion of work.

The Program grants preapproval for transportation of virgin petroleum contaminated soil and groundwater from the referenced site to a permitted treatment facility. The contaminated soil or groundwater must be properly stored in labeled containers or covered with plastic as appropriate. The contaminated soil and/or ground water must be accepted by the approved treatment facility. There can be no spillage or leakage in transport. 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 final report. If the levels of petroleum contamination based on laboratory analysis are below risk-based screening levels, please contact the project manager for approval to dispose of soil and/or ground water on site. The SUPERB Account will not compensate for transportation or treatment of clean soil and/or ground water.

On all correspondence concerning this site, please reference UST Permit #05156 and CA #14774. If there are any questions concerning this project, please contact me at (803) 896-6649.

Sincerely,



John D. Surber, Jr., Hydrogeologist
Owner/Operator Assistance Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Finance Approved Cost Agreement (ACA)
Monitoring Well Approval (MWA)

cc: Technical File (w/ enc)
Read File (w/out enc)
Financial File (w/ACA)
Southeastern Environmental, 323 Main Street, Conway, SC 29526 (w/original MWA & ACP)

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

OCT 13 2003

HUCKS PLAZA
MR HOMER HUCKS
1102 3RD AVE SOUTH
MYRTLE BEACH SC 29577

Re: 501 Amoco, 1432 Hwy 501, Myrtle Beach, SC 29566
UST Permit #05156, CA #14774, MWA #UMW-15473
Release Reported Dec. 31, 1991
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On all correspondence concerning this site, please reference UST Permit #05156 and CA #14774. If there are any questions concerning this project, please contact me at (803) 896-6649.

Sincerely,

John D. Surber, Jr., Hydrogeologist
Owner/Operator Assistance Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

enc: Finance Approved Cost Agreement (ACA)
Monitoring Well Approval (MWA)

cc: Technical File (w/ enc)
Read File (w/out enc)
Financial File (w/ACA)
Southeastern Environmental, 323 Main Street, Conway, SC 29526 (w/original MWA & ACP)

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

Monitoring Well Installation Approval Form

Date of Issue: Oct. 9, 2003 Approval No.: UMW-15473

Approval is hereby granted to: Southeastern Environmental
(On behalf of): Hucks Plaza
UST Permit #: 05156: 501 Amoco, 1432 Hwy 501, Myrtle Beach, SC
County: Horry

This approval is for the construction of 8 shallow and 1 deep permanent monitoring wells in accordance with the construction plans and technical specifications outlined in the Tier II Assessment Document. The well(s) are to be constructed within the surficial aquifer for the intended purpose of monitoring ground-water quality and/or water level(s) at the referenced facility. Approval is provided with the following conditions:

1. The latitude and longitude, surveyed elevations, boring and/or geologist logs and actual (as built) construction details for each well will be submitted with the technical report.
2. Each well will be labeled with an identification plate constructed of a durable material affixed to the casing or surface pad where it is readily visible. The plate will provide monitoring well I.D.#, date of construction, static water level, and driller name and state certification #.
3. Well construction and sampling derived waste including, but not necessarily limited to, drill cuttings, drilling fluids, development and purge water should be managed properly and in compliance with applicable requirements. If containerized, each vessel should be clearly labeled with regard to contents, source, and date of activity.
4. **A minimum of forty-eight (48) hours prior to initiation of drilling activities, please provide notice to John Surber at (803) 896-6649 or surberjd@dhec.sc.gov.**
5. Please provide ground-water quality analytical data (chemical analysis and/or water level(s)) and associated measurements (i.e., in-situ field measurements) to me with the technical report.
6. Monitoring wells and temporary monitoring wells will be installed by or under the direct supervision of a licensed well driller certified by the State of South Carolina.
7. Monitoring wells and temporary monitoring wells will be abandoned by or under the direct supervision of a licensed well driller certified by the State of South Carolina. Temporary monitoring wells shall not remain in place for longer than 30 days from the date of installation. Monitoring wells may be abandoned only upon concurrence by this Division.

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. Please remember to have a copy of this approval on the site during well installation.

Approved by:

John D. Surber, Jr., Hydrogeologist
Owner/Operator Assistance Section
Assessment and Corrective Action Division
Underground Storage Tank Program
Bureau of Land and Waste Management

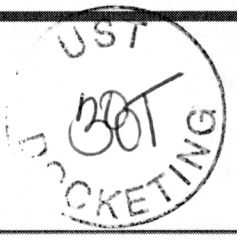
cc: Waccamaw EQC District
Hucks Plaza

Approved Cost Agreement 774

Facility: 05156 501,AMOCO
SURBERJD
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
01 PLAN						
		A	PLAN PREPARATION	1.0000	100.00	100.00
		B	TAX MAPS	1.0000	50.00	50.00
04 MOB/DEMOB						
		A	EQUIPMENT	2.0000	500.00	1,000.00
		B	PERSONNEL	4.0000	250.00	1,000.00
05 SOIL BORINGS (HAND AUGER)						
			SOIL BORINGS (HAND AUGER)	300.0000	14.00	4,200.00
08 ABANDONMENT						
			ABANDONMENT	300.0000	4.00	1,200.00
09 WELL INSTALLATION						
		B	WATER TABLE (DRILLED)	120.0000	38.00	4,560.00
		C	TELESCOPING	45.0000	58.00	2,610.00
10 SAMPLE COLLECTION						
		A	GROUND WATER	12.0000	55.00	660.00
11 ANALYSES						
	GW GROUNDWATER	A	BTEX+NAPTH+MTBE	12.0000	100.00	1,200.00
		E	LEAD	12.0000	20.00	240.00
		F	EDB	12.0000	55.00	660.00
		K	NITRATE	4.0000	20.00	80.00
		L	SULFATE	4.0000	20.00	80.00
		M	FERROUS IRON	4.0000	20.00	80.00
		N	METHANE	4.0000	110.00	440.00
12 AQUIFER CHARACTERIZATION						
		B	SLUG TEST	3.0000	150.00	450.00
14 FATE/TRANSPORT MODELING						
		B	COMPUTER MODEL	1.0000	500.00	500.00
15 RISK EVALUATION						
		B	TIER II	1.0000	500.00	500.00
16 SUBSEQUENT SURVEY						
			SUBSEQUENT SURVEY	1.0000	260.00	260.00
17 DISPOSAL						
		A1	WASTEWATER - PURGING/SAMPLING	4.0000	90.00	360.00
		C	SOIL (TREATMENT/DISPOSAL)	5.0000	50.00	250.00
19 RPT/PROJECT MNGT & COORDINATIO						
		PCT	PERCENT	0.1500	20,480.00	3,072.00
					Total Amount	23,552.00

John D. Surber - Hucks Plaza property #05156



From: <SEI91@aol.com>
To: <surberjd@dhec.sc.gov>
Date: 11/14/03 2:06 PM
Subject: Hucks Plaza property #05156

John;
Thanks for speaking with me regarding this site. Here is the basic content of my conservation with Cranston and Homer Hucks.

On November 14, 2003 at 11:30am, I met with Homer Hucks and Cranston Hucks at the Hucks Plaza property at 1432 Hwy. 501 in Myrtle Beach. During our meeting, they stated the following:

The property (land) owner is Danny Todd of Watkinsville, GA.
Homer Hucks leased the property from the Todd family.
Homer claimed he did not install the UST's (either they were already installed, or Creel Oil Co. paid for the installment?)
Creel Oil Co. managed the UST's when he was in business.
Years ago, Creel Oil Co. had Homer Hucks sign a document regarding the UST's (Homer thought it was regarding responsibility or ownership of the UST's)
Homer Hucks was the one who signed up for the SUPERB program.
Danny Todd supposedly paid for the UST's to be abandoned (filled with concrete a couple of years ago).
Cranston became partners with Homer in regards to this property about 4 years ago.

I explained to Homer and Cranston, SC-DHEC's policy when it comes to the responsible party. I also re-iterated that they should not worry too much about it because they were covered by the SUPERB program and did not have to pay for any work being conducted.
Homer's biggest concern was that he just wanted to have his name off of it, and he felt Danny Todd should be the responsible party since he (Homer) only leased it.

During our meeting, Cranston and Homer did not want to sign anything until they knew they were the ones who were supposed to sign (the Assessment Component Invoice, waste disposal forms, etc.). They said they would be glad to allow us access to the property to collect water samples from our existing monitoring wells, etc., but thought we should contact Danny Todd (property owner) when it came to drilling more wells (which we would do).

When you speak with them (Cranston), you may need to explain the policy when it comes to who is the responsible party, that a fine/penalty could be levied if the report is late because they held up the work (and it would just be easier for them to sign the paperwork, and as much as they don't like it, Homer Huck's will remain the responsible party (if this is in fact, correct) until the work at this site is complete.

I do have a new address and phone # for Homer (and Cranston) Hucks.

6058 Grenata Lane
Myrtle Beach , SC 29588

(843) 903-0326 (home, after 5:00pm)
(843) 283-8395 (Cranston's mobile phone)

If you have any questions, give me a call.
Thanks
Jared

Email from Jared Hendricks@SEI
#843-248-3533

Cranston will act as an UST Release Contact

SOUTHEASTERN ENVIRONMENTAL INC.
323 Main Street
Conway, South Carolina 29526
Phone: (843) 248-3533
FAX: (843) 248-5034

UST 39T DOCKETING

RECEIVED MAY 12 2004 UNDERGROUND STORAGE TANK PROGRAM

FAX MESSAGE / COVER SHEET

DATE: 5/12/04

TO: Robert Hodges

FAX #: (803) 8966245 05156

FROM: Jared Hendrix

OF PAGES: 36 (Including Cover Page)

RE: Temp. Wells / Perm. Well Placements

COMMENTS:

CONFIDENTIALITY NOTICE:
The information contained in this transmission is privileged and confidential. It is intended only for the use of the individual or entity named above. If you are not the intended recipient or an authorized agent or employee of the intended recipient who has been authorized to deliver this facsimile, you are hereby notified that any dissemination, distribution or copying of this communication is strictly prohibited. If you have received this communication in error, please notify us immediately by telephone, and arrangements will be made to return the message. Thank you!

Southeastern Environmental

323 Main Street, Conway, SC 29526 • (843) 248-3533 • (800) 257-3533 • Fax: (843) 248-5034

May 11, 2004

SC DHEC
Attn: Robert Hodges, Project Manager
2600 Bull Street
Columbia, SC 29201-1708

RE: Hucks Plaza
"501 Amoco"
UST Permit #05156

Robert:

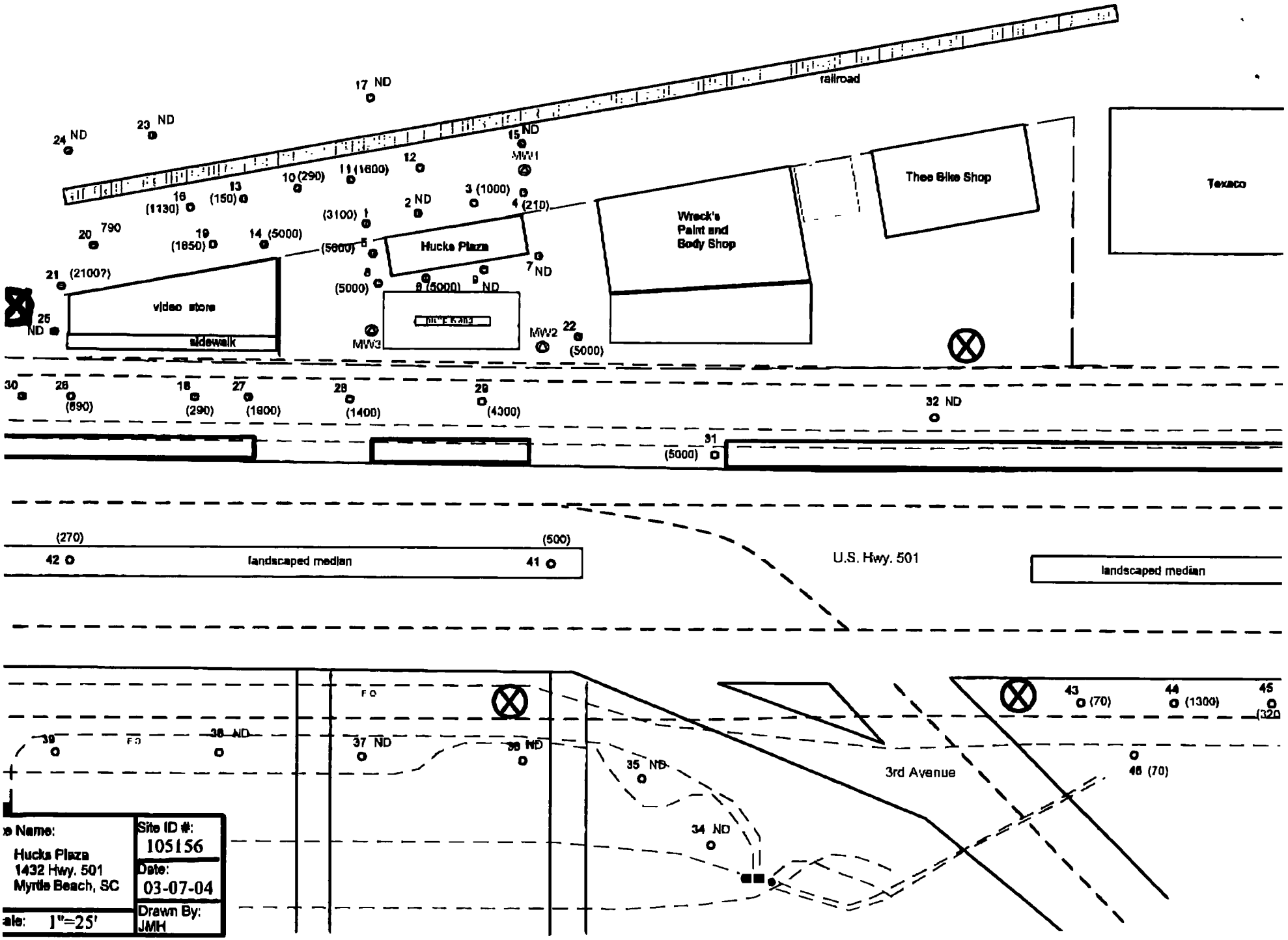
Thank you for speaking with me Tuesday, May 11, 2004 regarding the Huck's Plaza site. As we discussed, Southeastern Environmental, Inc. would like to request adding four temporary groundwater sample collections to the cost assessment for this site in order to more accurately define our contamination plume before monitoring well installations begin. Two samples will be collected from across U.S. Hwy. 501, one sample southeast of the site, and one sample northwest of the site. I have attached a site of the agreed locations for these temporary groundwater collections.

If you have any other questions or comments regarding this proposal, please feel free to contact me.

Thank you,

Jared M. Hendrix
Southeastern Environmental, Inc.

Enclosure: As stated.


railroad
17 ND
24 ND
23 ND
15 ND
MW1
12
10 (290)
11 (1600)
16 (1130)
13 (150)
3 (1000)
2 ND
4 (210)
(3100)
20 790
19 (1850)
14 (5000)
(5000)
Hucks Plaza
Wreck's Paint and Body Shop
Thee Bike Shop
Texaco
21 (21007)
video store
sidewalk
25 ND
8 (5000)
9 (5000)
ND
7 ND
MW3
MW2
22 (5000)
30
28 (690)
16 (290)
27 (1800)
28 (1400)
29 (4300)
32 ND
31 (5000)
(270)
42
landscaped median
(500)
41
U.S. Hwy. 501
landscaped median
FO
39
FO
38 ND
37 ND
36 ND
35 ND
34 ND
3rd Avenue
43 (70)
44 (1300)
45 (320
46 (70)
Site ID #: 105156
Date: 03-07-04
Drawn By: JMH
1"=25'

SOUTHEASTERN ENVIRONMENTAL INC.
323 Main Street
Conway, South Carolina 29526
Phone: (843) 248-3533
FAX: (843) 248-5034

UST 401 DOCKETING

RECEIVED
JUL 20 2004
UNDERGROUND STORAGE TANK PROGRAM

FAX MESSAGE / COVER SHEET

DATE: 7/20/04

TO: Robert Hodges

FAX #: (803) 896-6245

FROM: Jared Hendrix

OF PAGES: 6 (Including Cover Page)

RE: Huck Plaza (501 Amaco - Site ID# 05156)

COMMENTS:
Please review the well locations
Thanks -
Jared
Approved Locations
RH 7/20/04

CONFIDENTIALITY NOTICE:
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ACCESS ANALYTICAL, INC.

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

July 7, 2004
Report # 406001513
Order # 53148
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
SC.
Hucks Plaza

Sample I.D.: Temp MW-1
Collected: 06/24/04 00:00
Received: 06/30/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANAI
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	7:24AA1
Benzene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	7:24AA1
Toluene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	7:24AA1
Ethylbenzene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	7:24AA1
m & p-Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	7:24AA1
o-Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	7:24AA1
Total Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	7:24AA1
Naphthalene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	7:24AA1
SURROGATE: Diethyl ether	87.13%						
SURROGATE: Toluene-D8	102.75%						
SURROGATE: Bromofluorobenzene	123.60%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

July 7, 2004
Report # 406001513
Order # 53149
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
SC.
Hucks Plaza

Sample I.D.: Temp MW-2
Collected: 06/24/04 00:00
Received: 06/30/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYS
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	BDL	ug/L	5030/8260B	1.000	07/02/2004	07/02/2004	17:27SKL
Benzene	BDL	ug/L	5030/8260B	1.000	07/02/2004	07/02/2004	17:27SKL
Toluene	2.61	ug/L	5030/8260B	1.000	07/02/2004	07/02/2004	17:27SKL
Ethylbenzene	BDL	ug/L	5030/8260B	1.000	07/02/2004	07/02/2004	17:27SKL
m & p-Xylene	BDL	ug/L	5030/8260B	1.000	07/02/2004	07/02/2004	17:27SKL
o-Xylene	BDL	ug/L	5030/8260B	1.000	07/02/2004	07/02/2004	17:27SKL
Total Xylene	BDL	ug/L	5030/8260B	1.000	07/02/2004	07/02/2004	17:27SKL
Naphthalene	BDL	ug/L	5030/8260B	1.000	07/02/2004	07/02/2004	17:27SKL
SURROGATE: Diethyl ether	98.25%						
SURROGATE: Toluene-D8	105.25%						
SURROGATE: Bromofluorobenzene	111.60%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way. Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

July 7, 2004
Report # 406001513
Order # 53150
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
SC.
Hucks Plaza

Sample I.D.: Temp MW-3
Collected: 06/24/04 00:00
Received: 06/30/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYS
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	40.7	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:10AA1
Benzene	5.77	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:10AA1
Toluene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:10AA1
Ethylbenzene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:10AA1
m & p-Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:10AA1
o-Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:10AA1
Total Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:10AA1
Naphthalene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:10AA1
SURROGATE: Diethyl ether	97.25%						
SURROGATE: Tolulene-D8	104.50%						
SURROGATE: Bromofluorobenzene	126.80%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

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Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

July 7, 2004
Report # 406001513
Order # 53151
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
SC.
Hucks Plaza

Sample I.D.: Temp MW-4
Collected: 06/24/04 00:00
Received: 06/30/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYS
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:33AA1
Benzene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:33AA1
Toluene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:33AA1
Ethylbenzene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:33AA1
m & p-Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:33AA1
o-Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:33AA1
Total Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:33AA1
Naphthalene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:33AA1
SURROGATE: Diethyl ether	91.00%						
SURROGATE: Toluene-D8	106.00%						
SURROGATE: Bromofluorobenzene	137.20%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

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10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
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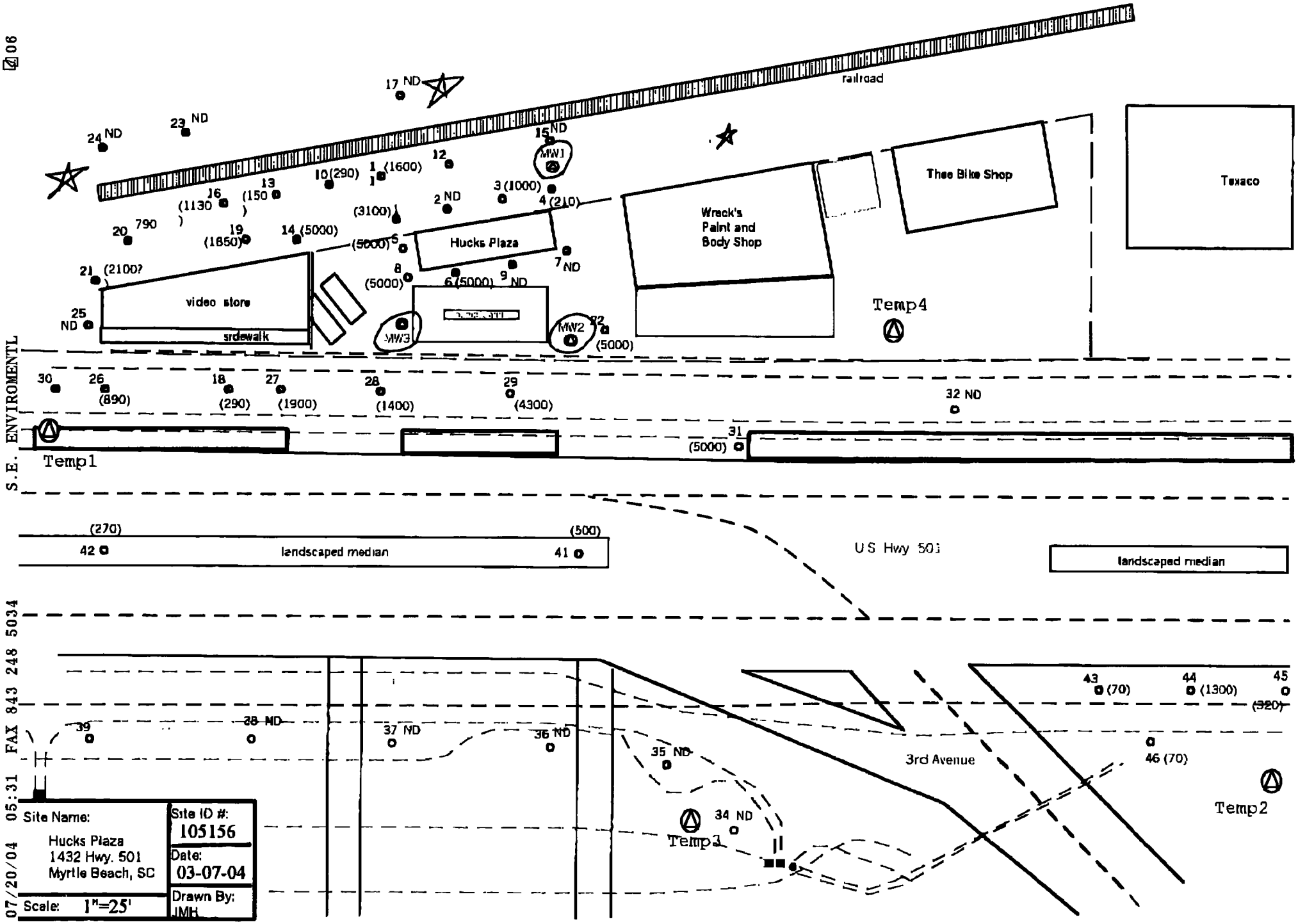
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative



S.E. ENVIROMENTL FAX 843 248 5034 07/20/04 05:31

SOUTHEASTERN ENVIRONMENTAL INC.
323 Main Street
Conway, South Carolina 29526
Phone: (843) 248-3533
FAX: (843) 248-5034



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NOV 01 2004
UNDERGROUND STORAGE
TANK PROGRAM

FAX MESSAGE / COVER SHEET

DATE: 11/1/04

TO: Robert Hodges

FAX #: (803) 896-6245

FROM: Chuck Pfahler

OF PAGES: 3 (Including Cover Page)

RE: Huck Plaza Site # 05156 / Pee Dee Mart Site # 10344

COMMENTS:
The following Hucks Plaza site map indicates temporary monitoring wells 5, 6, and 7. The laboratory data indicates the ground water samples were below detection limits, so we are going to proceed to install the permanent monitoring wells in these locations.

The Pee Dee Mart site map indicates the new proposed location for telescoping well 2. If you have any concerns regarding these two sites please contact us as soon as possible!

Thank you.
Chuck Pfahler.

CONFIDENTIALITY NOTICE:
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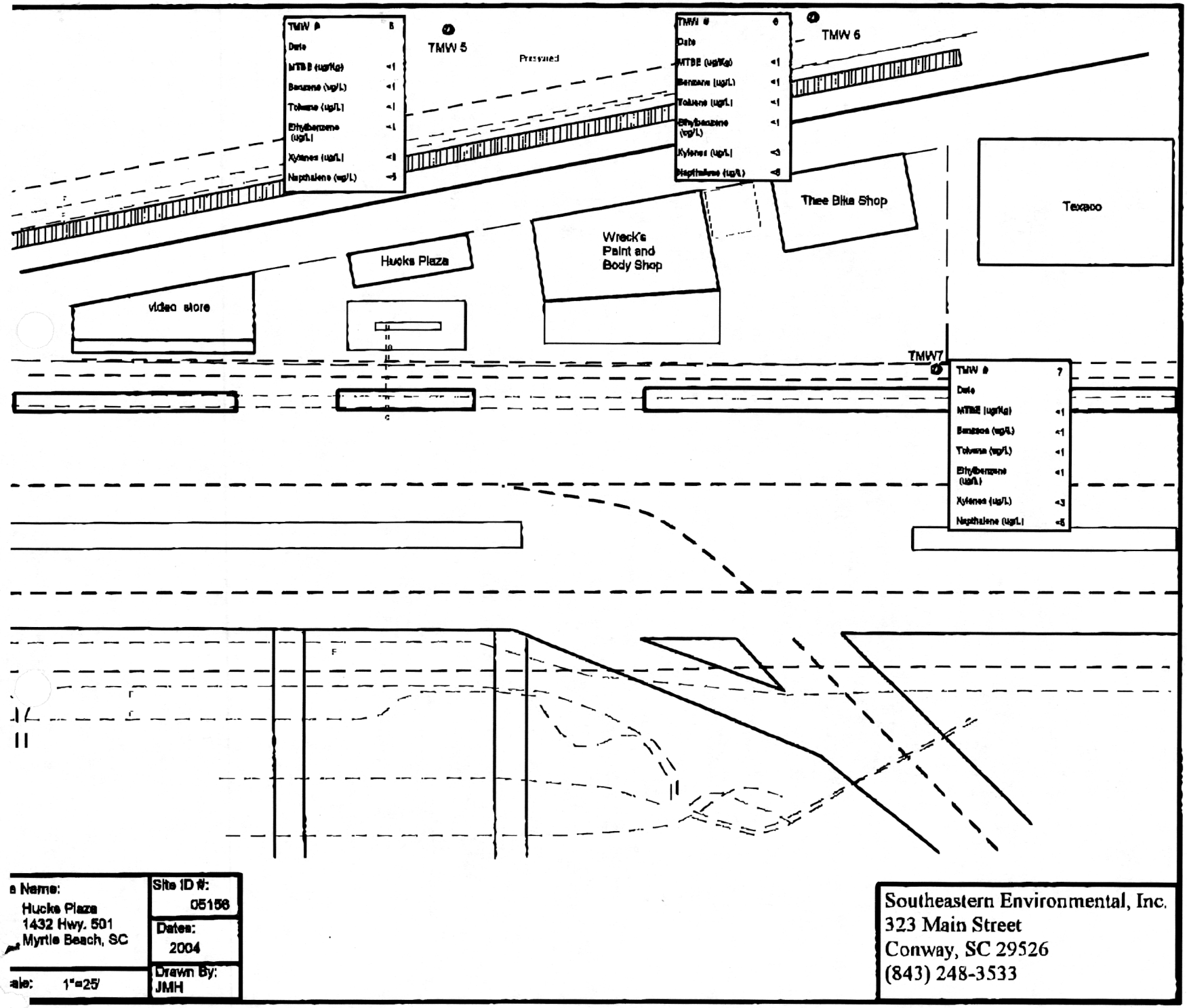

e Name:
Hucks Plaza
1432 Hwy. 501
Myrtle Beach, SC

Site ID #:
05156

Dates:
2004

ale: 1"=25'

Drawn By:
JMH

Southeastern Environmental, Inc.
323 Main Street
Conway, SC 29526
(843) 248-3533

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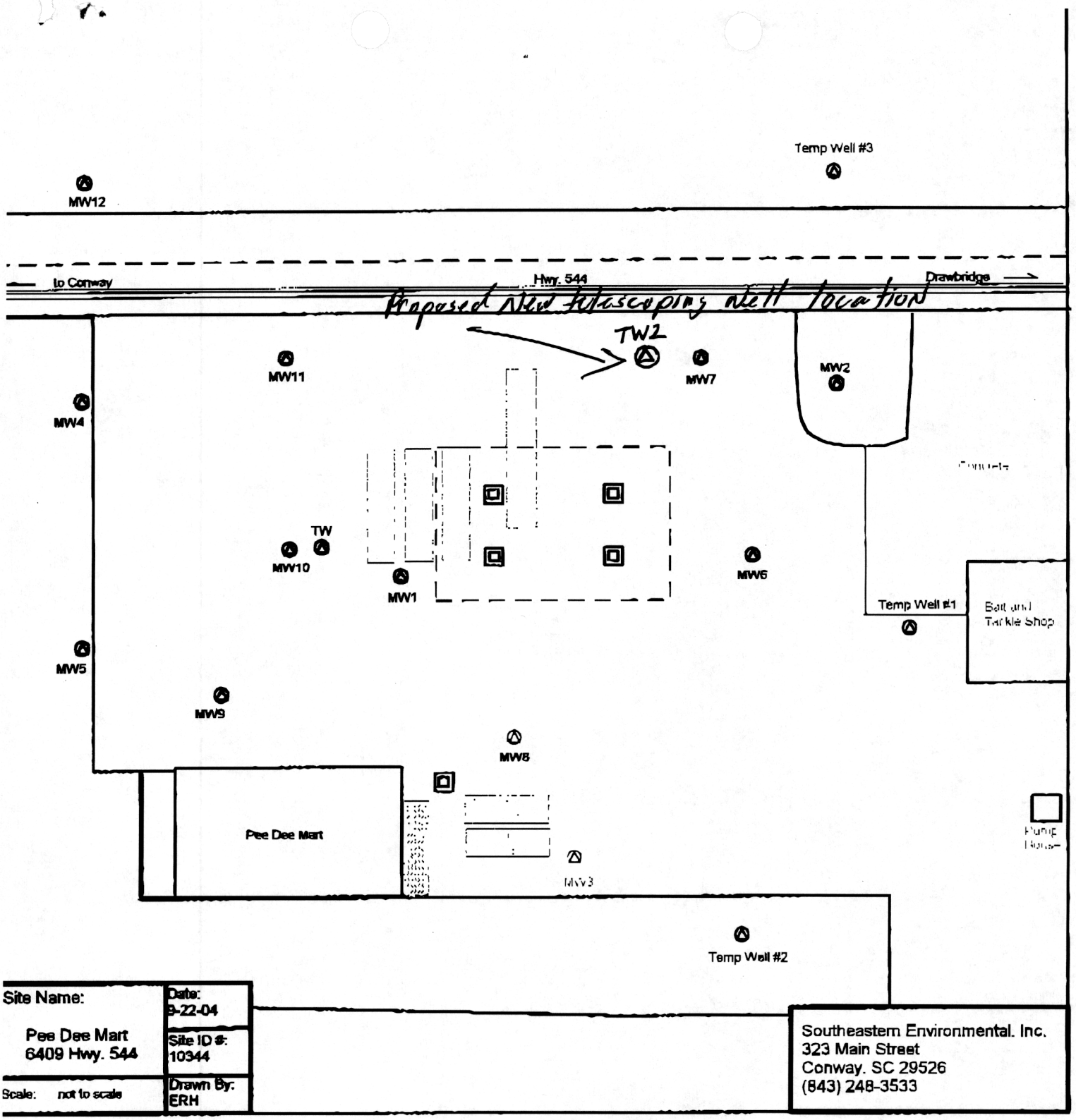
11/01/04 08:16 FAX 843 248 5034 S.E. ENVIROMENTL 002


Temp Well #3
MW12
to Conway
Hwy. 544
Drawbridge
Proposed New Telescoping well location
TW2
MW11
MW7
MW2
MW4
TW
MW10
MW1
MW6
Temp Well #1
Bait and Tackle Shop
MW5
MW9
MW8
Pee Dee Mart
Pump House
MW3
Temp Well #2
Site Name:
Pee Dee Mart
6409 Hwy. 544
Date:
9-22-04
Site ID #:
10344
Scale: not to scale
Drawn By:
ERH
Southeastern Environmental. Inc.
323 Main Street
Conway. SC 29526
(843) 248-3533

Southeastern Environmental

323 Main Street, Conway, SC 29526 • (843) 248-3533 • (800) 257-3533 • Fax: (843) 248-5034

January 7, 2005

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UNDERGROUND STORAGE TANK PROGRAM

UST 42T METERING

SC DHEC
Attn: John Skowronek, Project Manager
2600 Bull Street
Columbia, SC 29201-1708

RE: Hucks Plaza "501 Amoco"
UST Permit #05156 CA# 14774

John Skowornek:

Please find enclose the Tier II Report for the above referenced site. If you have any questions regarding the contents of the report feel free to contact the office.

With Kind Regards,

recently
x fer

Charles A. Pfahler
Southeastern Environmental, Inc.

Enclosure: As stated.

Tier II

Huck's Plaza

1432 Highway 501
Myrtle Beach, SC 29575
UST Permit # 05156

Prepared by:

Southeastern Environmental, Inc.

323 Main Street

Conway, South Carolina 29526

January 6, 2005

Signature Page

This document, entitled Tier II Assessment Report, has been prepared for the South Carolina Department of Health and Environmental Control to describe investigative activities at Hucks Plaza, UST Site # 05156. The site address is 1432 Highway 501, Myrtle Beach, SC 29575. The data, provided by Southeastern Environmental, Inc., have been reviewed by William J. Lahm and found to be in accordance with accepted quality control practices.

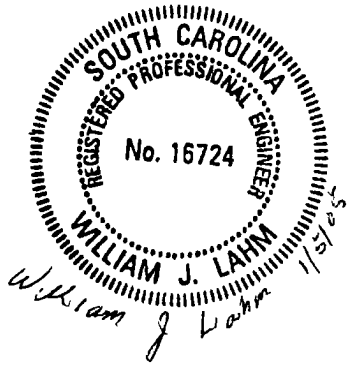
Southeastern Environmental, Inc.

Bruce G. Newell
President

Southeastern Environmental, Inc.

William J. Lahm, PE

William J. Lahm, P.E
South Carolina Registration # 16724.



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Tier II Report
Huck's Plaza
1432 Highway 501
Myrtle Beach, SC 29575
SCDHEC Site ID No. 05156

SECTION **PAGE NO.**

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2.0 REGIONAL AND SITE SPECIFIC TOPOGRAPHY AND GEOLOGY 1

3.0 FIELD SCREENING, WELL INSTALLATION, GROUND WATER TESTS 2

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- B. FATE AND TRANSPORT MODEL
- C. BIOSCREEN 1.4 ANALYSIS
- D. SSTL DETERMINATION
- E. LEACHABILITY ANALYSIS

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APPENDIX

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1.0 Introduction & Background

Southeastern Environmental, Inc. performed a Tank Closure on this site on 10/18/99. Three steel tanks, with a capacity of 14,000 gallons of gasoline before product removal by the owner, were closed.

SEI then performed a Tier I Analysis of Huck's Plaza and issued a report to the Underground Storage Management on 7/2/01. Soil analysis showed that seven of the eight boreholes had contamination well above the RBSLs at a depth of 2 feet and also had a strong gasoline odor. Soil samples taken at the same depth in monitoring wells MW-1 and MW-3 had BTEX contamination but at levels below the RBSLs. MW-2 had non detectable levels of CoCs.

A release of unknown quantity was reported to SCDHEC on 12/31/91. Leaky piping was suspected. However, none of the tanks had spill prevention or overflow detection devices. The tanks appeared to be sound and free of rust.

Subsequently, the DHEC Bureau of Land and Waste Management requested that a Tier II Assessment be performed at Huck's Plaza and gave approval for the installation of two telescoping wells and ten additional shallow wells to SEI, Inc. SEI also bored and analyzed 46 additional bore holes for OVA, odor and soil type. This report details the results of the Tier II Analysis and provides recommendations for further activities at this site.

2.0 Regional Topography & Site Specific Geology

The region surrounding the site is flat with little relief. Surface slope is indistinct within a thousand feet. Surface drainage toward the southeast is accomplished with ditches and storm drains. Vegetation is limited to grass and weeds in small undeveloped strips to the north and the grass and shrub median to Highway US 501. The mean site elevation is 21 feet above sea level. There are no bodies of water within 1000 feet of the site.

Much of the surface is covered by asphalt or concrete. The opposite side of the railroad tracks is less dense, has dense vegetation and pine trees.

The site is underlain by tan, thick clay; gray wet sand and sandy clay to a depth of 15 feet. At a depth of 20 to 30 feet the soil is gray clay and gray sandy clay.

3.0 Field Screening, Well Drilling, Ground Water Testing

Southeastern Environmental, Inc. (SEI) with the guidance of DHEC personnel, selected sites for the ten additional shallow monitoring wells; MWs 4, 5, 6, 7, 8, 9,10, 11,12 and 13, as well as two telescoping wells, TW-1 and TW-2. The locations of the new wells, as well as those of the original wells are shown on the site plat plan in the Appendix.

All groundwater samples were tested for temperature, conductance, ph and BTEX with napthalene plus MTBE using Test Method 8260B. Samples were also tested for the electron acceptors nitrate, sulfate, methane, ferrous iron and lead.

The monitoring wells were installed by a SC licensed well driller. SC Standards and Regulations were followed.

Prior to sampling, all wells were purged a minimum of three volumes to ensure that a representative sample was collected at each MW. All samples were labeled, packed in crushed ice and shipped to Access Analytical for testing. MW-1 was damaged and could not be sampled.

SEI also hand-augered 46 boreholes and sampled the soil at depths ranging from 1.5 to 4 feet. Soil descriptions ranged from sandy loam, sandy clay to thick orange clay. Nine soil samples had a strong gasoline odor.

Complete Analytical test results and observations may be found in the Appendix.

4.0Aquifer Characterization

Porosity is estimated to be 0.2 based on the Tier I Analysis. SEI slug tests conducted on 4/29/04 and current ground water elevations were used for the present analysis. Seepage velocity was calculated to be 11 ft/yr using the modified Darcy equation. The hydraulic gradient was calculated from the current ground water elevations and hydraulic conductivity is the average value of three slug tests analyzed with Waterloo Hydrogeologic software using the Bouwer-Rice Method.

The aquifer characteristics used in this Tier II Analysis are as follows:

Seepage Velocity- 11 ft/yr
Hydraulic Gradient- 0.00642
Porosity- 0.2
Hydraulic Conductivity- 1.087E-5 ft/sec

Ground water flow is to the Northeast.

5.0 Receptor Survey

A receptor survey was conducted on the subject site to determine possible bodies of water, underground utilities and residential areas that may be subject to contamination resulting from the hydrocarbon plume. Since most of the surface is paved, the only potential receptor is a storm water drainage ditch that runs alongside the railroad tracks and storm water drainage which runs alongside Hwy. 501. The railroad ditch is 100 feet or less downgradient from the source, MWs 2 and 3. The Hwy. 501 storm water drainage is less than 50 feet from MWs 2 and 3.

6.0 Ground Water Analytical Data Summary

- Benzene exceeded its 5 ug/l RBSL in MW-2 (10500 ug/l); MW-3 (10500 ug/l); MW-5 (305 ug/l); and MW-8 (3070 ug/l).
- MBTE exceeded its 40 ug/l RBSL in MW-3 (900ug/l).
- Toluene exceeded its 1000 ug/l RBSL in MW-2 (99300 ug/l); MW-3 (67500 ug/l) and MW-10 (1510 ug/l).
- Ethylbenzene exceeded its 700 ug/l RBSL in MW-2 (1430 ug/l) and MW-3 (1260 ug/l).
- Xylenes were below their RBSL of 10000 ug/l in all monitoring wells.
- Napthalene exceeded its RBSL of 25 ug/l in MW-2 (704 ug/l) and MW-3 (713 ug/l).

Lead was present in several monitoring wells but exceeded its RBSL of 15 ug/l only in MW-6.

The presence of CoCs above their respective RBSLs in the Telescoping Well TW-1 shows that the vertical extent of the plume has not been defined.

7.0 TIER II EVALUATION

Bioscreen, Version 1.4, was used to estimate the fate and transport of CoCs at the Huck's Plaza site. This simulation program, an enhanced version of Bioscreen, was developed by the EPA to predict the remediation of BTEX and NAPLs by both first order and instantaneous decay. The software is based on the Domenico Analytical Solute Transport Model and simulates advection, dispersion, adsorption, aerobic and anaerobic decay.

Site specific data generated from the latest groundwater samples taken by SEI were used to simulate:

a. Plume movement and CoC degradation.
b. Fate and transport of CoCs.
c. Calibration of benzene to determine lambda.

The SC DHEC SSTL Model was then used to determine site specific SSTLs.

Lastly, Leachability was calculated using the SCDHEC Model.

7.0A Site CoC Mass

The site contains three closed gasoline tanks; two 4000 gallon and one 6000 gallon. The tanks were installed in 1971. The tanks are, therefore, 31 years old. Since they were closed in 1999, a simulation time of 25 years was used in Bioscreen 1.4.

The total fuel mass on site was 14,000 gallons. Using a mass conversion factor of 5.086 lb/gal, total fuel mass is 32365 kg. Since BTEX comprises 5-15 % of total mass, a BTEX mass of 4855 kg will be used in the Bioscreen 1.4 analysis.

7.0B Fate and Transport Model

The site was divided into a single zone, 62 feet wide and parallel to the north east downgradient flow direction. The source zone, Zone 3, which consists of MW-2 and MW-3, contains the highest concentrations of CoCs measured on the site.

7.0C Bioscreen 1.4 Analysis

Figure 1- Bioscreen 1.4 Data Input Sheet for Lumped Constituents. Electron acceptors, except for Oxygen, were measured in samples taken on site. The median value of 28 sites as given in the Bioscreen Manual was used for oxygen, 5.8 mg/l. Figure 1 also gives a view of the CoC plume from above. Field data were also used. The source contains 314 mg/l of BTEX. Soluble mass is 4855 kg and the simulation time is 25 years.

Figure 2- Lumped Constituents- This plot shows the predicted dissolved hydrocarbon concentrations in the plume and mass flux versus distance from the source. Bioscreen 1.4 predicts that dissolved hydrocarbons in the plume will be zero at a distance of 320 feet from the source.

This sheet also predicts that 90.9 kg of the plume mass has been removed by biodegradation and that the contaminated mass in the source has been reduced by 330 kg.

The current volume of groundwater in the plume is 1.2 ac-ft and the flow rate of water through the source is .031 ac-ft/yr. This clearly shows that many years will be required for the source to cleanse itself through natural remediation.

Figure 3 is a linear plot of the dissolved Hydrocarbon Concentration along the plume centerline. Three models are shown: No Degradation; 1st Order Decay; Instantaneous Reaction.

The Instantaneous Reaction Model was used for all calculations.

7.0D

Figure A of the Bioscreen Analysis is the Data Input for Benzene contamination in the source. Electron receptor concentrations were reduced by 75% and the Benzene mass was calculated to be 49 kg using Johnson's data for weathered gasoline. Figure B shows the dissolved Benzene concentration along the centerline of the plume. It is standard practice to determine lambda by adjusting the half life of Benzene until the field data coincide with the first order decay plot. In this case, the best data fit was obtained with a value of lambda at 2.4E-1.

7.0E SSTL Determination

Site specific SSTLs were determined for the source, MW-1 and MW-2. The ditch adjacent to the railroad tracks was chosen as the receptor. An SSTL is the estimation of the CoC concentration at the source that will not affect the receptor above the RBSLs.

The following SSTLs were calculated

CALC. SSTL, mg/l	SOURCE CONC., mg/l
Benzene, 3.71	21.0
Toluene, 743.0	166.8
Ethylbenzene, 520.0	2.7
Xylenes, 7426.0	12.4

Since the calculated SSTLs for Toluene, Ethylbenzene and Xylenes are above or greater than the source concentrations, there is no immediate danger of these CoCs contaminating the ditch. Benzene, however, with a calculated SSTL of 3.71 mg/l and a source concentration 21 mg/l is definitely contaminating the ditch at levels above its RBSL.

7.0F Leachability Analysis

The leachability analysis was made using MW-3 with a depth to the water of 6.18'. The results show that Benzene has an SSTL of 0.003 mg/kg; Toluene has cp>cs so no SSTL is required for the soil; Ethylbenzene and Xylene also have a cp>cs.

In no case does the concentration of CoC in the soil exceed its SSTL. There does not appear to be a risk of human exposure due to contaminated soil.

8.0 RESULTS, CONCLUSIONS AND RECOMMENDATIONS

Installation of ten additional shallow wells and the two TWs has provided new information that plays a significant role in this site analysis. MWs – 2, 3 and 8 contain high levels of CoCs. MW-2 contains 118.7 mg/l of BTEX. The presence of benzene contamination above its RBSL in one of the telescoping wells, TW-2, shows that the vertical extent of the plume has not been defined.

The Bioscreen analysis resulted in a large plume length of 320 feet so the contaminants are definitely exceeding the property boundary. The SSTL analysis clearly showed that Benzene was contaminating the ditch adjacent to the off-site railroad tracks.

The Bioscreen Analysis also showed that a fairly substantial amount the plume mass (27.5%) had been removed by natural remediation but the contaminated mass in the source has not been reduced significantly.

The SSTL analysis showed that the ditch receptor is being contaminated by Benzene above its RBSL while the Leachability analysis showed that there is no immediate danger from soil contamination.

The Huck's Plaza site is low in or devoid of electron acceptors to increase the rate of biodegradation. It is recommended that additional electron acceptors, such as oxygen, nitrate, iron, sulfate and methane be introduced to the site to enhance and increase the biodegradation capacity of the groundwater. Continued monitoring is recommended to assess the site on a quarterly basis. Furthermore, MW 1 should either be re-installed or abandoned to eliminate any potential receptor.

FIGURES

Topographic Map

Site Map – Soil Borings

Site Map – Monitoring Wells

Site Map – Field Screening Points

Site Map – Ground Water CoC

Ground Water Contour Map

TABLES

Ground Water Elevation Data

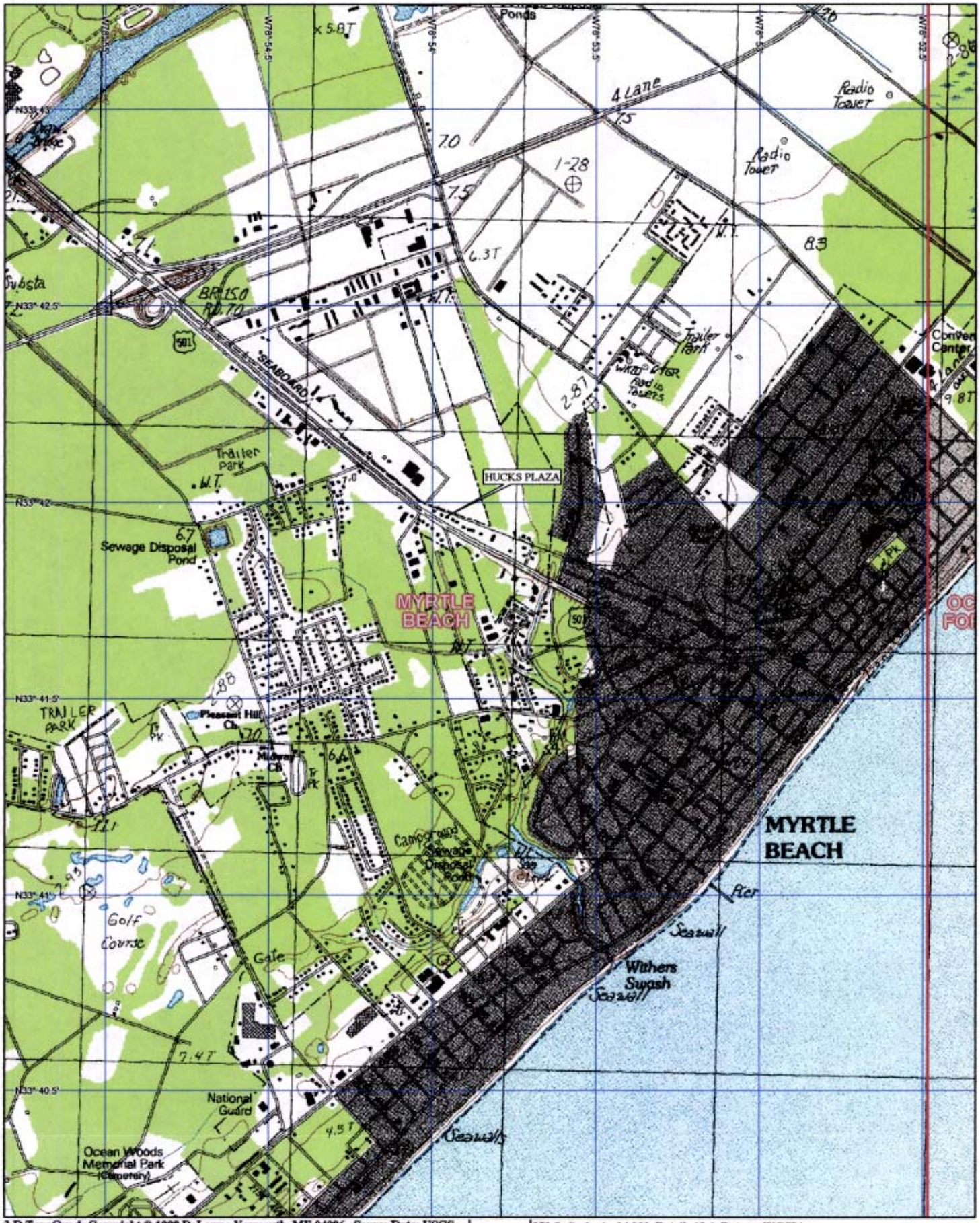
Ground Water - Analytical Table

(Drilled) Soil Boring Log

Ground Water Sampling Data

SUPPORTING DOCUMENTS

- Field Screening Points (Well Diagrams)
- Well Diagrams/Water Well Records
- Slug Test Data
- Bioscreen Calibration
- Laboratory Data
- Waste Disposal Manifest
- Comprehensive Site Survey
- Tax Map



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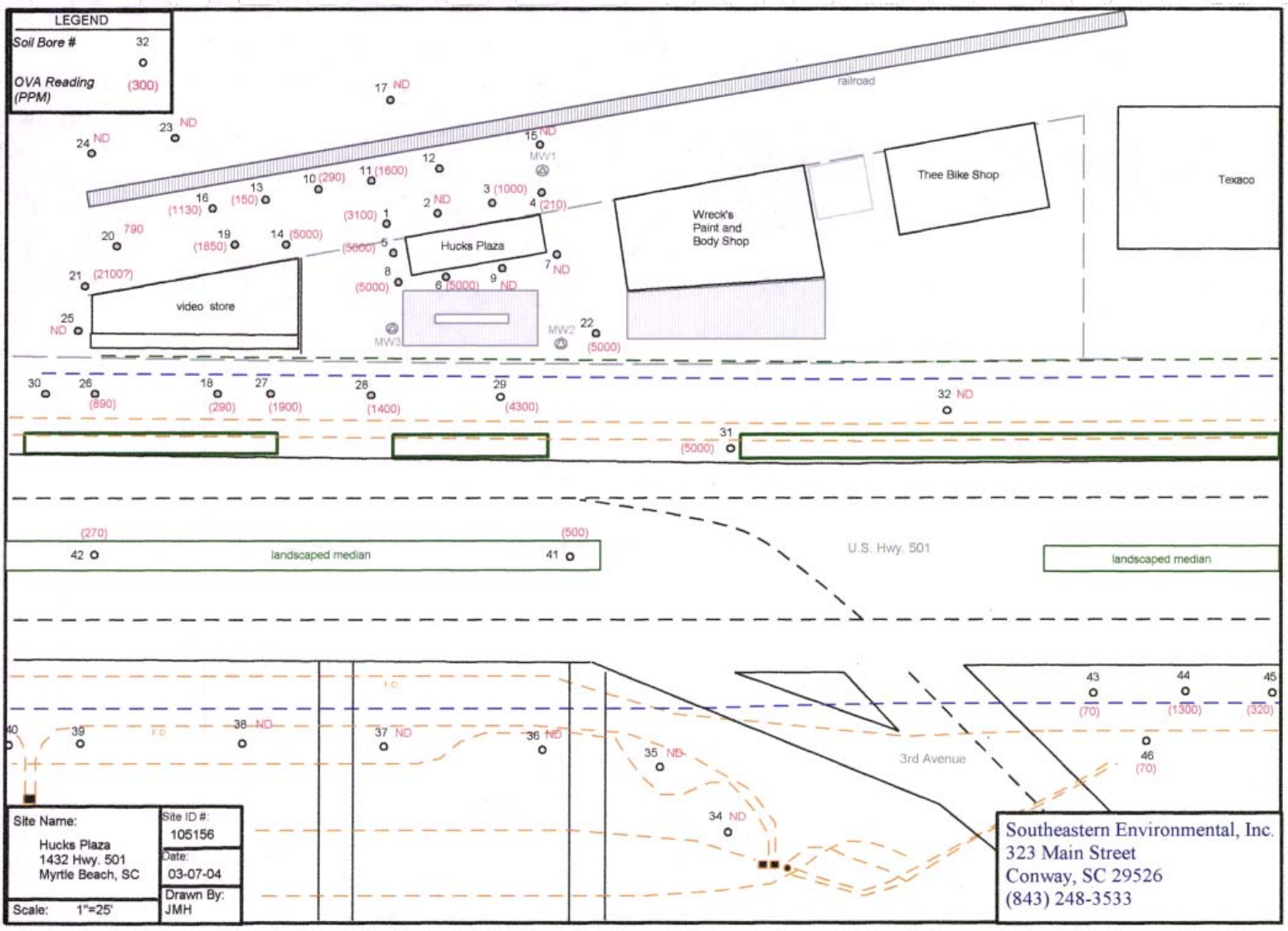
LEGEND
Soil Bore # 32
OVA Reading (PPM) (300)
railroad
Thee Bike Shop
Texaco
Wreck's Paint and Body Shop
Hucks Plaza
video store
MW1
MW2
MW3
landscaped median
U.S. Hwy. 501
landscaped median
3rd Avenue
Site Name:
Hucks Plaza
1432 Hwy. 501
Myrtle Beach, SC
Site ID #:
105156
Date:
03-07-04
Drawn By:
JMH
Scale: 1"=25'
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323 Main Street
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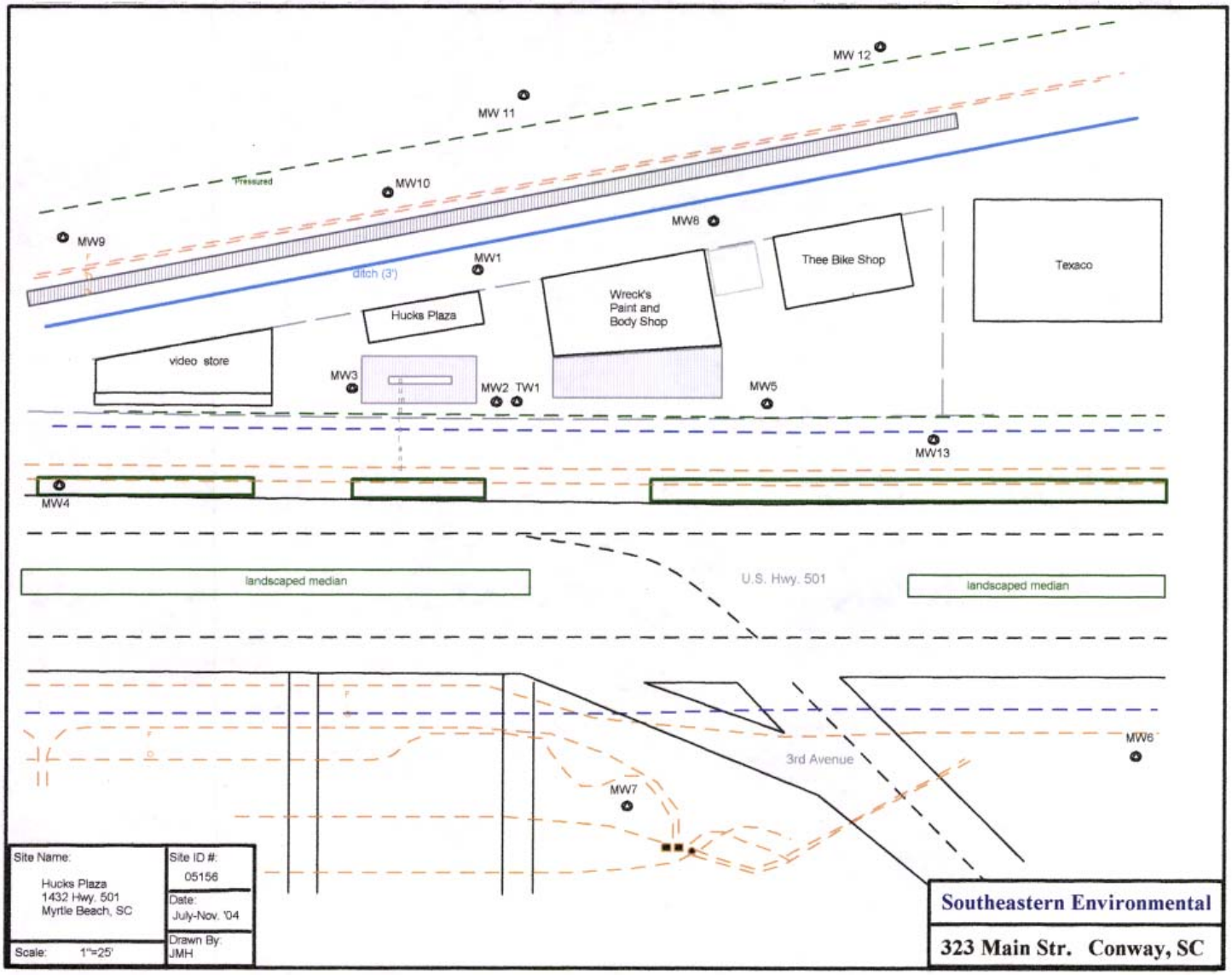
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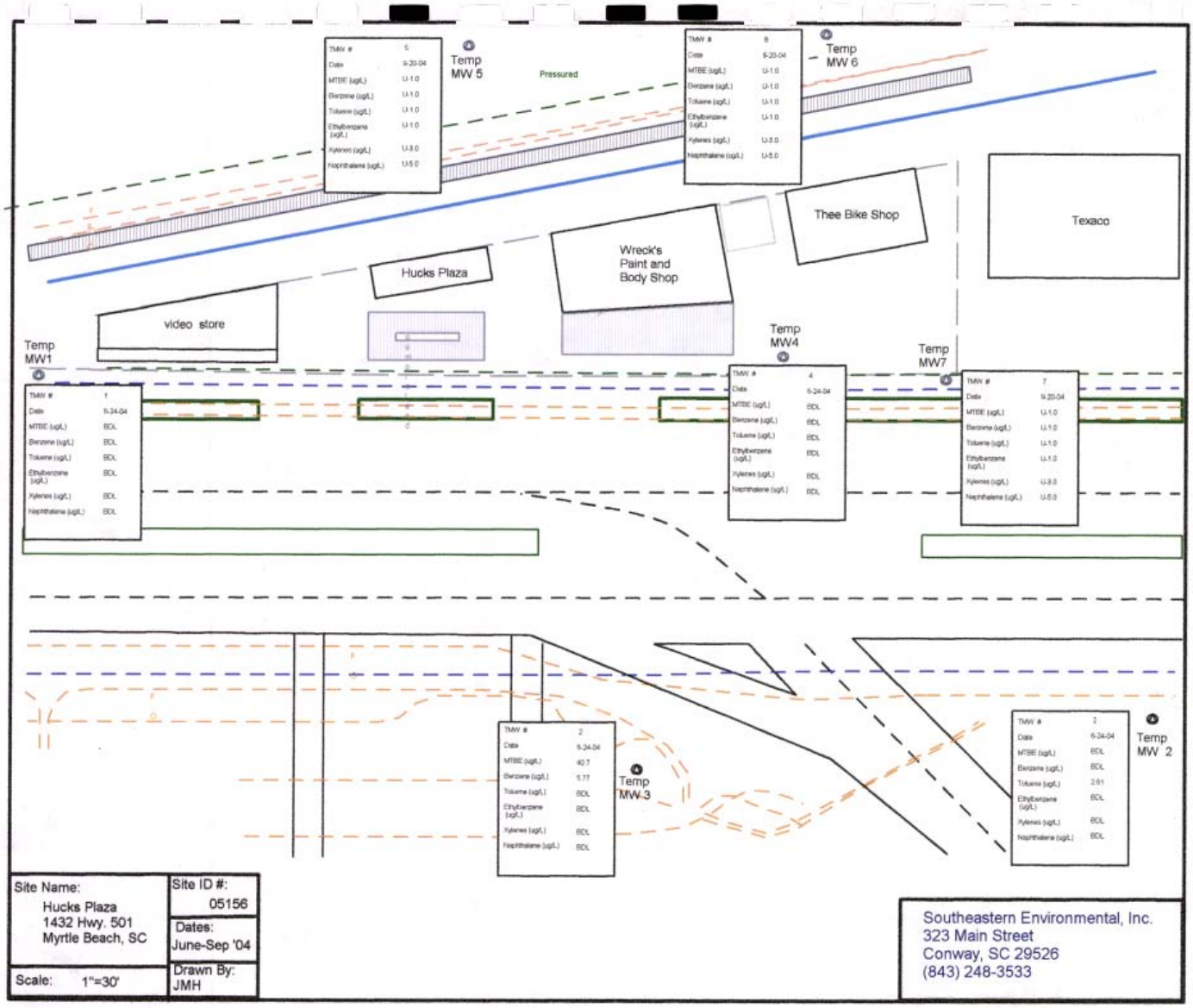
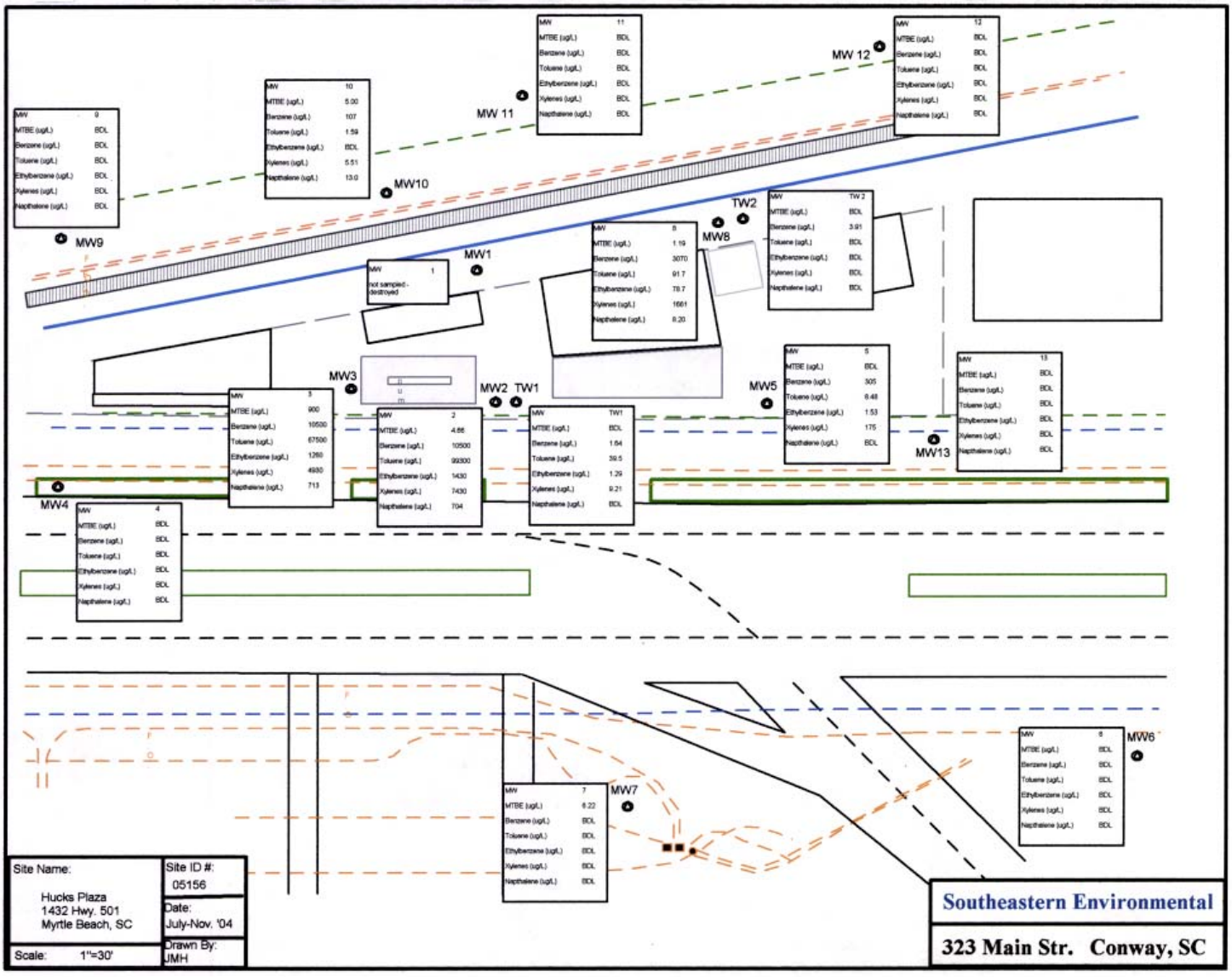
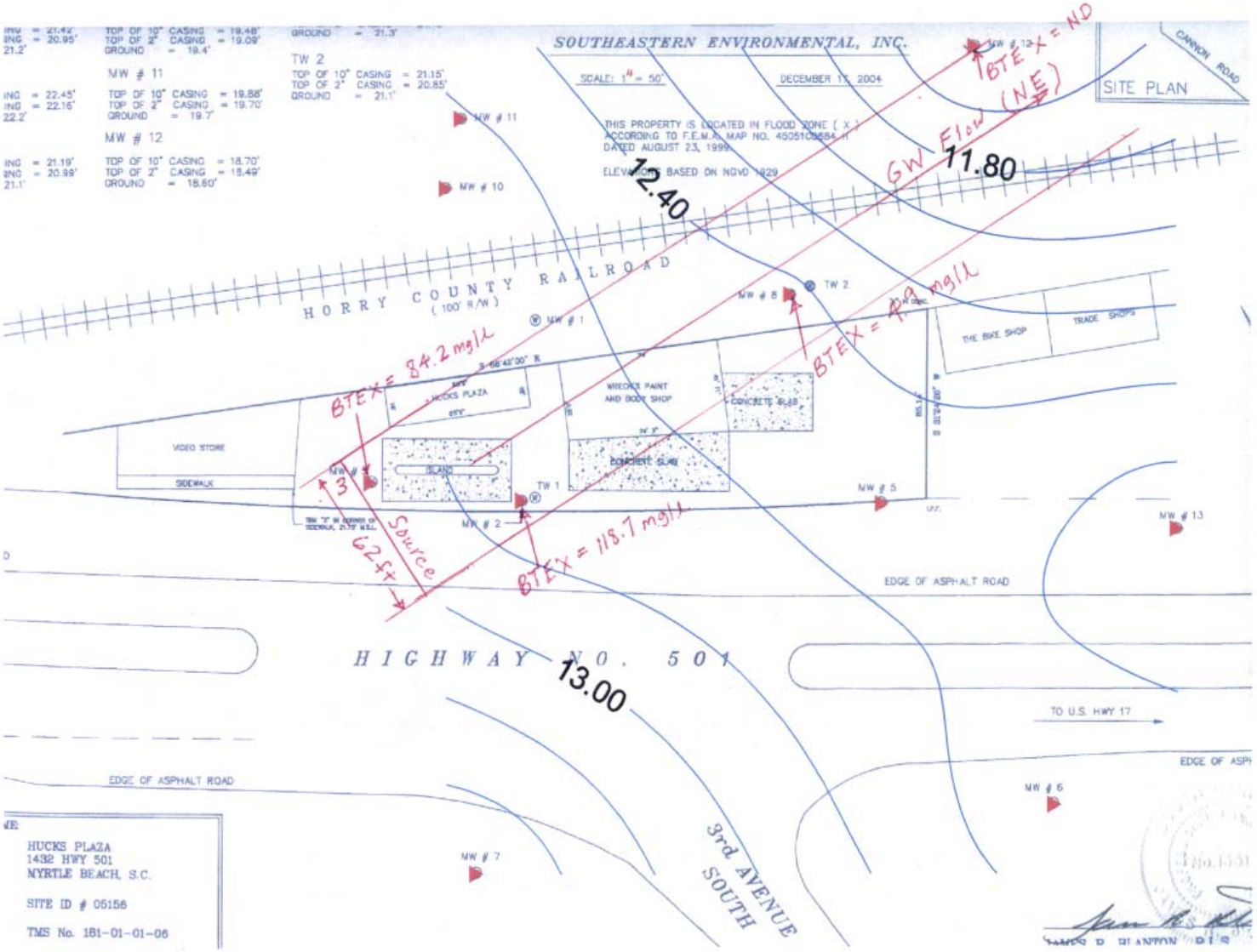
Pressured
MW10
MW9
MW8
MW1
ditch (3')
Thee Bike Shop
Texaco
Wreck's
Paint and
Body Shop
Hucks Plaza
video store
MW3
MW2
TW1
MW5
MW13
MW4
landscaped median
U.S. Hwy. 501
landscaped median
MW6
3rd Avenue
MW7
Site Name:
Hucks Plaza
1432 Hwy. 501
Myrtle Beach, SC
Site ID #:
05156
Date:
July-Nov. '04
Drawn By:
JMH
Scale: 1"=25'
Southeastern Environmental
323 Main Str. Conway, SC



Site Name: Hucks Plaza 1432 Hwy. 501 Myrtle Beach, SC	Site ID #: 05156
Scale: 1"=30'	Dates: June-Sep '04
	Drawn By: JMH

Southeastern Environmental, Inc.
323 Main Street
Conway, SC 29526
(843) 248-3533


MW 11
MW 12
MW10
MW9
MW1
TW2
MW8
MW3
MW2
TW1
MW5
MW13
MW4
MW7
MW6
Site Name:
Hucks Plaza
1432 Hwy. 501
Myrtle Beach, SC
Site ID #:
05156
Date:
July-Nov. '04
Scale: 1"=30'
Drawn By:
JMH
Southeastern Environmental
323 Main Str. Conway, SC


SOUTHEASTERN ENVIRONMENTAL, INC.
SCALE: 1" = 50'
DECEMBER 17, 2004
SITE PLAN
CANNON ROAD
THIS PROPERTY IS LOCATED IN FLOOD ZONE (X)
ACCORDING TO F.E.M.A. MAP NO. 45051C0684 H
DATED AUGUST 23, 1999
ELEVATIONS BASED ON NGVD 1929
MW # 11
TOP OF 10" CASING = 22.45'
TOP OF 2" CASING = 22.16'
GROUND = 19.7'
MW # 12
TOP OF 10" CASING = 18.70'
TOP OF 2" CASING = 18.49'
GROUND = 18.60'
TW 2
TOP OF 10" CASING = 21.15'
TOP OF 2" CASING = 20.85'
GROUND = 21.1'
MW # 10
MW # 1
MW # 8
TW 2
MW # 12
BTEX = ND
GW Flow (NE)
11.80
12.40
BTEX = 84.2 mg/L
BTEX = 4.9 mg/L
BTEX = 115.7 mg/L
3
Source
62ft
HORRY COUNTY RAILROAD
(100' R/W)
HUCKS PLAZA
WRECKS PAINT AND BODY SHOP
CONCRETE SLAB
THE BIKE SHOP
TRADE SHOPS
VIDEO STORE
SIDEWALK
ISLAND
TW 1
MW # 2
MW # 5
MW # 13
EDGE OF ASPHALT ROAD
HIGHWAY NO. 501
13.00
TO U.S. HWY 17
EDGE OF ASPHALT ROAD
MW # 6
MW # 7
3rd AVENUE SOUTH
HUCKS PLAZA
1432 HWY 501
MYRTLE BEACH, S.C.
SITE ID # 05156
TMS No. 181-01-01-06

Southeastern Environmental, Inc. 323 Main Street Conway, SC 29526	Site Name: Hucks Plaza	Site ID: 05156
	Sampling Date: 11-03-04	Field Personnel: EH, CP, JH
Ground Water Elevations	Air Temp: 75 degrees	Weather Condition: Sunny

Well No.	Date Measured	Top of Casing Elevation *(ft.)*	Screen Interval *(ft.)*	Depth to Ground Water (bTOC)	Free Product Thickness *(ft.)*	Ground Water Elevation *(ft.)*
1	11/03/04	20.87'	2.87'-12-87'	NA	NA	NA
2	11/03/04	21.44'	2.77'-12.77'	8.77'	0	12.67'
3	11/03/04	21.44'	2.72'-12.72'	8.45'	0	21.99'
4	11/03/04	21.32'	5.29'-15.29'	6.32'	0	15.01
5	11/03/04	20.15'	5.29'-15.29'	7.65'	0	12.5'
6	11/03/04	20.95'	5.35'-15.35'	8.51'	0	12.44'
7	11/03/04	22.16'	5.25'-15.25'	8.56'	0	13.6'
8	11/03/04	20.99'	5.25'-15.25'	8.54'	0	12.45'
9	11/03/04	19.62'	5.42'-15.42'	5.54'	0	14.08'
10	11/03/04	19.09'	-5.89'-15.89'	6.30'	0	12.79'
11	11/03/04	19.70'	3.69'-13.69'	7.08'	0	12.62'
12	11/03/04	18.49'	3.71'-13.71'	7.12'	0	11.37'
13	11/03/04	20.13'	3.82'-13.82'	7.36'	0	12.77'
TW1	11/03/04	21.10'	37.72'-42.72'	8.14'	0	12.96'
TW2	11/03/04	20.85'	35.07'-40.07'	8.35'	0	12.5'

Huck's Plaza
Groundwater Sampling Results

Sampled 8/3/04

	MW 1	MW 2	MW 3	MW 4	MW 5	MW 6	MW 7	MW 8	MW 9	MW 10	TW 1
MTBE (ug/L)	*MW destroyed*	4.66	900	BDL	BDL	BDL	6.22	1.19	BDL	5.0	BDL
Benzene (ug/L)		10500	10500	BDL	3.5	BDL	BDL	3070	BDL	107	1.64
Toluene (ug/L)		99300	67500	BDL	8.48	BDL	BDL	91.7	BDL	1.59	39.5
Ethylbenzene (ug/L)		1430	1260	BDL	1.53	BDL	BDL	78.7	BDL	BDL	1.29
m & p-Xylene o-Xylene (Total) (ug/L)		7430	4930	BDL	175	BDL	BDL	1661	BDL	5.51	9.21
Napthalene (ug/L)		704	713	BDL	BDL	BDL	BDL	8.20	BDL	13.0	BDL
Nitrate (mg/L)		BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Sulfate (mg/L)		4.21	2.82	10.8	3.03	10.7	18.2	5.92	66.4	3.6	67.0
Ferrous Iron (mg/L)		BDL	3.2	1.8	1.8	3.0	BDL	BDL	2.8	3.5	BDL
Lead (by ICP) (mg/L)		BDL	0.012	BDL	BDL	0.017	0.011	0.009	BDL	BDL	BDL
EDB (ug/L)		1.96	.413	BDL	BDL	BDL	BDL	BDL	BDL	BDL	BDL
Methane (ug/L)		969	7600	ND	208	232	16.4	114	ND	548	560

Sampled 11/3/04

	MW 11	MW 12	MW 13	TW 2							
MTBE (ug/L)	BDL	BDL	BDL	BDL							
Benzene (ug/L)	BDL	BDL	BDL	3.91							
Toluene (ug/L)	BDL	BDL	BDL	BDL							
Ethylbenzene (ug/L)	BDL	BDL	BDL	BDL							
m & p-Xylene o-Xylene (Total) (ug/L)	BDL	BDL	BDL	BDL							
Napthalene (ug/L)	BDL	BDL	BDL	BDL							
Nitrate (mg/L)	--	--	--	--							
Sulfate (mg/L)	--	--	--	--							
Ferrous Iron (mg/L)	--	--	--	--							
Lead (by ICP) (mg/L)	--	--	--	--							
EDB (ug/L)	<.020	<0.020	<0.020	<0.020							
Methane (ug/L)	--	--	--	--							

Southeastern Environmental, Inc.	Site Name: Huck's Plaza	Site ID: 05156
323 Main Street Conway, SC 29526	Sampling Date: Feb.- Apr.	Field Personnel: EH/CP/JH
Bore Hole Data (Soil)	Air Temp.: NA	Weather Condition: NA

Bore Hole #	Sample Depth (ft.)	OVA (ppm)	Muncell Type	Soil Description	Comments	Time
1	2	1100	2.5Y 2/0	Sandy loam (black)	No Detectable Odor	
	3.5	3100	2.5Y 2/0	Sandy loam (black)	Slight gas odor	
2	1	ND	2.5Y 3/0	Sandy loam (black)	NDO	
3	2	1000	2.5Y 3/0	Sandy loam (black)	NDO	
4	1.5	210	2.5Y 3/0	Sandy loam (black)	NDO	
5	1	4000	2.5Y 5/3	Sandy clay (black/tan)	Strong gas odor	
	1.5	5000	2.5Y 4/0	Sandy loam/clay (dark gray)	Strong gas odor	
	2	5000	2.5Y 4/3	Sandy loam (dark gray)	Strong gas odor	
	3	5000	2.5Y 4/3	Sandy loam (dark gray)	Strong gas odor	
6	2	ND	2.5Y 5/6	Orange/gray sandy clay	NDO	
	3	5000	2.5Y 3/0	Dark gray wet sand	Strong gas odor	
7	1	ND	2.5Y 4/0	Dark gray wet sand	NDO	
8	1.5	5000	2.5Y 2/0	Black sand	Strong gas odor	
	3	5000	2.5Y 3/0	Black sand	Strong gas odor	
9	1	ND	2.5Y 4/2	Gray sandy loam	NDO	
10	1.5	120	2.5Y 4/0	Dark gray sandy loam	NDO	
	3	290	2.5Y 5/2	Gray clay		
11	3	1600	2.5Y 4/0	Dark gray sandy clay	Slight gas odor	
12	3	110	2.5Y 5/2	Brown/gray clay	NDO	
13	1.5	ND	2.5Y 4/2	Tan sandy clay	NDO	
	3	150	2.5Y 4/2	Tan sandy clay	NDO	
14	1	4000	2.5Y 3/0	Dark gray sandy clay	Gas odor	
	3	5000	2.5Y 3/0	Dark gray sandy clay	Strong gas odor	

Bore Hole #	Sample Depth (ft.)	OVA (ppm)	Muncell Type	Soil Description	Comments	Time
15	3	ND	2.5Y 3/0	Dark gray sandy clay	NDO	
February 20, 2004						
16	3	1400 M=270	10YR 4/1	Gray clay	NDO	
	5	ND	10YR 4/1	Gray clay (orange streaks)	NDO	
17	5	ND	10YR 6/3	Thick tan clay	NDO	
18	1	400 M=110	10YR 3/1	Dark gray sandy clay	NDO	
	2.5	430 M=220	10YR 4/1	Gray sandy clay	NDO	
	5	800 M=100	10YR 5/4	Gray/orange clay	NDO	
	6.5	30	10YR 3/2	Dark gray/orange clay	NDO	
19	2	2000 M=150	10YR 3/2	Damp Gray sandy loam	NDO	
	3	2600 M=1000	10YR 2/2	Damp gray sandy loam	NDO	
20	2	1000 M=210	7.5YR 4/1	Gray/black sand	NDO	
	3	1300 M=200	7.5YR 4/0	Gray black clay	NDO	
21	3	2100	7.5YR 4/0	Gray black clay	NDO	
22	1	1500	10YR 3/1	Tan gray sand	gas odor	
	2	2400	10YR 5/1	Gray sandy clay	gas odor	
	4	5000	10YR 4/1	thick gray/orange clay	Strong gas odor	
March 1, 2004						
23	3	ND	7.5YR 4/6	Thick orange/gray clay	NDO	
24	3.5	ND	7.5YR 4/6	Thick orange/gray/red clay	NDO	
25	3.5	ND	5Y 4/2	Gray clay	NDO	
March 3, 2004						
26	3	1000 M=110	2.5Y 4/2	Brown/gray clay	NDO	
	5	1000 M=60	2.5Y 4/1	Brown/gray clay	NDO	

Bore Hole #	Sample Depth (ft.)	OVA (ppm)	Muncell Type	Soil Description	Comments	Time
27	3	1900	5Y 4/2	Thick brown/gray clay	Slight gas odor	
	5	900	2.5Y 6/6	Thick orange/gray clay	NDO	
28	3	1400	10YR 3/1	Gray sandy loam	NDO	
	5	900	2.5Y 6/6	Orange/gray clay	NDO	
29	3	2500	10YR 3/1	Gray sandy loam	gas odor	
	5	4300	10YR 4/2	Brown (some red) clay	gas odor	
30	3	ND M=240	5Y 5/2	Brown/gray clay	NDO	
	5	ND M=250		Gray/orange clay	NDO	
31	3	2000	2.5Y 5/2	Black/gray clay	gas odor	
	5	5000	2.5Y 6/4	Gray/orange clay	gas odor	
32	3	ND	10YR 4/1	Gray clay	NDO	
	5	ND		Thick gray/orange clay	NDO	
33	5	ND		Thick gray clay	NDO	
34	2	ND	7.5YR 3/0	Dark gray loamy clay	NDO	
	4	ND	7.5YR 4/0	Lt. Gray sandy clay	NDO	
35	2	ND		Dark gray / dark tan sandy clay	NDO	
	4	ND		Dark gray sandy clay	NDO	
36	2	ND	7.5YR 4/0	Dark gray sandy clay	NDO	
	4	ND	7.5YR 5/0	Dark gray clay	NDO	
37	2	ND	2.5Y 3/0, 2.5Y 5/2	Dark gray / lt. tan sandy loam		
	4	ND	2.5Y 4/0, 2.5Y 6/6	Lt. Gray/orange clay	NDO	
38	4	ND	2.5Y 6/2, 2.5Y 6/6	Tan/orange clay	NDO	
39	2	20	2.5Y 6/3, 2.5Y 6/8	Tan/orange clay	NDO	
	4	37	2.5Y 6/0, 2.5Y 6/6	Lt. Gray/orange clay	NDO	
40	4	3	10YR 6/8, 10YR 5/1	Orange/gray clay	NDO	

Bore Hole #	Sample Depth (ft.)	OVA (ppm)	Muncell Type	Soil Description	Comments	Time
41	4	700 M=200	5Y 4//1	Gray clay	NDO	
42	4	410 M=140	10YR 5/1	Gray loamy sand	NDO	
April 21, 2004						
43	4	70	10YR 5/1, 10YR 6/8	Orange/gray clay	NDO	
44	2	1300 M=300	10YR 3/1	Dark gray clayish sand	NDO	
	4	320	10YR 5/1	Gray clay	NDO	
45	4	500 M=120	10YR 6/1	Lt. Gray sandy clay	NDO	
46	2	70	10YR 6/1	Lt. Gray sandy clay	NDO	
	4	22	10YR 6/1, 10YR 6/8	Lt. Gray orange sandy clay	NDO	

Southeastern Environmental, Inc. 323 Main Street Conway, SC 29526	Site Name: Hucks Plaza	Site ID: 05156
	Sampling Date: 7/29/04	Field Personnel: EH, CP, JH
Ground Water Sampling	Air Temp: 90 degrees	Weather Condition: Sunny

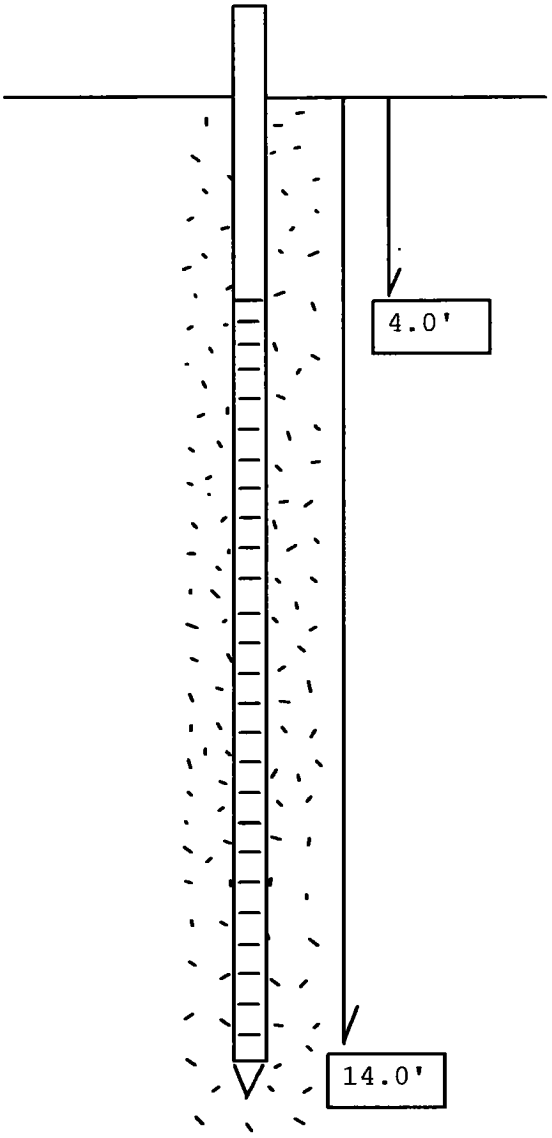
Well #	G.W. Level (ft.)	Temp. (c)	Co (S)	PH	DO2	Comments (Turbidity, Free Product Thickness, etc.)	Screen Interval
1	*could not be sampled - destroyed						
2		28.9	185	6.3		Cloudy	
		28.9	191	6.1		Well pumped dry	
3		27.9	187	6.3		Cloudy (gray)	
		28.0	230	6.2			
		28.2	244	6.1			
		28.3	244	6.1			
		28.4	235	6.1			
		28.5	241	6.1			
		28.5	237	6.1			
		28.5	236	6.1			
		28.5	240	6.0			
		28.5	240	6.0			
		28.4	239	6.0			
4		25.0	381	7.0		Cloudy	
		25.0	428	7.0			
		25.1	465	7.0			
		25.0	466	7.0			
		24.9	466	7.0			
		24.9	463	7.0			
		24.9	468	7.0			
		24.9	467	7.0			
		24.9	453	7.0			
		24.9	451	7.0			
5		24.2	148	5.8	---	Cloudy	
		24.5	137	5.7			
		24.5	99	5.7			
		24.5	59	5.7			
		24.6	76	5.4			
		24.6	139	5.4			
		24.5	128	5.5			
		24.5	129	5.7			
		24.4	138	5.8			
		24.4	138	5.4			
		24.4	135	5.4			
		24.5	108	5.3			
		24.4	138	5.4			
		24.5	138	5.6			

Well #	G.W. Level (ft.)	Temp. (c)	Co (S)	PH	DO2	Comments (Turbidity, Free Product Thickness, etc.)	Screen Interval
6		24.8	158	6.7		Cloudy	
		24.8	160	6.2			
		24.8	160	5.8			
		24.9	161	5.5			
		24.9	159	5.4			
		24.8	160	5.3			
		24.9	160	5.2			
		24.9	160	5.2			
		24.8	159	5.1			
		24.8	157	5.0			
		24.8	158	5.0			
		24.8	159	5.0			
		24.9	160	4.9			
		24.9	160	4.9			
7		23.9	181	5.6		Clear	
		23.7	152	5.6			
		23.6	152	5.6			
		23.6	151	5.6			
		23.5	150	5.6			
		23.6	150	5.6			
		23.5	149	5.6			
		23.5	150	5.6			
		23.6	150	5.6			
		23.6	148	5.6			
8		22.1	144	5.9	---	Cloudy	
		22.1	142	5.8			
		22.	152	5.9			
		22.2	141	5.9			
		22.2	142	5.9			
		22.1	222	5.8			
		22.2	142	5.8			
		22.2	142	5.8			
		22.2	142	5.8			
9		22.6	370	8.0	---	Clear	
		22.2	372	8.0			
		22.1	369	7.9			
		22.1	368	7.9			
		22.1	370	7.9			
		22.1	**369**	**7.9**			
10		21.9	336	8.1	---	Clear	
		21.8	317	8.1			
		21.8	335	8.0			
		21.8	333	8.0			
		21.8	334	8.0			

Well #	G.W. Level (ft.)	Temp. (c)	Co (S)	PH	DO2	Comments (Turbidity, Free Product Thickness, etc.)	Screen Interval
11		22.7	313	6.1			
		22.8	325	6.2			
		22.9	318	6.3			
		22.9	316	6.1			
		23.0	312	6.1			
		23.0	308	6.1			
		22.9	305	6.3			
		22.9	302	6.3			
		23.0	303	6.3			
		23.0	298	6.4			
		23.0	299	6.4			
		23.0	299	6.4			
		23.0	296	6.4			
12		22.7	102	6.6			
		22.7	104	6.3			
		22.6	100	6.2			
		22.6	100	6.2			
		22.5	101	6.1			
		22.6	101	6.0			
		22.5	101	5.9			
		22.5	101	5.6			
		22.5	100	5.6			
		22.5	98	5.7			
		22.6	101	5.7			
		22.5	100	5.7			
		22.5	101	5.7			
		22.6	101	5.6			
13		27.9	185	6.2			
		27.9	165	6.0			
		28.0	178	6.0			
		28.0	179	6.0			
		28.0	182	6.0			
		27.9	181	6.0			
		28.0	176	6.0			
		27.9	182	6.0			
		27.8	168	6.1			
		27.7	139	6.1			
		27.8	101	6.1			
		27.8	163	6.1			
		27.8	161	6.1			
		27.8	161	6.1			

Well #	G.W. Level (ft.)	Temp. (c)	Co (S)	PH	DO2	Comments (Turbidity, Free Product Thickness, etc.)	Screen Interval
TW 1		24.7	285	6.4		Clear	
		24.7	337	6.5			
		24.5	319	6.6			
		24.5	286	6.7			
		24.5	325	6.8			
		24.4	307	6.8			
		24.4	345	6.9			
		24.4	342	7.0			
		24.4	291	7.0			
		24.4	315	7.0			
		24.4	309	7.1			
		24.4	288	7.1			
		24.4	320	7.1			
		24.4	321	7.2			
		24.4	329	7.2			
11-3-04							
TW 2		22.1	259	6.3	0.5		11-3-04
		22.0	263	6.4			
		22.0	263	6.2			
		21.9	264	6.2			
		21.9	265	6.2			
		21.9	266	6.2			
		21.9	265	6.3			
		21.9	265	6.3			
		21.9	267	6.3			
		21.9	268	6.3			
		21.9	268	6.4			
		21.8	269	6.4			
		21.8	270	6.4			

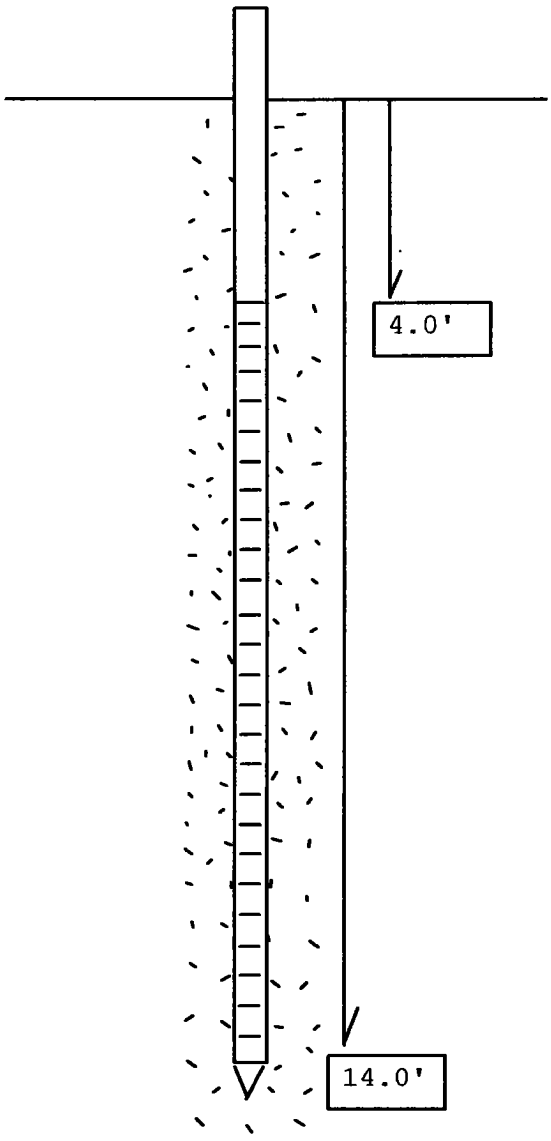
Temporary Monitoring Well



Soil Description	
Depth	
1'	Orange/Gray Clay
2'	
3'	
5'	
7'	
9'	Tan Clay (wet)
11'	
13'	
15	
17'	

SOUTHEASTERN ENVIRONMENTAL	**Driller:** JH, EH		**Driller Lic.#: 880**
Client: Hucks Plaza	**Location:** 1432 Hwy.501 Myrtle Beach, SC		
Well #: Temp.1	**Date:** 6-24-04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 14.0'

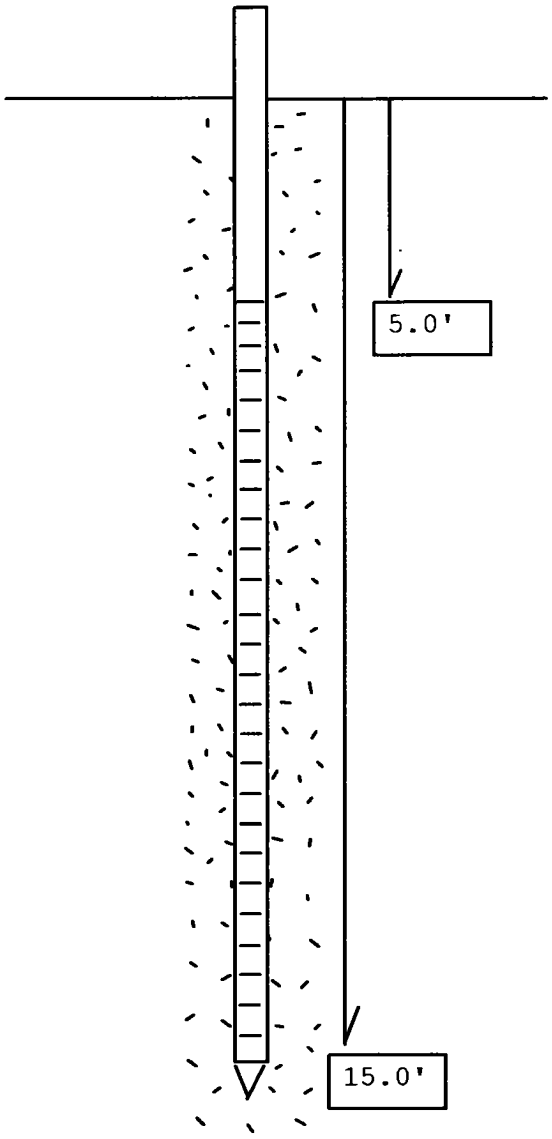
Temporary Monitoring Well



Soil Description	
Depth	
1'	Brown sand
2'	
3'	Gray/Orange clay
5'	
7'	
9'	Dark gray sandy clay
11'	
13'	
15	
17'	

SOUTHEASTERN ENVIRONMENTAL	**Driller:** JH, CP		**Driller Lic.#: 880**
Client: Hucks Plaza	**Location:** In front of Danielle's Dungeon		
Well #: Temp.2	**Date:** 6-24-04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 14.0'

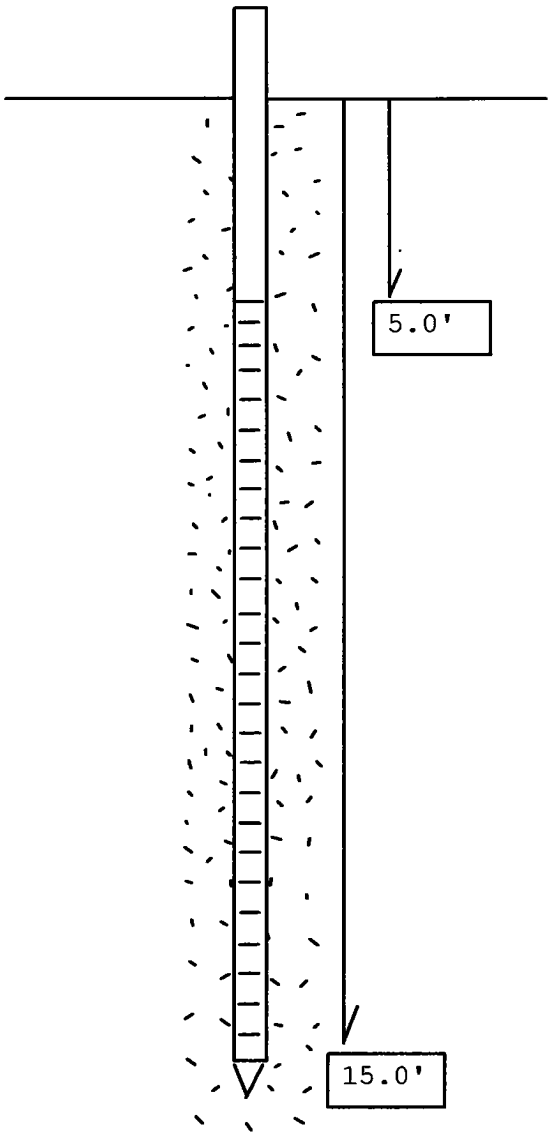
Temporary Monitoring Well



Soil Description	
Depth	
1'	Light brown sand
2'	Dark gray sand
3'	Dark gray/green clay (soft)
5'	Light tan clay
7'	Light gray clay
9'	Tan clay
11'	Brown sand
13'	
15	
17'	

SOUTHEASTERN ENVIRONMENTAL	**Driller:** JH, CP		**Driller Lic.#: 880**
Client: Hucks Plaza	**Location:** In front of Texaco (opposite Hucks Plaza)		
Well #: Temp.3	**Date:** 6-24-04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 15.0'

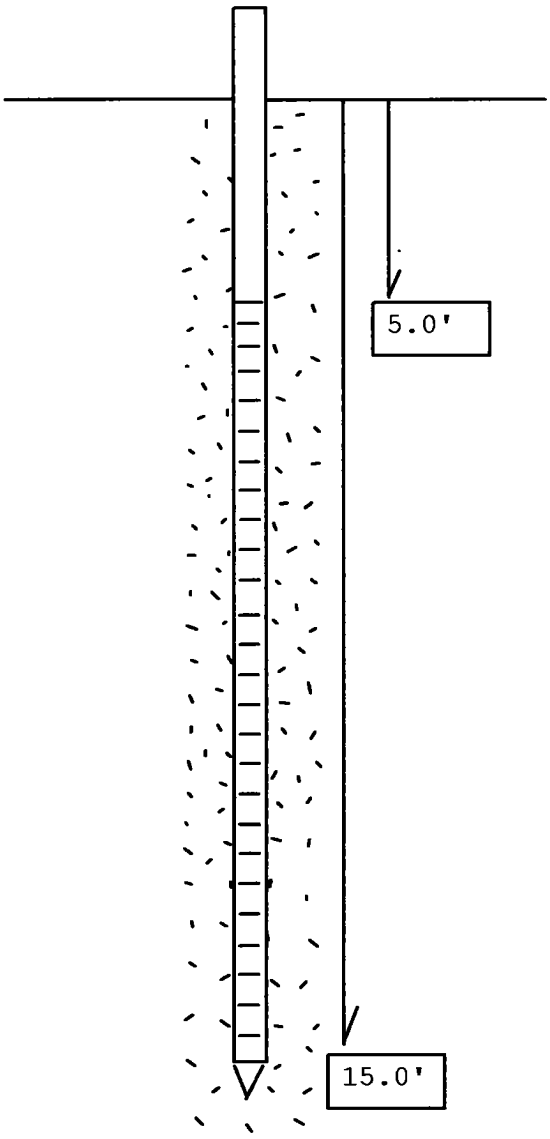
Temporary Monitoring Well



Soil Description	
Depth	
1'	Brown/Tan sand
2'	
3'	Gray clay
5'	Gray/Green clay
7'	
9'	
11'	Gray clay
13'	Gray sandy clay (wet)
15	
17'	

SOUTHEASTERN ENVIRONMENTAL	**Driller:** EH, CP		**Driller Lic.#: 880**
Client: Hucks Plaza	**Location:** Left front corner of Thee Bike Shop property		
Well #: Temp.4	**Date:** 6-29-04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 15.0'

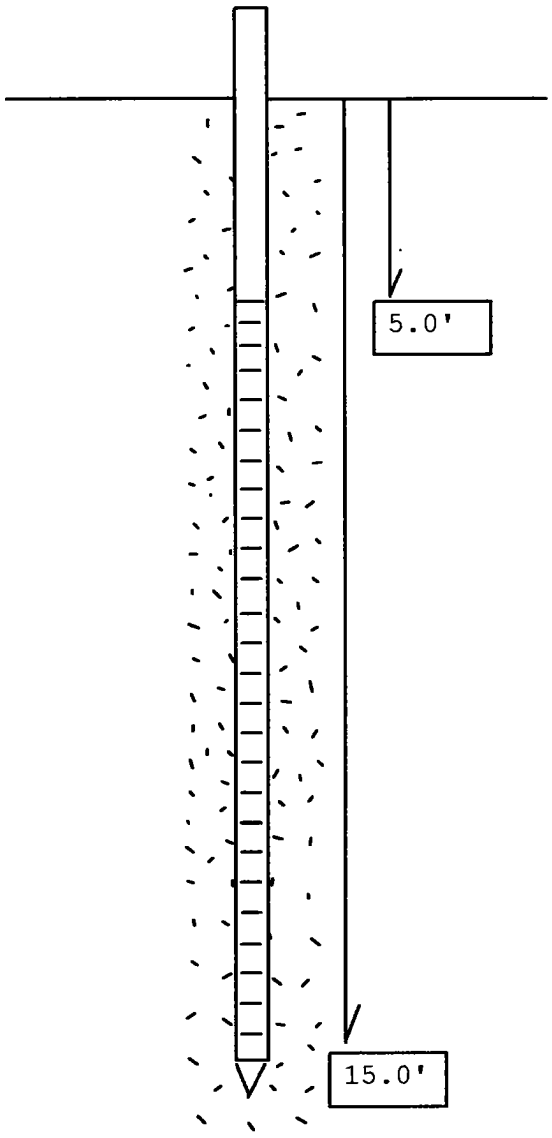
Temporary Monitoring Well



Soil Description	
Depth	
1'	Brown Clay
2'	
3'	Brown Clay
5'	Orange clay
7'	
9'	
11'	Gray clay
13'	Gray wet clay
15	
17'	

SOUTHEASTERN ENVIRONMENTAL	**Driller:** EH, CP		**Driller Lic.#: 880**
Client: Hucks Plaza	**Location:** Opposite side of RR tracks North of MW 10		
Well #: Temp.5	**Date:** 9-20-04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 15.0'

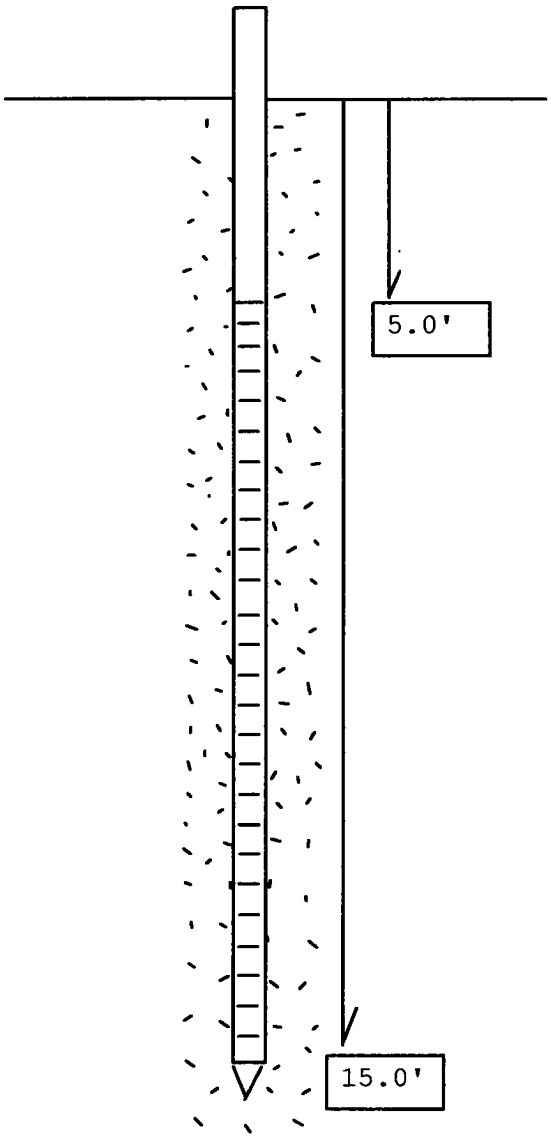
Temporary Monitoring Well



Soil Description	
Depth	
1'	Brown Clay
2'	
3'	
5'	Orange clay
7'	
9'	
11'	Orange clay
13'	
15	Gray wet sandy clay
17'	

SOUTHEASTERN ENVIRONMENTAL	**Driller:** EH, CP		**Driller Lic.#: 880**
Client: Hucks Plaza	**Location:** Opposite side of RR behind Thee Bike Shop		
Well #: Temp.6	**Date:** 9-20-04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 15.0'

Temporary Monitoring Well



Soil Description	
Depth	
1'	Brown/Tan sand
2'	
3'	Brown sandy Clay (root)
5'	
7'	Brown/ Tan clay
9'	
11'	Orange clay
13'	Grey clay
15	Gray wet sandy clay
17'	

SOUTHEASTERN ENVIRONMENTAL	**Driller:** EH, CP		**Driller Lic.#: 880**
Client: Hucks Plaza	**Location:** Front right side of Thee Bike Shop property in the right of way.		
Well #: Temp.7	**Date:** 9-21-04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 15.0'

DHEC
PROMOTE PROTECT PROSPER

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

1. WELL OWNER INFORMATION: MW4
Name: Hucks (last) Homer (first)
Address: 5720 Creekside Dr.
City: Myrtle Beach State: SC Zip: 29575
Telephone: Work: Home:

2. LOCATION OF WELL: MW4 **COUNTY:**
Name: Hucks Plaza
Street Address: 1432 Hwy 501
City: Myrtle Beach Zip: 29577
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
See Attached Sheet		
*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: 05156

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☒ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.76 ft. Date Started: 7-20-04 Date Completed: 7-20-04

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0.29' in. to 5.29' ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 5.29 ft. and 15.29 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 3.0' ft. to 16.0' ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.71' ft. to 2.0' 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: Earl Howard **CERT. NO.:** 01709
Address: (Print) 383 Main St. Conway, SC 29526
Level: A B C D (circle one)
Telephone No.: (843) 248-3533 Fax No. (843) 248-5034

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: _____ Date: 11-11-04
Well Driller

If D Level Driller, provide supervising driller's name:

INSTRUCTIONS
Water Well Record

This form is to be completed by an SC Certified Water Well Driller within thirty days of completion of the well. One copy is to be submitted to SCDHEC, another is intended for the well owner, and the final copy is for the well driller. In most cases, well location, owner, driller and other administrative information can be obtained from the Notice of Intent form. If additional comments are necessary, attach those on a separate sheet.

1. Include the name and present mailing address and telephone number of the well owner. This can be a tract owner or developer in the case of a new subdivision.

2. Indicate the exact number, street, city, zip, and county for the location of the well. If the street address is not available, attach a sketch map for general location and include lot number if it is in a new subdivision. "Same as 1" can be indicated if that is the case.

3. For public water supply, indicate system name and number.

4. Check appropriate box; for abandoned well, note grout depths. For the driller's log, describe the formation, indicate the thickness and complete the depth to the bottom of the stratum.

5. Insert any comments.

6. Check the box indicating the drilling method.

7. Insert the eight-digit number assigned when the Notice of Intent was submitted for a residential or irrigation well. This space can also be used for the SCDHEC site identification number.

8. Check box indicating use.

9. Indicate the total depth in the space provided; fill in the requested dates.

10. Check appropriate boxes and complete the information requested for the casing.

11. Complete the information requested for the screen; check the appropriate box.

12. Measure the static water level 24 hours after well completion and provide the measurement in the space.

13. Provide pumping level, time, and rates in the appropriate spaces.

14. Indicate whether these analyses were run.

15. Provide the requested information on filter pack.

16. Check the appropriate boxes and provide the type and depth of the grout.

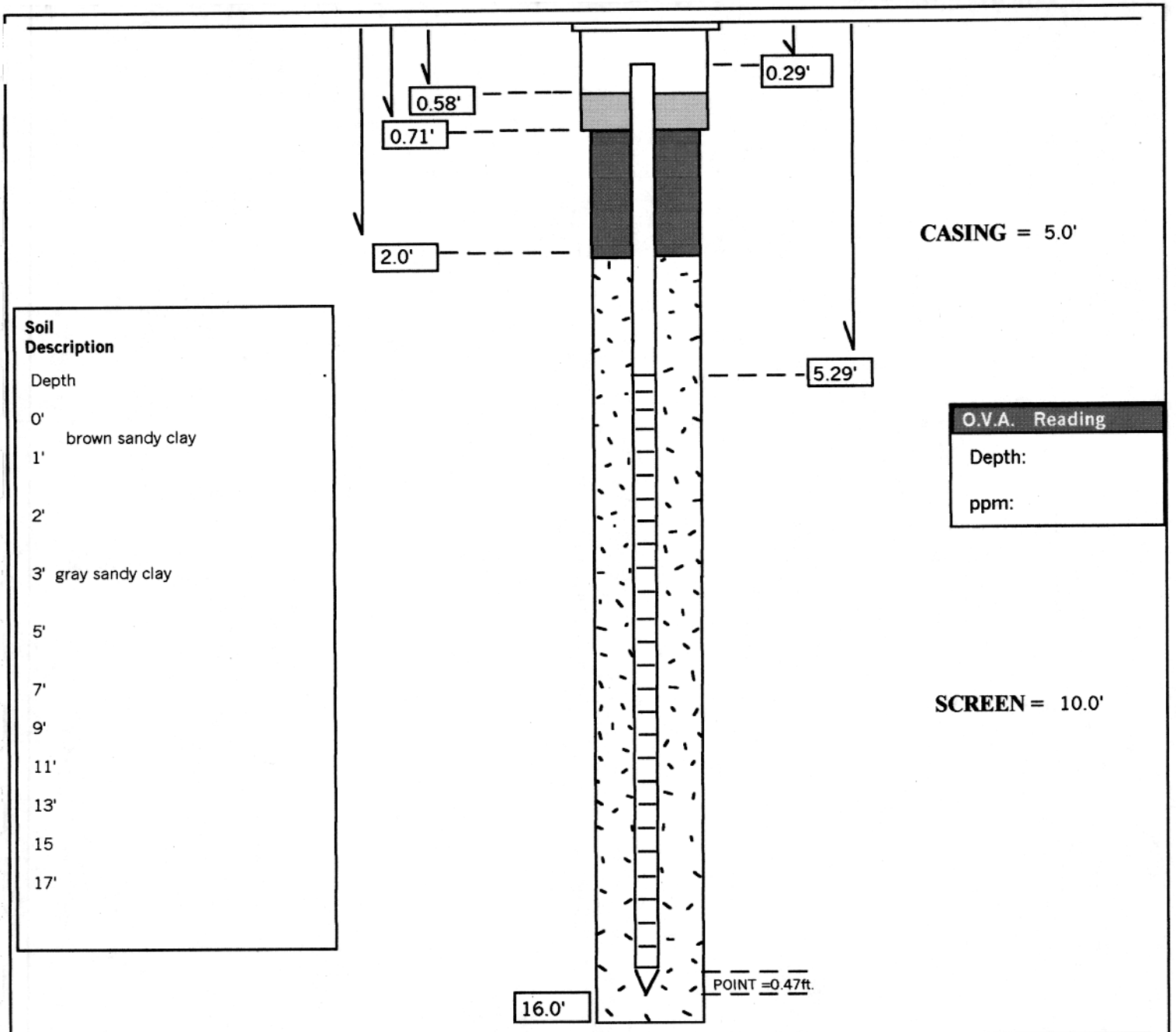
17. Complete the requested information concerning the nearest source of possible contamination.

18. If installed, provide the information requested concerning the pump.

19. Print name, SC certification number, address and business or mobile (or both) telephone number and fax number for the well driller.

20. The well driller installing the well signs and dates the form. If the driller is Level D, provide the supervising drillers name.

The completed Form 1903 should be submitted to the SCDHEC, Bureau of Water, Private Well Program, 2600 Bull Street, Columbia, SC 29201-1708.



SOUTHEASTERN ENVIRONMENTAL	**Driller:** EH/CP	**Driller Lic.#: 1500**
Client: Hucks Plaza (501 Amaco)	**Location:** 1432 Hwy. 501 Myrtle Beach, SC	
Date: 7-20-04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 15.76'
Well # : MW4	**Receptors/comments:** Conway side of video store	

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: Hucks (last) Homer (first)
Address: 5720 Creekside Dr
City: Myrtle Beach State: SC Zip: 29575
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Horry
Name: Hucks Plaza
Street Address: 1432 Hwy. 501
City: Myrtle Beach, SC Zip: 29577
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
See Attached Sheet		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-5

6. TYPE: ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 05156

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☒ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.76' ft. Date Started: 7-20-04 Date Completed: 7-20-04

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0.29' in. to 5.29' ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 5.29' ft. and 15.29' 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 2.0' ft. to 16.0' ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.71' ft. to 2.0' 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: Southeastern Environmental CERT. NO.: 01709
Address: (Print) 323 main st. Conway, SC 29526 Level: A (B) C D (circle one)
Telephone No.: 843-248-3533 Fax No.: 843-248-5034

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: Earl A. Howard Date: 11-11-04
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)

INSTRUCTIONS
Water Well Record

This form is to be completed by an SC Certified Water Well Driller within thirty days of completion of the well. One copy is to be submitted to SCDHEC, another is intended for the well owner, and the final copy is for the well driller. In most cases, well location, owner, driller and other administrative information can be obtained from the Notice of Intent form. If additional comments are necessary, attach those on a separate sheet.

1. Include the name and present mailing address and telephone number of the well owner. This can be a tract owner or developer in the case of a new subdivision.

2. Indicate the exact number, street, city, zip, and county for the location of the well. If the street address is not available, attach a sketch map for general location and include lot number if it is in a new subdivision. "Same as 1" can be indicated if that is the case.

3. For public water supply, indicate system name and number.

4. Check appropriate box; for abandoned well, note grout depths. For the driller's log, describe the formation, indicate the thickness and complete the depth to the bottom of the stratum.

5. Insert any comments.

6. Check the box indicating the drilling method.

7. Insert the eight-digit number assigned when the Notice of Intent was submitted for a residential or irrigation well. This space can also be used for the SCDHEC site identification number.

8. Check box indicating use.

9. Indicate the total depth in the space provided; fill in the requested dates.

10. Check appropriate boxes and complete the information requested for the casing.

11. Complete the information requested for the screen; check the appropriate box.

12. Measure the static water level 24 hours after well completion and provide the measurement in the space.

13. Provide pumping level, time, and rates in the appropriate spaces.

14. Indicate whether these analyses were run.

15. Provide the requested information on filter pack.

16. Check the appropriate boxes and provide the type and depth of the grout.

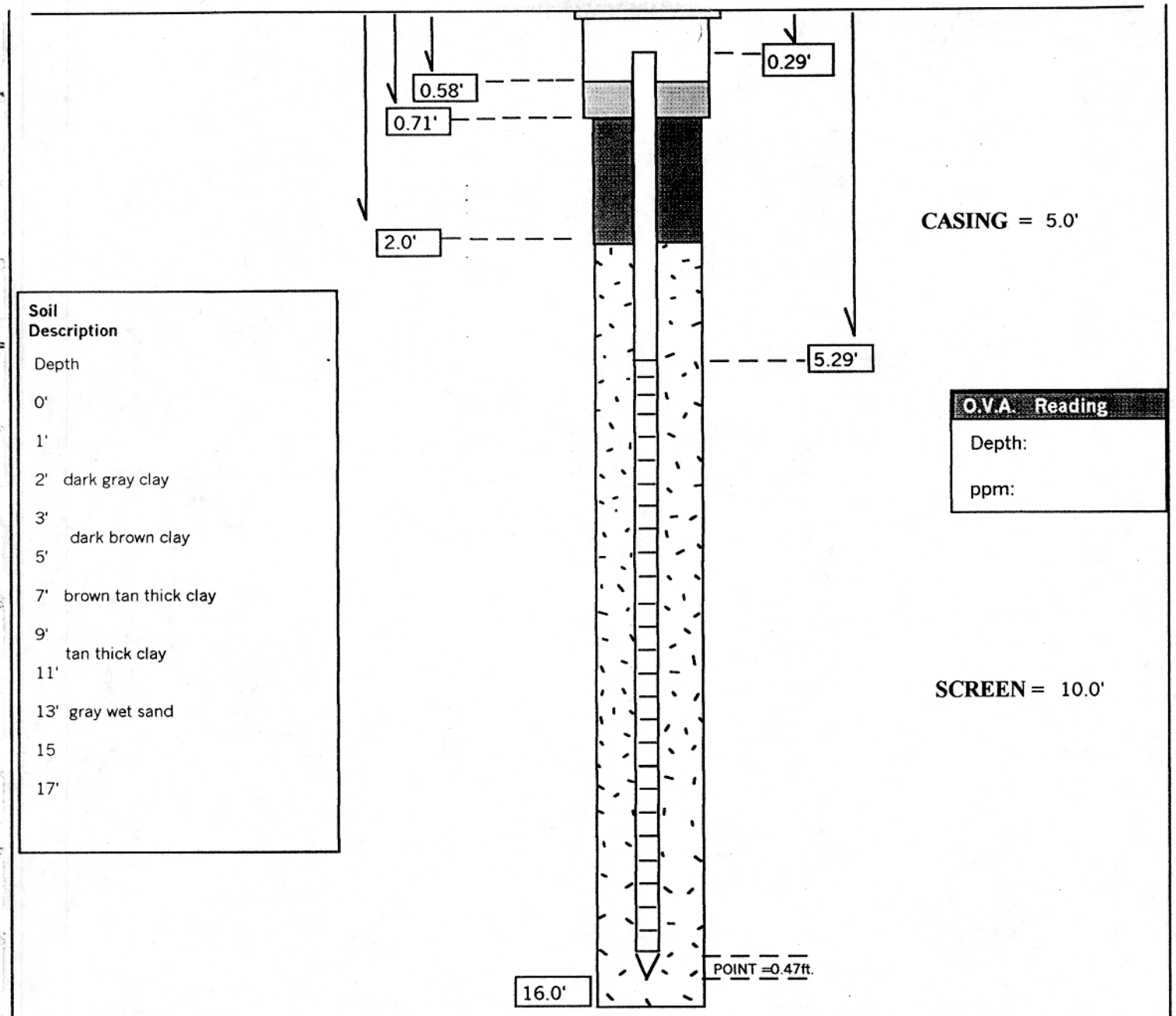
17. Complete the requested information concerning the nearest source of possible contamination.

18. If installed, provide the information requested concerning the pump.

19. Print name, SC certification number, address and business or mobile (or both) telephone number and fax number for the well driller.

20. The well driller installing the well signs and dates the form. If the driller is Level D, provide the supervising drillers name.

The completed Form 1903 should be submitted to the SCDHEC, Bureau of Water, Private Well Program, 2600 Bull Street, Columbia, SC 29201-1708.



SOUTHEASTERN ENVIRONMENTAL	**Driller:** EH/CP	**Driller Lic.#: 1500**
Client: Hucks Plaza (501 Amaco)	**Location:** 1432 Hwy. 501 Myrtle Beach, SC	
Date: 7-20-04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 15.76'
Well # : MW5	**Receptors/comments:** between Wreck's Paint and Body Shop and the Bike Shop	

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: Hucks (last) Homer (first)
Address: 5720 Creekside Dr.
City: Myrtle Beach State: SC Zip: 29575
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Horry
Name: Hucks Plaza
Street Address: 1432 Hwy. 501
City: Myrtle Beach, SC Zip: 29577
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
See Attached Sheet		
*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: 05156

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☒ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.82' ft. Date Started: 7-20-04 Date Completed: 7-20-04

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0.35' in. to 5.35' ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 5.35' ft. and 15.35' 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 1.58' ft. to 15.82' ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From 0.79' ft. to 1.58' 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: Southeastern CERT. NO.: 01709
Address: (Print) Environmental Level: A (B) C D (circle one)
323 main st. Conway, SC 29526
Telephone No.: 843-248-3533 Fax No.: 843-248-5034

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: Earl A. Howard (Well Driller) Date: 11-11-04

If D Level Driller, provide supervising driller's name:

INSTRUCTIONS
Water Well Record

This form is to be completed by an SC Certified Water Well Driller within thirty days of completion of the well. One copy is to be submitted to SCDHEC, another is intended for the well owner, and the final copy is for the well driller. In most cases, well location, owner, driller and other administrative information can be obtained from the Notice of Intent form. If additional comments are necessary, attach those on a separate sheet.

1. Include the name and present mailing address and telephone number of the well owner. This can be a tract owner or developer in the case of a new subdivision.

2. Indicate the exact number, street, city, zip, and county for the location of the well. If the street address is not available, attach a sketch map for general location and include lot number if it is in a new subdivision. "Same as 1" can be indicated if that is the case.

3. For public water supply, indicate system name and number.

4. Check appropriate box; for abandoned well, note grout depths. For the driller's log, describe the formation, indicate the thickness and complete the depth to the bottom of the stratum.

5. Insert any comments.

6. Check the box indicating the drilling method.

7. Insert the eight-digit number assigned when the Notice of Intent was submitted for a residential or irrigation well. This space can also be used for the SCDHEC site identification number.

8. Check box indicating use.

9. Indicate the total depth in the space provided; fill in the requested dates.

10. Check appropriate boxes and complete the information requested for the casing.

11. Complete the information requested for the screen; check the appropriate box.

12. Measure the static water level 24 hours after well completion and provide the measurement in the space.

13. Provide pumping level, time, and rates in the appropriate spaces.

14. Indicate whether these analyses were run.

15. Provide the requested information on filter pack.

16. Check the appropriate boxes and provide the type and depth of the grout.

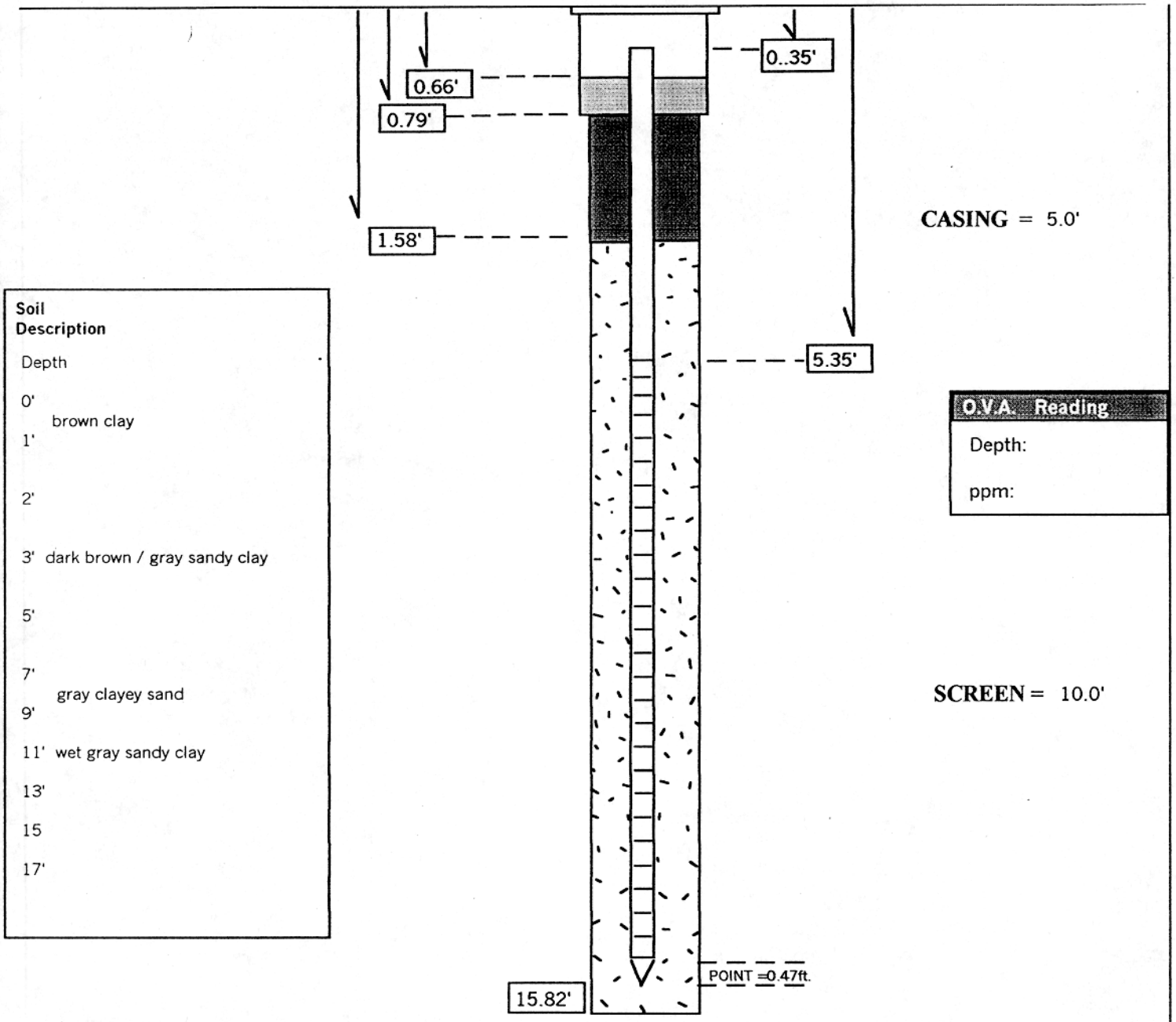
17. Complete the requested information concerning the nearest source of possible contamination.

18. If installed, provide the information requested concerning the pump.

19. Print name, SC certification number, address and business or mobile (or both) telephone number and fax number for the well driller.

20. The well driller installing the well signs and dates the form. If the driller is Level D, provide the supervising drillers name.

The completed Form 1903 should be submitted to the SCDHEC, Bureau of Water, Private Well Program, 2600 Bull Street, Columbia, SC 29201-1708.



SOUTHEASTERN ENVIRONMENTAL	**Driller:** EH/CP	**Driller Lic.#: 1500**
Client: Hucks Plaza (501 Amaco)	**Location:** 1432 Hwy. 501 Myrtle Beach, SC	
Date: 7-20-04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 15.82'
Well # : MW6	**Receptors/comments:** right of way near Danielle's Dungeon	

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: Hucks (last) Homer (first)
Address: 5720 Creekside Dr.
City: Myrtle Beach State: SC Zip: 29575
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Horry
Name: Hucks Plaza
Street Address: 1432 Hwy 501
City: Myrtle Beach, SC Zip: 29577
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
See Attached Sheet		
*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: 05156

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☒ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.72' ft. Date Started: 7-22-04 Date Completed: 7-22-04

10. CASING: ☒ Threaded ☐ Welded
Diam.: PVC 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0.25' in. to 5.25' ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 5.25' ft. and 15.25' 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 2.0' ft. to 16.0' ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From .58' ft. to 2.0' 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: Southeastern Environmental CERT. NO.: 01709
Address: (Print) 323 main st. Conway, SC 29526
Level: A (B) C D (circle one)
Telephone No.: 843-248-3533 Fax No.: 843-248-5034

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: Earl R Howard (Well Driller) Date: 11-11-04

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)

INSTRUCTIONS
Water Well Record

This form is to be completed by an SC Certified Water Well Driller within thirty days of completion of the well. One copy is to be submitted to SCDHEC, another is intended for the well owner, and the final copy is for the well driller. In most cases, well location, owner, driller and other administrative information can be obtained from the Notice of Intent form. If additional comments are necessary, attach those on a separate sheet.

1. Include the name and present mailing address and telephone number of the well owner. This can be a tract owner or developer in the case of a new subdivision.

2. Indicate the exact number, street, city, zip, and county for the location of the well. If the street address is not available, attach a sketch map for general location and include lot number if it is in a new subdivision. "Same as 1" can be indicated if that is the case.

3. For public water supply, indicate system name and number.

4. Check appropriate box; for abandoned well, note grout depths. For the driller's log, describe the formation, indicate the thickness and complete the depth to the bottom of the stratum.

5. Insert any comments.

6. Check the box indicating the drilling method.

7. Insert the eight-digit number assigned when the Notice of Intent was submitted for a residential or irrigation well. This space can also be used for the SCDHEC site identification number.

8. Check box indicating use.

9. Indicate the total depth in the space provided; fill in the requested dates.

10. Check appropriate boxes and complete the information requested for the casing.

11. Complete the information requested for the screen; check the appropriate box.

12. Measure the static water level 24 hours after well completion and provide the measurement in the space.

13. Provide pumping level, time, and rates in the appropriate spaces.

14. Indicate whether these analyses were run.

15. Provide the requested information on filter pack.

16. Check the appropriate boxes and provide the type and depth of the grout.

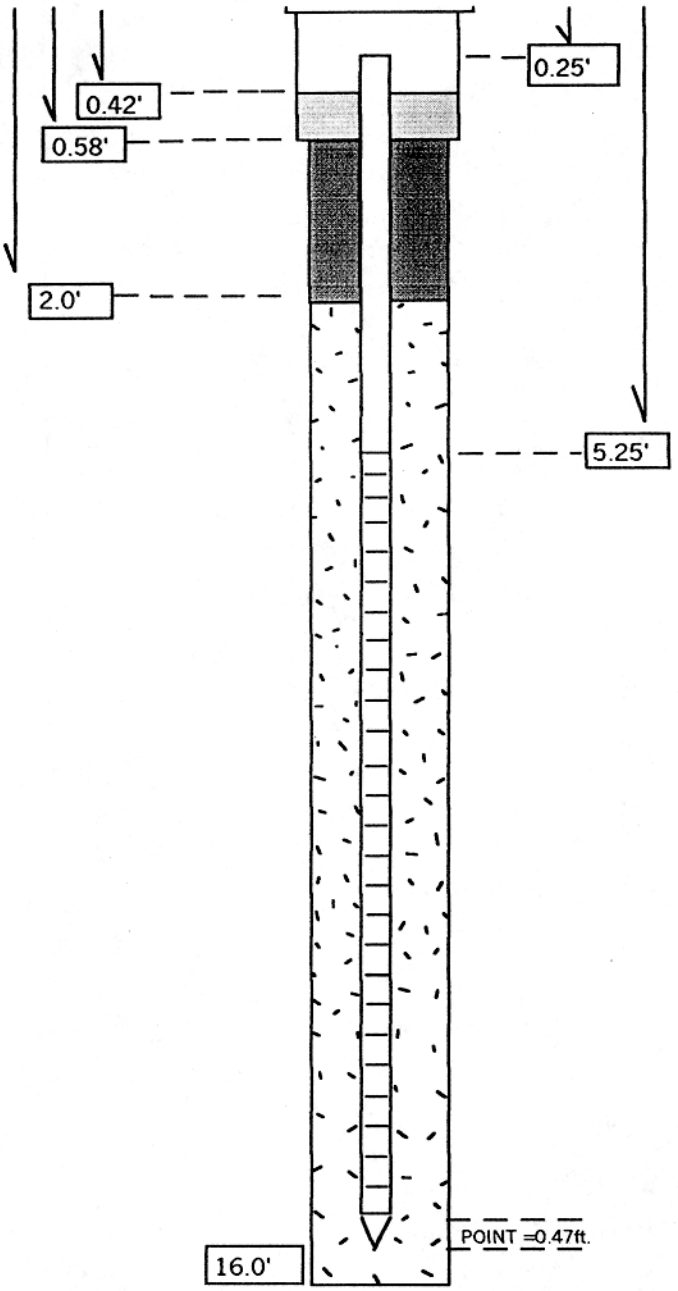
17. Complete the requested information concerning the nearest source of possible contamination.

18. If installed, provide the information requested concerning the pump.

19. Print name, SC certification number, address and business or mobile (or both) telephone number and fax number for the well driller.

20. The well driller installing the well signs and dates the form. If the driller is Level D, provide the supervising drillers name.

The completed Form 1903 should be submitted to the SCDHEC, Bureau of Water, Private Well Program, 2600 Bull Street, Columbia, SC 29201-1708.



CASING = 5.0'

SCREEN = 10.0'

Soil Description

Depth	
0'	
1'	
2'	brown clay
3'	
5'	brown tan clay
7'	
9'	
11'	
13'	gray wet sandy clay
15	
17'	

O.V.A. Reading	
Depth:	
ppm:	

SOUTHEASTERN ENVIRONMENTAL	**Driller:** EH/CP	**Driller Lic.#: 1500**
Client: Hucks Plaza (501 Amaco)	**Location:** 1432 Hwy. 501 Myrtle Beach, SC	
Date: 7-22-04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 15.72'
Well # : MW7	**Receptors/comments:** Right of way in front of Texaco	

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: Hucks (last) Homer (first)
Address: 5720 Creekside Dr.
City: Myrtle Beach State: SC Zip: 29575
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Horry
Name: Hucks Plaza
Street Address: 1432 Hwy. 501
City: Myrtle Beach, SC Zip: 29577
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
See Attached Sheet		
*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: 05156

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☒ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.72' ft. Date Started: 7-22-04 Date Completed: 7-22-04

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0.25' in. to 5.25' ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 5.25' ft. and 15.25' 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 2.3' ft. to 16.0' ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From .71' ft. to 2.3' 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: Southeastern Environmental CERT. NO.: 01709
Address: (Print) 323 main st. Conway, SC 29526 Level: A (B) C D (circle one)
Telephone No.: 843-248-3533 Fax No.: 843-248-5034

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: Earl K. Howard Well Driller Date: 11-12-04

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)

INSTRUCTIONS
Water Well Record

This form is to be completed by an SC Certified Water Well Driller within thirty days of completion of the well. One copy is to be submitted to SCDHEC, another is intended for the well owner, and the final copy is for the well driller. In most cases, well location, owner, driller and other administrative information can be obtained from the Notice of Intent form. If additional comments are necessary, attach those on a separate sheet.

1. Include the name and present mailing address and telephone number of the well owner. This can be a tract owner or developer in the case of a new subdivision.

2. Indicate the exact number, street, city, zip, and county for the location of the well. If the street address is not available, attach a sketch map for general location and include lot number if it is in a new subdivision. "Same as 1" can be indicated if that is the case.

3. For public water supply, indicate system name and number.

4. Check appropriate box; for abandoned well, note grout depths. For the driller's log, describe the formation, indicate the thickness and complete the depth to the bottom of the stratum.

5. Insert any comments.

6. Check the box indicating the drilling method.

7. Insert the eight-digit number assigned when the Notice of Intent was submitted for a residential or irrigation well. This space can also be used for the SCDHEC site identification number.

8. Check box indicating use.

9. Indicate the total depth in the space provided; fill in the requested dates.

10. Check appropriate boxes and complete the information requested for the casing.

11. Complete the information requested for the screen; check the appropriate box.

12. Measure the static water level 24 hours after well completion and provide the measurement in the space.

13. Provide pumping level, time, and rates in the appropriate spaces.

14. Indicate whether these analyses were run.

15. Provide the requested information on filter pack.

16. Check the appropriate boxes and provide the type and depth of the grout.

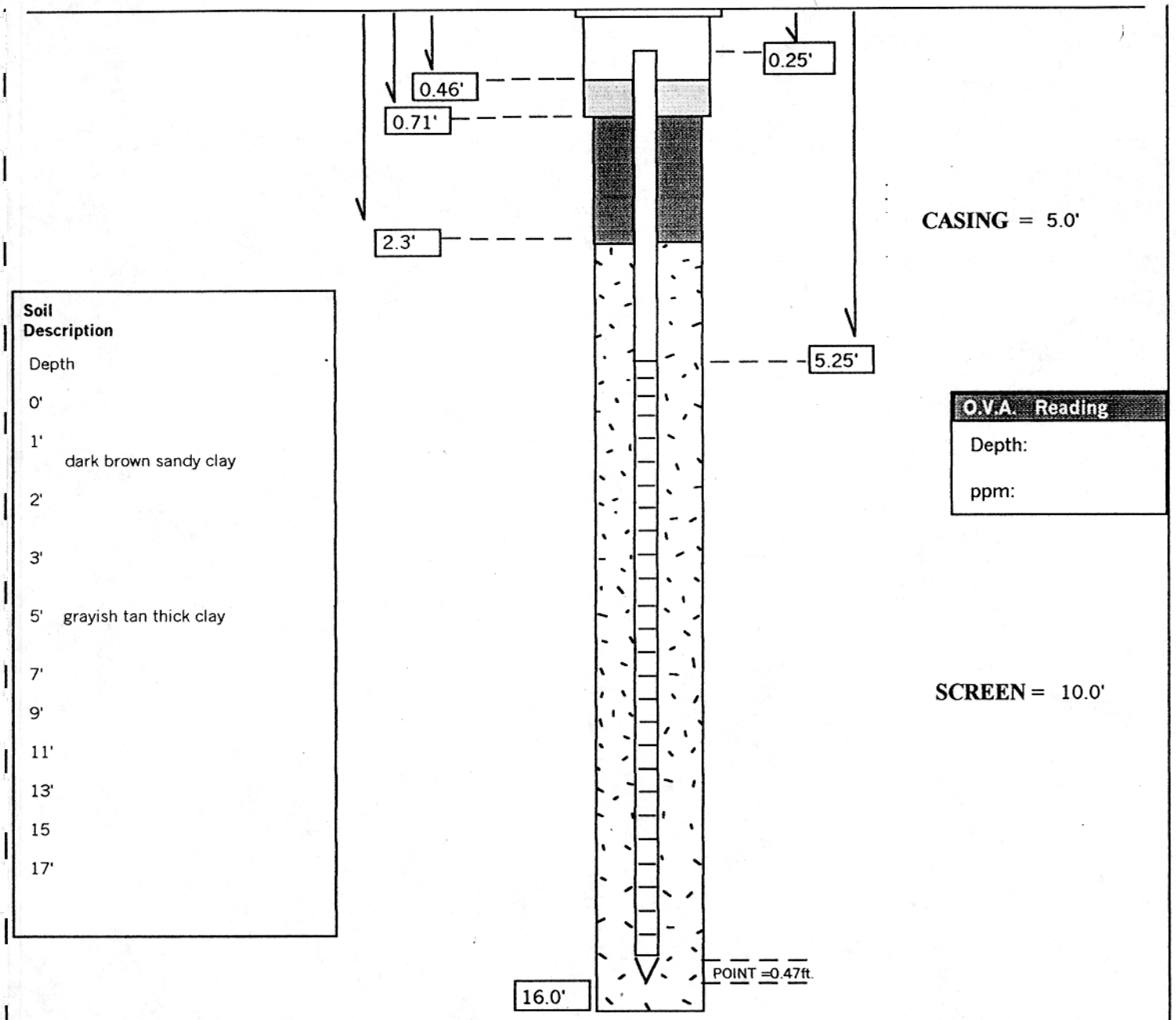
17. Complete the requested information concerning the nearest source of possible contamination.

18. If installed, provide the information requested concerning the pump.

19. Print name, SC certification number, address and business or mobile (or both) telephone number and fax number for the well driller.

20. The well driller installing the well signs and dates the form. If the driller is Level D, provide the supervising drillers name.

The completed Form 1903 should be submitted to the SCDHEC, Bureau of Water, Private Well Program, 2600 Bull Street, Columbia, SC 29201-1708.



SOUTHEASTERN ENVIRONMENTAL	**Driller:** EH/CP	**Driller Lic.#: 1500**
Client: Hucks Plaza (501 Amaco)	**Location:** 1432 Hwy. 501 Myrtle Beach, SC	
Date: 7-22-04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 15.72'
Well # : MW8	**Receptors/comments:** back right corner of Wreck's, closest to rail road tracks	

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: Hucks (last) Homer (first)
Address: 5720 Creekside Dr.
City: Myrtle Beach State: SC Zip: 29575
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Horry
Name: Hucks Plaza
Street Address: 1432 Hwy. 501
City: Myrtle Beach, SC Zip: 29577
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
See Attached Sheet		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		
5. REMARKS: MW-9		

6. TYPE: ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 05156

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☒ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 15.89' ft. Date Started: 7-26-04 Date Completed: 7-26-04

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
.42' in. to 5.42' ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 5.42' ft. and 15.42' 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 2.0' ft. to 16.0' ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From .75' ft. to 2.0' 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: Southeastern Environmental CERT. NO.: 01709
Address: (Print) 323 main st. Conway, SC 29526
Level: A (B) C D (circle one)
Telephone No.: 843-248-3533 Fax No.: 843-248-5034

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: Earl R. Howard (Well Driller) Date: 11-12-04

If D Level Driller, provide supervising driller's name:

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3. For public water supply, indicate system name and number.

4. Check appropriate box; for abandoned well, note grout depths. For the driller's log, describe the formation, indicate the thickness and complete the depth to the bottom of the stratum.

5. Insert any comments.

6. Check the box indicating the drilling method.

7. Insert the eight-digit number assigned when the Notice of Intent was submitted for a residential or irrigation well. This space can also be used for the SCDHEC site identification number.

8. Check box indicating use.

9. Indicate the total depth in the space provided; fill in the requested dates.

10. Check appropriate boxes and complete the information requested for the casing.

11. Complete the information requested for the screen; check the appropriate box.

12. Measure the static water level 24 hours after well completion and provide the measurement in the space.

13. Provide pumping level, time, and rates in the appropriate spaces.

14. Indicate whether these analyses were run.

15. Provide the requested information on filter pack.

16. Check the appropriate boxes and provide the type and depth of the grout.

17. Complete the requested information concerning the nearest source of possible contamination.

18. If installed, provide the information requested concerning the pump.

19. Print name, SC certification number, address and business or mobile (or both) telephone number and fax number for the well driller.

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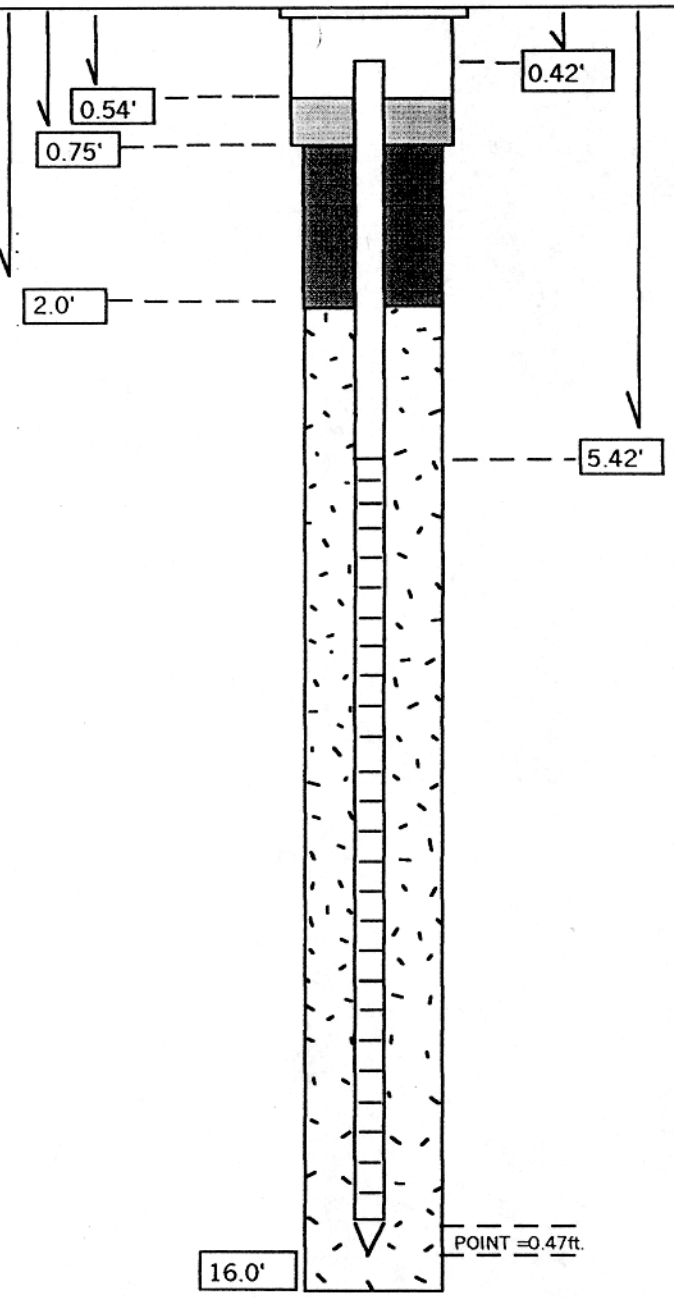

CASING = 5.0'

SCREEN = 10.0'

Soil Description

Depth

0'
gray/ brown/ orange clay
1'

2'

3'

5' gray clay

7'
tan clay
9'

11'

13' orange tan clayey med. sand
15

17'

O.V.A. Reading
Depth:
ppm:

SOUTHEASTERN ENVIRONMENTAL	**Driller:** JH/CP	**Driller Lic.#: 1500**
Client: Hucks Plaza (501 Amaco)	**Location:** 1432 Hwy. 501 Myrtle Beach, SC	
Date: 7-26-04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 15.89'
Well # : MW9	**Receptors/comments:** mw located behind railroad track, near Cannon Rd.	

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: Hucks (last) Homer (first)
Address: 5720 Creekside Dr.
City: Myrtle Beach State: SC Zip: 29575
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Horry
Name: Hucks Plaza
Street Address: 1432 Hwy. 501
City: Myrtle Beach, SC Zip: 29577
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
See Attached Sheet		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-10

6. TYPE: ☐ Mud Rotary ☐ Jetted ☒ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable tool ☐ Other

7. PERMIT NUMBER: 05156

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☒ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 7-26-04
15.89' ft. Date Completed: 7-26-04

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
42' in. to 5.42' ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 5.42' ft. and 15.42' 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 2.0' ft. to 16.0' ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From .79' ft. to 2.0' 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: Southeastern Environmental CERT. NO.: 01709
Address: (Print) 323 main st. Conway, SC 29526
Level: A (B) C D (circle one)
Telephone No.: 843-248-3533 Fax No.: 843-248-5034

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: Earl R. Howard Well Driller Date: 11-12-04

If D Level Driller, provide supervising driller's name:

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3. For public water supply, indicate system name and number.

4. Check appropriate box; for abandoned well, note grout depths. For the driller's log, describe the formation, indicate the thickness and complete the depth to the bottom of the stratum.

5. Insert any comments.

6. Check the box indicating the drilling method.

7. Insert the eight-digit number assigned when the Notice of Intent was submitted for a residential or irrigation well. This space can also be used for the SCDHEC site identification number.

8. Check box indicating use.

9. Indicate the total depth in the space provided; fill in the requested dates.

10. Check appropriate boxes and complete the information requested for the casing.

11. Complete the information requested for the screen; check the appropriate box.

12. Measure the static water level 24 hours after well completion and provide the measurement in the space.

13. Provide pumping level, time, and rates in the appropriate spaces.

14. Indicate whether these analyses were run.

15. Provide the requested information on filter pack.

16. Check the appropriate boxes and provide the type and depth of the grout.

17. Complete the requested information concerning the nearest source of possible contamination.

18. If installed, provide the information requested concerning the pump.

19. Print name, SC certification number, address and business or mobile (or both) telephone number and fax number for the well driller.

20. The well driller installing the well signs and dates the form. If the driller is Level D, provide the supervising drillers name.

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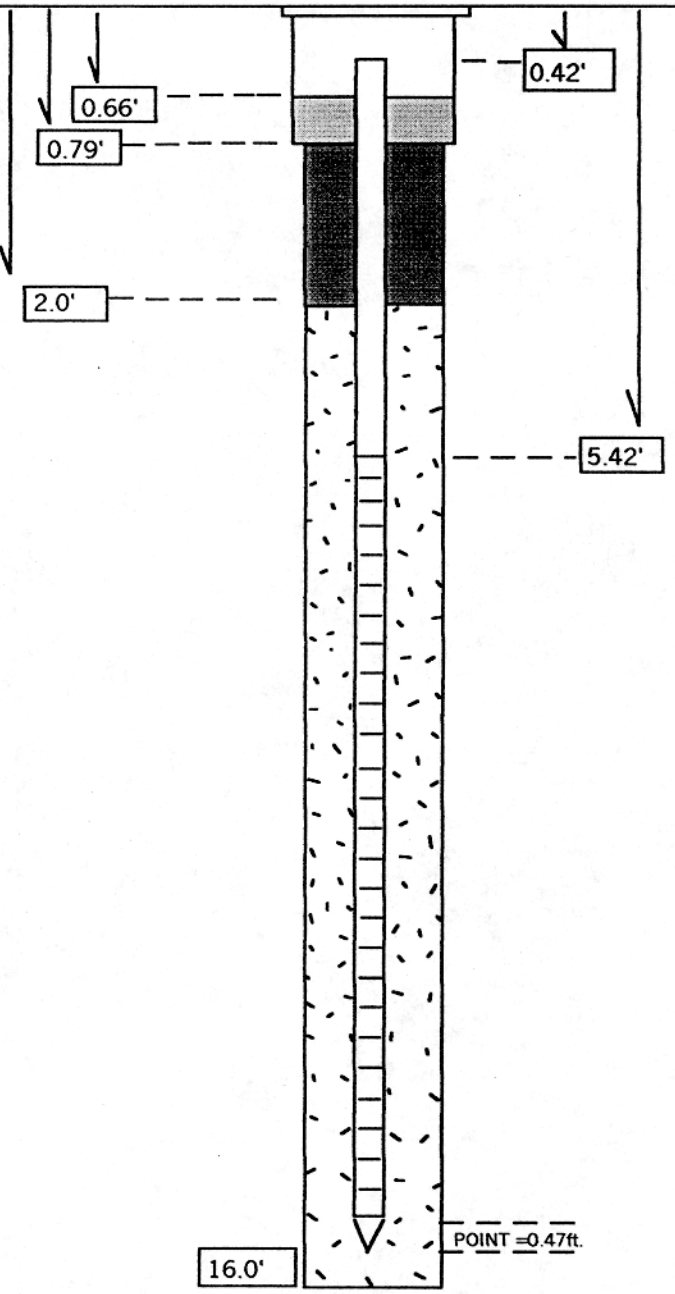


CASING = 5.0'

SCREEN = 10.0'

Soil Description

Depth

0'
reddish brown fine sandy clay
1'
2'
3'
5'
7'
9'
11'
13' very wet gray fine sand
15
17'

O.V.A. Reading
Depth:
ppm:

SOUTHEASTERN ENVIRONMENTAL	**Driller:** JH/CP	**Driller Lic.#: 1500**
Client: Hucks Plaza (501 Amaco)	**Location:** 1432 Hwy. 501 Myrtle Beach, SC	
Date: 7-26-04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 15.89'
Well # : MW10	**Receptors/comments:** mw located behind railroad track, behind Hucks Plaza building	

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: Hucks (last) Homer (first)
Address: 5720 Creekside Dr.
City: Myrtle Beach State: SC Zip: 29575
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Horry
Name: Hucks Plaza
Street Address: 1432 Hwy. 501
City: Myrtle Beach, SC Zip: 29526
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
See Attached Sheet		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-11

6. TYPE: ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 05156

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☒ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started: 11-1-04
14.16 ft. Date Completed: 11-1-04

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
.19' in. to 369' ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 3.69' ft. and 13.69' ft. NOTE: MULTIPLE SCREENS
_____ ft. and _____ ft. 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 1.5' ft. to 15.0' ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From .63' ft. to 1.5' 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: Southeastern Environmental CERT. NO.: 01709
Address: (Print) 323 main st. Conway, SC 29526 Level: A (B) C D (circle one)
Telephone No.: 843-248-3533 Fax No.: 843-248-5034

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: Earl K. Howard (Well Driller) Date: 11-12-04

If D Level Driller, provide supervising driller's name:

INSTRUCTIONS
Water Well Record

This form is to be completed by an SC Certified Water Well Driller within thirty days of completion of the well. One copy is to be submitted to SCDHEC, another is intended for the well owner, and the final copy is for the well driller. In most cases, well location, owner, driller and other administrative information can be obtained from the Notice of Intent form. If additional comments are necessary, attach those on a separate sheet.

1. Include the name and present mailing address and telephone number of the well owner. This can be a tract owner or developer in the case of a new subdivision.

2. Indicate the exact number, street, city, zip, and county for the location of the well. If the street address is not available, attach a sketch map for general location and include lot number if it is in a new subdivision. "Same as 1" can be indicated if that is the case.

3. For public water supply, indicate system name and number.

4. Check appropriate box; for abandoned well, note grout depths. For the driller's log, describe the formation, indicate the thickness and complete the depth to the bottom of the stratum.

5. Insert any comments.

6. Check the box indicating the drilling method.

7. Insert the eight-digit number assigned when the Notice of Intent was submitted for a residential or irrigation well. This space can also be used for the SCDHEC site identification number.

8. Check box indicating use.

9. Indicate the total depth in the space provided; fill in the requested dates.

10. Check appropriate boxes and complete the information requested for the casing.

11. Complete the information requested for the screen; check the appropriate box.

12. Measure the static water level 24 hours after well completion and provide the measurement in the space.

13. Provide pumping level, time, and rates in the appropriate spaces.

14. Indicate whether these analyses were run.

15. Provide the requested information on filter pack.

16. Check the appropriate boxes and provide the type and depth of the grout.

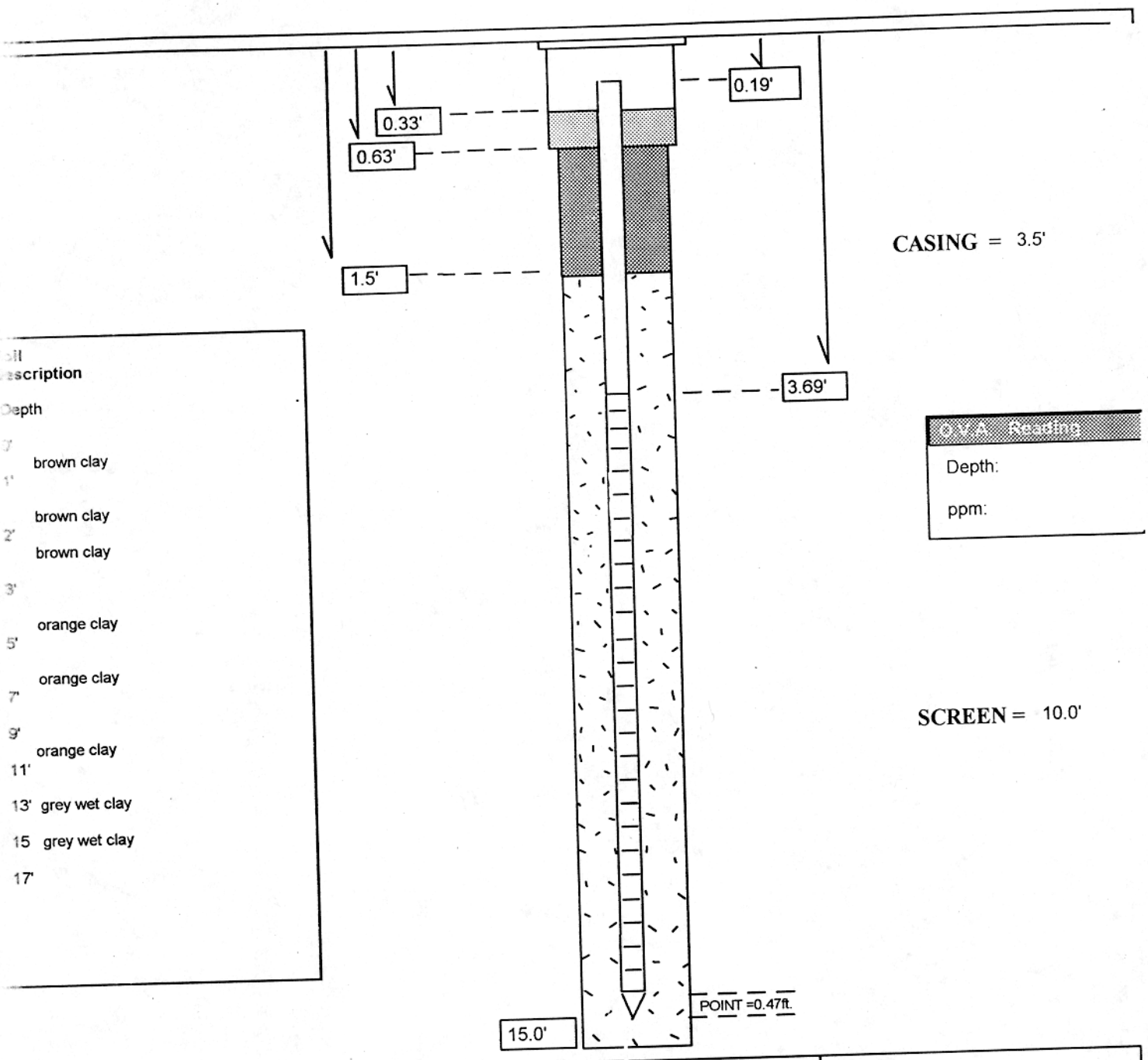
17. Complete the requested information concerning the nearest source of possible contamination.

18. If installed, provide the information requested concerning the pump.

19. Print name, SC certification number, address and business or mobile (or both) telephone number and fax number for the well driller.

20. The well driller installing the well signs and dates the form. If the driller is Level D, provide the supervising drillers name.

The completed Form 1903 should be submitted to the SCDHEC, Bureau of Water, Private Well Program, 2600 Bull Street, Columbia, SC 29201-1708.



CASING = 3.5'

SCREEN = 10.0'

Soil Description	Depth
brown clay	1'
brown clay	2'
brown clay	3'
orange clay	5'
orange clay	7'
orange clay	9'
	11'
grey wet clay	13'
grey wet clay	15
	17'

O.V.A. Reading
Depth:
ppm:

SOUTHEASTERN ENVIRONMENTAL	**Driller:** JH/EH	**Driller Lic.#: 1500**
Client: Hucks Plaza	**Location:** 1432 Hwy. 501 Myrtle Beach, SC	
Date: 11-1-04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 14.16'
Well # : MW 11	**Receptors/comments:** mw located behind railroad track, behind Hucks Plaza building	

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: Hucks (last) Homer (first)
Address: 5720 Creekside Dr.
City: Myrtle Beach State: SC Zip: 29575
Telephone: Work: Home:

2. LOCATION OF WELL: COUNTY: Horry
Name: Hucks Plaza
Street Address: 1432 Hwy. 501
City: Myrtle Beach, SC Zip: 29577
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
See Attached Sheet		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW-12

6. TYPE: ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 05156

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☒ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 14.18' ft. Date Started: 11-2-04 Date Completed: 11-2-04

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
.21' in. to 3.71' ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 3.71' ft. and 13.71' 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 1.42' ft. to 15.0' ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From .66' ft. to 1.42' 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: Southeastern CERT. NO.: 01709
Address: (Print) Environmental Level: A (B) C D (circle one)
323 main st. Conway, SC 29526
Telephone No.: 843-248-3533 Fax No.: 843-248-5034

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: Earl R. Howard (Well Driller) Date: 11-12-04

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)

INSTRUCTIONS
Water Well Record

This form is to be completed by an SC Certified Water Well Driller within thirty days of completion of the well. One copy is to be submitted to SCDHEC, another is intended for the well owner, and the final copy is for the well driller. In most cases, well location, owner, driller and other administrative information can be obtained from the Notice of Intent form. If additional comments are necessary, attach those on a separate sheet.

1. Include the name and present mailing address and telephone number of the well owner. This can be a tract owner or developer in the case of a new subdivision.

2. Indicate the exact number, street, city, zip, and county for the location of the well. If the street address is not available, attach a sketch map for general location and include lot number if it is in a new subdivision. "Same as 1" can be indicated if that is the case.

3. For public water supply, indicate system name and number.

4. Check appropriate box; for abandoned well, note grout depths. For the driller's log, describe the formation, indicate the thickness and complete the depth to the bottom of the stratum.

5. Insert any comments.

6. Check the box indicating the drilling method.

7. Insert the eight-digit number assigned when the Notice of Intent was submitted for a residential or irrigation well. This space can also be used for the SCDHEC site identification number.

8. Check box indicating use.

9. Indicate the total depth in the space provided; fill in the requested dates.

10. Check appropriate boxes and complete the information requested for the casing.

11. Complete the information requested for the screen; check the appropriate box.

12. Measure the static water level 24 hours after well completion and provide the measurement in the space.

13. Provide pumping level, time, and rates in the appropriate spaces.

14. Indicate whether these analyses were run.

15. Provide the requested information on filter pack.

16. Check the appropriate boxes and provide the type and depth of the grout.

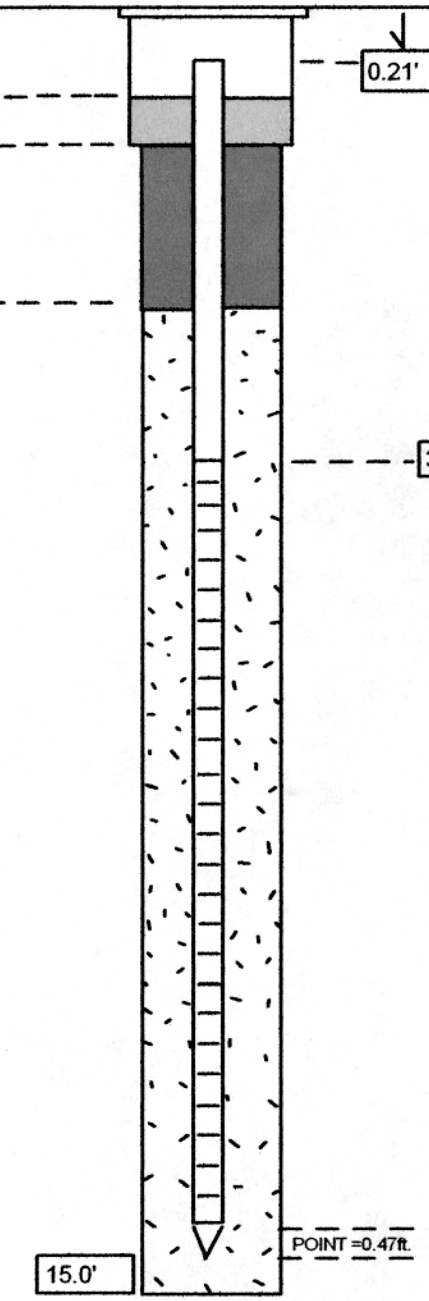
17. Complete the requested information concerning the nearest source of possible contamination.

18. If installed, provide the information requested concerning the pump.

19. Print name, SC certification number, address and business or mobile (or both) telephone number and fax number for the well driller.

20. The well driller installing the well signs and dates the form. If the driller is Level D, provide the supervising drillers name.

The completed Form 1903 should be submitted to the SCDHEC, Bureau of Water, Private Well Program, 2600 Bull Street, Columbia, SC 29201-1708.



CASING
=3.5'

SCREEN = 10.0'

Soil Description

Depth	
0'	brown clay
1'	brown clay
2'	brown clay
3'	orange clay
5'	orange clay
7'	orange clay
9'	orange clay
11'	orange clay
13'	
15	grey wet sandy clay
17'	

O.V.A. Reading	
Depth:	
ppm:	

SOUTHEASTERN ENVIRONMENTAL	**Driller:** JH/EH	**Driller Lic.#: 1500**
Client: Hucks Plaza	**Location:** 1432 Hwy. 501 Myrtle Beach, SC	
Date: 11-2-04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 14.18'
Well # : MW12	**Receptors/comments:** mw located behind railroad track, behind Hucks Plaza building	

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: MW 13
Name: Hucks (last) Homer (first)
Address: 5720 Creekside Dr.
City: Myrtle Beach State: SC Zip: 29575
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:**
Name: Hucks Plaza
Street Address: 1432 Hwy 501
City: Myrtle Beach Zip: 29577
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
See Attached Sheet		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:
MW 13

6. TYPE: ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 05156

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☒ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) Date Started:
14.29 ft. Date Completed:

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2"
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
0.32" in. to 3.82' ft. depth
_____ in. to _____ ft. depth
Height: Above/Below
Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2"
Slot/Gauge: 0.010 Length: 10'
Set Between: 3.82' ft. and 13.82' 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 1.58' ft. to 15.0' ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From .66' ft. to 1.58' 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: Earl Havard **CERT. NO.:** 01709
Address: (Print) 393 Main St Level: A B C D (circle one)
Conway, SC 29526
Telephone No.: (843) 248-3533 Fax No.: (843) 248-5034

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: _____ Date: 11-12-04
Well Driller

If D Level Driller, provide supervising driller's name:

INSTRUCTIONS
Water Well Record

This form is to be completed by an SC Certified Water Well Driller within thirty days of completion of the well. One copy is to be submitted to SCDHEC, another is intended for the well owner, and the final copy is for the well driller. In most cases, well location, owner, driller and other administrative information can be obtained from the Notice of Intent form. If additional comments are necessary, attach those on a separate sheet.

1. Include the name and present mailing address and telephone number of the well owner. This can be a tract owner or developer in the case of a new subdivision.

2. Indicate the exact number, street, city, zip, and county for the location of the well. If the street address is not available, attach a sketch map for general location and include lot number if it is in a new subdivision. "Same as 1" can be indicated if that is the case.

3. For public water supply, indicate system name and number.

4. Check appropriate box; for abandoned well, note grout depths. For the driller's log, describe the formation, indicate the thickness and complete the depth to the bottom of the stratum.

5. Insert any comments.

6. Check the box indicating the drilling method.

7. Insert the eight-digit number assigned when the Notice of Intent was submitted for a residential or irrigation well. This space can also be used for the SCDHEC site identification number.

8. Check box indicating use.

9. Indicate the total depth in the space provided; fill in the requested dates.

10. Check appropriate boxes and complete the information requested for the casing.

11. Complete the information requested for the screen; check the appropriate box.

12. Measure the static water level 24 hours after well completion and provide the measurement in the space.

13. Provide pumping level, time, and rates in the appropriate spaces.

14. Indicate whether these analyses were run.

15. Provide the requested information on filter pack.

16. Check the appropriate boxes and provide the type and depth of the grout.

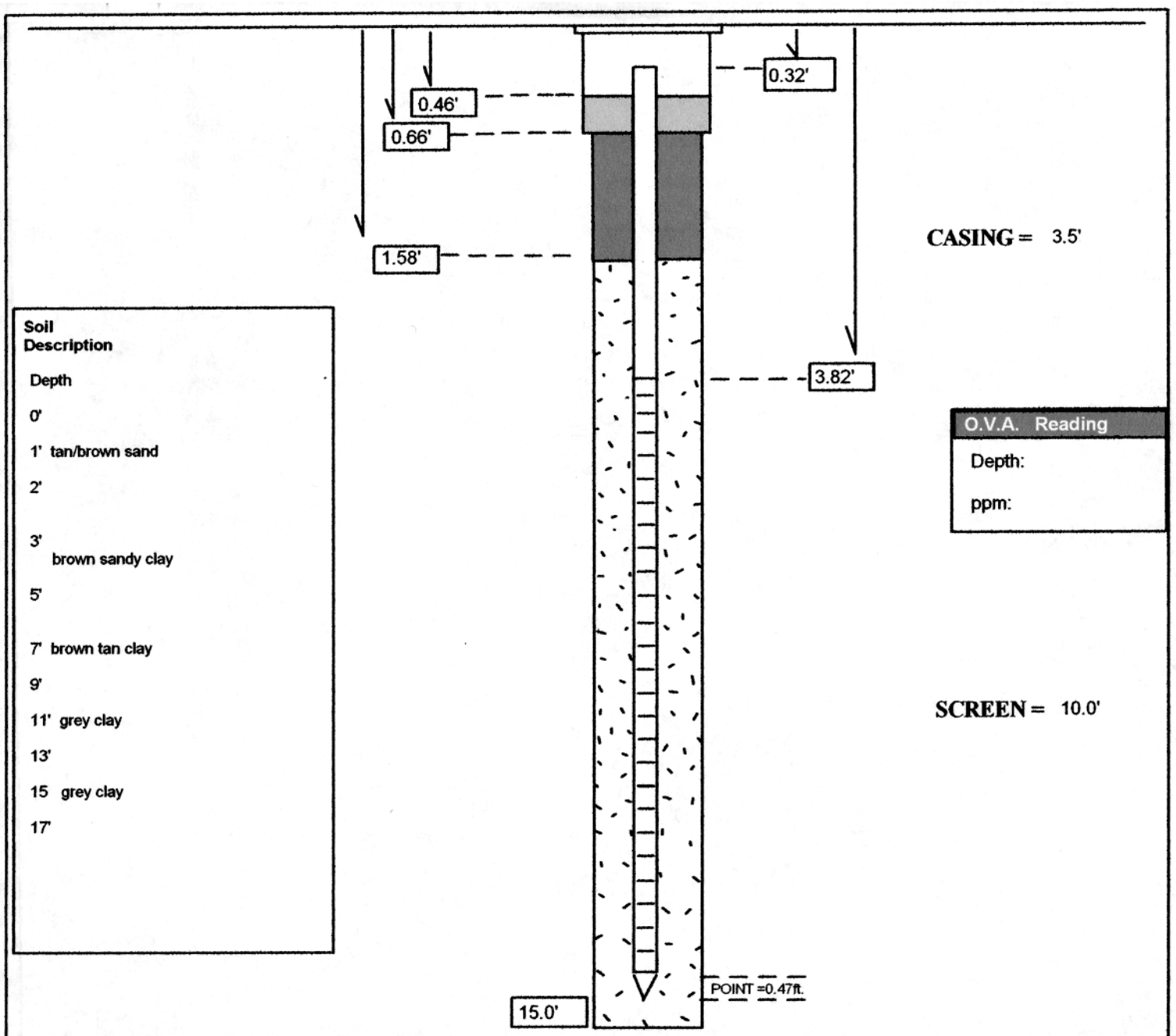
17. Complete the requested information concerning the nearest source of possible contamination.

18. If installed, provide the information requested concerning the pump.

19. Print name, SC certification number, address and business or mobile (or both) telephone number and fax number for the well driller.

20. The well driller installing the well signs and dates the form. If the driller is Level D, provide the supervising drillers name.

The completed Form 1903 should be submitted to the SCDHEC, Bureau of Water, Private Well Program, 2600 Bull Street, Columbia, SC 29201-1708.



SOUTHEASTERN ENVIRONMENTAL	**Driller:** JH/EH	**Driller Lic.#: 1500**
Client: Hucks Plaza	**Location:** 1432 Hwy. 501 Myrtle Beach, SC	
Date: 11-2-04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 14.29'
Well # : MW13	**Receptors/comments:** on southeast corner of Wreck's Paint & Body Shop	

DHEC
PROMOTE PROTECT PROSPER

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

1. WELL OWNER INFORMATION: TW1

Name: Hucks (last) Homer (first)

Address: 5720 Creekside Dr.

City: Myrtle Beach State: SC Zip: [redacted]

Telephone: Work: Home: 29575

2. LOCATION OF WELL: **COUNTY:**

Name: Hucks Plaza

Street Address: 1432 Hwy 501

City: Myrtle Beach Zip: [redacted]

Latitude: Longitude: 29577

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
See Attached Sheet		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS:

TW

6. TYPE: ☐ Mud Rotary ☐ Jetted ☒ Bored
☐ Dug ☐ Air Rotary ☐ Driven
☐ Cable tool ☐ Other

7. PERMIT NUMBER: [redacted] 05156

8. USE:
☐ Residential ☐ Public Supply ☐ Process
☐ Irrigation ☐ Air Conditioning ☐ Emergency
☐ Test Well ☒ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 42.72' ft. Date Started: 7-30-04 Date Completed: 7-30-04

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2'
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
.25' ft. to 37.25' ft. depth
_____ in. to _____ ft. depth

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

11. SCREEN:
Type: PVC Diam.: 2'
Slot/Gauge: 0.010 Length: 10'
Set Between: 37.25' ft. and 42.25' 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 28.0' ft. to 43.0' ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From .43' ft. to 28.0' 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: Earl Howard CERT. NO.: 01709
Address: (Print) 323 Main St. Level: A (B) C D (circle one)
Conway, SC 29526
Telephone No.: (843) 248-3533 Fax No.: (843) 248-5034

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: Earl R. Howard Date: 11-11-04
Well Driller

If D Level Driller, provide supervising driller's name:

INSTRUCTIONS
Water Well Record

This form is to be completed by an SC Certified Water Well Driller within thirty days of completion of the well. One copy is to be submitted to SCDHEC, another is intended for the well owner, and the final copy is for the well driller. In most cases, well location, owner, driller and other administrative information can be obtained from the Notice of Intent form. If additional comments are necessary, attach those on a separate sheet.

1. Include the name and present mailing address and telephone number of the well owner. This can be a tract owner or developer in the case of a new subdivision.

2. Indicate the exact number, street, city, zip, and county for the location of the well. If the street address is not available, attach a sketch map for general location and include lot number if it is in a new subdivision. "Same as 1" can be indicated if that is the case.

3. For public water supply, indicate system name and number.

4. Check appropriate box; for abandoned well, note grout depths. For the driller's log, describe the formation, indicate the thickness and complete the depth to the bottom of the stratum.

5. Insert any comments.

6. Check the box indicating the drilling method.

7. Insert the eight-digit number assigned when the Notice of Intent was submitted for a residential or irrigation well. This space can also be used for the SCDHEC site identification number.

8. Check box indicating use.

9. Indicate the total depth in the space provided; fill in the requested dates.

10. Check appropriate boxes and complete the information requested for the casing.

11. Complete the information requested for the screen; check the appropriate box.

12. Measure the static water level 24 hours after well completion and provide the measurement in the space.

13. Provide pumping level, time, and rates in the appropriate spaces.

14. Indicate whether these analyses were run.

15. Provide the requested information on filter pack.

16. Check the appropriate boxes and provide the type and depth of the grout.

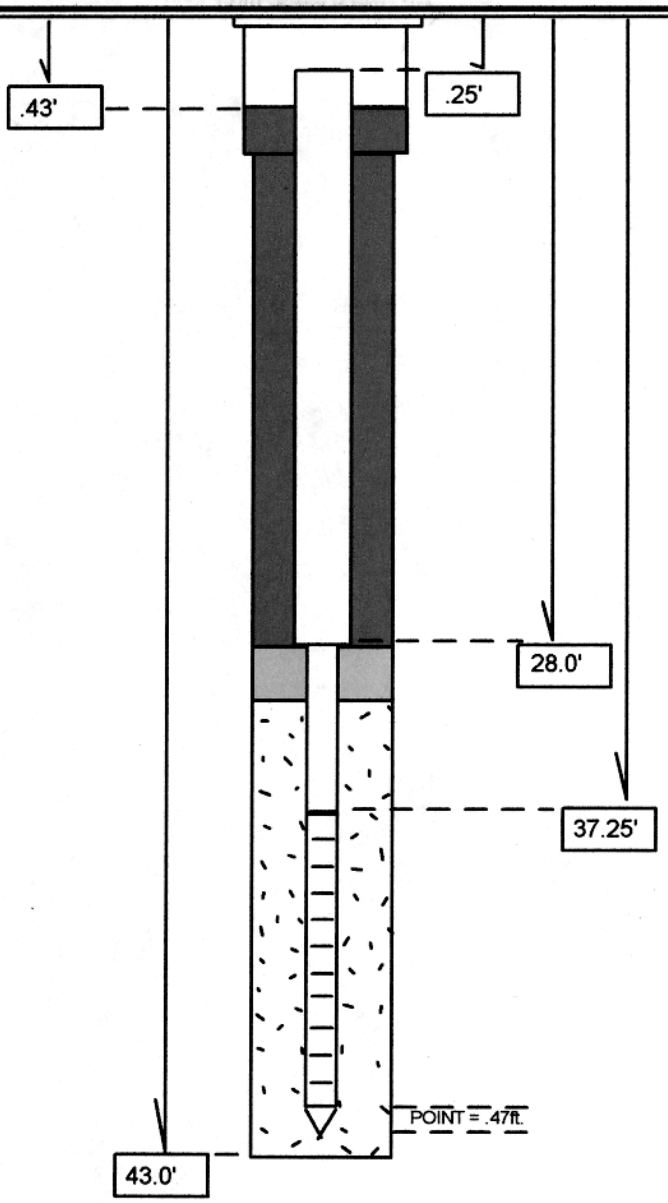
17. Complete the requested information concerning the nearest source of possible contamination.

18. If installed, provide the information requested concerning the pump.

19. Print name, SC certification number, address and business or mobile (or both) telephone number and fax number for the well driller.

20. The well driller installing the well signs and dates the form. If the driller is Level D, provide the supervising drillers name.

The completed Form 1903 should be submitted to the SCDHEC, Bureau of Water, Private Well Program, 2600 Bull Street, Columbia, SC 29201-1708.



2" CASING = 37.0'

6" CASING = 20.0'

2' SCREEN = 5.0'

Soil Description Depth	
1'	Gray sand
2'	
3'	Gray sandy clay
5'	Tan/brown clay
7'	
9'	Tan clay
11'	
	Tan clay
13'	
16'	
25'	

O.V.A. Reading

Depth:

ppm:

SOUTHEASTERN ENVIRONMENTAL	**Driller:** EH, CP, JH	**Driller Lic.#: 880**
Client: Hucks Plaza	**Location:** 1432 Hwy. 501 Myrtle Beach, SC 29566	
Date: 7/30/04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 42.72'
Well # : TW	**Receptors/comments:** Installed beside MW#2	
Disposal Method for soil:		

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: TW2
Name: Hucks (last) Homer (first)
Address: 5720 Creekside Dr.
City: Myrtle Beach State: SC Zip: 29575
Telephone: Work: Home:

2. LOCATION OF WELL: **COUNTY:**
Name: Huck's Plaza
Street Address: 1432 Hwy 501
City: Myrtle Beach Zip: 29577
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
See Attached Sheet		
*Indicate Water Bearing Zones (Use a 2nd sheet if needed)		

5. REMARKS: TW 2

6. TYPE: ☐ Mud Rotary ☐ Jetted ☒ Bored ☐ Dug ☐ Air Rotary ☐ Driven ☐ Cable tool ☐ Other

7. PERMIT NUMBER: 05156

8. USE: ☐ Residential ☐ Public Supply ☐ Process ☐ Irrigation ☐ Air Conditioning ☐ Emergency ☐ Test Well ☒ Monitor Well ☐ Replacement

9. WELL DEPTH (completed) 40.07' ft. Date Started: 10-7-04 Date Completed: 10-7-04

10. CASING: ☒ Threaded ☐ Welded
Diam.: 2'
Type: ☒ PVC ☐ Galvanized ☐ Steel ☐ Other
.15' to 34.46' ft. depth
_____ in. to _____ ft. depth
Height: Above/Below Surface _____ ft.
Weight _____ lb./ft.
Drive Shoe? ☐ Yes ☐ No

11. SCREEN:
Type: PVC Diam.: 2'
Slot/Gauge: 0.010 Length: 10'
Set Between: 34.46 ft. and 39.46' ft. **NOTE: MULTIPLE SCREENS**
_____ ft. and _____ ft. **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 27.0' ft. to 41.0' ft.
Effective size _____ Uniformity Coefficient _____

16. WELL GROUTED? ☒ Yes ☐ No
☐ Neat Cement ☒ Bentonite ☐ Bentonite/Cement ☐ Other _____
Depth: From .77' ft. to 27.0' 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: Earl Howard CERT. NO.: 01709
Address: (Print) 323 Main St. Level: A (B) C D (circle one)
Conway, SC 29526
Telephone No.: (843) 248-3533 Fax No.: (843) 248-5034

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: Earl R Howard Date: 11-11-04
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)**

INSTRUCTIONS
Water Well Record

This form is to be completed by an SC Certified Water Well Driller within thirty days of completion of the well. One copy is to be submitted to SCDHEC, another is intended for the well owner, and the final copy is for the well driller. In most cases, well location, owner, driller and other administrative information can be obtained from the Notice of Intent form. If additional comments are necessary, attach those on a separate sheet.

1. Include the name and present mailing address and telephone number of the well owner. This can be a tract owner or developer in the case of a new subdivision.

2. Indicate the exact number, street, city, zip, and county for the location of the well. If the street address is not available, attach a sketch map for general location and include lot number if it is in a new subdivision. "Same as 1" can be indicated if that is the case.

3. For public water supply, indicate system name and number.

4. Check appropriate box; for abandoned well, note grout depths. For the driller's log, describe the formation, indicate the thickness and complete the depth to the bottom of the stratum.

5. Insert any comments.

6. Check the box indicating the drilling method.

7. Insert the eight-digit number assigned when the Notice of Intent was submitted for a residential or irrigation well. This space can also be used for the SCDHEC site identification number.

8. Check box indicating use.

9. Indicate the total depth in the space provided; fill in the requested dates.

10. Check appropriate boxes and complete the information requested for the casing.

11. Complete the information requested for the screen; check the appropriate box.

12. Measure the static water level 24 hours after well completion and provide the measurement in the space.

13. Provide pumping level, time, and rates in the appropriate spaces.

14. Indicate whether these analyses were run.

15. Provide the requested information on filter pack.

16. Check the appropriate boxes and provide the type and depth of the grout.

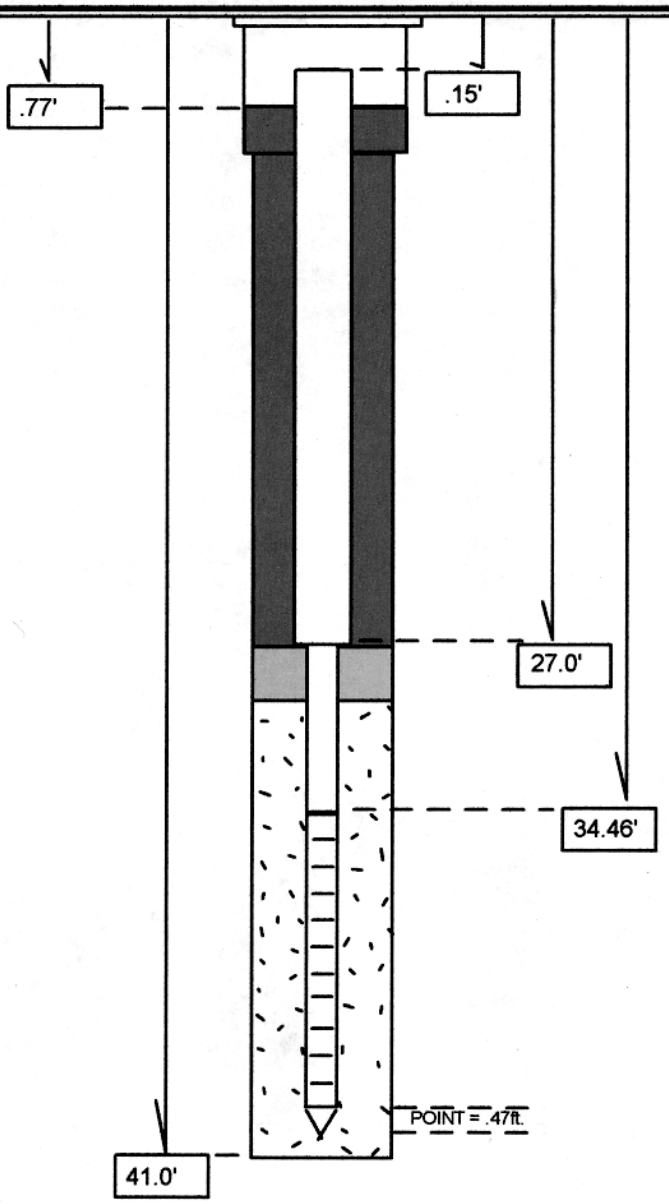
17. Complete the requested information concerning the nearest source of possible contamination.

18. If installed, provide the information requested concerning the pump.

19. Print name, SC certification number, address and business or mobile (or both) telephone number and fax number for the well driller.

20. The well driller installing the well signs and dates the form. If the driller is Level D, provide the supervising drillers name.

The completed Form 1903 should be submitted to the SCDHEC, Bureau of Water, Private Well Program, 2600 Bull Street, Columbia, SC 29201-1708.



2" CASING = 34.46'

6" CASING = 20.0'

2' SCREEN = 5.0'

O.V.A. Reading

Depth:

ppm:

Soil Description

Depth	
1'	Gray sand
2'	
3'	Gray sandy clay
5'	Tan/brown clay
7'	
9'	Tan clay
11'	
	Grey clay
20'	
	Grey clay
25'	Grey sandy clay
30'	
41'	Hit something very hard unable to drill further.

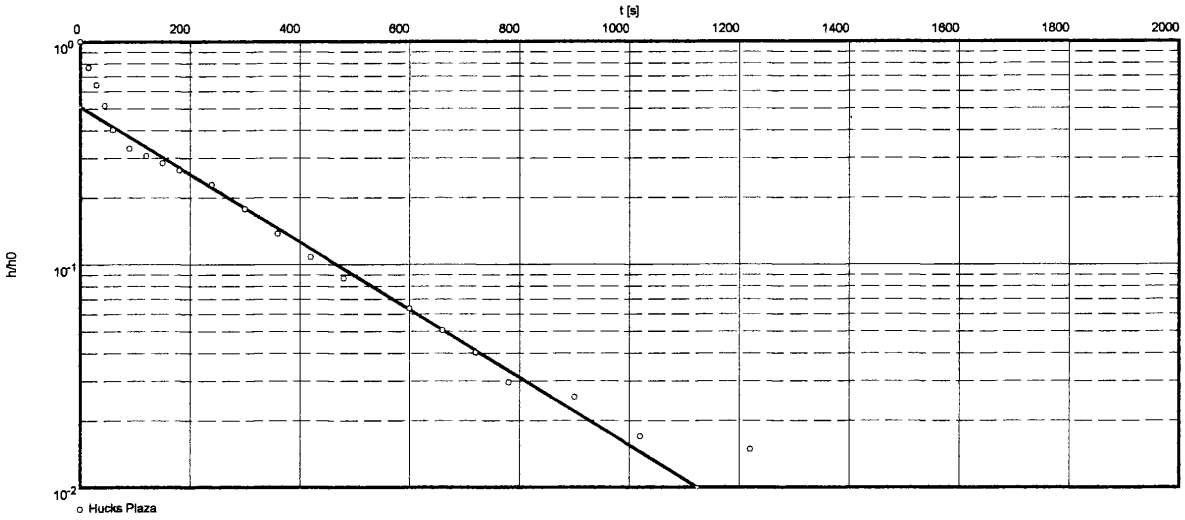
SOUTHEASTERN ENVIRONMENTAL	**Driller:** EH, CP, JH	**Driller Lic.#: 880**
Client: Hucks Plaza	**Location:** 1432 Hwy. 501 Myrtle Beach, SC 29566	
Date: 10/07/04	**Site ID #:** 05156	**Well Depth:** *(Grade to Point)* 40.07'
Well # : TW2	**Receptors/comments:** Installed beside MW8	
Disposal Method for soil: Barrelled on site		

Waterloo Hydrogeologic
180 Columbia St W
Waterloo,Ontario,Canada
ph.(519)746-1798

slug/bail test analysis
HVORSLEV's method

Page 1
Project: Hucks Plaza
Evaluated by: EH, CP
Date: 10 08 2004

Slug Test No	Test conducted on: 8-02-04
MW-6	



Hydraulic conductivity [ft/s] 3 84 x 10^{-6}

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slug/bail test analysis
HVORSLEV's method

Project Hucks Plaza

Evaluated by EH, CP | Date 10 08 2004

Slug Test No | Test conducted on 8-02-04

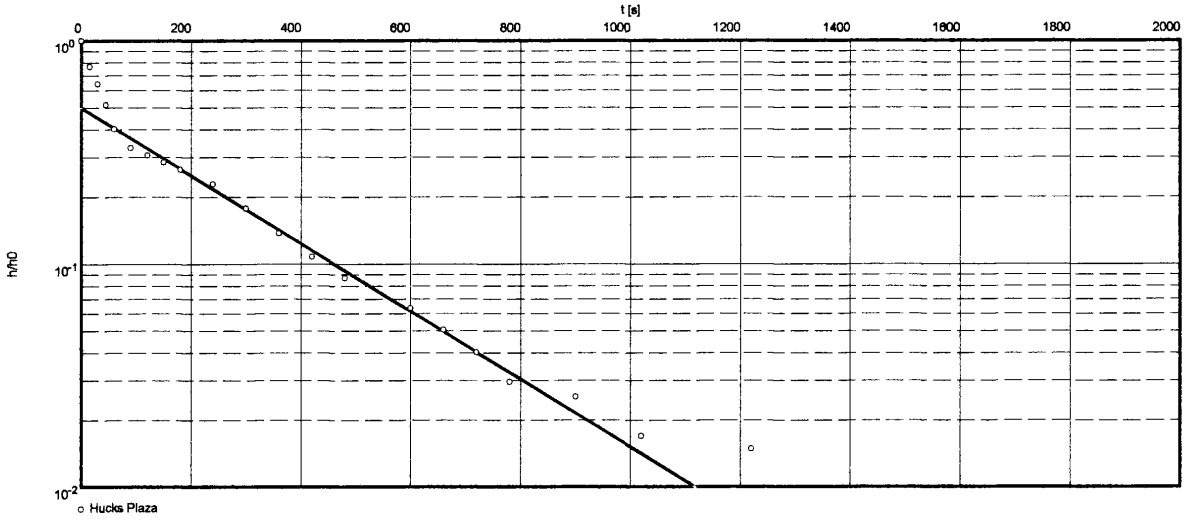
MW-6 | Hucks Plaza

Static water level 9 07 ft below datum

	Pumping test duration [s]	Water level [ft]	Change in Waterlevel [ft]
1	0	13 80	4 73
2	15	12 70	3 63
3	30	12 10	3 03
4	45	11 51	2 44
5	60	10 97	1 90
6	90	10 84	1 57
7	120	10 52	1 45
8	150	10 42	1 35
9	180	10 32	1 25
10	240	10 15	1 08
11	300	9 91	0 84
12	360	9 72	0.65
13	420	9 58	0 51
14	480	9 48	0 41
15	600	9 37	0 30
16	660	9 31	0 24
17	720	9 26	0 19
18	780	9 21	0 14
19	900	9 19	0 12
20	1020	9 15	0 08
21	1220	9 14	0 07

Waterloo Hydrogeologic 180 Columbia St. W Waterloo,Ontario,Canada ph (519)746-1798	slug/bail test analysis BOUWER-RICE's method	Page 1	
		Project: Hucks Plaza	
		Evaluated by EH, CP	Date 10.08.2004

Slug Test No	Test conducted on: 8-02-04
MW-6	



Hydraulic conductivity [ft/s]: 1.28×10^{-5}

Waterloo Hydrogeologic 160 Columbia St. W Waterloo,Ontario,Canada ph (519)746-1798	slug/bail test analysis BOUWER-RICE's method	Page 2 Project: Hucks Plaza Evaluated by: EH, CP | Date: 10 08 2004

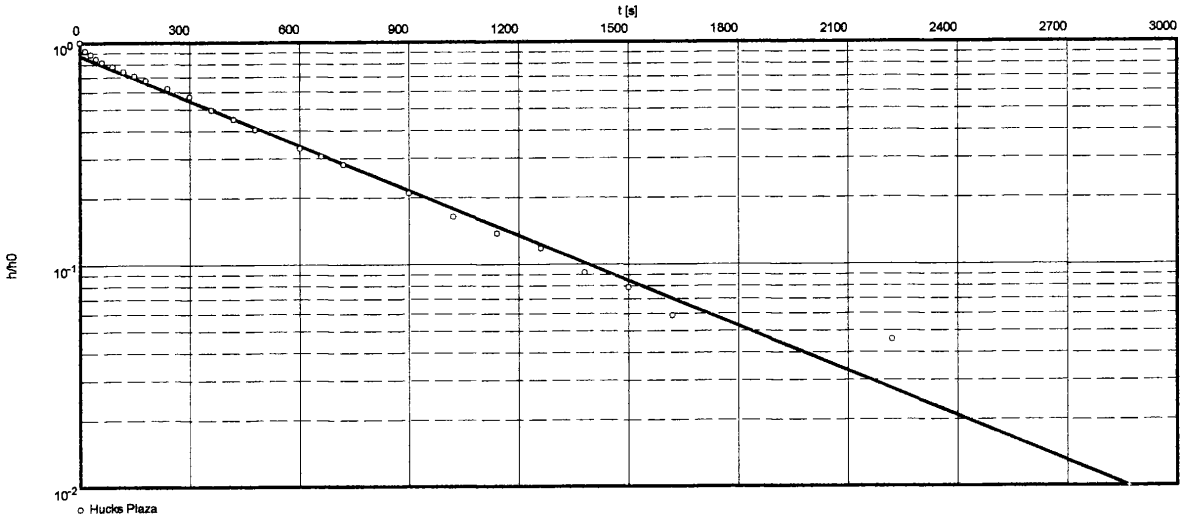
Slug Test No	Test conducted on. 8-02-04
MW-6	Hucks Plaza

Static water level 9 07 ft below datum

	Pumping test duration [s]	Water level [ft]	Drawdown [ft]
1	0	13 80	4 73
2	15	12 70	3 63
3	30	12 10	3 03
4	45	11 51	2 44
5	60	10 97	1 90
6	90	10.64	1 57
7	120	10 52	1 45
8	150	10 42	1 35
9	180	10 32	1 25
10	240	10 15	1 08
11	300	9 91	0 84
12	360	9 72	0 65
13	420	9 58	0 51
14	480	9 48	0 41
15	600	9 37	0 30
16	660	9 31	0 24
17	720	9 26	0 19
18	780	9 21	0 14
19	900	9.19	0 12
20	1020	9.15	0 08
21	1220	9 14	0 07

Waterloo Hydrogeologic 160 Columbia St. W Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis HVORSLEV's method	Page 1	
		Project Hucks Plaza	
		Evaluated by EH, CP	Date 12 08 2004

Slug Test No	Test conducted on 8-02-04
MW-7	



Hydraulic conductivity [ft/s] 1.70×10^{-6}

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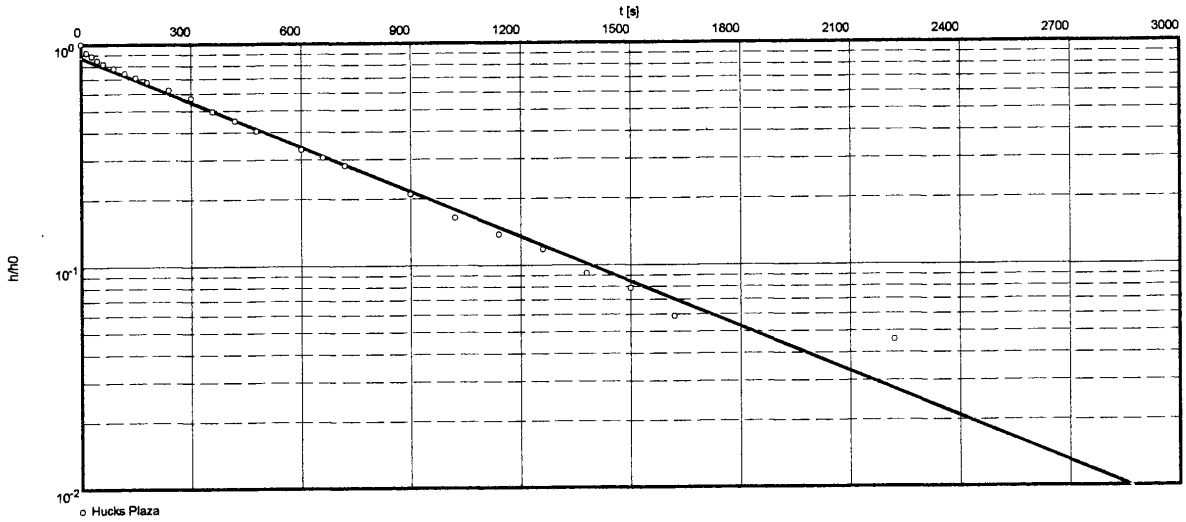
Slug Test No	Test conducted on 8-02-04
MW-7	Hucks Plaza

Static water level 9.07 ft below datum

	Pumping test duration [s]	Water level [ft]	Change in Waterlevel [ft]	
1	0	10 60	1 53	
2	15	10 47	1 40	
3	30	10 42	1 35	
4	45	10 36	1 29	
5	60	10 32	1 25	
6	90	10 26	1 19	
7	120	10 20	1 13	
8	150	10 15	1 08	
9	180	10 10	1 03	
10	240	10 02	0 95	
11	300	9 94	0 87	
12	360	9 83	0 76	
13	420	9 76	0 69	
14	480	9 69	0 62	
15	600	9 58	0 51	
16	660	9 54	0 47	
17	720	9 50	0 43	
18	900	9 39	0 32	
19	1020	9 32	0 25	
20	1140	9 28	0 21	
21	1260	9 25	0 18	
22	1380	9 21	0 14	
23	1500	9 19	0 12	
24	1620	9 16	0 09	
25	2220	9 14	0 07	

Waterloo Hydrogeologic 160 Columbia St. W. Waterloo,Ontario,Canada ph.(519)746-1798	slug/bail test analysis BOUWER-RICE's method	Page 1 Project: Hucks Plaza Evaluated by: EH, CP | Date: 12.08.2004

Slug Test No	Test conducted on: 8-02-04
MW-7	



Hydraulic conductivity [ft/s] 5.62 x 10^{-6}

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slug/bail test analysis
BOUWER-RICE's method

Project. Hucks Plaza

Evaluated by: EH, CP | Date 12.08.2004

Slug Test No: MW-7

Test conducted on: 8-02-04

Hucks Plaza

Static water level 9.07 ft below datum

	Pumping test duration [s]	Water level [ft]	Drawdown [ft]
1	0	10.60	1.53
2	15	10.47	1.40
3	30	10.42	1.35
4	45	10.36	1.29
5	60	10.32	1.25
6	90	10.26	1.19
7	120	10.20	1.13
8	150	10.15	1.08
9	180	10.10	1.03
10	240	10.02	0.95
11	300	9.94	0.87
12	360	9.83	0.76
13	420	9.76	0.69
14	480	9.69	0.62
15	600	9.58	0.51
16	660	9.54	0.47
17	720	9.50	0.43
18	900	9.39	0.32
19	1020	9.32	0.25
20	1140	9.28	0.21
21	1260	9.25	0.18
22	1380	9.21	0.14
23	1500	9.19	0.12
24	1620	9.16	0.09
25	2220	9.14	0.07

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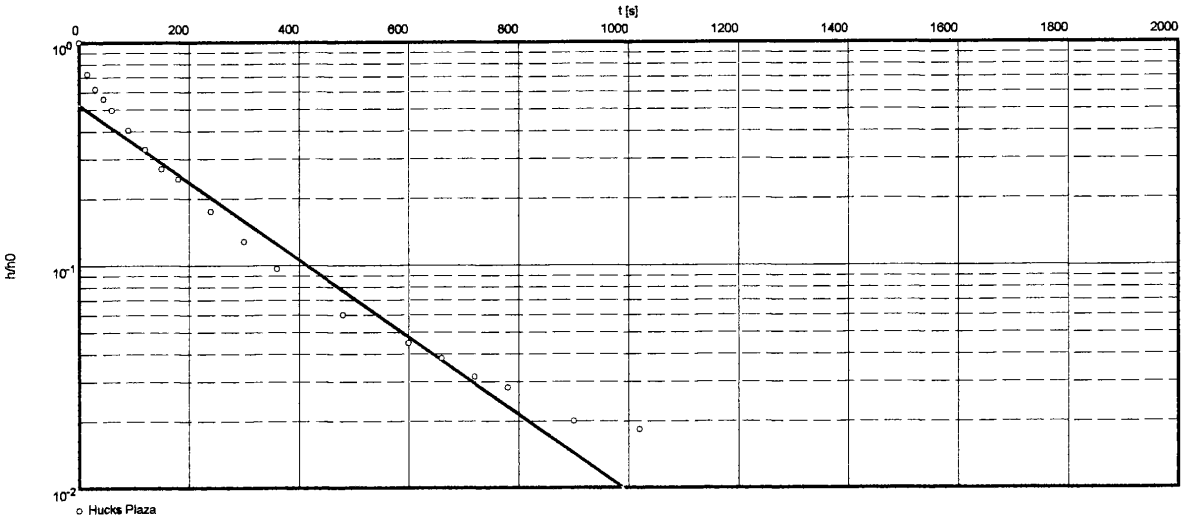
		Project Hucks Plaza	
		Evaluated by: EH, CP	Date: 12.08.2004

Slug Test No.	Test conducted on: 8-02-04
MW-10	



Hydraulic conductivity [ft/s] 4.39×10^{-6}

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Page 2
Project Hucks Plaza
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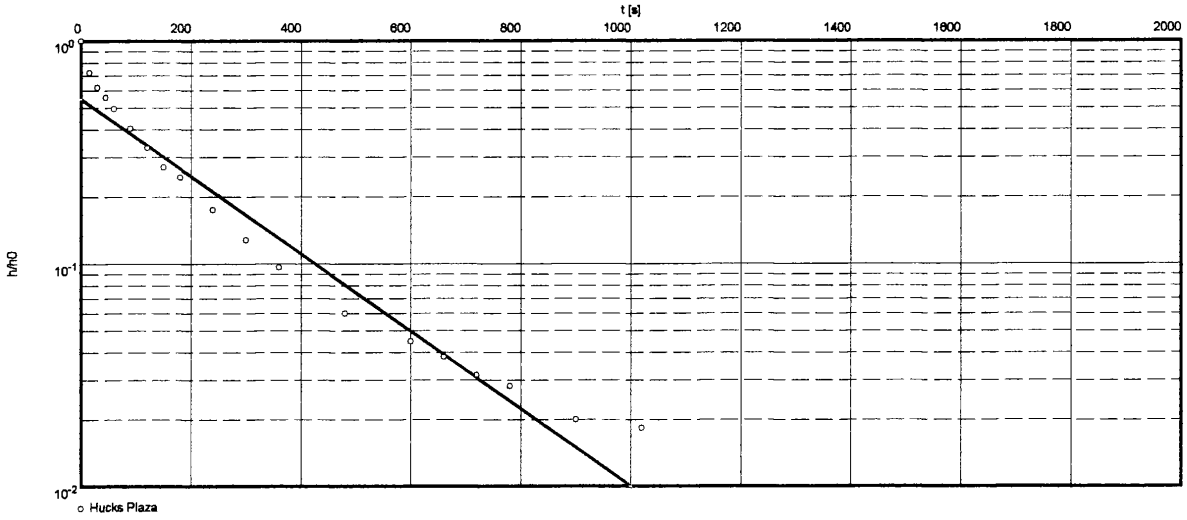
Slug Test No	Test conducted on 8-02-04
MW-10	Hucks Plaza

Static water level 6 78 ft below datum

	Pumping test duration [s]	Water level [ft]	Change in Waterlevel [ft]
1	0	12 80	6 02
2	15	11 11	4 33
3	30	10 50	3 72
4	45	10 14	3 36
5	60	9 76	2 98
6	90	9 21	2 43
7	120	8 77	1 99
8	150	8 41	1 63
9	180	8 25	1 47
10	240	7 83	1 05
11	300	7 55	0 77
12	360	7 36	0.58
13	480	7 14	0 36
14	600	7 05	0 27
15	660	7 01	0 23
16	720	6 97	0 19
17	780	6 95	0 17
18	900	6 90	0 12
19	1020	6 89	0 11

Waterloo Hydrogeologic 180 Columbia St. W Waterloo, Ontario, Canada ph (519)746-1798	slug/bail test analysis BOUWER-RICE's method	Page 1 Project: Hucks Plaza Evaluated by: EH, CP Date: 12.08.2004

Slug Test No	Test conducted on: 8-02-04
MW-10	



Hydraulic conductivity [ft/s] 1.44 x 10^{-5}

Waterloo Hydrogeologic 160 Columbia St. W. Waterloo,Ontario,Canada ph (519)746-1798	slug/bail test analysis BOUWER-RICE's method	Page 2	
		Project Hucks Plaza	
		Evaluated by EH, CP	Date 12 08 2004

Slug Test No	Test conducted on: 8-02-04
MW-10	Hucks Plaza

Static water level 6.78 ft below datum

	Pumping test duration [s]	Water level [ft]	Drawdown [ft]
1	0	12.80	6.02
2	15	11.11	4.33
3	30	10.50	3.72
4	45	10.14	3.36
5	60	9.76	2.98
6	90	9.21	2.43
7	120	8.77	1.99
8	150	8.41	1.63
9	180	8.25	1.47
10	240	7.83	1.05
11	300	7.55	0.77
12	360	7.36	0.58
13	480	7.14	0.36
14	600	7.05	0.27
15	660	7.01	0.23
16	720	6.97	0.19
17	780	6.95	0.17
18	900	6.90	0.12
19	1020	6.89	0.11

Figure 1 - Biosceen Lamped Constituents Input Screen

BIOSCREEN Natural Attenuation Decision Support System

Air Force Center for Environmental Excellence — *Version 1.4*

Huck's Plaza
Site # ~~1055156~~ 05156
Run Name

Data Input Instructions:

115 or 0.02
1. Enter value directly....or
2. Calculate by filling in grey cells below. (To restore formulas, hit button below).

Variable* — Data used directly in model.
20 — Value calculated by model. (Don't enter any data).

1. HYDROGEOLOGY

Seepage Velocity*	Vs	11.0	(ft/yr)
or		or	
Hydraulic Conductivity	K	1.1E-05	(cm/sec)
Hydraulic Gradient	i	0.00642	(ft/ft)
Porosity	n	0.2	(-)

2. DISPERSION

Longitudinal Dispersivity*	alpha x	13.8	(ft)
Transverse Dispersivity*	alpha y	1.4	(ft)
Vertical Dispersivity*	alpha z	0.0	(ft)
or		or	
Estimated Plume Length	Lp	300	(ft)

3. ADSORPTION

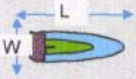
Retardation Factor*	R	1.3	(-)
or		or	
Soil Bulk Density	rho	1.7	(kg/l)
Partition Coefficient	Koc	38	(L/kg)
FractionOrganicCarbon	foc	5.7E-5	(-)

4. BIODEGRADATION

1st Order Decay Coeff*	lambda	3.5E+1	(per yr)
or		or	
Solute Half-Life	t-half	0.02	(year)
or Instantaneous Reaction Model			
Delta Oxygen*	DO	5.8	(mg/L)
Delta Nitrate*	NO3	0	(mg/L)
Observed Ferrous Iron*	Fe2+	12.9	(mg/L)
Delta Sulfate*	SO4	121	(mg/L)
Observed Methane*	CH4	9.3	(mg/L)

5. GENERAL

Modeled Area Length*	400	(ft)
Modeled Area Width*	75	(ft)
Simulation Time*	25	(yr)



6. SOURCE DATA

Source Thickness in Sat.Zone* 10 (ft)

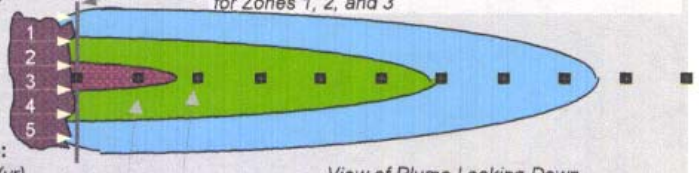
Source Zones:

	Width* (ft)	Conc. (mg/L)*
1		
2		
3	62	314
4	0	0
5	0	0

Source Halflife (see Help):

200	300	(yr)
Inst. React.	1st Order	
Soluble Mass	4855	(Kg)
In Source NAPL, Soil		

Vertical Plane Source: Look at Plume Cross-Section and Input Concentrations & Widths for Zones 1, 2, and 3



View of Plume Looking Down

Observed Centerline Concentrations at Monitoring Wells If No Data Leave Blank or Enter "0"

7. FIELD DATA FOR COMPARISON

Dist. from Source (ft)	Concentration (mg/L)
0	
125	
180	4.9
220	
260	
300	
340	
380	
420	
460	
500	

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE — View Output

RUN ARRAY — View Output

Help

Recalculate This Sheet

Paste Example Dataset

Restore Formulas for Vs, Dispersivities, R, lambda, other

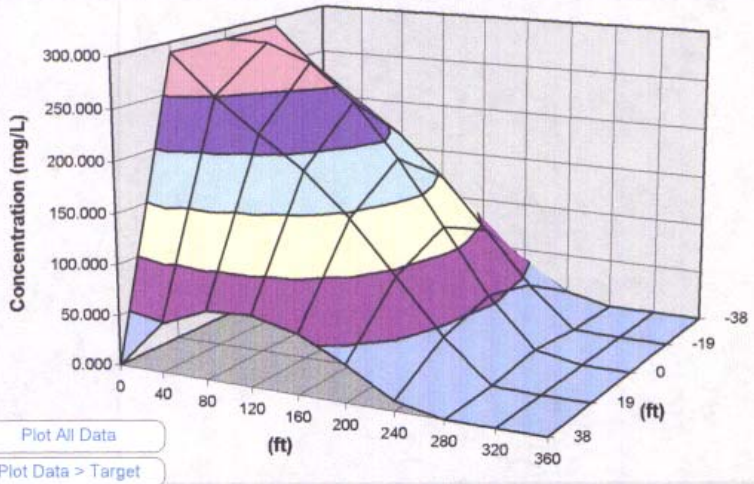
Figure 2 - Dissolved Hydrocarbons in Plume

DISSOLVED HYDROCARBON CONCENTRATIONS IN PLUME (mg/L at Z=0)

Transverse Distance (ft) ↓ / Distance from Source (ft)	0	40	80	120	160	200	240	280	320	360	400
38	0.000	48.533	67.321	69.408	58.573	36.801	9.733	0.000	0.000	0.000	0.000
19	289.933	249.826	217.622	186.488	145.360	94.491	42.339	1.473	0.000	0.000	0.000
0	289.933	289.115	272.249	236.588	184.127	120.344	56.796	8.135	0.000	0.000	0.000
-19	289.933	249.826	217.622	186.488	145.360	94.491	42.339	1.473	0.000	0.000	0.000
-38	0.000	48.533	67.321	69.408	58.573	36.801	9.733	0.000	0.000	0.000	0.000
MASS FLUX (mg/day)	3.3E+4	2.8E+4	2.7E+4	2.4E+4	1.9E+4	1.2E+4	5.1E+3	3.5E+2	0.0E+0	0.0E+0	0.0E+0

Model to Display:
- No Degradation Model
- 1st Order Decay Model
- Instantaneous Reaction Model

Time: 25 Years Target Level: 0.005 mg/L Displayed Model: Inst. Reaction



Plot All Data
Plot Data > Target

Plume and Source Masses (Order-of-Magnitude Accuracy)

Plume Mass if No Biodegradation	330.0	(Kg)
- Actual Plume Mass	239.1	(Kg)
= Plume Mass Removed by Biodeg	90.9	(Kg) (28 %)

Change in Electron Acceptor/Byproduct Masses:

Oxygen	Nitrate	Iron II	Sulfate	Methane	
-13.1	+0.0	+29.2	-274.3	+21.1	(Kg)

Contam. Mass in Source (t=0 Years)	4855.0	(Kg)
Contam. Mass in Source Now (t=25Years)	4525.0	(Kg)
Current Volume of Groundwater in Plume	1.2	(ac-ft)
Flowrate of Water Through Source Zone	0.031	(ac-ft/yr)

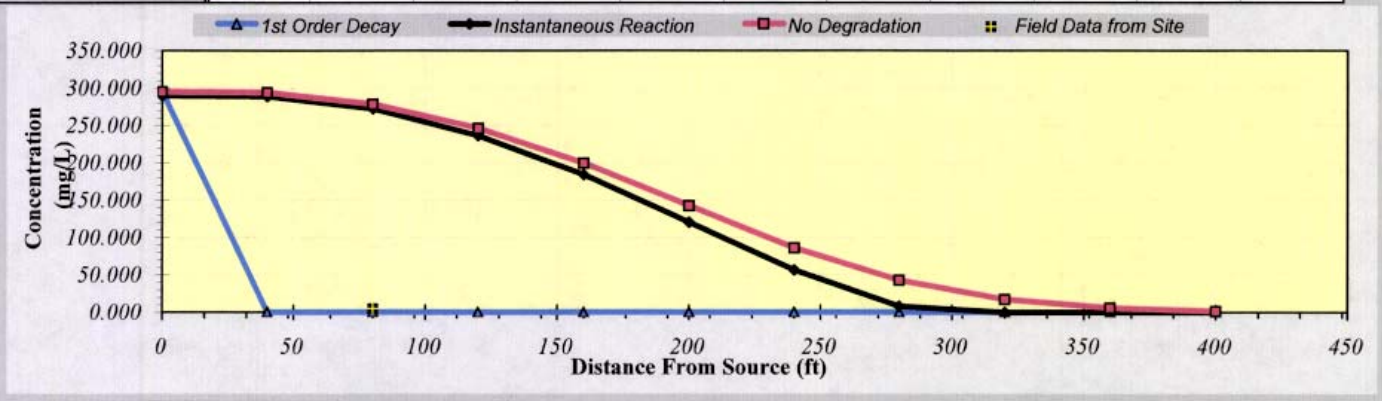
Mass HELP Recalculate

Figure 3 Dissolved HCs Along Plume Centerline

DISSOLVED HYDROCARBON CONCENTRATION ALONG PLUME CENTERLINE (mg/L at Z=0)

Distance from Source (ft)

TYPE OF MODEL	0	40	80	120	160	200	240	280	320	360	400
No Degradation	295.001	293.827	278.354	246.204	199.223	142.340	85.927	42.778	17.243	5.540	1.403
1st Order Decay	295.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Inst. Reaction	289.933	289.115	272.249	236.588	184.127	120.344	56.796	8.135	0.000	0.000	0.000
Field Data from Site			4.900								



Calculate Animation

Time: 25 Years

Return to Input

Recalculate This Sheet

Figure A Benzene Calibration

BIOSCREEN Natural Attenuation Decision Support System

Air Force Center for Environmental Excellence — *Version 1.4*

Huck's Plaza
Site # 05156
Run Name

Data Input Instructions:

115 or 0.02
1. Enter value directly....or
2. Calculate by filling in grey cells below. (To restore formulas, hit button below).

Variable* — Data used directly in model.
20 — Value calculated by model. (Don't enter any data).

1. HYDROGEOLOGY

Seepage Velocity*	Vs	11.0	(ft/yr)
or		or	
Hydraulic Conductivity	K	1.1E-05	(cm/sec)
Hydraulic Gradient	i	0.00642	(ft/ft)
Porosity	n	0.2	(-)

2. DISPERSION

Longitudinal Dispersivity*	alpha x	13.8	(ft)
Transverse Dispersivity*	alpha y	1.4	(ft)
Vertical Dispersivity*	alpha z	0.0	(ft)
or		or	
Estimated Plume Length	Lp	300	(ft)

3. ADSORPTION

Retardation Factor*	R	1.3	(-)
or		or	
Soil Bulk Density	rho	1.7	(kg/l)
Partition Coefficient	Koc	38	(L/kg)
FractionOrganicCarbon	foc	5.7E-5	(-)

4. BIODEGRADATION

1st Order Decay Coeff*	lambda	2.4E-1	(per yr)
or		or	
Solute Half-Life	t-half	2.90	(year)
or Instantaneous Reaction Model			
Delta Oxygen*	DO	1.45	(mg/L)
Delta Nitrate*	NO3	0	(mg/L)
Observed Ferrous Iron*	Fe2+	3.2	(mg/L)
Delta Sulfate*	SO4	30.3	(mg/L)
Observed Methane*	CH4	2.33	(mg/L)

5. GENERAL

Modeled Area Length*	400	(ft)
Modeled Area Width*	75	(ft)
Simulation Time*	25	(yr)



6. SOURCE DATA

Source Thickness in Sat.Zone* 10 (ft)

Source Zones:

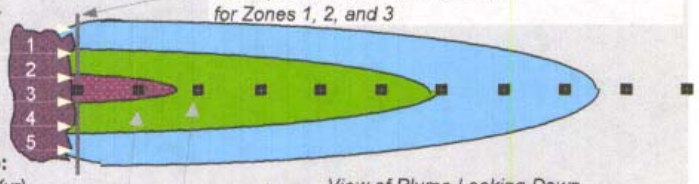
Width* (ft)	Conc. (mg/L)*
62	21
0	0
0	0

Source Halflife (see Help):

Inst. React.	1st Order	
30	40	(yr)
Soluble Mass	49	(Kg)

In Source NAPL, Soil

Vertical Plane Source: Look at Plume Cross-Section and Input Concentrations & Widths for Zones 1, 2, and 3



View of Plume Looking Down

Observed Centerline Concentrations at Monitoring Wells
If No Data Leave Blank or Enter "0"

7. FIELD DATA FOR COMPARISON

Dist. from Source (ft)	Concentration (mg/L)
0	
125	
180	3.07
220	
260	
300	
340	
380	
420	
460	
500	

8. CHOOSE TYPE OF OUTPUT TO SEE:

RUN CENTERLINE — View Output

RUN ARRAY — View Output

Help

Recalculate This Sheet

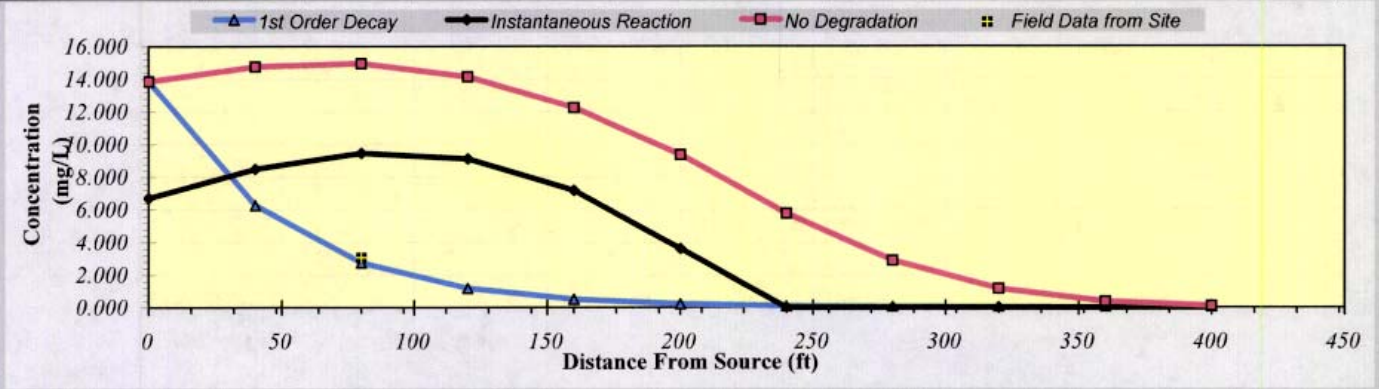
Paste Example Dataset

Restore Formulas for Vs, Dispersivities, R, lambda, other

Figure B Calibration of 1st Order Decay to Field Data

DISSOLVED HYDROCARBON CONCENTRATION ALONG PLUME CENTERLINE (mg/L at Z=0)

TYPE OF MODEL	Distance from Source (ft) 0	40	80	120	160	200	240	280	320	360	400
No Degradation	13.840	14.740	14.933	14.124	12.221	9.337	5.747	2.861	1.153	0.370	0.094
1st Order Decay	13.840	6.262	2.745	1.177	0.500	0.209	0.080	0.027	0.008	0.002	0.000
Inst. Reaction	6.717	8.494	9.457	9.109	7.166	3.611	0.000	0.000	0.000	0.000	0.000
Field Data from Site			3.070								



Calculate Animation

Time: 25 Years

Return to Input

Recalculate This Sheet

SCDHEC :: SSTL Model version 1.0c

Site ID: 05156 12/31/2004 CoC : Benzene

Source: MW-2,3 Receptor: Drainage Ditch

Input Parameters:

CoC RBSL:	0.005	mg/L
Width across flow dir.:	18.9000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	83.820	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001060	m/s
Time of transport:	25.0	years
First Order Decay Rate	0.0000000076	/s

Calculations:

EXP(-4.2248)	=	0.0146
ERFC(-1.3293)	=	1.9458
ERF(0.3088)	=	0.3381
ERF(0.2531)	=	0.2798

Decay is considered

Ax:	8.3820
Ay:	2.7940
Az:	0.4191

Results:

Csstl :	3713.3772	ug/L
Csstl :	3.7133772	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 05156 12/31/2004 CoC : Toluene

Source: MW-2,3 Receptor: Drainage Ditch

Input Parameters:

CoC RBSL:	1.000	mg/L
Width across flow dir.:	18.9000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	83.820	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001060	m/s
Time of transport:	25.0	years
First Order Decay Rate	0.0000000076	/s

Calculations:

EXP(-4.2248)	=	0.0146
ERFC(-1.3293)	=	1.9458
ERF(0.3088)	=	0.3381
ERF(0.2531)	=	0.2798

Decay is considered

Ax:	8.3820
Ay:	2.7940
Az:	0.4191

Results:

Csstl :	**********	ug/L
Csstl :	742.6754432	mg/L

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Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: SSTL Model version 1.0c

Site ID: 05156 12/31/2004 CoC : Ethylbenzene

Source: MW-2,3 Receptor: Drainage Ditch

Input Parameters:

CoC RBSL:	0.700	mg/L
Width across flow dir.:	18.9000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	83.820	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001060	m/s
Time of transport:	25.0	years
First Order Decay Rate	0.0000000076	/s

Calculations:

EXP(-4.2248)	=	0.0146
ERFC(-1.3293)	=	1.9458
ERF(0.3088)	=	0.3381
ERF(0.2531)	=	0.2798

Decay is considered

Ax:	8.3820
Ay:	2.7940
Az:	0.4191

Results:

Csstl :	**********	ug/L
Csstl :	519.8728103	mg/L

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SCDHEC :: SSTL Model version 1.0c

Site ID: 05156 12/31/2004 CoC : Xylenes

Source: MW-2,3 Receptor: Drainage Ditch

Input Parameters:

CoC RBSL:	10.000	mg/L
Width across flow dir.:	18.9000	m
Estimated Source Depth:	3.000	m
Distance along x-axis:	83.820	m
Distance along y-axis:	0.000	m
Distance along z-axis:	0.000	m
Seepage Velocity:	0.0000001060	m/s
Time of transport:	25.0	years
First Order Decay Rate	0.0000000076	/s

Calculations:

EXP(-4.2248)	=	0.0146
ERFC(-1.3293)	=	1.9458
ERF(0.3088)	=	0.3381
ERF(0.2531)	=	0.2798

Decay is considered

Ax:	8.3820
Ay:	2.7940
Az:	0.4191

Results:

Csstl :	**********	ug/L
Csstl :	7426.7544324	mg/L

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

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SCDHEC :: Leachability Model version 1.0c

Site ID: 05156 12/31/2004 CoC : Benzene

Input Parameters:

FOC :	100.000	mg/Kg
TPH :	0.618	mg/Kg
Cs :	0.041	mg/Kg
Koc :	81	mL/g
Phi :	0.200	
Wr :	0.100	
Kf :	0.000331000	cm/s
L :	124.36	cm
Hw :	25	cm
Hf :	-10	cm
Bd :	1.700	g/cc
t-half:	16.0000	days
SSTL:	0.0050	mg/L
H':	0.22600	mg/L/mg/L
DAF:	8.0000	

Output Data:

fcs :	0.00010	
f:	0.10	
t:	21542.71	seconds
Vw:	5965.899	ft/yr
Kd:	0.008	ml/g
Vc:	5581.606	ft/yr
Tc:	0.27	days
Log(Cp):	-2.296	
Cp:	0.005	mg/Kg
SSTL:	0.003	mg/Kg

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SCDHEC :: Leachability Model version 1.0c

Site ID: 05156 12/31/2004 CoC : Toluene

Input Parameters:

FOC :	100.000	mg/Kg
TPH :	0.618	mg/Kg
Cs :	0.142	mg/Kg
Koc :	133	mL/g
Phi :	0.200	
Wr :	0.100	
Kf :	0.000331000	cm/s
L :	124.36	cm
Hw :	25	cm
Hf :	-10	cm
Bd :	1.700	g/cc
t-half:	22.0000	days
SSTL:	1.0000	mg/L
H':	0.30100	mg/L/mg/L
DAF:	8.0000	

Output Data:

fcs :	0.00010	
f:	0.10	
t:	21542.71	seconds
Vw:	5965.899	ft/yr
Kd:	0.013	ml/g
Vc:	5359.956	ft/yr
Tc:	0.28	days
Log(Cp):	0.004	
Cp:	1.009	mg/Kg

Cp is greater than Cs
No SSTL required for soil

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SCDHEC :: Leachability Model version 1.0c

Site ID: 05156 12/31/2004 CoC : Ethylbenzene

Input Parameters:

FOC :	100.000	mg/Kg
TPH :	0.618	mg/Kg
Cs :	0.113	mg/Kg
Koc :	176	mL/g
Phi :	0.200	
Wr :	0.100	
Kf :	0.000331000	cm/s
L :	124.36	cm
Hw :	25	cm
Hf :	-10	cm
Bd :	1.700	g/cc
t-half:	10.0000	days
SSTL:	0.7000	mg/L
H':	0.28000	mg/L/mg/L
DAF:	8.0000	

Output Data:

fcs :	0.00010	
f:	0.10	
t:	21542.71	seconds
Vw:	5965.899	ft/yr
Kd:	0.018	ml/g
Vc:	5189.544	ft/yr
Tc:	0.29	days
Log(Cp):	-0.146	
Cp:	0.714	mg/Kg

Cp is greater than Cs
No SSTL required for soil

Contents of this program and its use are the sole property of the South Carolina Department of Health and Environmental Control(SCDHEC).

Program Developed by Sriram Madabhushi.
Unauthorized use is strictly prohibited.

SCDHEC :: Leachability Model version 1.0c

Site ID: 05156 12/31/2004 CoC : Xylenes

Input Parameters:

FOC :	100.000	mg/Kg
TPH :	0.618	mg/Kg
Cs :	0.303	mg/Kg
Koc :	639	mL/g
Phi :	0.200	
Wr :	0.100	
Kf :	0.000331000	cm/s
L :	124.36	cm
Hw :	25	cm
Hf :	-10	cm
Bd :	1.700	g/cc
t-half:	28.0000	days
SSTL:	10.0000	mg/L
H':	0.27800	mg/L/mg/L
DAF:	8.0000	

Output Data:

fcs :	0.00010	
f:	0.10	
t:	21542.71	seconds
Vw:	5965.899	ft/yr
Kd:	0.064	ml/g
Vc:	3866.053	ft/yr
Tc:	0.39	days
Log(Cp):	1.004	
Cp:	10.096	mg/Kg

Cp is greater than Cs
No SSTL required for soil

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ACCESS ANALYTICAL, INC.

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64035
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 2
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANAL
Nitrate (as N)	BDL	mg/L	300.0	0.50	08/04/2004	08/04/2004	RZ
Sulfate	4.21	mg/L	300.0	1.0	08/04/2004	08/04/2004	RZ
Ferrous, Iron (Fe2+)	BDL	mg/L	SM3500-Fe D.	0.03	08/04/2004	08/04/2004	14:30YD
Lead by ICP	BDL	mg/L	200.7	0.005	08/04/2004	08/06/2004	SB
8011 EDB, DBCP in Surface Waters/GroundWaters			MEDF	1			
1,2-Dibromo-3-Chloropropane (DBCP)	BDL	ug/L	8011	0.040	08/05/2004	08/05/2004	JRV
Ethylene Dibromide (EDB)	1.96	ug/L	8011	0.020	08/05/2004	08/05/2004	JRV
SURROGATE: 1,1,1,2 Tetrachloroetha	62.67%						
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	4.66	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	20:21EP
Benzene	10500	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	20:21EP
Toluene	99300	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	20:21EP
Ethylbenzene	1430	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	20:21EP
m & p-Xylene	4860	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	20:21EP
o-Xylene	2570	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	20:21EP
Total Xylene	7430	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	20:21EP
Naphthalene	704	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	20:21EP
SURROGATE: Diethyl ether	104.75%						
SURROGATE: Toluene-D8	98.00%						

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64035
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 2
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYST
SURROGATE. Bromofluorobenzene	107.20%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64036
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 3
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYS
Nitrate (as N)	BDL	mg/L	300.0	0.50	08/04/2004	08/04/2004	RZ
Sulfate	2.82	mg/L	300.0	1.0	08/04/2004	08/04/2004	RZ
Ferrous, Iron (Fe2+)	3.2	mg/L	SM3500-Fe D.	0.03	08/04/2004	08/04/2004	14:30YD
Lead by ICP	0.012	mg/L	200.7	0 005	08/04/2004	08/06/2004	11:35SB
8011 EDB, DBCP in Surface Waters/GroundWaters			MEDF	1			
1,2-Dibromo-3-Chloropropane (DBCP)	BDL	ug/L	8011	0.040	08/05/2004	08/05/2004	JRV
Ethylene Dibromide (EDB)	.413	ug/L	8011	0.020	08/05/2004	08/05/2004	JRV
SURROGATE: 1,1,1,2 Tetrachloroetha	52.00%						
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	10			
Methyl-Tert-Butyl-Ether	900	ug/L	5030/8260B	10.000	08/07/2004	08/07/2004	22:26AR
Benzene	10500	ug/L	5030/8260B	10.000	08/07/2004	08/07/2004	22:26AR
Toluene	67500	ug/L	5030/8260B	10.000	08/07/2004	08/07/2004	22:26AR
Ethylbenzene	1260	ug/L	5030/8260B	10.000	08/07/2004	08/07/2004	22:26AR
m & p-Xylene	3440	ug/L	5030/8260B	10.000	08/07/2004	08/07/2004	22:26AR
o-Xylene	1490	ug/L	5030/8260B	10 000	08/07/2004	08/07/2004	22:26AR
Total Xylene	4930	ug/L	5030/8260B	10 000	08/07/2004	08/07/2004	22:26AR
Naphthalene	713	ug/L	5030/8260B	10 000	08/07/2004	08/07/2004	22:26AR
SURROGATE: Diethyl ether	95.00%						
SURROGATE: Toluene-D8	99.00%						

Bruce G. Newell
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August 10, 2004
Report # 408000118
Order # 64036
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 3
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYST
SURROGATE: Bromofluorobenzene	99.60%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.
* UNABLE TO RUN LOWER DUE TO MATRIX.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64037
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 4
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALY
Nitrate (as N)	BDL	mg/L	300.0	0.50	08/04/2004	08/04/2004	RZ
Sulfate	10.8	mg/L	300.0	1.0	08/04/2004	08/04/2004	RZ
Ferrous, Iron (Fe2+)	1.8	mg/L	SM3500-Fe D.	0.03	08/04/2004	08/04/2004	14:30YD
Lead by ICP	BDL	mg/L	200.7	0 005	08/04/2004	08/06/2004	MG/RP
8011 EDB, DBCP in Surface Waters/GroundWaters			MEDF	1			
1,2-Dibromo-3-Chloropropane (DBCP)	BDL	ug/L	8011	0.040	08/05/2004	08/05/2004	JRV
Ethylene Dibromide (EDB)	BDL	ug/L	8011	0.020	08/05/2004	08/05/2004	JRV
SURROGATE: 1,1,1,2 Tetrachloroetha	66.67%						
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	13:30AR
Benzene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	13:30AR
Toluene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	13:30AR
Ethylbenzene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	13:30AR
m & p-Xylene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	13:30AR
o-Xylene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	13:30AR
Total Xylene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	13:30AR
Naphthalene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	13:30AR
SURROGATE: Diethyl ether	98.38%						
SURROGATE: Toluene-D8	99.50%						

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64037
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 4
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYS
SURROGATE: Bromofluorobenzene	98.80%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64038
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 5
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYS
Nitrate (as N)	BDL	mg/L	300.0	0.50	08/04/2004	08/04/2004	RZ
Sulfate	3.03	mg/L	300.0	1.0	08/04/2004	08/04/2004	RZ
Ferrous, Iron (Fe2+)	1.8	mg/L	SM3500-Fe D.	0.03	08/04/2004	08/04/2004	14:30YD
Lead by ICP	BDL	mg/L	200.7	0.005	08/04/2004	08/06/2004	MG/RP
8011 EDB, DBCP in Surface Waters/GroundWaters			MEDF	1			
1,2-Dibromo-3-Chloropropane (DBCP)	BDL	ug/L	8011	0.040	08/05/2004	08/05/2004	JRV
Ethylene Dibromide (EDB)	BDL	ug/L	8011	0.020	08/05/2004	08/05/2004	JRV
SURROGATE: 1,1,1,2 Tetrachloroetha	55.33%						
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	16:08AR
Benzene	305	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	16:08AR
Toluene	8.48	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	16:08AR
Ethylbenzene	1.53	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	16:08AR
m & p-Xylene	109	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	16:08AR
o-Xylene	66.2	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	16:08AR
Total Xylene	175	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	16:08AR
Naphthalene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	16:08AR
SURROGATE: Diethyl ether	97.88%						
SURROGATE: Toluene-D8	101.00%						

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64038
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 5
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYST
SURROGATE. Bromofluorobenzene	104.40%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

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*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64039
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 6
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYST
Nitrate (as N)	BDL	mg/L	300.0	0.50	08/04/2004	08/04/2004	RZ
Sulfate	10.7	mg/L	300.0	1.0	08/04/2004	08/04/2004	RZ
Ferrous, Iron (Fe2+)	3.0	mg/L	SM3500-Fe D.	0.03	08/04/2004	08/04/2004	14:30YD
Lead by ICP	0.017	mg/L	200.7	0.005	08/04/2004	08/06/2004	MG/RP
8011 EDB, DBCP in Surface Waters/GroundWaters			MEDF	1			
1,2-Dibromo-3-Chloropropane (DBCP)	BDL	ug/L	8011	0.040	08/05/2004	08/05/2004	JRV
Ethylene Dibromide (EDB)	BDL	ug/L	8011	0.020	08/05/2004	08/05/2004	JRV
SURROGATE: 1,1,1,2 Tetrachloroetha	61.33%						
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	16:40AR
Benzene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	16:40AR
Toluene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	16:40AR
Ethylbenzene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	16:40AR
m & p-Xylene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	16:40AR
o-Xylene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	16:40AR
Total Xylene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	16:40AR
Naphthalene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	16:40AR
SURROGATE: Diethyl ether	82.75%						
SURROGATE. Toluene-D8	101.25%						

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64039
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 6
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYS
SURROGATE: Bromofluorobenzene	99.60%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

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Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64040
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 7
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYS
Nitrate (as N)	BDL	mg/L	300.0	0.50	08/04/2004	08/04/2004	RZ
Sulfate	18.2	mg/L	300.0	1.0	08/04/2004	08/04/2004	RZ
Ferrous, Iron (Fe2+)	BDL	mg/L	SM3500-Fe D.	0.03	08/04/2004	08/04/2004	14:30YD
Lead by ICP	0.011	mg/L	200.7	0.005	08/04/2004	08/06/2004	MG/RP
8011 EDB, DBCP in Surface Waters/GroundWaters			MEDF	1			
1,2-Dibromo-3-Chloropropane (DBCP)	BDL	ug/L	8011	0.040	08/05/2004	08/05/2004	JRV
Ethylene Dibromide (EDB)	BDL	ug/L	8011	0.020	08/05/2004	08/05/2004	JRV
SURROGATE: 1,1,1,2 Tetrachloroetha	75.33%						
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	6.22	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	17:11AR
Benzene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	17:11AR
Toluene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	17:11AR
Ethylbenzene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	17:11AR
m & p-Xylene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	17:11AR
o-Xylene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	17:11AR
Total Xylene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	17:11AR
Naphthalene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	17:11AR
SURROGATE: Diethyl ether	71.25%						
SURROGATE: Toluene-D8	104.75%						

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64040
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 7
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYST
SURROGATE: Bromofluorobenzene	102.00%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

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*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
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Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64041
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 8
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYS
Nitrate (as N)	BDL	mg/L	300.0	0.50	08/04/2004	08/04/2004	14:09RZ
Sulfate	5.92	mg/L	300.0	1.0	08/04/2004	08/04/2004	14:17RZ
Ferrous, Iron (Fe2+)	BDL	mg/L	SM3500-Fe D.	0.03	08/04/2004	08/04/2004	14:30YD
Lead by ICP	0.009	mg/L	200.7	0.005	08/04/2004	08/06/2004	MG/RP
8011 EDB, DBCP in Surface Waters/GroundWaters			MEDF	1			
1,2-Dibromo-3-Chloropropane (DBCP)	BDL	ug/L	8011	0.040	08/05/2004	08/05/2004	JRV
Ethylene Dibromide (EDB)	BDL	ug/L	8011	0.020	08/05/2004	08/05/2004	JRV
SURROGATE: 1,1,1,2 Tetrachloroetha	55.33%						
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	1.19	ug/L	5030/8260B	1.000	08/10/2004	08/10/2004	23:29EP
Benzene	3070	ug/L	5030/8260B	1.000	08/10/2004	08/10/2004	23:29EP
Toluene	91.7	ug/L	5030/8260B	1.000	08/10/2004	08/10/2004	23:29EP
Ethylbenzene	78.7	ug/L	5030/8260B	1.000	08/10/2004	08/10/2004	23:29EP
m & p-Xylene	1110	ug/L	5030/8260B	1.000	08/10/2004	08/10/2004	23:29EP
o-Xylene	551	ug/L	5030/8260B	1.000	08/10/2004	08/10/2004	23:29EP
Total Xylene	1661	ug/L	5030/8260B	1.000	08/10/2004	08/10/2004	23:29EP
Naphthalene	8.20	ug/L	5030/8260B	1.000	08/10/2004	08/10/2004	23:29EP
SURROGATE: Diethyl ether	97.13%						
SURROGATE: Toluene-D8	98.75%						

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64041
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 8
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYS
SURROGATE: Bromofluorobenzene	104.40%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

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*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64042
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 9
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYST
Nitrate (as N)	BDL	mg/L	300.0	0.50	08/04/2004	08/04/2004 14:17	RZ
Sulfate	66.4	mg/L	300.0	1.0	08/04/2004	08/04/2004 14:17	RZ
Ferrous, Iron (Fe2+)	2.8	mg/L	SM3500-Fe D.	0.03	08/04/2004	08/04/2004 14:30	YD
Lead by ICP	BDL	mg/L	200.7	0.005	08/04/2004	08/06/2004 11:36	SB
8011 EDB, DBCP in Surface Waters/GroundWaters			MEDF	1			
1,2-Dibromo-3-Chloropropane (DBCP)	BDL	ug/L	8011	0.040	08/05/2004	08/05/2004	JRV
Ethylene Dibromide (EDB)	BDL	ug/L	8011	0.020	08/05/2004	08/05/2004	JRV
SURROGATE: 1,1,1,2 Tetrachloroetha	116.00%						
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	17:43 AR
Benzene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	17:43 AR
Toluene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	17:43 AR
Ethylbenzene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	17:43 AR
m & p-Xylene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	17:43 AR
o-Xylene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	17:43 AR
Total Xylene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	17:43 AR
Naphthalene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	17:43 AR
SURROGATE: Diethyl ether	100.50%						
SURROGATE: Toluene-D8	97.75%						

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

Page 16
August 10, 2004
Report # 408000118
Order # 64042
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 9
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYST
SURROGATE: Bromofluorobenzene	102.80%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

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*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64043
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 10
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYST
Nitrate (as N)	BDL	mg/L	300.0	0.50	08/04/2004	08/04/2004 14:17	RZ
Sulfate	3.60	mg/L	300.0	1.0	08/04/2004	08/04/2004 14:17	RZ
Ferrous, Iron (Fe2+)	3.5	mg/L	SM3500-Fe D.	0.03	08/04/2004	08/04/2004 14:30	YD
Lead by ICP	BDL	mg/L	200.7	0.005	08/04/2004	08/06/2004 07:45	MG
8011 EDB, DBCP in Surface Waters/GroundWaters			MEDF	1			
1,2-Dibromo-3-Chloropropane (DBCP)	BDL	ug/L	8011	0.040	08/05/2004	08/05/2004	JRV
Ethylene Dibromide (EDB)	BDL	ug/L	8011	0.020	08/05/2004	08/05/2004	JRV
SURROGATE: 1,1,1,2 Tetrachloroetha	56.67%						
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	5.00	ug/L	5030/8260B	1.000	08/08/2004	08/08/2004	16:14 AR
Benzene	107	ug/L	5030/8260B	1.000	08/08/2004	08/08/2004	16:14 AR
Toluene	1.59	ug/L	5030/8260B	1.000	08/08/2004	08/08/2004	16:14 AR
Ethylbenzene	BDL	ug/L	5030/8260B	1.000	08/08/2004	08/08/2004	16:14 AR
m & p-Xylene	5.51	ug/L	5030/8260B	1.000	08/08/2004	08/08/2004	16:14 AR
o-Xylene	BDL	ug/L	5030/8260B	1.000	08/08/2004	08/08/2004	16:14 AR
Total Xylene	5.51	ug/L	5030/8260B	1.000	08/08/2004	08/08/2004	16:14 AR
Naphthalene	13.0	ug/L	5030/8260B	1.000	08/08/2004	08/08/2004	16:14 AR
SURROGATE: Diethyl ether	101.38%						
SURROGATE: Toluene-D8	95.75%						

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64043
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW 10
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALY:
SURROGATE: Bromofluorobenzene	102.80%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
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Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64044
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: TW
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYST
Nitrate (as N)	BDL	mg/L	300.0	0.50	08/04/2004	08/04/2004 14:17	RZ
Sulfate	67.0	mg/L	300.0	1.0	08/04/2004	08/04/2004 14:18	RZ
Ferrous, Iron (Fe2+)	BDL	mg/L	SM3500-Fe D.	0.03	08/04/2004	08/04/2004 14:30	YD
Lead by ICP	BDL	mg/L	200.7	0.005	08/04/2004	08/06/2004	MG/RP
8011 EDB, DBCP in Surface Waters/GroundWaters			MEDF	1			
1,2-Dibromo-3-Chloropropane (DBCP)	BDL	ug/L	8011	0.040	08/05/2004	08/05/2004	JRV
Ethylene Dibromide (EDB)	BDL	ug/L	8011	0.020	08/05/2004	08/05/2004	JRV
SURROGATE: 1,1,1,2 Tetrachloroetha	78.00%						
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	18:14AR
Benzene	1.64	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	18:14AR
Toluene	39.5	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	18:14AR
Ethylbenzene	1.29	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	18:14AR
m & p-Xylene	5.79	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	18:14AR
o-Xylene	3.42	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	18:14AR
Total Xylene	9.21	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	18:14AR
Naphthalene	BDL	ug/L	5030/8260B	1.000	08/07/2004	08/07/2004	18:14AR
SURROGATE Diethyl ether	92.25%						
SURROGATE Toluene-D8	106.50%						

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

August 10, 2004
Report # 408000118
Order # 64044
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: TW
Collected: 08/03/04 00:00
Received: 08/04/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYS
SURROGATE: Bromofluorobenzene	101.60%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Project Submission #: 4/8-118 RUSH # @ 64035-64044 Laboratory ID: PO #:

Company Name: Southeastern Environmental
Address: 325 Main St.
City: Camden State: SC Zip: 29020
Project Name: Hucks Plaza
Report To:
Sampled By (print): Earl Howard

Preservative: (*see codes below)

Sample Label	Date Collected	Time Collected	Matrix	# of Cont	↓ REQUESTED LAB ANALYSIS: ↓	BTEX + Naph + MTBE	Lead	EDB	Nitrate	Sulfate	Ferrous Iron	NOTES / COMMENTS
MW 2	8-3-04		W	7		✓	✓	✓	✓	✓	✓	64035
MW 3	8-3-04			7		✓	✓	✓	✓	✓	✓	64036
MW 4	8-3-04			7		✓	✓	✓	✓	✓	✓	64037
MW 5	8-3-04			7		✓	✓	✓	✓	✓	✓	64038
MW 6	8-3-04			7		✓	✓	✓	✓	✓	✓	64039
MW 7	8-3-04			7		✓	✓	✓	✓	✓	✓	64040
MW 8	8-3-04			7		✓	✓	✓	✓	✓	✓	64041
MW 9	8-3-04			7		✓	✓	✓	✓	✓	✓	64042
MW 10	8-3-04			7		✓	✓	✓	✓	✓	✓	64043
TW	8-3-04		W	7		✓	✓	✓	✓	✓	✓	64044

Turnaround Time:
___Std. (5-7 Bus. days)
___RUSH*
*Date Required:_____
(For rush work, results faxed by end of business day on date required)

Samples Recd. on Ice?
✓Yes
___No

Project Location:
✓SC
___NC
___Other_____(specify)

Relinquished By:	Date:	Time:	Received By
Earl Howard	8-3-04	1:00p.m.	WS 8/4/04 1000

* 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=$NaHSO_4$, Other=Specify

ACCESS ANALYTICAL, INC.
7478 Carlisle Street
Irmo, SC 29063
Phone: (803) 781-4243
Fax: 781-4303
Toll Free (888) 315-4243
www.accessanalyticalinc.com

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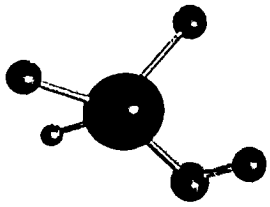

ACCESS ANALYTICAL, INC.

Client: Southeastern Environmental
Project: Hucks Plaza
-- GROUNDWATER SAMPLES --

SAMPLE I.D.	METHANE (ug/l)*	METHOD	DATE COLLECTED	DATE RECEIVED	DATE ANALYZED
MW-2	969	KERR	08/03/04	08/04/04	08/09/04
MW-3	7600	KERR	08/03/04	08/04/04	08/09/04
MW-4	ND	KERR	08/03/04	08/04/04	08/09/04
MW-5	208	KERR	08/03/04	08/04/04	08/09/04
MW-6	232	KERR	08/03/04	08/04/04	08/09/04
MW-7	16.4	KERR	08/03/04	08/04/04	08/09/04
MW-8	114	KERR	08/03/04	08/04/04	08/09/04
MW-9	ND	KERR	08/03/04	08/04/04	08/09/04
MW-10	548	KERR	08/03/04	08/04/04	08/09/04
TW	560	KERR	08/03/04	08/04/04	08/09/04

MDL for above samples = 10 ug/L

ND - denotes 'Not Detected" at or above the lower method detection limit

- Unless otherwise noted in comments section samples listed above analyzed for methane by C.A.L., 3005 Broad River Rd. Columbia, SC 29210.

* - Reported as ug/L - in water phase.

COMMENTS:

Company Service Representative

7478 CARLISLE STREET • IRMO, S.C. 29063
PHONE (803) 781-4243 • TOLL FREE (888) 315-4243 • FAX (803) 781-4303 • WWW.ACCESSANALYTICALINC.COM

Access Analytical - Chain of Custody Record

Laboratory ID: _____

Project Submission #: _____ RUSH # _____ PO #: _____

Company Name: Southeastern Environmental Preservative: (*see codes below)

Address: 323 Main St.

City: Conway State: SC Zip: 29526

Project Name: Hucks Plaza

Report To:

Sampled By (print): S. H.

↓ REQUESTED LAB ANALYSIS: ↓ — Methane

Sample Label	Date Collected	Time Collected	Matrix	# of Cont		Methane							
MW 2	8-3-04		W	2		✓							
MW 3			W	2		✓							
MW 4			W	2		✓							
MW 5			W	2		✓							
MW 6			W	2		✓							
MW 7			W	2		✓							
MW 8			W	2		✓							
MW 9			W	2		✓							
MW 10			W	2		✓							
TW	↓		W	2		✓							

ACCESS ANALYTICAL, INC.

Phone: (803) 781-4243
1248 Lake Murray Blvd. Fax: 781-4303
Irmo, SC 29063 Toll Free (888) 315-4243
www.accessanalyticalinc.com

NOTES / COMMENTS

Turnaround Time:

___Std. (5-7 Bus. days)
___RUSH*
*Date Required:_____
(For rush work, results faxed by end of business day on date required)

Samples Recd. on Ice?
✓Yes
___No

Project Location:
✓SC
___NC
___Other_____(specify)

Relinquished By:	Date:	Time:	Received By:
Earl Howard	8-3-04	1600	TESTEX
TESTEX	8/4/04	1000	
	8/4/04	1505	

* Preservative Codes (place corresponding # in block above analysis field) 0=None, 1=HCL, 2=HNO3, 3=H2SO4, 4=NaOH, 5=Na2S2O3, 6=NaHSO4, Other=Specify

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Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

November 18, 2004
Report # 411000248
Order # 86250
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW11
Collected: 11/03/04 00:00
Received: 11/09/04 10:00
Collected by: E. Howard/C. Pfahler

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANAL
Lead by ICP	BDL	mg/L	200.7	0.005	11/09/2004	11/10/2004	RP
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11:04AR
Benzene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11:04AR
Toluene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11:04AR
Ethylbenzene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11:04AR
m & p-Xylene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11:04AR
o-Xylene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11:04AR
Total Xylene	BDL	ug/L	5030/8260B	2.000	11/11/2004	11/11/2004	11:04AR
Naphthalene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11:04AR
SURROGATE: Dibromofluoromethane	117.25%						
SURROGATE: Toluene-D8	91.00%						
SURROGATE: 1,2-Dichloroethane-d4	109.00%						
SURROGATE: Bromofluorobenzene	115.75%						
SUB 8011 EDB, DBCP in Waters			MEDF	1			

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

November 18, 2004
Report # 411000248
Order # 86250
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW11
Collected: 11/03/04 00:00
Received: 11/09/04 10:00
Collected by: E. Howard/C. Pfahler

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALY
Ethylene Dibromide (EDB)	<0.020	ug/L	8011	0.020	11/15/2004	11/16/2004	E81010

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

November 18, 2004
Report # 411000248
Order # 86251
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW12
Collected: 11/03/04 00:00
Received: 11/09/04 10:00
Collected by: E. Howard/C. Pfahler

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALY
Lead by ICP	BDL	mg/L	200.7	0.005	11/09/2004	11/10/2004	RP
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11:31AR
Benzene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11:31AR
Toluene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11:31AR
Ethylbenzene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11:31AR
m & p-Xylene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11:31AR
o-Xylene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11:31AR
Total Xylene	BDL	ug/L	5030/8260B	2.000	11/11/2004	11/11/2004	11:31AR
Naphthalene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11:31AR
SURROGATE: Dibromofluoromethane	119.00%						
SURROGATE: Toluene-D8	104.50%						
SURROGATE: 1,2-Dichloroethane-d4	116.50%						
SURROGATE: Bromofluorobenzene	126.00%						
SUB 8011 EDB, DBCP in Waters			MEDF	1			

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

November 18, 2004
Report # 411000248
Order # 86251
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW12
Collected: 11/03/04 00:00
Received: 11/09/04 10:00
Collected by: E. Howard/C. Pfahler

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALY
Ethylene Dibromide (EDB)	<0.020	ug/L	8011	0.020	11/15/2004	11/16/2004	E81010

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

November 18, 2004
Report # 411000248
Order # 86252
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW13
Collected: 11/03/04 00:00
Received: 11/09/04 10:00
Collected by: E. Howard/C. Pfahler

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYS
Lead by ICP	BDL	mg/L	200.7	0.005	11/09/2004	11/10/2004	RP
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11;58AR
Benzene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11;58AR
Toluene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11;58AR
Ethylbenzene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11;58AR
m & p-Xylene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11;58AR
o-Xylene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11;58AR
Total Xylene	BDL	ug/L	5030/8260B	2.000	11/11/2004	11/11/2004	11;58AR
Naphthalene	BDL	ug/L	5030/8260B	1.000	11/11/2004	11/11/2004	11;58AR
SURROGATE: Dibromofluoromethane	118.50%						
SURROGATE: Toluene-D8	94.50%						
SURROGATE: 1,2-Dichloroethane-d4	108.75%						
SURROGATE: Bromofluorobenzene	106.75%						
SUB 8011 EDB, DBCP in Waters			MEDF	1			

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

November 18, 2004
Report # 411000248
Order # 86252
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: MW13
Collected: 11/03/04 00:00
Received: 11/09/04 10:00
Collected by: E. Howard/C. Pfahler

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALY
Ethylene Dibromide (EDB)	<0.020	ug/L	8011	0.020	11/15/2004	11/16/2004	E81010

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

November 18, 2004
Report # 411000248
Order # 86253
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: TW2
Collected: 11/03/04 00:00
Received: 11/09/04 10:00
Collected by: E. Howard/C. Pfahler

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYS
Lead by ICP	BDL	mg/L	200.7	0.005	11/09/2004	11/10/2004	RP
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	BDL	ug/L	5030/8260B	1.000	11/12/2004	11/12/2004	14:04AR
Benzene	3.91	ug/L	5030/8260B	1.000	11/12/2004	11/12/2004	14:04AR
Toluene	BDL	ug/L	5030/8260B	1.000	11/12/2004	11/12/2004	14:04AR
Ethylbenzene	BDL	ug/L	5030/8260B	1.000	11/12/2004	11/12/2004	14:04AR
m & p-Xylene	1.85	ug/L	5030/8260B	1.000	11/12/2004	11/12/2004	14:04AR
o-Xylene	BDL	ug/L	5030/8260B	1.000	11/12/2004	11/12/2004	14:04AR
Total Xylene	BDL	ug/L	5030/8260B	2.000	11/12/2004	11/12/2004	14:04AR
Naphthalene	BDL	ug/L	5030/8260B	1.000	11/12/2004	11/12/2004	14:04AR
SURROGATE: Dibromofluoromethane	123.75%						
SURROGATE: Toluene-D8	99.25%						
SURROGATE: 1,2-Dichloroethane-d4	112.25%						
SURROGATE: Bromofluorobenzene	116.00%						
SUB 8011 EDB, DBCP in Waters			MEDF	1			

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

November 18, 2004
Report # 411000248
Order # 86253
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
South Carolina
Hucks Plaza

Sample I.D.: TW2
Collected: 11/03/04 00:00
Received: 11/09/04 10:00
Collected by: E. Howard/C. Pfahler

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYS
Ethylene Dibromide (EDB)	<0.020	ug/L	8011	0.020	11/15/2004	11/16/2004	E81010

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Access Analytical - Chain of Custody Record

(AN)

Laboratory ID: _____

Project Submission #: 04/11-248; 86250-86253 RUSH # _____ PO #: _____

Company Name: Southeastern Environmental, Inc

Address: 323 Main St.

City: Conway State: SC Zip: 29526

Project Name: Hucks Plaza

Report To: Bruce G. Newell

Sampled By (print): Earl Howard, Chuck Pfahler

Preservative: (*see codes below)

ACCESS ANALYTICAL, INC.

1248 Lake Murray Blvd.
Irmo, SC 29063

Phone: (803) 781-4243
Fax: 781-4303
Toll Free (888) 315-4243
www.accessanalyticalinc.com

Sample Label	Date Collected	Time Collected	Matrix	# of Cont	↓ REQUESTED LAB ANALYSIS: ↓	BTEX	Naph.	MTBE	EDB	Lead *			NOTES / COMMENTS
MW 11	11/3/04		W	5		✓	✓	✓	✓	✓			86250
MW 12	↓		↓	↓		✓	✓	✓	✓	✓			86251
MW 13	↓		↓	↓		✓	✓	✓	✓	✓			86252
TW2	↓		↓	↓		✓	✓	✓	✓	✓			86253

TOTAL PAGES 9

~~* 150 bottles rec'd. Informed Ashley 11/9/04 (AN)~~

OK to run EDB out of Hold as per Ashley 11/11/04 CPB

Turnaround Time:

___Std. (5-7 Bus. days)
___RUSH*
*Date Required:_____
(For rush work, results faxed by end of business day on date required)

Samples Recd. on Ice?
✓ Yes
___No
4°C

Project Location:
✓ SC
___NC
___Other_____(specify)

Relinquished By:	Date:	Time:	Received By:
Charles A Pfahler III	11/5/04		
[signature]	11/9	10:00	[signature]

* 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=$NaHSO_4$, Other=Specify

Pg_____of_____

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ACCESS ANALYTICAL, INC.

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

July 7, 2004
Report # 406001513
Order # 53148
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
SC.
Hucks Plaza

Sample I.D.: Temp MW-1
Collected: 06/24/04 00:00
Received: 06/30/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALY
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	7:24AA1
Benzene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	7:24AA1
Toluene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	7:24AA1
Ethylbenzene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	7:24AA1
m & p-Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	7:24AA1
o-Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	7:24AA1
Total Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	7:24AA1
Naphthalene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	7:24AA1
SURROGATE: Diethyl ether	87.13%						
SURROGATE: Toluene-D8	102.75%						
SURROGATE: Bromofluorobenzene	123.60%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

July 7, 2004
Report # 406001513
Order # 53149
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
SC.
Hucks Plaza

Sample I.D.: Temp MW-2
Collected: 06/24/04 00:00
Received: 06/30/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYST
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	BDL	ug/L	5030/8260B	1.000	07/02/2004	07/02/2004	17:27SKL
Benzene	BDL	ug/L	5030/8260B	1.000	07/02/2004	07/02/2004	17:27SKL
Toluene	2.61	ug/L	5030/8260B	1.000	07/02/2004	07/02/2004	17:27SKL
Ethylbenzene	BDL	ug/L	5030/8260B	1.000	07/02/2004	07/02/2004	17:27SKL
m & p-Xylene	BDL	ug/L	5030/8260B	1.000	07/02/2004	07/02/2004	17:27SKL
o-Xylene	BDL	ug/L	5030/8260B	1.000	07/02/2004	07/02/2004	17:27SKL
Total Xylene	BDL	ug/L	5030/8260B	1.000	07/02/2004	07/02/2004	17:27SKL
Naphthalene	BDL	ug/L	5030/8260B	1.000	07/02/2004	07/02/2004	17:27SKL
SURROGATE: Diethyl ether	98.25%						
SURROGATE: Toluene-D8	105.25%						
SURROGATE: Bromofluorobenzene	111.60%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

July 7, 2004
Report # 406001513
Order # 53150
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
SC.
Hucks Plaza

Sample I.D.: Temp MW-3
Collected: 06/24/04 00:00
Received: 06/30/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYST
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	40.7	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:10AA1
Benzene	5.77	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:10AA1
Toluene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:10AA1
Ethylbenzene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:10AA1
m & p-Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:10AA1
o-Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:10AA1
Total Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:10AA1
Naphthalene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:10AA1
SURROGATE: Diethyl ether	97.25%						
SURROGATE: Toluene-D8	104.50%						
SURROGATE: Bromofluorobenzene	126.80%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

July 7, 2004
Report # 406001513
Order # 53151
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
SC.
Hucks Plaza

Sample I.D.: Temp MW-4
Collected: 06/24/04 00:00
Received: 06/30/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYST
8260B BTEX w/Naph+MTBE in Water by GC/MS (S.C.)			MEDF	1			
Methyl-Tert-Butyl-Ether	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:33AA1
Benzene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:33AA1
Toluene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:33AA1
Ethylbenzene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:33AA1
m & p-Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:33AA1
o-Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:33AA1
Total Xylene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:33AA1
Naphthalene	BDL	ug/L	5030/8260B	1.000	07/01/2004	07/01/2004	8:33AA1
SURROGATE: Diethyl ether	91.00%						
SURROGATE: Toluene-D8	106.00%						
SURROGATE: Bromofluorobenzene	137.20%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Access Analytical - Chain of Custody Record

Laboratory ID: _____

Project Submission #: 04106-1513 RUSH # 53148 PO #: _____

Company Name: Southeastern Environmental Inc.

Address: 323 Main St.

City: Conway State: SC Zip: 29526

Project Name: Hucks Plaza

Report To: Bruce G. Newell

Sampled By (print): OP JH,

Preservative: (*see codes below)

↓ REQUESTED LAB ANALYSIS: ↓

Sample Label	Date Collected	Time Collected	Matrix	# of Cont	BTEX	Naph	MTBE					NOTES / COMMENTS
Temp. MW 1	6-24-04		W	2	✓	✓	✓					53148
Temp MW2	6-24-04		W	2	✓	✓	✓					53149
Temp MW3	6-24-04		W	2	✓	✓	✓					53150
Temp MW4	6-29-04		W	2	✓	✓	✓					53151

ACCESS ANALYTICAL, INC.

1248 Lake Murray Blvd.
Irmo, SC 29063

Phone: (803) 781-4243
Fax: 781-4303
Toll Free (888) 315-4243
www.accessanalyticalinc.com

Turnaround Time:

___Std. (5-7 Bus. days)
___RUSH*
*Date Required:_____
(For rush work, results faxed by end of business day on date required)

Samples Recd. on Ice?
___Yes 4.°
___No

Project Location:
✓ SC
___NC
___Other_____(specify)

Relinquished By:	Date:	Time:	Received By:
Chuck A Fleck III	6-29-04		
	6.30.04		

* 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=$NaHSO_4$, Other=Specify

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See Reverse for Terms and Conditions

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Yellow Copy - Access File Copy
Pink Copy - Client Copy

ACCESS ANALYTICAL, INC.

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

October 12, 2004
Report # 409000768
Order # 76532
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
SC.
Hucks Plaza

Sample I.D.: TMW 5
Collected: 09/20/04 00:00
Received: 09/22/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALY
SUB 8260B BTEX w/Naph+MTBE in Water by GC/MS(SC)			MEDF	1			
Methyl-Tert-Butyl-Ether	U-1.0	ug/L	5030/8260B	1.000	09/28/2004	09/28/2004	E87672
Benzene	U-1.0	ug/L	5030/8260B	1.000	09/28/2004	09/28/2004	E87672
Toluene	U-1.0	ug/L	5030/8260B	1.000	09/28/2004	09/28/2004	E87672
Ethylbenzene	U-1.0	ug/L	5030/8260B	1 000	09/28/2004	09/28/2004	E87672
Total Xylene	U-3.0	ug/L	5030/8260B	3.000	09/28/2004	09/28/2004	E87672
Naphthalene	U-5.0	ug/L	5030/8260B	5.000	09/28/2004	09/28/2004	E87672
SURROGATE: Toluene-D8	93.00%						
SURROGATE: Bromofluorobenzene	97.00%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

October 12, 2004
Report # 409000768
Order # 76533
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
SC.
Hucks Plaza

Sample I.D.: TMW 6
Collected: 09/20/04 00:00
Received: 09/22/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYST
SUB 8260B BTEX w/Naph+MTBE in Water by GC/MS(SC)			MEDF	1			
Methyl-Tert-Butyl-Ether	U-1.0	ug/L	5030/8260B	1.000	09/28/2004	09/28/2004	E87672
Benzene	U-1.0	ug/L	5030/8260B	1.000	09/28/2004	09/28/2004	E87672
Toluene	U-1.0	ug/L	5030/8260B	1.000	09/28/2004	09/28/2004	E87672
Ethylbenzene	U-1.0	ug/L	5030/8260B	1.000	09/28/2004	09/28/2004	E87672
Total Xylene	U-3.0	ug/L	5030/8260B	3.000	09/28/2004	09/28/2004	E87672
Naphthalene	U-5.0	ug/L	5030/8260B	5.000	09/28/2004	09/28/2004	E87672
SURROGATE: Toluene-D8	93.00%						
SURROGATE: Bromofluorobenzene	96.00%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Bruce G. Newell
Southeastern Environmental Inc
323 Main Street

Conway, SC 29526

October 12, 2004
Report # 409000768
Order # 76534
STL Miami Cert ID# 96023
NELAP ID# E86349

Site Location/Project
SC.
Hucks Plaza

Sample I.D.: TMW 7
Collected: 09/21/04 00:00
Received: 09/22/04 10:00
Collected by: Client

PARAMETER	RESULT	UNITS	METHOD	DETECTION LIMIT	DATE EXT.	DATE ANALY.	ANALYST
SUB 8260B BTEX w/Naph+MTBE in Water by GC/MS(SC)			MEDF	1			
Methyl-Tert-Butyl-Ether	U-1.0	ug/L	5030/8260B	1.000	09/28/2004	09/28/2004	E87672
Benzene	U-1.0	ug/L	5030/8260B	1.000	09/28/2004	09/28/2004	E87672
Toluene	U-1.0	ug/L	5030/8260B	1.000	09/28/2004	09/28/2004	E87672
Ethylbenzene	U-1.0	ug/L	5030/8260B	1.000	09/28/2004	09/28/2004	E87672
Total Xylene	U-3.0	ug/L	5030/8260B	3.000	09/28/2004	09/28/2004	E87672
Naphthalene	U-5.0	ug/L	5030/8260B	5.000	09/28/2004	09/28/2004	E87672
SURROGATE: Toluene-D8	94.00%						
SURROGATE: Bromofluorobenzene	97.00%						

REPORT COMMENTS:
BDL: Indicates Analyte is Below Detection Limit MEDF: Matrix Effected Dilution Factor
Unless otherwise noted, mg/Kg denotes wet weight

Unless otherwise noted in analyst section, all work performed by STL MIAMI.
10200 USA Today Way, Miramar Florida 33025. (954) 431-4550 (South Carolina Cert ID# 96023)
Certs: FL=E86349, AL=41180,CT=PH0217, MD.=#271, MA.=#M-FL535,PR=FL00535 SC=96023,TN=TN02836
*Tests results meet all the requirements of NELAC, unless identified as "certification in-process"
Unless otherwise noted, samples submitted for EPA 5035 were collected,preserved and analyzed in accordance with all methodology requirements.

Company Representative

Access Analytical - Chain of Custody Record

Laboratory ID: _____

Project Submission #: 04/09 - 168 RUSH # 16532 - 16534 RA PO #: _____

Company Name: Southeastern Environmental, Inc

Address: 323 Main St.

City: Conway State: SC Zip: 29526

Project Name: Hucks Plaza

Report To: Bruce G. Newell

Sampled By (print): Chuck Pfahler, Earl Howard

Preservative: (*see codes below)

↓ REQUESTED LAB ANALYSIS: ↓

MTBE | BTEX | Naphth

ACCESS ANALYTICAL, INC.

1248 Lake Murray Blvd.
Irmo, SC 29063

Phone: (803) 781-4243
Fax: 781-4303
Toll Free (888) 315-4243
www.accessanalyticalinc.com

Sample Label	Date Collected	Time Collected	Matrix	# of Cont	MTBE	BTEX	Naphth	NOTES / COMMENTS
TMW 5	9/21/04		W	2	✓	✓	✓	16532
TMW 6	9/21/04		↓	↓	✓	✓	✓	16533
TMW 7	9/21/04		↓	↓	✓	✓	✓	16534

Turnaround Time:

___Std. (5-7 Bus. days)
___RUSH*
*Date Required:_____
(For rush work, results faxed by end of business day on date required)

Samples Recd. on Ice?
___Yes
✓No
10 °C

Project Location:
✓SC
___NC
___Other_____(specify)

Relinquished By:	Date:	Time:	Received By:
Charles A Pfahler III	9/22/04	10:00	

* 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=$NaHSO_4$, Other=Specify

Access Analytical, Inc.
See Reverse for Terms and Conditions

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Yellow Copy - Access File Copy



Broad St. Extension • PO Box 1384 • Sumter, SC 29151
(803) 494-4593 • 1-800-800-6840 • FAX: (803) 494-8598

Certificate of Disposal

Tons 1 Drum
Hucks Plaza
Myrtle Beach, SC

Contaminant NonHazardous Petroleum
COntaminated Water

This is to certify the above ~~soil~~ water has been processed and disposed of by G & K Tank Services, Inc., in accordance with and exceeding EPA regulations on petroleum contaminated soils.

Certified by S. Gibson

Date 08/20/04

G & K
TANK SERVICES, INC.

Broad St. Extension • PO Box 1384 • Sumter, SC 29151
(803) 494-4593 • 1-800-800-6840 • FAX: (803) 494-8598

Certificate of Disposal

Tons 4 Drums
Hucks Plaza
Myrtle Beach, SC

Contaminant NonHazardous Petroleum
Contaminated Soil

This is to certify the above soil has been processed and disposed of by G & K Tank Services, Inc., in accordance with and exceeding EPA regulations on petroleum contaminated soils.

Certified by S. [illegible]

Date 08/20/04

MW # 1
TOP OF 10" CASING = 21.26'
TOP OF 2" CASING = 20.87'
GROUND = 21.2'

MW # 2
TOP OF 10" CASING = 21.74'
TOP OF 2" CASING = 21.44'
GROUND = 21.6'

MW # 3
TOP OF 10" CASING = 21.49'
TOP OF 2" CASING = 21.44'
GROUND = 21.4'

MW # 4
TOP OF 10" CASING = 21.64'
TOP OF 2" CASING = 21.32'
GROUND = 21.5'

MW # 5
TOP OF 10" CASING = 20.44'
TOP OF 2" CASING = 20.15'
GROUND = 21.2'

MW # 6
TOP OF 10" CASING = 21.42'
TOP OF 2" CASING = 20.95'
GROUND = 21.2'

MW # 7
TOP OF 10" CASING = 22.45'
TOP OF 2" CASING = 22.16'
GROUND = 22.2'

MW # 8
TOP OF 10" CASING = 21.19'
TOP OF 2" CASING = 20.99'
GROUND = 21.1'

MW # 9
TOP OF 10" CASING = 20.02'
TOP OF 2" CASING = 19.62'
GROUND = 19.8'

MW # 10
TOP OF 10" CASING = 19.48'
TOP OF 2" CASING = 19.09'
GROUND = 19.4'

MW # 11
TOP OF 10" CASING = 19.88'
TOP OF 2" CASING = 19.70'
GROUND = 19.7'

MW # 12
TOP OF 10" CASING = 18.70'
TOP OF 2" CASING = 18.49'
GROUND = 18.60'

MW # 13
TOP OF 10" CASING = 20.47'
TOP OF 2" CASING = 20.13'
GROUND = 20.4'

TW 1
TOP OF 10" CASING = 21.37'
TOP OF 2" CASING = 21.10'
GROUND = 21.3'

TW 2
TOP OF 10" CASING = 21.15'
TOP OF 2" CASING = 20.85'
GROUND = 21.1'

SITE PLAN of
AREA AROUND "HUCKS PLAZA" LOCATED
IN MYRTLE BEACH, HORRY COUNTY, S.C.

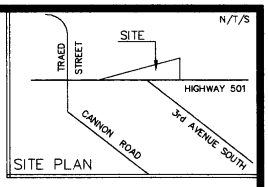
PREPARED FOR

SOUTHEASTERN ENVIRONMENTAL, INC.

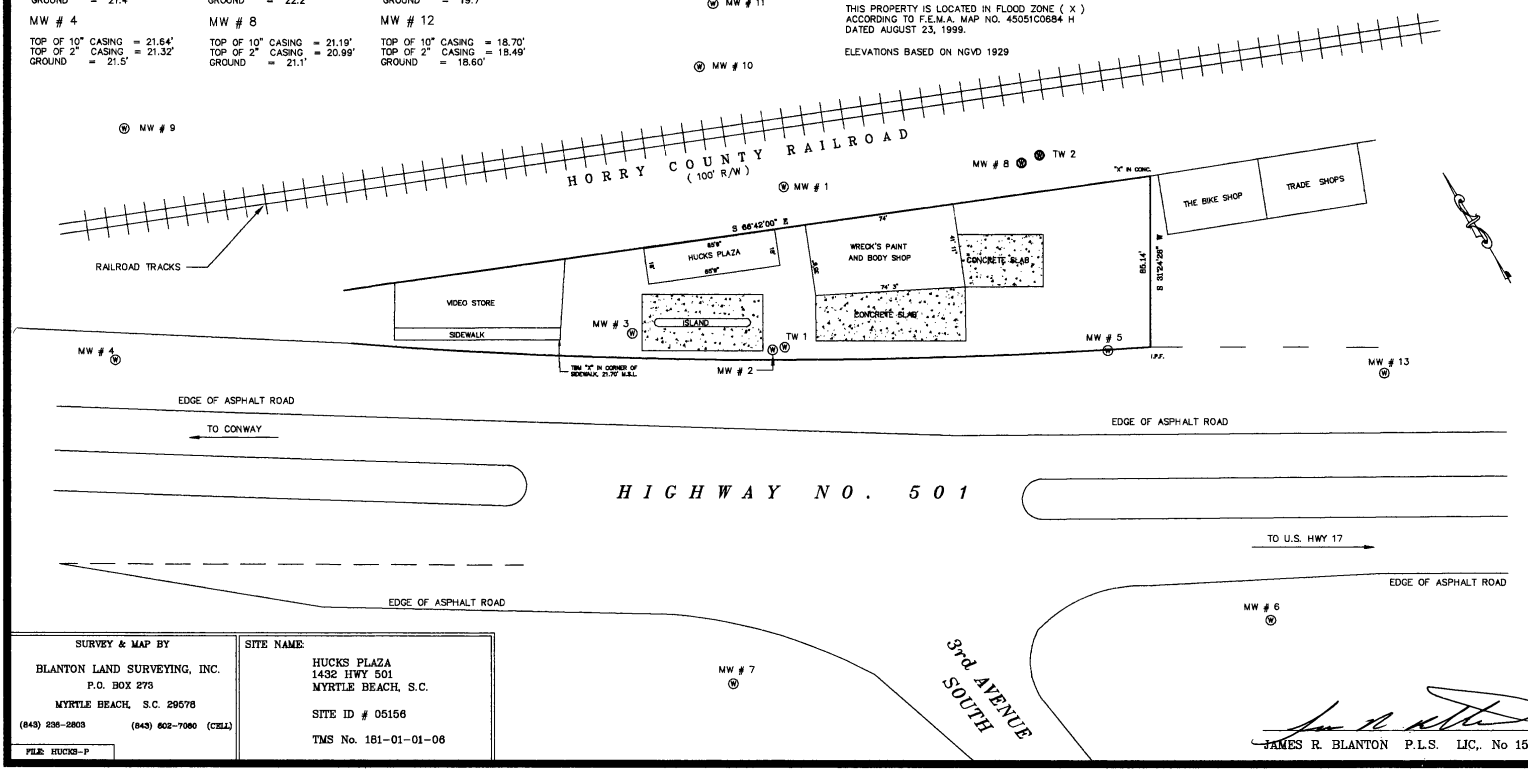
SCALE: 1" = 50' DECEMBER 17, 2004

THIS PROPERTY IS LOCATED IN FLOOD ZONE (X)
ACCORDING TO F.E.M.A. MAP NO. 45051C0684 H
DATED AUGUST 23, 1999.

ELEVATIONS BASED ON NGVD 1929



SITE PLAN



SURVEY & MAP BY	SITE NAME:
BLANTON LAND SURVEYING, INC. P.O. BOX 273 MYRTLE BEACH, S.C. 29578 (843) 236-2803 (843) 602-7060 (CELL) FILE: HUCKS-P	HUCKS PLAZA 1432 HWY 501 MYRTLE BEACH, S.C. SITE ID # 05156 TMS No. 181-01-01-06

JAMES R. BLANTON P.L.S. LIC,. No 15511



MB CITY LIMITS
U.S. HIGHWAY No. 501
S.C. HIGHWAY No. 707
(OLD SOCASTEE HIGHWAY)
STOCKHOLDER AVE
CANNON STREET EXT
CANNON STREET
OUT OF CITY
IN CITY
SEE TMS 181
SEE TMS 181-05
SEE TMS 181-00-01-046
DATE COMPLETE
DEED CHANGES
FIELD CHECK
MAG. NORTH
TAX MAP COMPILED FROM DEED, PLAT AND FIELD RESEARCH. BUILDINGS ARE NOT PLOTTED TO EXACT SCALE OR LOCATION.
TAX MAP PREPARED BY THE HORRY COUNTY ASSESSORS OFFICE AND THE SAME RESERVES THE EXCLUSIVE RIGHT TO SELL THIS MAP.
COUNTY LINE
MUNICIPAL LINE
BLOCK DIVISION
BLOCK NO.
PARCEL NO.
SAME OWNER
MATCH LINE
SCALE
DISTRICT
CHAIRMAN
PHOTO
OVERLAY
MAPPER
MAP TO APPROXIMATE SCALE
HORRY COUNTY, S.C.
TAX MAP NUMBER
181-01
UPDATED 11-21-85

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

HUCKS PLAZA
1102 3RD AVE S
MYRTLE BEACH SC 29577

SEP 2 6 2013

UST DOCKETING

Re: **QAPP Contractor Addendum Directive**
501 Amoco; 1432 Hwy. 501, Myrtle Beach, SC
UST Permit # 05156
Release reported December 31, 1991
Tier II Report received January 10, 2005
Horry County

To Whom It May Concern:

The Underground Storage Tank Management Division (UST Division) of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the referenced report. The report indicates the presence of chemicals of concern in the groundwater.

To determine what risk the referenced release may pose to the environment and public health, and in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations, implementation of a Groundwater-sampling event in which samples should be collected for BTEX, Naphthalene, MtBE, 1,2-DCA, ethanol, and Oxygenates from all wells associated with this site as outlined in the UST Quality Assurance Program Plan (QAPP), revision 2.0, is necessary. The groundwater-sampling event should be conducted in accordance with the UST QAPP 2.0 and in compliance with all applicable regulations. A copy of the Agency QAPP 2.0 for the UST Division is available at: http://www.scdhec.gov/environment/lwm/usthome/Qapp.htm

Please have your contractor complete and submit the QAPP 2.0 Contractor Addendum and Cost Agreement to the UST Division within thirty (30) days of the date of this letter. Every component may not be necessary to complete the above scope of work. The State Underground Petroleum Environmental Response Bank (SUPERB) Account allowable cost for each component is included on the Assessment Component Cost Agreement Form. **Please note that technical and financial pre-approval from the Agency must be issued before work begins**.

On all correspondence regarding this site, please reference **UST Permit #05156**. If you have questions or need additional information, feel free to contact me by telephone at (803) 898-0605, by fax at (803) 898-0673, or by e-mail to martinjm@dhec.sc.gov.

Sincerely,



Jim Martin, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

cc: Southeastern Environmental, Inc., 323 Main Street, Conway, SC 29526

Technical File

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

CERTIFIED MAIL

HUCKS PLAZA
1102 3RD AVE S
MYRTLE BEACH SC 29577

APR 0 8 2014

UST DOCKETING

Re: **Notice of Alleged Violation**
501 Amoco; 1432 Hwy. 501, Myrtle Beach, SC
UST Permit # 05156
Release reported December 31, 1991
QAPP request sent September 26, 2013
Horry County

To Whom It May Concern:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control directed you to complete a UST Quality Assurance Program Plan (QAPP) contractor addendum due on October 26, 2013. The addendum has not been received. In accordance with Section 280.65 of the South Carolina Underground Storage Tank Regulations, the assessment must be conducted as documented chemicals of concern are above risk-based screening levels.

Please submit the QAPP within 30 days from the date of this letter. Should you not submit the report on or before May 9, 2014, this office will be forced to initiate enforcement action.

On all correspondence regarding this site, please reference UST Permit #05156. If you have any questions concerning this correspondence, please contact me at (803) 898-0605 or martinjm@dhec.sc.gov.

Sincerely,

Jim Martin, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

cc: Southeastern Environmental, Inc., 323 Main Street, Conway, SC 29526
Technical File

D H E C
PROMOTE PROTECT PROSPER

Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division

To: Jim Martin (SCDHEC Project Manager)
From: Bruce G. Newell (SEI) (Contractor Project Manager)
Contractor: Southeastern Env., Inc. UST Contractor Certification Number: #82

Facility Name: Hucks Plaza UST Permit #: 05156
Facility Address: 1432 US Hwy. 501, Myrtle Beach, SC
Responsible Party: Homer Hucks or Danny Todd (owners representative) Phone: unknown
RP Address: 6058 Grenata Lane, Myrtle Beach, SC 29588 (last known address Jan. 05)
Property Owner (if different):
Property Owner Address:
Current Use of Property: Used car lot

UST
MAY 05 2014
DIVISION

Scope of Work (Please check all that apply)

- ☐ IGWA
- ☐ Tier I
- ☐ Tier II
- ☐ Monitoring Well Installation
- ☑ Groundwater Sampling
- ☐ Other
- ☐ GAC

UST
3tech
DOCKETING

Analyses (Please check all that apply)

Groundwater/Surface Water:

- ☑ BTEXNMDCA (8260B)
- ☑ Oxygenates (8260B)
- ☐ EDB (8011)
- ☐ PAH (8270D)
- ☐ Lead
- ☐ 8 RCRA Metals
- ☐ TPH
- ☐ pH
- ☐ BOD
- ☐ Nitrate
- ☐ Sulfate
- ☐ Other
- ☐ Methane
- ☑ Ethanol
- ☐ Dissolved Iron

Soil:

- ☐ BTEXN
- ☐ PAH
- ☐ 8 RCRA Metals
- ☐ Oil & Grease (9071)
- ☐ TPH-DRO (3550B/8015B)
- ☐ TPH-GRO (5030B/8015B)
- ☐ Grain Size
- ☐ TOC

Air:

- ☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)

____ Soil	____ Water Supply Wells	____ Air	1 Field Blank
15 Monitoring Wells	____ Surface Water	1 Duplicate	1 Trip Blank

Field Screening Methodology

Estimate number and total completed depth for each point, and include their proposed locations on the attached map.
# of shallow points proposed: ____ Estimated Footage: ____ feet per point
# of deep points proposed: ____ Estimated Footage: ____ feet per point
Field Screening Methodology: ____

Permanent Monitoring Wells

Estimate number and total completed depth for each well, and include their proposed locations on the attached map.
# of shallow wells: ____ Estimated Footage: ____ feet per point
# of deep wells: ____ Estimated Footage: ____ feet per point
# of recovery wells: ____ Estimated Footage: ____ feet per point
Monitoring Well development method (consistent with SOP): ____
Comments, if warranted:

UST Permit #: 05156 Facility Name: Hucks Plaza

Implementation Schedule (Number of calendar days from approval)
Field Work Start-Up: 30 Field Work Completion: 5
Report Submittal: 45 # of Copies Provided to Property Owners: 1

Aquifer Characterization
Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal
Soil: _____ Tons Purge Water: 180 Gallons
Drilling Fluids: _____ Gallons Free-Phase Product: _____ Gallons

Additional Details For This Scope of Work
For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.

Compliance With Annual Contractor Quality Assurance Plan (ACQAP)
XX Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.
Name of Laboratory: Shealy Environmental Services, Inc.
SCDHEC Certification Number: #32010
Name of Laboratory Director: Dan Wright

____ Well Driller as indicated in ACQAO? (Yes/No) If no, indicate driller information below.
Name of Well Driller: _____
SCLLR Certification Number: _____

____ Other variations from ACQAP. Please describe below.

Attachments
1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.
2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:
   - North Arrow
   - Location of property lines
   - Location of buildings
   - Previous soil sampling locations
   - Previous monitoring well locations
   - Proposed soil boring locations
   - Proposed monitoring well locations
   - Legend with facility name and address, UST permit number, and bar scale
   - Streets or highways (indicate names and numbers)
   - Location of all present and former ASTs and USTs
   - Location of all potential receptors
3. Assessment Component Cost Agreement, SCDHEC Form D-3664

Appendix A: Contractor Addendum

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For
Huck's Plaza, Site # 05156

1432 US Hwy. 501, Myrtle Beach, Horry County, SC

Prepared by: Bruce G. Newell
Southeastern Environmental, Inc, 323 Main St., Conway, SC 843-248-3533
sei91@aol.com

Date: 16 April 2014
Southeastern Environmental, Inc.
Class I UST Site Rehabilitation Contractor # 82

Approvals

Jim Martin SC DHEC Project Manager	_____ Signature	Date_____
Doug D. Nelson Contractor QA Manager	Douglas Nelson Signature	Date 17 Apr 14
Bruce G. Newell Site Rehabilitation Contractor	_____ Signature	Date 16 Apr 14
Dan Wright Laboratory Director	Daniel J Wright Signature	Date 04/14/14

A3 Distribution and Project Organization List

Name	Title/Role from UST Master QAPP	License/ Number/ Exp. date	Organization/Address	Telephone Number	Fax Number	Email Address
Jim Martin	SCDHEC Technical Project Manager		SCDHEC, UST Management Division, 2600 Bull St., Columbia, SC, 29201	803-898-0605	803-898-0673	martinjm@dhec.sc.gov
Bruce G. Newell	Contractor Project Manager	Cert.# 82	Southeastern Env., Inc. 323 Main St. Conway, SC 29526	843-248-3533	843-248-5034	sei91@aol.com
Bruce G. Newell	Contractor Field Manager	Cert.# 82	Southeastern Env., Inc. 323 Main St. Conway, SC 29526	843-248-3533	843-248-5034	sei91@aol.com
Dr. Douglas D. Nelson	Contractor Project Verifier	PG # 391 30 Jun 15	Southeastern Env., Inc. 323 Main St. Conway, SC 29526	843-248-3533	843-248-5034	sei91@aol.com
Bruce G. Newell	Well Services/ Driller	Lic.# A-880 30 Jun 15	Southeastern Env., Inc. 323 Main St. Conway, SC 29526	843-248-3533	843-248-5034	sei91@aol.com
Bruce G. Newell	Field Staff	HAZWOPER 28 Mar 15	Southeastern Env., Inc. 323 Main St. Conway, SC 29526	843-248-3533	843-248-5034	sei91@aol.com
Dan Wright	Laboratory Director	SC32010	Shealy Environmental Services, Inc.	803-791-9700	803-791-9111	dwright@shealylab.com
Bruce G. Newell	Contractor Project Manager	Cert.# 82	Southeastern Env., Inc. 323 Main St. Conway, SC 29526	843-248-3533	843-248-5034	sei91@aol.com

Table 1A Addendum Distribution and Project Organization List

It is understood that certification records must be produced if requested by SCDHEC.

A4 Problem Definition/Background

Release first reported on the 31st of December 1991. Tier I and Tier II assessments were conducted and completed on the subject property and the reports were received by SC DHEC. The last sampling event was conducted 29 July 2004. The subject property is located on Hwy. 501 at the intersection of 3rd Ave. in Myrtle Beach, SC. Major re-construction and road build has taken place since the last re-sampling. During a recent site visit SEI personnel were unable to locate several MWs.

Does this project fall under UST or Brownfields area?

This site is not a Brownfields site. This is a SC DHEC UST site.

A5 Project/Task Description

1. SC DHEC request SEI to conduct a re-sampling of all MWs at the subject property.
2. The work will begin within 15 to 30 days (depending on scheduling) after QAPP approval. Sampling should be complete within 5 days of the start date.
3. No work conflicts are known at this time.

A6 Data Quality Objectives (DQOs) and Data Quality Indicators (DQIs)

The geographical area surrounding the project is located in the low country of Horry County and is generally flat with no note worthy topographic relief. The site is located within the Coastal Plain of South Carolina. The area is characterized by unconsolidated sediments of floral and marine origin. The site located along US Hwy. 501. The site is paved with concrete and asphalt. Maps are included to show topography and the site itself including property lines.

A7 Certification

The Lab that will be used for this project is certified by the SCDHEC Office of Environmental Certification for every analysis that they will perform.

The Following Laboratory will be used for this Project:

Commercial Lab(s)

Dan Wright, Lab Director
Shealy Environmental Services, Inc.
106 Vantage Point Dr.
West Columbia, SC 29172
SC DHEC # 32010

A8 Documents and Records

Involved parties will receive the most current version of the QAPP Contractor Addendum via: (Check all that apply)

_X_ US Mail ____Courier ____Hand delivered

Other (please specify): Scanned copy via email

Record	Produced By	Hardcopy/ Electronic	Storage Location For how long?	Archival
Instrument Raw Data	Laboratory	Hardcopy and Electronic	Hardcopy: Offsite 7years Electronic: External hard drive 10 years	Yes
Lab Report	Laboratory	Electronic	External hard drive 10 years	Yes
SC DHEC Report	SEI	Hardcopy & Electronic	Hardcopy: Offsite 7years Electronic: External hard drive 10 years	Yes

Table 2A Record Identification, Storage, and Disposal

Section B Measurement/Data Acquisition

B1 Sampling Process/Experimental Design

Task	Start Date	End Date	Comments
Locate and Re-sample all MWs	TBA	5 days after start	Start date is estimated to be within 30 days of approval by SC DHEC

Table 3A Sampling Activities

B2 Sampling Methods

***Estimate* the number of samples of each matrix that are expected to be collected:**

Soil	0
Groundwater from monitoring wells	15
From Drinking/Irrigation water wells	0
From surface water features	0
Duplicate samples	1
Field blanks	1
Trip blanks	1
Total number of Water samples	18

The samples will be (check all that apply): __X__ Grab____Homogenized ____Split

Decontamination procedures will comply with Appendix H, of the QAPP.

Failure	Response	Documentation	Individual Responsible
Broken/Contaminated vials	Dispose of broken vial(s) Resample using new vial(s)	Record incident in field notes	Bruce G. Newell or licensed subcontractor
Failed instrumentation	Repair or replace instrument	Record incident in field notes	Bruce G. Newell or licensed subcontractor
Failed Equipment	Repair or replace equipment	Record incident in field notes	Bruce G. Newell or licensed subcontractor

Table 4A Field Corrective Action

B3 Sample Handling and Custody

1. Samples will be delivered to Shealy Environmental Services laboratory by SEI personnel or shipped by Fed Ex or similar carrier for next day delivery. Sample temperature will be maintained with "wet ice" during collection in the field and during transport to the laboratory. If held overnight samples will be maintained in a dedicated refrigerator until packed in coolers with "wet ice" for delivery to the laboratory.

2. Sample preservation procedures will follow the QAPP guidelines.

3. Chain of Custody procedures will follow the QAPP guidelines.

B4 Analytical Methods

Parameter	Method Referenced	Comments
BTEX+Naph+MTBE+Oxygenates	8260 B	Field samples with the highest OVA/FID or PID reading will be placed in sample vials and shipped for laboratory analysis
PAH	8270 D	Field samples with the highest OVA/FID or PID reading will be placed in sample vials and shipped for laboratory analysis
EDB	8011	Field samples with the highest OVA/FID or PID reading will be placed in sample vials and shipped for laboratory analysis
Lead	6010 C	Field samples with the highest OVA/FID or PID reading will be placed in sample vials and shipped for laboratory analysis
Ferrous Iron	SM 3500-FED	Field samples with the highest OVA/FID or PID reading will be placed in sample vials and shipped for laboratory analysis
Nitrate	353.2	Field samples with the highest OVA/FID or PID reading will be placed in sample vials and shipped for laboratory analysis
Sulfate	300.0	Field samples with the highest OVA/FID or PID reading will be placed in sample vials and shipped for laboratory analysis
Methane	RSK-175	Field samples with the highest OVA/FID or PID reading will be placed in sample vials and shipped for laboratory analysis
TOC	Walkley-Black	Field samples with the highest OVA/FID or PID reading will be placed in sample vials and shipped for laboratory analysis
DRO-TPH	8015 C	Field samples with the highest OVA/FID or PID reading will be placed in sample vials and shipped for laboratory analysis

Table 5A Analytical SOPs and Referenced Methods

B5 Quality Control Requirements:

All QC will follow the requirements laid out in Section B5 of the UST Programmatic QAPP. If procedures for QC differ from the UST Programmatic QAPP, details will be provided.

B6 Field Instrument and Equipment Testing, Inspection and Maintenance

1. Identify all field equipment needing periodic maintenance, the schedule for this, and the person responsible.

Instrument	Serial Number	Type of Maintenance	Frequency	Person responsible
HI 98129 pH/EC/TDS/Temp	Ser # 22187	Clean & calibrate in office with buffer solution provided by manufacturer prior to use	Prior to daily use	Bruce G. Newell
Lab Safety pH meter	N/A	Clean & calibrate in office with buffer solution provided by manufacturer prior to use	Prior to daily use	Bruce G. Newell
ExTech Dissolved Oxygen Meter	L 591831	Clean in office prior to use. Send to mfg. for annual calibration	Prior to daily use	Bruce G. Newell
Keck Interface Probe	Ser # 2252	Clean after each reading in field	Prior to each MW reading	Bruce G. Newell
Heath Consultants Porta-Fid II OVA/FID	Ser # 7640	Calibrate in Field prior to use with certified methane gas cylinder	Calibrate prior to use and then every 2 hours in field	Bruce G. Newell
GeoTech Series II Peristaltic Pump	Ser # 1979	Replace hose & tubing after every sample	Prior to each sample collection	Bruce G. Newell
2 ExTech Thermo-Anemometer AN 100	Ser # 12115052 Ser # 08060304	Calibrated by Mfg., new battery prior to use	Prior to each daily use	Bruce G. Newell

Table 6A Instrument and Equipment Maintenance

B7 Instrument Calibration and Frequency

Instrument	Serial Number	Calibration Procedure	Frequency of Calibration	Acceptance Criteria	Corrective Action (CA)	Person Responsible for CA
HI 98129 pH/EC/TDS/Temp	Ser # 22187	Hanna buffer solution HI 7004 pH 4.01 and Hanna HI 7031 conductivity solution to calibrate	Calibrate prior to every use	LCD displays O.K. when within acceptable limits	If unable to calibrate return to Hanna for repair or exchange	Bruce G. Newell
Lab Safety pH meter	N/A	Hanna buffer solution HI 7004 pH 4.01 and Hanna HI 7031 conductivity solution to calibrate	Calibrate prior to every use	LCD read out confirms known pH from Hanna Buffer solution	If unable to calibrate dispose of faulty unit and purchase new	Bruce G. Newell
ExTech Dissolved Oxygen Meter	L 591831	Disconnect sensor, power on unit, set to O2 press zero key, wait for 00 reading connect sensor run 5 minutes, press O2 calibration key look for 20.9 reading	Prior to every daily use and once annually by ExTech	Read out shout indicate 20.9 when properly calibrated	Ship to ExTech for repair or replacement	Bruce G. Newell
Keck Interface Probe	Ser # 2252	No calibration, clean thoroughly after each MW is gauged	N/A	Detects FP and GW at 0.01' intervals	Return to Keck for repair or replacement	Bruce G. Newell

Table 7A 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.**

B8 Inspection/Acceptance Requirements for Supplies and Consumables

1. Procedures for storage, handling and transport of supplies and consumables will comply with the UST Programmatic QAPP requirements.

B9 Data Acquisition Requirements (Non-Direct Measurements)

Data Source	Used for	Relevance	Justification for use in this project	Comments
County Tax Office	Site and surrounding property locations	Identifies site and properties potentially impacted	Required for complete report	
DeLorme Topo Quads	Site maps	Accurate site location	Topographical map of site & surrounding area	

Table 8A Non-Direct Measurements

B10 Data Management

1. Describe the data management scheme from field to final use and storage.

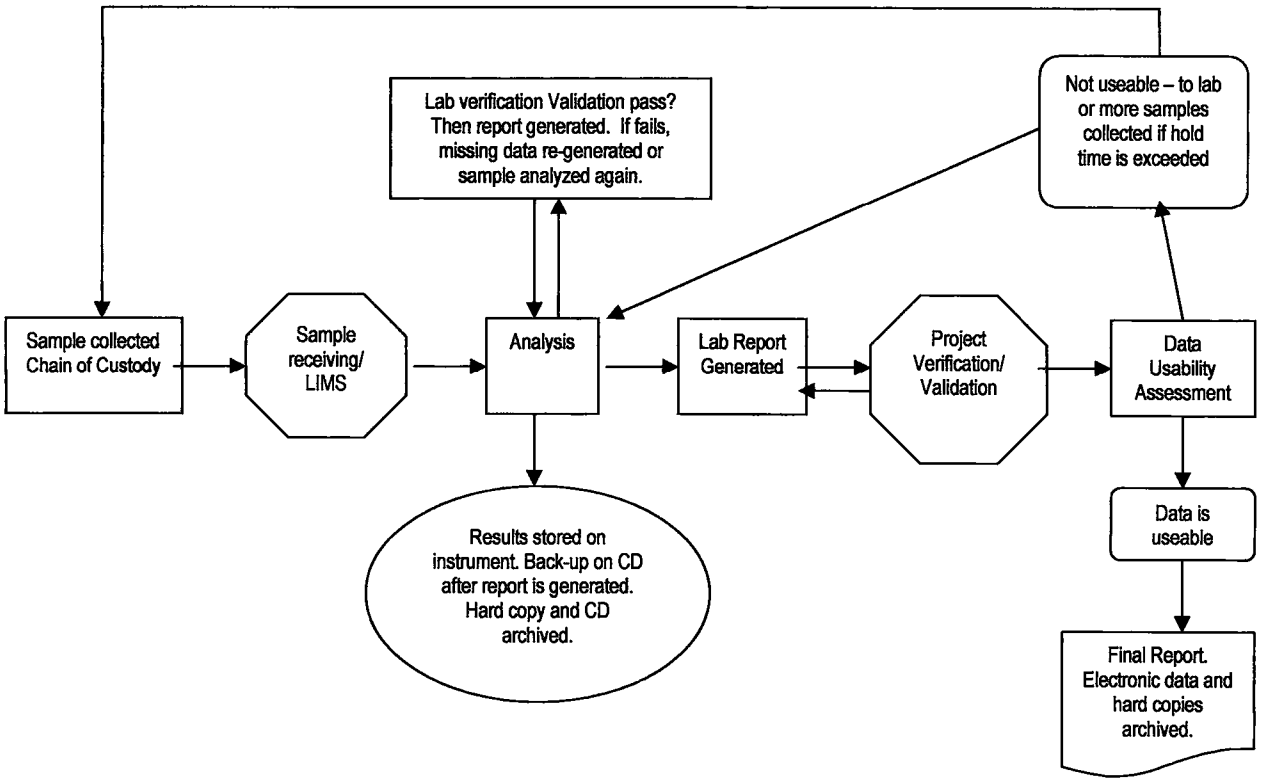


Figure 1 Example of a Data Management Scheme

Section C Assessment and Oversight

C1 Assessment and Response Actions

1. SEI will observe field personnel daily during sampling activities to ensure samples are collected and handled properly and report problems to DHEC within 24 hours. Bruce G. Newell (SEI) is responsible for observing and directing or conducting all field work and sample collection. Bruce G. Newell (SEI) has the authority to stop work if severe problem is suspected or observed.

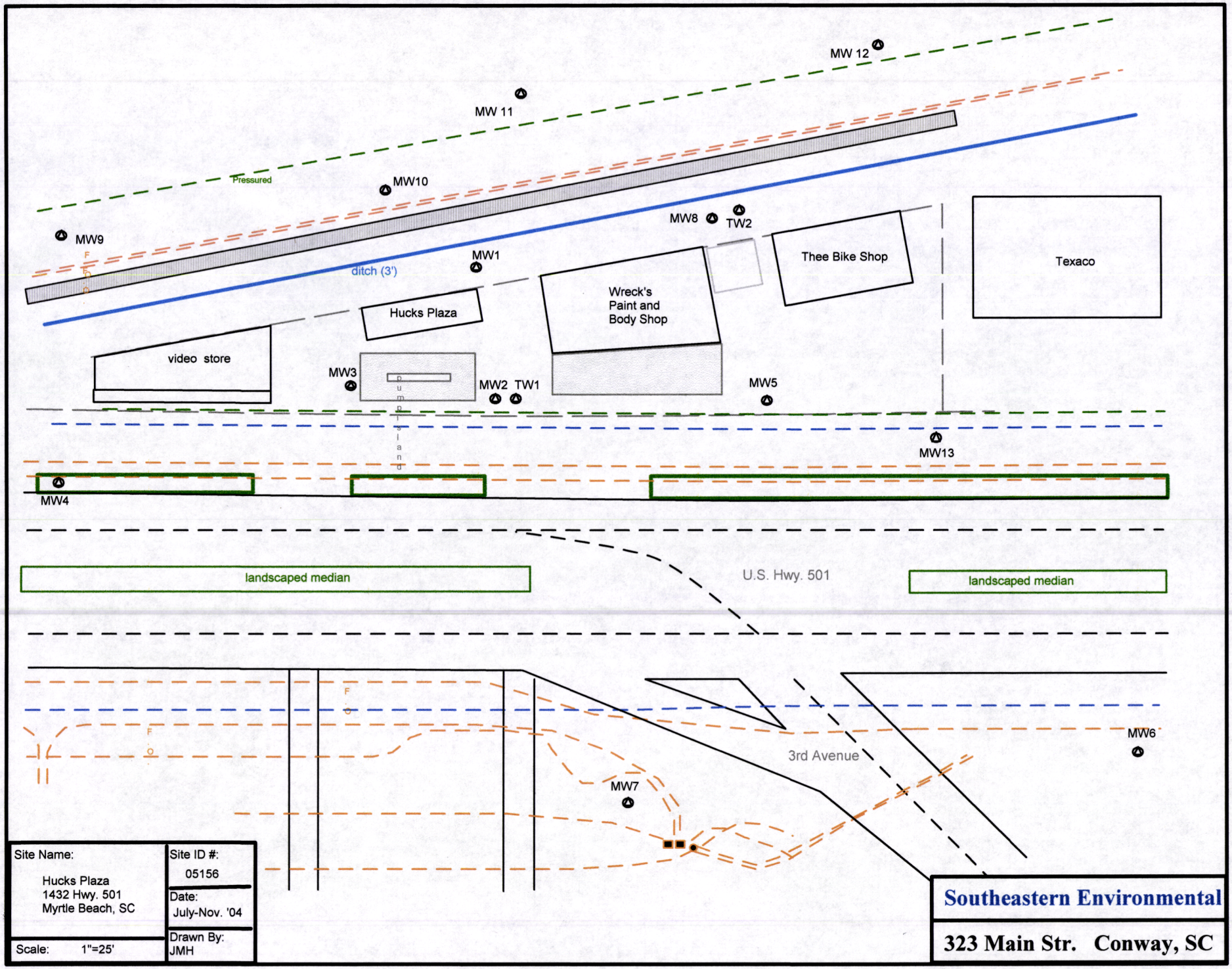
2. SEI will provide an Offsite Technical System Audit to the laboratory. For this project no soil or ground water sampling is anticipated at this time.

C2 Reports to Management

See the SCDHEC UST Programmatic QAPP (UST Master QAPP).

Section D Data Validation and Usability

See the SCDHEC UST Programmatic QAPP (UST Master QAPP).

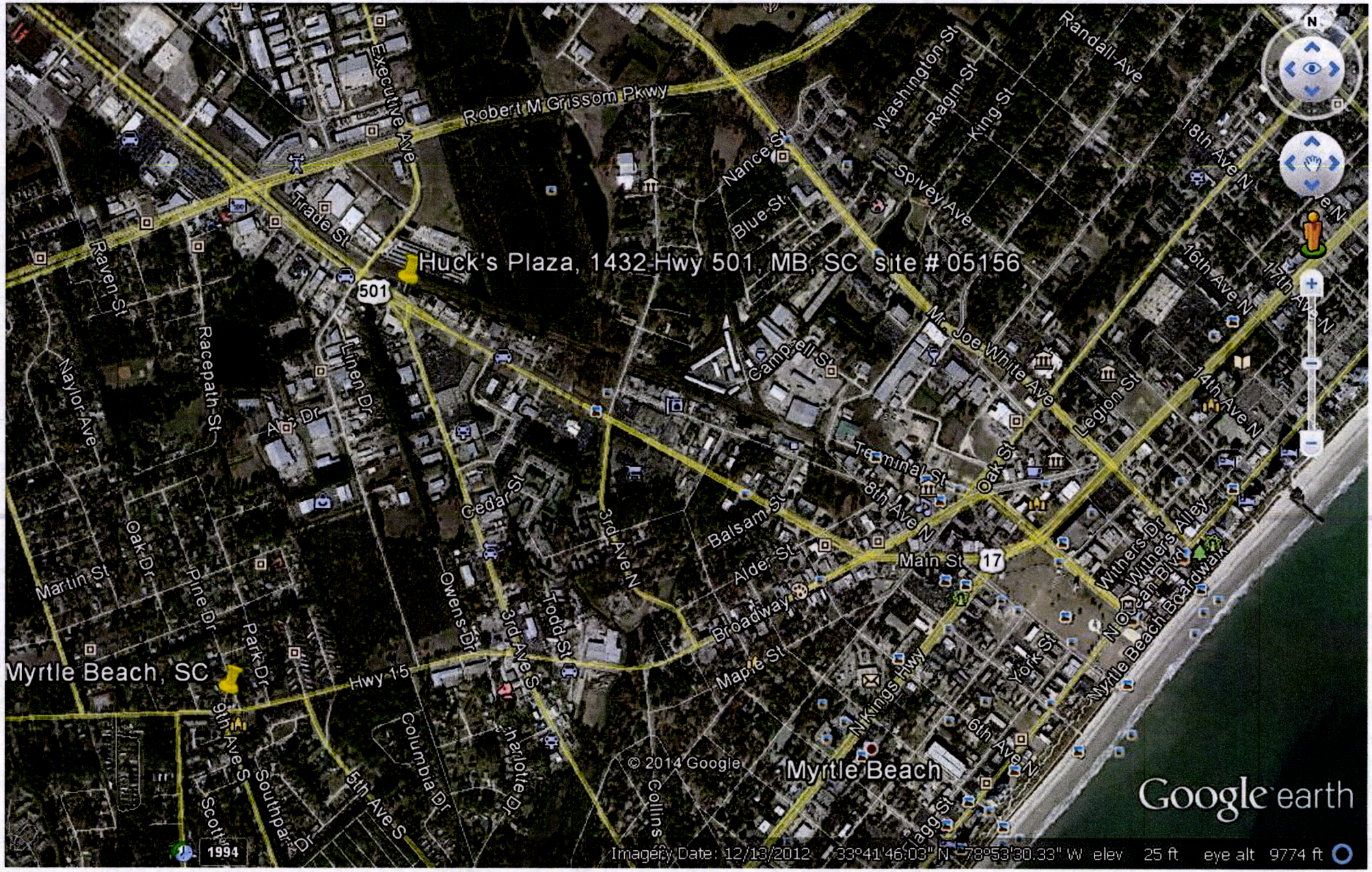


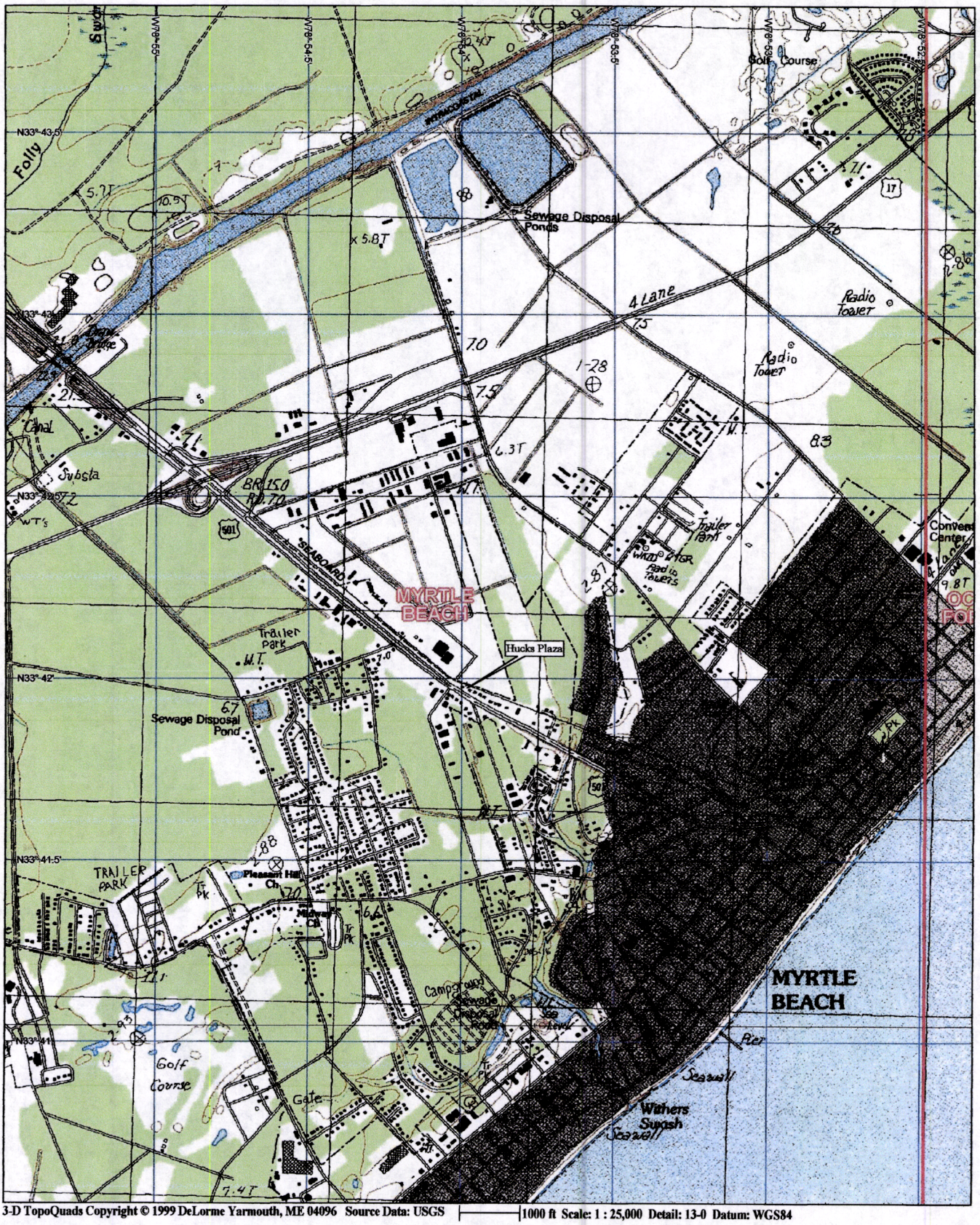
Site Name: Hucks Plaza 1432 Hwy. 501 Myrtle Beach, SC	Site ID #: 05156
Scale: 1"=25'	Date: July-Nov. '04
	Drawn By: JMH

Southeastern Environmental

323 Main Str. Conway, SC


Huck's Plaza, 1432 Hwy 501, MB, SC site # 05156
501
© 2014 Google
Google earth
1994
Imagery Date: 12/13/2012 33°41'57.10" N 78°53'56.95" W elev 25 ft eye alt 758 ft


Huck's Plaza, 1432 Hwy 501, MB, SC site # 05156
Myrtle Beach, SC
Myrtle Beach
Robert M Grissom Pkwy
Executive Ave
Trade St
Raven St
Racepath St
Naylor Ave
Linen Dr
Oak Dr
Martin St
Pine Dr
Park Dr
Hwy 15
9th Ave S
Southpar Dr
5th Ave S
Columbia Dr
Charlotte Dr
Owens Dr
3rd Ave S
Todd St
Cedar St
3rd Ave N
Collins
Nance St
Blue St
Campbell St
Washington St
Ragin St
King St
Spivey Ave
Randall Ave
18th Ave N
16th Ave N
17th Ave N
14th Ave N
Mr. Joe White Ave
Legion St
Terminal St
8th Ave N
Oak St
Balsam St
Alder St
Main St
Broadway
Maple St
N Kings Hwy
York St
6th Ave N
Withers Dr
Withers Alley
N Ocean Blvd
Myrtle Beach Boardwalk
501
17
1994
© 2014 Google
Google earth
Imagery Date: 12/13/2012 33°41'46.03" N 78°53'30.33" W elev 25 ft eye alt 9774 ft



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS 1000 ft Scale: 1 : 25,000 Detail: 13-0 Datum: WGS84

D H E C

PROMOTE PROTECT PROSPER

Catherine B. Templeton, Director

Promoting and protecting the health of the public and the environment

HUCKS PLAZA
1102 3RD AVE S
MYRTLE BEACH SC 29577

MAY 19 2014

UST 4 tech DOCKETING

Re: Groundwater Sampling Directive
501 Amoco; 1432 Hwy. 501, Myrtle Beach, SC
UST Permit # 05156; CA# 46863
Release reported December 31, 1991
QAPP received May 5, 2014
Horry County

To Whom it May Concern

The Underground Storage Tank Management Division (UST Division) of the South Carolina Department of Health and Environmental Control (Agency) has reviewed the referenced Site Specific Work Plan submitted on your behalf by Southeastern Environmental, Inc. The previous assessment work for this release indicates that petroleum Chemicals of Concern (CoC) are present in the groundwater at concentrations that exceed risk-based screening levels (RBSLs). In order to obtain current groundwater quality data, a comprehensive groundwater sampling event is necessary. All work should be conducted in accordance with the UST Quality Assurance Program Plan, revision 2.0, (QAPP) and must be conducted in compliance with all applicable regulations. A copy of the Agency QAPP for the UST Management Division is available at http://www.scdhec.gov/environment/lwm/usthome/Qapp.htm.

Groundwater sampling activities at the site should begin immediately upon receipt of this letter. Cost Agreement #46863 has been approved for the amount shown on the enclosed cost agreement form for the sampling of all monitoring wells associated with the release. Groundwater samples should be collected and analyzed for BTEX, Naphthalene, MtBE, 1,2-DCA, Oxygenates, Ethanol and EDB. Analyses should be in accordance with Appendix E of the QAPP and shall include a duplicate sample, field blank, and trip blank.

The monitoring report, contractor checklist from Appendix K of the QAPP, and invoice are due within 60 days from the date of this letter. The report submitted at the completion of these activities should include the required information outlined in the QAPP. Please note that all applicable South Carolina certification requirements apply to the services and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

Southeastern Environmental, Inc., can submit an invoice for direct payment from the State Underground Petroleum Environmental Response Bank (SUPERB) Account for pre-approved costs. By law, the SUPERB Account cannot compensate any costs that are not pre-approved. Please note that applicable South Carolina certification requirements regarding laboratory services and report preparation must be satisfied. If the invoice

is not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval from the UST Division is obtained. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be pre-approved by the UST Division for the cost to be paid. The Agency reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Agency reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

Please note, if unnecessary dilutions are completed resulting in reporting limits of individual CoC in excess of RBSL, the data cannot be used. In those cases, the UST Division may deny payment for any non-detect analysis where the reporting limit exceeds the RBSL. The UST Division encourages the use of 'J' values as necessary so the appropriate action can be determined for a release.

The Agency grants pre-approval for transportation of virgin petroleum impacted soil and groundwater from the referenced site to a permitted treatment facility. The transport and disposal must be conducted in accordance with the QAPP. If the CoC concentrations based on laboratory analysis are below RBSLs, please contact the project manager for approval to dispose of soil and/or groundwater on site. The SUPERB Account will not reimburse for transportation or treatment of soil and/or groundwater with concentrations below RBSLs.

On all correspondence regarding this site, please reference **UST Permit #05156 and Cost Agreement #46863**. If you have any questions regarding this correspondence, please contact me by telephone at (803) 898-0605, by fax at (803) 898-0673, or by e-mail to martinjm@dhec.sc.gov.

Sincerely,

Jim Martin, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement
Signature Page
cc: Southeastern Environmental, Inc., 323 Main Street, Conway, SC 29526 (w/ enc.)
Technical File (w/ enc.)

Section A: Project Management

A1 Title and Approval Page

Quality Assurance Project Plan
Addendum to the SC DHEC UST Programmatic QAPP
For
Huck's Plaza, Site # 05156

1432 US Hwy. 501, Myrtle Beach, Horry County, SC

Prepared by: Bruce G. Newell
Southeastern Environmental, Inc, 323 Main St., Conway, SC 843-248-3533
sei91@aol.com

Date: 16 April 2014
Southeastern Environmental, Inc.
Class I UST Site Rehabilitation Contractor # 82

Approvals

Jim Martin SC DHEC Project Manager	Signature	Date 5-8-14
Doug D. Nelson Contractor QA Manager	Douglas Nelson Signature	Date 17 Apr 14
Bruce G. Newell Site Rehabilitation Contractor	Signature	Date 16 Apr 14
Dan Wright Laboratory Director	Daniel J Wright Signature	Date 04/14/14

Approved Cost Agreement 46863

Facility: 05156 501 AMOCO
MARTINJM
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
01 PLAN						
		C1	TIER 11/COMP.PLAN/QAPP APP B	1.0000	250.00	250.00
04 MOB/DEMOB						
		B1	PERSONNEL	2.0000	423.00	846.00
10 SAMPLE COLLECTION						
		A1	GROUNDWATER (PURGE)	15.0000	60.00	900.00
		D1	GROUNDWATER NO PURGE/DUPLICATE	1.0000	28.00	28.00
		H1	FIELD BLANK	1.0000	24.60	24.60
11 ANALYSES	GW GROUNDWATER					
		A2	BTEXNM+OXYGS+1,2-DCA+ETH-8260B	18.0000	122.00	2,196.00
		F1	EDB BY 8011	17.0000	45.20	768.40
17 DISPOSAL						
		AA	WASTEWATER	180.0000	0.56	100.80
19 RPT/PROJECT MNGT & COORDINATIO						
		PERC	REPORT PREPARATION	0.1000	5,113.80	511.38
				Total Amount		5,625.18

Document Receipt Information

☐ Hard Copy ☒ CD ☐ Email

Date Received 1-23-2015

Permit Number 05156

Project Manager Jim Martin

Name of Contractor Southeastern Environmental

UST Certification Number

Docket Number 5tech

Scanned

GW Sampling Report

Groundwater Sampling Event

Hucks Plaza

1432 Highway 501
Myrtle Beach, SC 29575
UST Permit # 05156

CA # 46863

Prepared by:

Southeastern Environmental, Inc.

323 Main Street

Conway, South Carolina 29526

16 January 2015

Hucks Plaza
Site # 05156

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Groundwater Re-Sampling Event

Hucks Plaza

1432 Highway 501
Myrtle Beach, SC 29526

Site # 05156, CA # 46863

SEI conducted a groundwater sampling event at Hucks Plaza, site # 05156, 1432 Hwy 501, Myrtle Beach, S.C. on the 13th and 15th of December 2014. The laboratory analysis of the groundwater samples have been reviewed by Dr. Douglas D. Nelson and found to be in accordance with currently accepted quality control practices as prescribed by the South Carolina Department of Health and Environmental Control.

Southeastern Environmental, Inc.

Bruce G. Newell
President, Southeastern Environmental, Inc.
Class I UST Site Rehab Contractor # 82

Douglas D. Nelson, P. G.
South Carolina Registration #391

Narrative: Comprehensive Groundwater Sampling Event

Site Name: Hucks Plaza Site ID# 05156, CA# 46863	Address: 1432 Hwy. 501, Myrtle Beach, SC
Date: 16 January 2015	Sampled By: Bruce G. Newell/Rodney Stanley

Introduction:

On the 13th and 15th of December 2014, Southeastern Environmental, Inc. personnel collected groundwater samples per a directive from South Carolina Department of Health and Environmental Control (SC DHEC) at the above referenced site. All samples were sampled for BTEX, Naphthalene, MTBE, 1,2-DCA, 8 Oxygenates, EDB and Ethanol.

Field Work:

After two (2) visits to the subject property, SEI personnel were unable to locate seven (7) of the fifteen (15) monitoring wells (MWs) on the site. Blanton Land Surveying went to the site and located and dug down to the missing MWs. On the 14th of November 2014 Southeastern Environmental, Inc. personnel returned to the site and were able to gauge all existing MWs for the presence of free phase product and groundwater elevations. It should also be noted that the manway for MW-1 has been damaged apparently by either city, county, state or rail road crews during mowing activities, and needs to be repaired.

Ground water sample collection was conducted on the 13th and 15th of December 2014. A duplicate sample was collected from MW-2. After collection samples were placed in a cooler with wet ice. Samples were then transferred to a dedicated refrigerator and stored prior to being delivered to Shealy Environmental Services, Inc. in W. Columbia, South Carolina on the 19th of December 2014.

Purging of the monitoring wells was necessary due to the last monitoring well sampling event being more than 12 months previous. Specific conductivity, pH, DO2, turbidity and water temperature were monitored during the purging process.

Results:

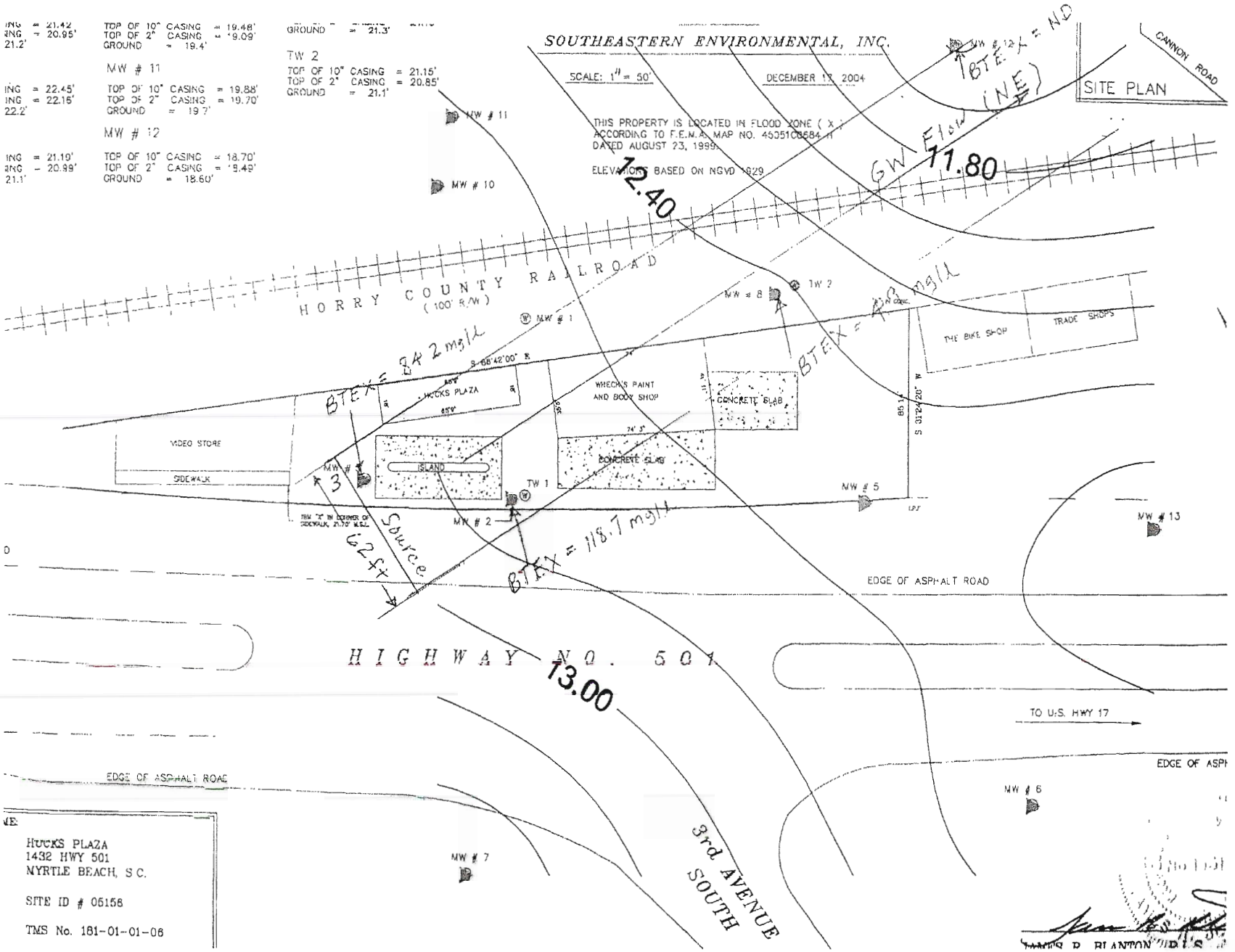
Free product was detected in MW-3 (1.14'). The level of CoCs in MW- 4, MW-6, MW-8, MW-9, MW-10, MW-11, and MW-12 were "Non Detectable" or "ND". MW-2, MW-8 and MW-10 had previously had detectable levels of CoCs and were "ND" as of the December 2014 analysis. MW-5, MW-7, MW-13, TW-1 AND TW-2 all had increased levels of CoCs since the August 2004 sampling event.

Recommendations:

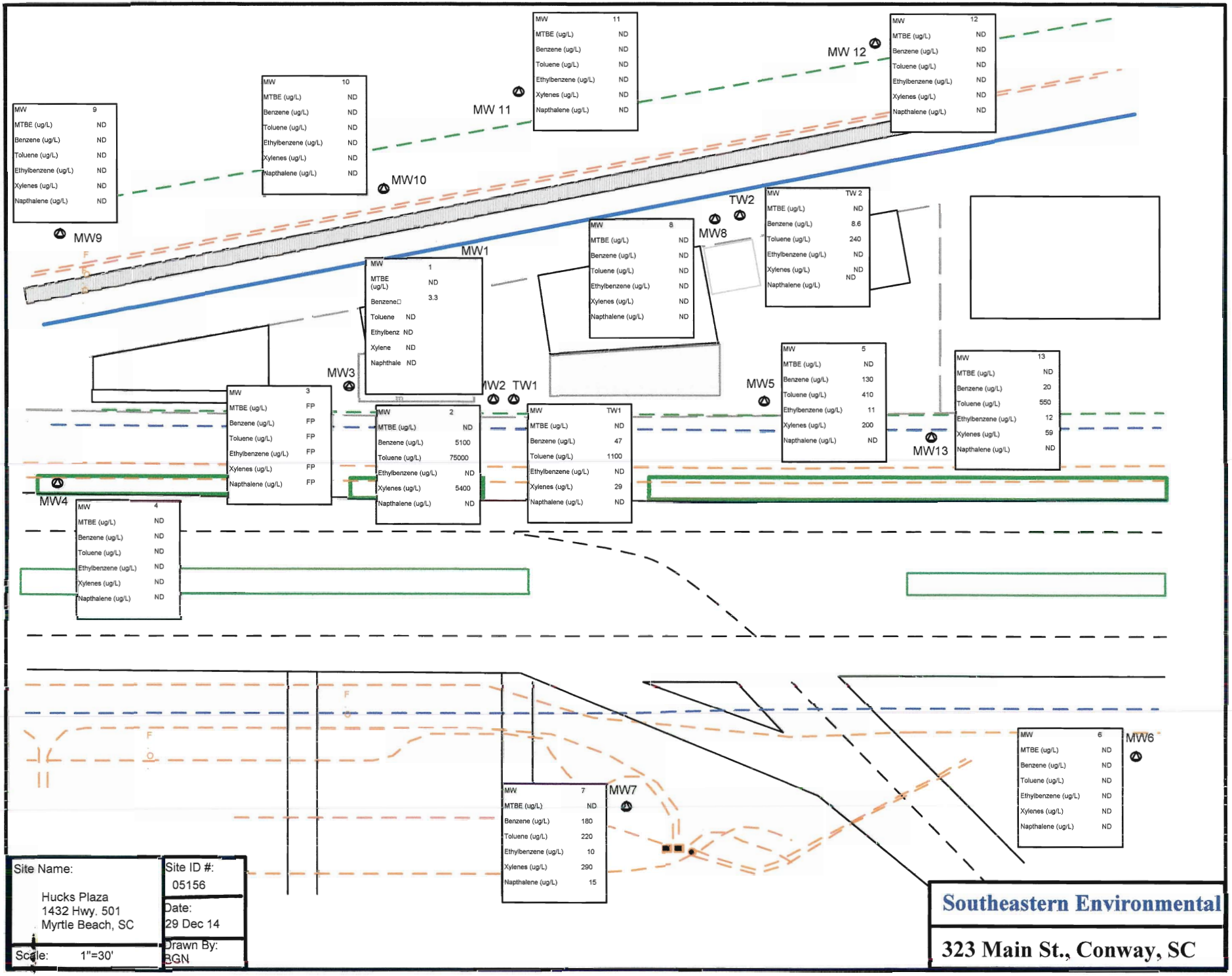
Due to the free product in MW-3, SEI would suggest one or more 96 hour AFVR events be conducted as soon as possible. The last AFVR should be followed by a groundwater resampling event six (6) months after the last AFVR is completed. If a 96 hour AFVR is not conducted SEI suggest a resampling event in the next six (6) months.

FIGURES

Contour Map


SOUTHEASTERN ENVIRONMENTAL, INC.
SCALE: 1" = 50'
DECEMBER 17, 2004
SITE PLAN
CANNON ROAD
THIS PROPERTY IS LOCATED IN FLOOD ZONE (X) ACCORDING TO F.E.M.A. MAP NO. 45051C0684 H DATED AUGUST 23, 1999.
ELEVATIONS BASED ON NGVD 1929
MW # 11
MW # 10
MW # 1
MW # 8
TW 2
MW # 12
MW # 3
MW # 2
TW 1
MW # 5
MW # 13
MW # 6
MW # 7
12.40
GW Flow
11.80
BTEX = ND
BTEX = 28.2 mg/L
BTEX = 4.6 mg/L
BTEX = 118.7 mg/L
Source
625±
HORRY COUNTY RAILROAD
(100' R/W)
HIGHWAY NO. 501
13.00
EDGE OF ASPHALT ROAD
EDGE OF ASPHALT ROAD
TO U.S. HWY 17
3rd AVENUE SOUTH
HUCKS PLAZA
WHECHUS PAINT AND BODY SHOP
CONCRETE SLAB
THE BIKE SHOP
TRADE SHOPS
VIDEO STORE
SIDEWALK
ISLAND
CONCRETE SLAB
S 68°42'00" E
S 31°24'20" W
85.5'
74.5'
65.9'
65'
TBM "X" IN CORNER OF SIDEWALK, 21.75' M.S.L.
MW # 12A = ND
(NE)
ING = 21.42'
ING = 20.95'
21.2'
TOP OF 10" CASING = 19.48'
TOP OF 2" CASING = 19.09'
GROUND = 19.4'
MW # 11
ING = 22.45'
ING = 22.15'
22.2'
TOP OF 10" CASING = 19.88'
TOP OF 2" CASING = 19.70'
GROUND = 19.7'
MW # 12
ING = 21.19'
ING = 20.99'
21.1'
TOP OF 10" CASING = 18.70'
TOP OF 2" CASING = 18.49'
GROUND = 18.60'
GROUND = 21.3'
TW 2
TOP OF 10" CASING = 21.15'
TOP OF 2" CASING = 20.85'
GROUND = 21.1'
HUCKS PLAZA
1432 HWY 501
MYRTLE BEACH, S.C.
SITE ID # 05158
TMS No. 181-01-01-06

Ground Water CoC Map


MW 9
MTBE (ug/L) ND
Benzene (ug/L) ND
Toluene (ug/L) ND
Ethylbenzene (ug/L) ND
Xylenes (ug/L) ND
Napthalene (ug/L) ND
MW9
MW 10
MTBE (ug/L) ND
Benzene (ug/L) ND
Toluene (ug/L) ND
Ethylbenzene (ug/L) ND
Xylenes (ug/L) ND
Napthalene (ug/L) ND
MW10
MW 11
MTBE (ug/L) ND
Benzene (ug/L) ND
Toluene (ug/L) ND
Ethylbenzene (ug/L) ND
Xylenes (ug/L) ND
Napthalene (ug/L) ND
MW 12
MTBE (ug/L) ND
Benzene (ug/L) ND
Toluene (ug/L) ND
Ethylbenzene (ug/L) ND
Xylenes (ug/L) ND
Napthalene (ug/L) ND
MW1
MTBE (ug/L) ND
Benzene 3.3
Toluene ND
Ethylbenz ND
Xylene ND
Naphthale ND
MW 8
MTBE (ug/L) ND
Benzene (ug/L) ND
Toluene (ug/L) ND
Ethylbenzene (ug/L) ND
Xylenes (ug/L) ND
Napthalene (ug/L) ND
TW2
MW8
MW TW 2
MTBE (ug/L) ND
Benzene (ug/L) 8.6
Toluene (ug/L) 240
Ethylbenzene (ug/L) ND
Xylenes (ug/L) ND
Napthalene (ug/L) ND
MW3
MW 3
MTBE (ug/L) FP
Benzene (ug/L) FP
Toluene (ug/L) FP
Ethylbenzene (ug/L) FP
Xylenes (ug/L) FP
Napthalene (ug/L) FP
MW2 TW1
MW 2
MTBE (ug/L) ND
Benzene (ug/L) 5100
Toluene (ug/L) 75000
Ethylbenzene (ug/L) ND
Xylenes (ug/L) 5400
Napthalene (ug/L) ND
MW TW1
MTBE (ug/L) ND
Benzene (ug/L) 47
Toluene (ug/L) 1100
Ethylbenzene (ug/L) ND
Xylenes (ug/L) 29
Napthalene (ug/L) ND
MW5
MW 5
MTBE (ug/L) ND
Benzene (ug/L) 130
Toluene (ug/L) 410
Ethylbenzene (ug/L) 11
Xylenes (ug/L) 200
Napthalene (ug/L) ND
MW13
MW 13
MTBE (ug/L) ND
Benzene (ug/L) 20
Toluene (ug/L) 550
Ethylbenzene (ug/L) 12
Xylenes (ug/L) 59
Napthalene (ug/L) ND
MW4
MW 4
MTBE (ug/L) ND
Benzene (ug/L) ND
Toluene (ug/L) ND
Ethylbenzene (ug/L) ND
Xylenes (ug/L) ND
Napthalene (ug/L) ND
MW 7
MTBE (ug/L) ND
Benzene (ug/L) 180
Toluene (ug/L) 220
Ethylbenzene (ug/L) 10
Xylenes (ug/L) 290
Napthalene (ug/L) 15
MW7
MW 6
MTBE (ug/L) ND
Benzene (ug/L) ND
Toluene (ug/L) ND
Ethylbenzene (ug/L) ND
Xylenes (ug/L) ND
Napthalene (ug/L) ND
MW6
Site Name:
Hucks Plaza
1432 Hwy. 501
Myrtle Beach, SC
Site ID #:
05156
Date:
29 Dec 14
Scale: 1"=30'
Drawn By:
BGN
Southeastern Environmental
323 Main St., Conway, SC

TABLES

Ground Water Elevation Data

Southeastern Environmental, Inc.	Site Name: Hucks Plaza	Site ID: 05156
323 Main Street Conway, SC 29526	Sampling Date: 14 Nov 14	Field Personnel: BGN/RSS
Ground Water Elevations	Air Temp: 42° F	Weather Condition: Overcast, Light mist

Well No.	Date Measured	Top of Casing Elevation *(ft.)*	Screen Interval *(ft.)*	Depth to Ground Water (bTOC)	Free Product Thickness *(ft.)*	Ground Water Elevation *(ft.)*
1	14 Nov 14	20.87'	2.87'-12-87'	8.35'	0.00'	12.52'
2	14 Nov 14	21.44'	2.77'-12.77'	9.54'	0.00'	11.90'
3	14 Nov 14	21.44'	2.72'-12.72'	9.89'	1.14'	11.55'
4	14 Nov 14	21.32'	5.29'-15.29'	7.00'	0.00'	8.76'
5	14 Nov 14	20.15'	5.29'-15.29'	7.96'	0.00'	7.80''
6	14 Nov 14	20.95'	5.35'-15.35'	9.25'	0.00'	6.57'
7	14 Nov 14	22.16'	5.25'-15.25'	9.62'	0.00'	6.10'
8	14 Nov 14	20.99'	5.25'-15.25'	9.31'	0.00'	6.41'
9	14 Nov 14	19.62'	5.42'-15.42'	6.41'	0.00'	9.48''
10	14 Nov 14	19.09'	-5.89'-15.89'	7.16'	0.00'	8.73'
11	14 Nov 14	19.70'	3.69'-13.69'	7.85'	0.00'	6.31'
12	14 Nov 14	18.49'	3.71'-13.71'	7.95'	0.00'	6.23'
13	14 Nov 14	20.13'	3.82'-13.82'	9.15'	0.00'	5.14'
TW1	14 Nov 14	21.10'	37.72'-42.72'	8.61'	0.00'	34.11'
TW2	14 Nov 14	20.85'	35.07'-40.07'	8.55'	0.00'	31.52'

Ground Water Analytical Data

(Current & Historical)

Hucks Plaza, Site # 05156, CA # 46863
GROUND WATER ANALYTICAL RESULTS
HISTORICAL DATA

MW	Date	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylene (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	EDB (ug/l)
MW-1	3 Aug 04	Well	Damaged	No	Sample	Collected		
	29 Dec 14	3.3	ND	ND	ND	ND	ND	ND
MW-2	3 Aug 04	10500	99300	1430	7430	704	4.66	1.96
	29 Dec 14	5100	75000	ND	5400	ND	ND	0.65
MW-3	3 Aug 04	10500	67500	1260	4930	713	900	.413
	29 Dec 14	Free	Product	1.14'				
MW-4	3 Aug 04	ND	ND	ND	ND	ND	ND	ND
	29 Dec 14	ND	ND	ND	ND	ND	ND	ND
MW-5	3 Aug 04	3.5	8.48	1.53	175	ND	ND	ND
	29 Dec 14	130	410	11	200	ND	ND	ND
MW-6	3 Aug 04	ND	ND	ND	ND	ND	ND	ND
	29 Dec 14	ND	ND	ND	ND	ND	ND	ND

Hucks Plaza, Site # 05156, CA # 46863
GROUND WATER ANALYTICAL RESULTS
HISTORICAL DATA

MW	Date	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylene (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	EDB (ug/l)
MW-7	3 Aug 04	ND	ND	ND	ND	ND	6.22	ND
	29 Dec 14	180	220	10	290	15	ND	ND
MW-8	3 Aug 04	3070	91.7	78.7	1661	8.20	1.19	ND
	29 Dec 14	ND	ND	ND	ND	ND	ND	ND
MW-9	3 Aug 04	ND	ND	ND	ND	ND	ND	ND
	29 Dec 14	ND	ND	ND	ND	ND	ND	ND
MW-10	3 Aug 04	107	1.59	ND	5.51	13.0	5.0	ND
	29 Dec 14	ND	ND	ND	ND	ND	ND	ND
MW-11	3 Aug 04	ND	ND	ND	ND	ND	ND	<.020
	29 Dec 14	ND	ND	ND	ND	ND	ND	ND
MW-12	3 Aug 04	ND	ND	ND	ND	ND	ND	<.020
	29 Dec 14	ND	ND	ND	ND	ND	ND	ND
MW-13	3 Aug 04	ND	ND	ND	ND	ND	ND	<.020
	29 Dec 14	20	550	12	59	ND	ND	ND

Hucks Plaza, Site # 05156, CA # 46863
GROUND WATER ANALYTICAL RESULTS
HISTORICAL DATA

MW	Date	Benzene (ug/l)	Toluene (ug/l)	Ethylbenzene (ug/l)	Xylene (ug/l)	Naphthalene (ug/l)	MTBE (ug/l)	EDB (ug/l)
TW-1	3 Aug 04	1.64	39.5	1.29	9.21	ND	ND	ND
	29 Dec 14	47	1100	ND	78	ND	ND	ND
TW-2	3 Aug 04	3.91	ND	ND	ND	ND	ND	<.020
	29 Dec 14	8.6	240	ND	29	ND	ND	ND

APPENDICES

Laboratory Report

Field Equipment Calibrations

Southeastern Environmental, Inc.	Site Name: Hucks Plaza	Site ID: 05156
323 Main Street Conway, SC 29526	Field Personnel: Bruce G. Newell/Rodney Stanley	

Instrument/Equipment Calibration and Frequency

Equipment / Serial number	Date	Calibration Time Frequencies	Comments
Hanna Instruments Serial# HI 98129 & HI 98130 (pH/EC/TDS/Temperature tester)	12/13/14 12/15/14	0900 hours prior to purging the monitoring well and again at 1320 hours after lunch.	All three field parameters were conducted using this same instrument.

Calibration Procedure

From the measurement mode, press and hold the mode button until the CAL is displayed on the LCD. Immerse the probe in the proper calibration solution. Once the calibration has been automatically performed, the LCD will display OK for one second and the meter will return to normal measurement mode.
Please see attached sheet, calibration instructions

Disposal Manifest

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number

GENERATOR

5. Generator's Name and Mailing Address

SOUTHEASTERN ENVIRONMENTAL
323 MAIN ST.
CONWAY, SC 29526

Generator's Phone:

Generator's Site Address (if different than mailing address)

hucks pizza
1432 hwy 501
horry, SC 29526

6. Transporter 1 Company Name — U.S. EPA ID Number

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number

TK Tanks

Facility's Phone:

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1	NONHAZARDOUS PETROLEUM CONTAMINATED WATER/PRODUCT		DM 2Drum	98 G gal		
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

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 — Signature — Month — Day — Year

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	Signature	Month	Day	Year
Bruce G. Newell		1	21	15
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	Signature	Month	Day	Year
Jason Newman		1	21	15

Monitoring Well Purging Data

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 12/15/14

Facility Name: Hucks Plaza

Field Personnel: Bruce G. Newell

UST Permit#: 05156 **Monitoring Well#:** 1

General Weather Condition: Clear

Water Supply Well **Public** X **Private** _____

Ambient Air Temperature: 6 **°C**

Monitoring Well Diameter (D): 0.163 feet

Conversion Factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163 For a 4 inch well C = 0.652

Quality Assurance

Free Product Thickness: 0.0 feet

pH Meter Conductivity Meter

Dept to Ground Water (DGW) 8.35 feet

serial # HI98129 serial # HI98129

Total Well Dept (TWD) 12.87 feet

pH = 4.0 _____ standard _____

Length of Water Column (LWC = TWD – DGW) 4.52 feet

pH = 7.0 _____ standard _____

1 Casing Volume (CV = LWC X C) = 4.52 X .163 = 0.74 gallons

pH = 10.0 _____ standard _____

3 Casing Volume 3X CV = 2.22 gallons (standard purge volume)

Total Volume of Water Purged Before Sampling 5.00 **gallons**

	Initial	1st Volume	2nd Volume	3rd Volume	4th Volume	5th Volume	Post Sampling
Cumulative Volume Purged (gallons)	2.78	0.74	0.74	0.74			5.00
Time (military)							10:53 hrs
pH (s.u.)	6.60	6.51	6.52	6.51			6.50
Specific Conductivity	270	271	269	271			270
Water Temperature (°C)	18.6	18.8	18.9	18.9			18.9
Turbidity (subjective: clear, slightly cloudy, cloudy)	3.84	3.02	4.63	7.06			5.93
PID Reading (if required)							

Remarks: Continued purging well until well volume reached casing volume X 3.

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 12/13/14 **Facility Name:** Hucks Plaza

Field Personnel: Bruce G. Newell **UST Permit#:** 05156 **Monitoring Well#:** 2

General Weather Condition: Clear **Water Supply Well** **Public** X **Private** _____

Ambient Air Temperature: 6 °C Monitoring Well Diameter (D): 0.163 feet

Conversion Factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163 For a 4 inch well C = 0.652

Quality Assurance

pH Meter Conductivity Meter

serial # HI98129 serial # HI98129

pH = 4.0 _____ standard _____

pH = 7.0 _____ standard _____

pH = 10.0 _____ standard _____

Free Product Thickness: 0.0 feet

Dept to Ground Water (DGW) 9.54 feet

Total Well Dept (TWD) 12.77 feet

Length of Water Column (LWC = TWD – DGW) 3.23 feet

1 Casing Volume (CV = LWC X C) = 3.23 X .163 = 0.53 gallons

3 Casing Volume 3X CV = 1.59 gallons (standard purge volume)

Total Volume of Water Purged Before Sampling 5.00 **gallons**

	Initial	1st Volume	2nd Volume	3rd Volume	4th Volume	5th Volume	Post Sampling
Cumulative Volume Purged (gallons)	3.41	0.53	0.53	0.53			5.00
Time (military)							11:50 hrs
pH (s.u.)	5.98	5.93	5.89	5.84			5.84
Specific Conductivity	115	113	111	109			110
Water Temperature (°C)	21.2	21.2	21.2	21.2			21.2
Turbidity (subjective: clear, slightly cloudy, cloudy)	495	423	487	462			481
PID Reading (if required)							

Remarks: Continued purging well until well volume reached casing volume X 3.

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 12/13/14

Facility Name: Hucks Plaza

Field Personnel: Bruce G. Newell

UST Permit#: 05156 **Monitoring Well#:** 3

General Weather Condition: Clear

Water Supply Well **Public** X **Private** _____

Ambient Air Temperature: 6 **°C**

Monitoring Well Diameter (D): 0.163 feet

Conversion Factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163 For a 4 inch well C = 0.652

Quality Assurance

pH Meter

serial # HI98129

pH = 4.0 _____

pH = 7.0 _____

pH = 10.0 _____

Conductivity Meter

serial # HI98129

standard _____

standard _____

standard _____

Free Product Thickness: 1.14 feet

Dept to Ground Water (DGW) 9.89 feet

Total Well Dept (TWD) 12.72 feet

Length of Water Column (LWC = TWD – DGW) 2.83 feet

1 Casing Volume (CV = LWC X C) = 2.83 X .163 = 0.46 gallons

3 Casing Volume 3X CV = 1.38 gallons (standard purge volume)

Total Volume of Water Purged Before Sampling 0.00 gallons

	Initial	1st Volume	2nd Volume	3rd Volume	4th Volume	5th Volume	Post Sampling
Cumulative Volume Purged (gallons)							
Time (military)							
pH (s.u.)							
Specific Conductivity							
Water Temperature (°C)							
Turbidity (subjective: clear, slightly cloudy, cloudy)							
PID Reading (if required)							

Remarks: Continued purging well until well volume reached casing volume X 3.

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 12/15/14 **Facility Name:** Hucks Plaza

Field Personnel: Bruce G. Newell **UST Permit#:** 05156 **Monitoring Well#:** 4

General Weather Condition: Clear **Water Supply Well** **Public** X **Private** _____

Ambient Air Temperature: 6 °C Monitoring Well Diameter (D): 0.163 feet

Conversion Factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163 For a 4 inch well C = 0.652

Quality Assurance

pH Meter Conductivity Meter

serial # HI98129 serial # HI98129

pH = 4.0 standard

pH = 7.0 standard

pH = 10.0 standard

Free Product Thickness: 0.0 feet

Dept to Ground Water (DGW) 7.00 feet

Total Well Dept (TWD) 15.76 feet

Length of Water Column (LWC = TWD – DGW) 8.76 feet

1 Casing Volume (CV = LWC X C) = 8.76 X .163 = 1.43 gallons

3 Casing Volume 3X CV = 4.29 gallons (standard purge volume)

Total Volume of Water Purged Before Sampling 6.29 gallons

	Initial	1st Volume	2nd Volume	3rd Volume	4th Volume	5th Volume	Post Sampling
Cumulative Volume Purged (gallons)	2.00	1.43	1.43	1.43			6.29
Time (military)							11:25 hrs
pH (s.u.)	6.49	6.40	6.38	6.38			6.38
Specific Conductivity	444	442	443	443			443
Water Temperature (°C)	21.5	21.9	21.9	21.9			21.9
Turbidity (subjective: clear, slightly cloudy, cloudy)	19.95	20.64	29.86	13.90			15.12
PID Reading (if required)							

Remarks: Continued purging well until well volume reached casing volume X 3.

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 12/13/14 **Facility Name:** Hucks Plaza

Field Personnel: Bruce G. Newell **UST Permit#:** 05156 **Monitoring Well#:** 5

General Weather Condition: Clear **Water Supply Well** **Public** X **Private** _____

Ambient Air Temperature: 6 °C Monitoring Well Diameter (D): 0.163 feet

Conversion Factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163 For a 4 inch well C = 0.652

Quality Assurance

pH Meter Conductivity Meter

serial # HI98129 serial # HI98129

pH = 4.0 _____ standard _____

pH = 7.0 _____ standard _____

pH = 10.0 _____ standard _____

Free Product Thickness: 0.0 feet

Dept to Ground Water (DGW) 7.96 feet

Total Well Dept (TWD) 15.76 feet

Length of Water Column (LWC = TWD – DGW) 7.82 feet

1 Casing Volume (CV = LWC X C) = 7.94 X .163 = 1.29 gallons

3 Casing Volume 3X CV = 3.87 gallons (standard purge volume)

Total Volume of Water Purged Before Sampling 6.00 gallons

	Initial	1st Volume	2nd Volume	3rd Volume	4th Volume	5th Volume	Post Sampling
Cumulative Volume Purged (gallons)	2.13	1.29	1.29	1.29			6.00
Time (military)							14:10 hrs
pH (s.u.)	5.81	5.74	5.71	5.70			5.68
Specific Conductivity	192	193	192	193			193
Water Temperature (°C)	21.6	22.5	22.5	22.5			22.5
Turbidity (subjective: clear, slightly cloudy, cloudy)	1.37	4.41	88	45.23			28.12
PID Reading (if required)							

Remarks: Continued purging well until well volume reached casing volume X 3.

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 12/15/14

Facility Name: Hucks Plaza

Field Personnel: Bruce G. Newell

UST Permit#: 05156 **Monitoring Well#:** 6

General Weather Condition: Clear

Water Supply Well **Public** X **Private** _____

Ambient Air Temperature: 6 **°C**

Monitoring Well Diameter (D): 0.163 feet

Conversion Factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163 For a 4 inch well C = 0.652

Quality Assurance

pH Meter

serial # HI98129

pH = 4.0 _____

pH = 7.0 _____

pH = 10.0 _____

Conductivity Meter

serial # HI98129

standard _____

standard _____

standard _____

Free Product Thickness: 0.0 feet

Dept to Ground Water (DGW) 9.25 feet

Total Well Dept (TWD) 15.82 feet

Length of Water Column (LWC = TWD – DGW) 6.57 feet

1 Casing Volume (CV = LWC X C) = 6.57 X .163 = 1.07 gallons

3 Casing Volume 3X CV = 3.21 gallons (standard purge volume)

Total Volume of Water Purged Before Sampling 5.00 gallons

	Initial	1st volume	2nd volume	3rd volume	4th volume	5th volume	Post Sampling
Cumulative Volume Purged (gallons)	1.79	1.07	1.07	1.07			5.00
Time (military)							14:40 hrs
pH (s.u.)	6.76	6.73	6.71	6.71			6.70
Specific Conductivity	625	622	620	620			620
Water Temperature (°C)	19.6	19.8	19.8	19.9			19.9
Turbidity (subjective: clear, slightly cloudy, cloudy)	12.92	10.59	22.07	15.11			9.88
PID Reading (if required)							

Remarks: Continued purging well until well volume reached casing volume X 3.

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 12/15/14

Facility Name: Hucks Plaza

Field Personnel: Bruce G. Newell

UST Permit#: 05156 **Monitoring Well#:** 7

General Weather Condition: Clear

Water Supply Well **Public** X **Private** _____

Ambient Air Temperature: 6 **°C**

Monitoring Well Diameter (D): 0.163 feet

Conversion Factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163 For a 4 inch well C = 0.652

Quality Assurance

pH Meter

serial # HI98129

pH = 4.0 _____

pH = 7.0 _____

pH = 10.0 _____

Conductivity Meter

serial # HI98129

standard _____

standard _____

standard _____

Free Product Thickness: 0.0 feet

Dept to Ground Water (DGW) 9.62 feet

Total Well Dept (TWD) 15.72 feet

Length of Water Column (LWC = TWD – DGW) 9.62 feet

1 Casing Volume (CV = LWC X C) = 6.10 X .163 = 0.99 gallons

3 Casing Volume 3X CV = 2.97 gallons (standard purge volume)

Total Volume of Water Purged Before Sampling 5.00 gallons

	Initial	1st Volume	2nd Volume	3rd Volume	4th Volume	5th Volume	Post Sampling
Cumulative Volume Purged (gallons)	2.03	0.99	0.99	0.99			5.00
Time (military)							15:15 hrs
pH (s.u.)	6.56	6.55	6.51	6.48			6.48
Specific Conductivity	178	177	177	176			177
Water Temperature (°C)	18.7	18.7	18.7	18.6			18.6
Turbidity (subjective: clear, slightly cloudy, cloudy)	14.73	19.33	14.46	15.99			18.07
PID Reading (if required)							

Remarks: Continued purging well until well volume reached casing volume X 3.

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 12/13/14

Facility Name: Hucks Plaza

Field Personnel: Bruce G. Newell

UST Permit#: 05156 **Monitoring Well#:** 8

General Weather Condition: Clear

Water Supply Well **Public** X **Private** _____

Ambient Air Temperature: 6 °C

Monitoring Well Diameter (D): 0.163 feet

Conversion Factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163 For a 4 inch well C = 0.652

Quality Assurance

pH Meter

serial # HI98129

pH = 4.0 _____

pH = 7.0 _____

pH = 10.0 _____

Conductivity Meter

serial # HI98129

standard _____

standard _____

standard _____

Free Product Thickness: 0.0 feet

Dept to Ground Water (DGW) 9.31 feet

Total Well Dept (TWD) 15.72 feet

Length of Water Column (LWC = TWD – DGW) 6.41 feet

1 Casing Volume (CV = LWC X C) = 6.41 X .163 = 1.04 gallons

3 Casing Volume 3X CV = 3.12 gallons (standard purge volume)

Total Volume of Water Purged Before Sampling 5.00 gallons

	Initial	1st Volume	2nd Volume	3rd Volume	4th Volume	5th Volume	Post Sampling
Cumulative Volume Purged (gallons)	1.88	1.04	1.04	1.04			5.00
Time (military)							14:45 hrs
pH (s.u.)	6.21	6.09	6.08	6.07			6.07
Specific Conductivity	265	268	267	263			261
Water Temperature (°C)	20.4	20.4	20.4	20.4			20.4
Turbidity (subjective: clear, slightly cloudy, cloudy)	284	254	201	186			191
PID Reading (if required)							

Remarks: Continued purging well until well volume reached casing volume X 3.

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 12/15/14

Facility Name: Hucks Plaza

Field Personnel: Bruce G. Newell

UST Permit#: 05156 **Monitoring Well#:** 9

General Weather Condition: Clear

Water Supply Well **Public** X **Private** _____

Ambient Air Temperature: 6 **°C**

Monitoring Well Diameter (D): 0.163 feet

Conversion Factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163 For a 4 inch well C = 0.652

Quality Assurance

pH Meter

serial # HI98129

pH = 4.0 _____

pH = 7.0 _____

pH = 10.0 _____

Conductivity Meter

serial # HI98129

standard _____

standard _____

standard _____

Free Product Thickness: 0.0 feet

Dept to Ground Water (DGW) 6.41 feet

Total Well Dept (TWD) 15.89 feet

Length of Water Column (LWC = TWD – DGW) 9.48 feet

1 Casing Volume (CV = LWC X C) = 9.48 X .163 = 1.55 gallons

3 Casing Volume 3X CV = 4.65 gallons (standard purge volume)

Total Volume of Water Purged Before Sampling 5.00 gallons

	Initial	1st Volume	2nd Volume	3rd Volume	4th Volume	5th Volume	Post Sampling
Cumulative Volume Purged (gallons)	0.35	1.55	1.55	1.55			5.00
Time (military)							12:05 hrs
pH (s.u.)	6.71	6.58	6.56	6.54			6.55
Specific Conductivity	451	452	452	451			454
Water Temperature (°C)	19.6	19.8	19.8	19.8			19.8
Turbidity (subjective: clear, slightly cloudy, cloudy)	3.85	5.12	10.51	6.11			6.09
PID Reading (if required)							

Remarks: Continued purging well until well volume reached casing volume X 3.

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 12/15/14 **Facility Name:** Hucks Plaza

Field Personnel: Bruce G. Newell **UST Permit#:** 05156 **Monitoring Well#:** 10

General Weather Condition: Clear **Water Supply Well** **Public** X **Private** _____

Ambient Air Temperature: 6 **°C** Monitoring Well Diameter (D): 0.163 feet

Conversion Factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163 For a 4 inch well C = 0.652

Quality Assurance

pH Meter Conductivity Meter

serial # HI98129 serial # HI98129

pH = 4.0 _____ standard _____

pH = 7.0 _____ standard _____

pH = 10.0 _____ standard _____

Free Product Thickness: 0.0 feet

Dept to Ground Water (DGW) 7.16 feet

Total Well Dept (TWD) 15.89 feet

Length of Water Column (LWC = TWD – DGW) 8.73 feet

1 Casing Volume (CV = LWC X C) = 8.73 X .163 = 1.42 gallons

3 Casing Volume 3X CV = 4.26 gallons (standard purge volume)

Total Volume of Water Purged Before Sampling 5.00 gallons

	Initial	1st Volume	2nd Volume	3rd Volume	4th Volume	5th Volume	Post Sampling
Cumulative Volume Purged (gallons)	0.74	1.42	1.42	1.42			5.00
Time (military)							12:40 hrs
pH (s.u.)	6.43	6.38	6.31	6.30			6.30
Specific Conductivity	228	231	232	223			223
Water Temperature (°C)	19.8	19.9	19.8	19.8			19.8
Turbidity (subjective: clear, slightly cloudy, cloudy)	110	94	105	114			98
PID Reading (if required)							

Remarks: Continued purging well until well volume reached casing volume X 3.

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 12/15/14 **Facility Name:** Hucks Plaza

Field Personnel: Bruce G. Newell **UST Permit#:** 05156 **Monitoring Well#:** 11

General Weather Condition: Clear **Water Supply Well** **Public** X **Private** _____

Ambient Air Temperature: 6 °C Monitoring Well Diameter (D): 0.163 feet

Conversion Factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163 For a 4 inch well C = 0.652

Quality Assurance

pH Meter Conductivity Meter

serial # HI98129 serial # HI98129

pH = 4.0 _____ standard _____

pH = 7.0 _____ standard _____

pH = 10.0 _____ standard _____

Free Product Thickness: 0.0 feet

Dept to Ground Water (DGW) 7.85 feet

Total Well Dept (TWD) 14.16 feet

Length of Water Column (LWC = TWD – DGW) 6.31 feet

1 Casing Volume (CV = LWC X C) = 6.31 X .163 = 1.03 gallons

3 Casing Volume 3X CV = 3.09 gallons (standard purge volume)

Total Volume of Water Purged Before Sampling 5.00 **gallons**

	Initial	1st Volume	2nd Volume	3rd Volume	4th Volume	5th Volume	Post Sampling
Cumulative Volume Purged (gallons)	1.91	1.03	1.03	1.03			5.00
Time (military)							13:10 hrs
pH (s.u.)	6.70	6.69	6.69	6.69			6.68
Specific Conductivity	565	564	562	564			563
Water Temperature (°C)	19.5	19.3	19.2	19.2			19.2
Turbidity (subjective: clear, slightly cloudy, cloudy)	2.22	2.63	2.31	2.10			2.36
PID Reading (if required)							

Remarks: Continued purging well until well volume reached casing volume X 3.

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 12/15/14 **Facility Name:** Hucks Plaza

Field Personnel: Bruce G. Newell **UST Permit#:** 05156 **Monitoring Well#:** 12

General Weather Condition: Clear **Water Supply Well** **Public** X **Private** _____

Ambient Air Temperature: 6 °C Monitoring Well Diameter (D): 0.163 feet

Conversion Factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163 For a 4 inch well C = 0.652

Quality Assurance

pH Meter Conductivity Meter

serial # HI98129 serial # HI98129

pH = 4.0 _____ standard _____

pH = 7.0 _____ standard _____

pH = 10.0 _____ standard _____

Free Product Thickness: 0.0 feet

Dept to Ground Water (DGW) 7.95 feet

Total Well Dept (TWD) 14.18 feet

Length of Water Column (LWC = TWD – DGW) 6.23 feet

1 Casing Volume (CV = LWC X C) = 6.23 X .163 = 1.02 gallons

3 Casing Volume 3X CV = 3.06 gallons (standard purge volume)

Total Volume of Water Purged Before Sampling 5.00 gallons

	Initial	1st Volume	2nd Volume	3rd Volume	4th Volume	5th Volume	Post Sampling
Cumulative Volume Purged (gallons)	1.94	1.02	1.02	1.02			5.00
Time (military)							13:35 hrs
pH (s.u.)	6.59	6.63	6.63	6.62			6.62
Specific Conductivity	440	453	447	445			451
Water Temperature (°C)	19.8	19.8	19.9	19.9			19.8
Turbidity (subjective: clear, slightly cloudy, cloudy)	46.91	46.31	44.91	42.29			40.87
PID Reading (if required)							

Remarks: Continued purging well until well volume reached casing volume X 3.

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 12/13/14

Facility Name: Hucks Plaza

Field Personnel: Bruce G. Newell

UST Permit#: 05156 **Monitoring Well#:** 13

General Weather Condition: Clear

Water Supply Well **Public** X **Private** _____

Ambient Air Temperature: 6 °C

Monitoring Well Diameter (D): 0.163 feet

Conversion Factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163 For a 4 inch well C = 0.652

Quality Assurance

pH Meter

serial # HI98129

pH = 4.0 _____

pH = 7.0 _____

pH = 10.0 _____

Conductivity Meter

serial # HI98129

standard _____

standard _____

standard _____

Free Product Thickness: 0.0 feet

Dept to Ground Water (DGW) 9.15 feet

Total Well Dept (TWD) 14.29 feet

Length of Water Column (LWC = TWD – DGW) 5.14 feet

1 Casing Volume (CV = LWC X C) = 5.14 X .163 = 0.84 gallons

3 Casing Volume 3X CV = 2.52 gallons (standard purge volume)

Total Volume of Water Purged Before Sampling 5.00 gallons

	Initial	1st Volume	2nd Volume	3rd Volume	4th Volume	5th Volume	Post Sampling
Cumulative Volume Purged (gallons)	2.48	0.84	0.84	0.84			5.00
Time (military)							16:05 hrs
pH (s.u.)	7.41	7.21	7.12	7.00			6.84
Specific Conductivity	247	247	249	249			249
Water Temperature (°C)	22.2	22.3	22.2	22.2			22.2
Turbidity (subjective: clear, slightly cloudy, cloudy)	602	649	667	654			659
PID Reading (if required)							

Remarks: Continued purging well until well volume reached casing volume X 3.

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 12/13/14 **Facility Name:** Hucks Plaza

Field Personnel: Bruce G. Newell **UST Permit#:** 05156 **Monitoring Well#:** TW-1

General Weather Condition: Clear **Water Supply Well** **Public** X **Private** _____

Ambient Air Temperature: 6 °C Monitoring Well Diameter (D): 0.163 feet

Conversion Factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163 For a 4 inch well C = 0.652

Quality Assurance

pH Meter Conductivity Meter

serial # HI98129 serial # HI98129

pH = 4.0 _____ standard _____

pH = 7.0 _____ standard _____

pH = 10.0 _____ standard _____

Free Product Thickness: 0.0 feet

Dept to Ground Water (DGW) 8.61 feet

Total Well Dept (TWD) 42.72 feet

Length of Water Column (LWC = TWD – DGW) 34.11 feet

1 Casing Volume (CV = LWC X C) = 34.11 X .163 = 5.56 gallons

3 Casing Volume 3X CV = 16.68 gallons (standard purge volume)

Total Volume of Water Purged Before Sampling 18.00 gallons

	Initial	1st Volume	2nd Volume	3rd Volume	4th Volume	5th Volume	Post Sampling
Cumulative Volume Purged (gallons)	1.32	5.56	5.56	5.56			18.00
Time (military)							12:30 hrs
pH (s.u.)	7.37	7.27	7.29	7.30			7.32
Specific Conductivity	444	441	440	440			440
Water Temperature (°C)	21.0	21.7	22.1	22.0			22.0
Turbidity (subjective: clear, slightly cloudy, cloudy)	61	41.67	47.30	27.90			28.17
PID Reading (if required)							

Remarks: Continued purging well until well volume reached casing volume X 3.

Field Data Information Sheet for Ground-Water Sampling

Date (mm/dd/yy): 12/13/14 **Facility Name:** Hucks Plaza

Field Personnel: Bruce G. Newell **UST Permit#:** 05156 **Monitoring Well#:** TW-2

General Weather Condition: Clear **Water Supply Well** **Public** X **Private** _____

Ambient Air Temperature: 6 **°C** Monitoring Well Diameter (D): 0.163 feet

Conversion Factor (C): 3.14 X (D/2)2 for a 2 inch well C = 0.163 For a 4 inch well C = 0.652

Quality Assurance

pH Meter Conductivity Meter

serial # HI98129 serial # HI98129

pH = 4.0 standard _____

pH = 7.0 standard _____

pH = 10.0 standard _____

Free Product Thickness: 0.0 feet

Dept to Ground Water (DGW) 8.55 feet

Total Well Dept (TWD) 40.07 feet

Length of Water Column (LWC = TWD – DGW) 31.52 feet

1 Casing Volume (CV = LWC X C) = 31.52 X .163 = 5.14 gallons

3 Casing Volume 3X CV = 15.42 gallons (standard purge volume)

Total Volume of Water Purged Before Sampling 17.00 gallons

	Initial	1st Volume	2nd Volume	3rd Volume	4th Volume	5th Volume	Post Sampling
Cumulative Volume Purged (gallons)	1.58	5.14	5.14	5.14			17.00
Time (military)							15:25 hrs
pH (s.u.)	7.15	7.14	7.14	7.14			7.14
Specific Conductivity	489	487	489	488			489
Water Temperature (°C)	20.0	20.0	20.0	20.0			20.0
Turbidity (subjective: clear, slightly cloudy, cloudy)	11.22	3.08	6.87	4.78			2.64
PID Reading (if required)							

Remarks: Continued purging well until well volume reached casing volume X 3.

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

Southeastern Environmental, Inc.
323 Main Street
Conway, SC 29526
Attention: Bruce Newell

Project Name: **Hucks plaza**

Lot Number: **PL19021**
Date Completed: **12/29/2014**

Nisreen Saikaly
Project Manager

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The following non-paginated documents are considered part of this report: Chain of Custody Record and Sample Receipt Checklist.

PL19021

Case Narrative
Southeastern Environmental, Inc.
Lot Number: PL19021

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary

Southeastern Environmental, Inc.

Lot Number: PL19021

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	MW-1	Aqueous	12/15/2014 1053	12/19/2014
002	MW-2	Aqueous	12/13/2014 1150	12/19/2014
003	MW-4	Aqueous	12/15/2014 1125	12/19/2014
004	MW-5	Aqueous	12/13/2014 1410	12/19/2014
005	MW-6	Aqueous	12/15/2014 1440	12/19/2014
006	MW-7	Aqueous	12/15/2014 1515	12/19/2014
007	MW-8	Aqueous	12/13/2014 1445	12/19/2014
008	MW-9	Aqueous	12/15/2014 1205	12/19/2014
009	MW-10	Aqueous	12/15/2014 1240	12/19/2014
010	MW-11	Aqueous	12/15/2014 1310	12/19/2014
011	MW-12	Aqueous	12/15/2014 1335	12/19/2014
012	MW-13	Aqueous	12/15/2014 1605	12/19/2014
013	TW-1	Aqueous	12/13/2014 1230	12/19/2014
014	TW-2	Aqueous	12/13/2014 1525	12/19/2014
015	MW-2 DUPLICATE	Aqueous	12/13/2014 1200	12/19/2014
016	FIELD BLANK	Aqueous	12/13/2014 1210	12/19/2014
017	FIELD BLANK	Aqueous	12/15/2014 1100	12/19/2014
018	TRIP BLANK	Aqueous	12/15/2014	12/19/2014

(18 samples)

Executive Summary

Southeastern Environmental, Inc.

Lot Number: PL19021

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	MW-1	Aqueous	tert-Amyl alcohol (TAA)	8260B	28		ug/L	5
001	MW-1	Aqueous	tert-Amyl methyl ether (TAME)	8260B	1.3	J	ug/L	5
001	MW-1	Aqueous	Benzene	8260B	3.3	J	ug/L	5
001	MW-1	Aqueous	tert-butyl alcohol (TBA)	8260B	6.7	J	ug/L	5
002	MW-2	Aqueous	tert-Amyl alcohol (TAA)	8260B	7000	J	ug/L	7
002	MW-2	Aqueous	Benzene	8260B	5100		ug/L	7
002	MW-2	Aqueous	Toluene	8260B	75000		ug/L	7
002	MW-2	Aqueous	Xylenes (total)	8260B	5400		ug/L	7
002	MW-2	Aqueous	1,2-Dibromoethane (EDB)	8011	0.65	P	ug/L	8
004	MW-5	Aqueous	tert-Amyl alcohol (TAA)	8260B	430		ug/L	11
004	MW-5	Aqueous	Benzene	8260B	130		ug/L	11
004	MW-5	Aqueous	Ethylbenzene	8260B	11	J	ug/L	11
004	MW-5	Aqueous	Toluene	8260B	410		ug/L	11
004	MW-5	Aqueous	Xylenes (total)	8260B	200		ug/L	11
006	MW-7	Aqueous	tert-Amyl methyl ether (TAME)	8260B	1.4	J	ug/L	15
007	MW-8	Aqueous	tert-Amyl alcohol (TAA)	8260B	510		ug/L	17
007	MW-8	Aqueous	Benzene	8260B	180		ug/L	17
007	MW-8	Aqueous	Ethylbenzene	8260B	10	J	ug/L	17
007	MW-8	Aqueous	Naphthalene	8260B	15	J	ug/L	17
007	MW-8	Aqueous	Toluene	8260B	220		ug/L	17
007	MW-8	Aqueous	Xylenes (total)	8260B	290		ug/L	17
009	MW-10	Aqueous	tert-Amyl alcohol (TAA)	8260B	32		ug/L	21
012	MW-13	Aqueous	Benzene	8260B	20	J	ug/L	27
012	MW-13	Aqueous	Ethylbenzene	8260B	12	J	ug/L	27
012	MW-13	Aqueous	Toluene	8260B	550		ug/L	27
012	MW-13	Aqueous	Xylenes (total)	8260B	59		ug/L	27
013	TW-1	Aqueous	Benzene	8260B	47	J	ug/L	29
013	TW-1	Aqueous	Toluene	8260B	1100		ug/L	29
013	TW-1	Aqueous	Xylenes (total)	8260B	78	J	ug/L	29
014	TW-2	Aqueous	Benzene	8260B	8.6	J	ug/L	31
014	TW-2	Aqueous	Toluene	8260B	240		ug/L	31
014	TW-2	Aqueous	Xylenes (total)	8260B	29		ug/L	31
015	MW-2 DUPLICATE	Aqueous	Benzene	8260B	4300	J	ug/L	33
015	MW-2 DUPLICATE	Aqueous	Toluene	8260B	59000		ug/L	33
015	MW-2 DUPLICATE	Aqueous	Xylenes (total)	8260B	4000	J	ug/L	33
015	MW-2 DUPLICATE	Aqueous	1,2-Dibromoethane (EDB)	8011	0.44	P	ug/L	34

(36 detections)

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-001
Description: MW-1
Matrix: Aqueous
Date Sampled: 12/15/2014 1053
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	12/24/2014 1502	PAP		63943

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	28		20	6.7	ug/L	2
tert-Amyl methyl ether (TAME)	994-05-8	8260B	1.3	J	10	0.20	ug/L	2
Benzene	71-43-2	8260B	3.3	J	5.0	0.20	ug/L	2
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	2
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	2
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	2
Ethanol	64-17-5	8260B	ND		100	33	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	2
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	2
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	2
tert-butyl alcohol (TBA)	75-65-0	8260B	6.7	J	20	6.7	ug/L	2
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		75	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		87	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

EDB & DBCP by Microextraction

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-001
Description: MW-1
Matrix: Aqueous
Date Sampled: 12/15/2014 1053
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	12/29/2014 1017	MEM	12/27/2014 1145	64083

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0061	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		106	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-002
Description: MW-2
Matrix: Aqueous
Date Sampled: 12/13/2014 1150
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1000	12/23/2014 1814	PMM2		63859

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	7000	J	20000	6700	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10000	200	ug/L	1
Benzene	71-43-2	8260B	5100		5000	200	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5000	1000	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5000	300	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5000	400	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20000	1000	ug/L	1
Ethanol	64-17-5	8260B	ND		100000	33000	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5000	1700	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1000	200	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5000	400	ug/L	1
Naphthalene	91-20-3	8260B	ND		5000	1700	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20000	6700	ug/L	1
Toluene	108-88-3	8260B	75000		5000	1700	ug/L	1
Xylenes (total)	1330-20-7	8260B	5400		5000	1700	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		83	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		94	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

EDB & DBCP by Microextraction

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-002
Description: MW-2
Matrix: Aqueous
Date Sampled: 12/13/2014 1150
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	12/29/2014 1028	MEM	12/27/2014 1145	64083

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	0.65	P	0.020	0.0062	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		101	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-003
Description: MW-4
Matrix: Aqueous
Date Sampled: 12/15/2014 1125
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/23/2014 1237	PMM2		63859

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		83	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		92	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

EDB & DBCP by Microextraction

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-003
Description: MW-4
Matrix: Aqueous
Date Sampled: 12/15/2014 1125
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	12/29/2014 1038	MEM	12/27/2014 1145	64083

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0061	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		103	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-004
Description: MW-5
Matrix: Aqueous
Date Sampled: 12/13/2014 1410
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	12/23/2014 1837	PMM2		63859

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	430		100	34	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		50	1.0	ug/L	1
Benzene	71-43-2	8260B	130		25	1.0	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		25	2.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	100-41-4	8260B	11	J	25	8.5	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	2.0	ug/L	1
Naphthalene	91-20-3	8260B	ND		25	8.5	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	34	ug/L	1
Toluene	108-88-3	8260B	410		25	8.5	ug/L	1
Xylenes (total)	1330-20-7	8260B	200		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		82	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		95	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

EDB & DBCP by Microextraction

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-004
Description: MW-5
Matrix: Aqueous
Date Sampled: 12/13/2014 1410
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	12/29/2014 1049	MEM	12/27/2014 1145	64083

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0061	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		111	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-005
Description: MW-6
Matrix: Aqueous
Date Sampled: 12/15/2014 1440
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/23/2014 1259	PMM2		63859

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		83	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		91	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

EDB & DBCP by Microextraction

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-005
Description: MW-6
Matrix: Aqueous
Date Sampled: 12/15/2014 1440
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	12/29/2014 1059	MEM	12/27/2014 1145	64083

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0062	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		104	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-006
Description: MW-7
Matrix: Aqueous
Date Sampled: 12/15/2014 1515
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/23/2014 1322	PMM2		63859

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	1.4	J	10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		83	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		94	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

EDB & DBCP by Microextraction

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-006
Description: MW-7
Matrix: Aqueous
Date Sampled: 12/15/2014 1515
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	12/29/2014 1109	MEM	12/27/2014 1145	64083

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0061	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		105	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc. | Laboratory ID: PL19021-007

Description: MW-8 | Matrix: Aqueous

Date Sampled: 12/13/2014 1445

Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	12/24/2014 0201	PMM2		63896

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	510		100	34	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		50	1.0	ug/L	1
Benzene	71-43-2	8260B	180		25	1.0	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		25	2.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	100-41-4	8260B	10	J	25	8.5	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	2.0	ug/L	1
Naphthalene	91-20-3	8260B	15	J	25	8.5	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	34	ug/L	1
Toluene	108-88-3	8260B	220		25	8.5	ug/L	1
Xylenes (total)	1330-20-7	8260B	290		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		75	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		90	70-130

PQL = Practical quantitation limit | B = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | H = Out of holding time

ND = Not detected at or above the MDL | J = Estimated result < PQL and ≥ MDL | P = The RPD between two GC columns exceeds 40% | N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

EDB & DBCP by Microextraction

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-007
Description: MW-8
Matrix: Aqueous
Date Sampled: 12/13/2014 1445
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	12/29/2014 1120	MEM	12/27/2014 1145	64083

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0062	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		101	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-008
Description: MW-9
Matrix: Aqueous
Date Sampled: 12/15/2014 1205
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/24/2014 0008	PMM2		63896

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		81	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		91	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

EDB & DBCP by Microextraction

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-008
Description: MW-9
Matrix: Aqueous
Date Sampled: 12/15/2014 1205
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	12/29/2014 1130	MEM	12/27/2014 1145	64083

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0062	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		105	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc. | Laboratory ID: PL19021-009

Description: MW-10 | Matrix: Aqueous

Date Sampled: 12/15/2014 1240

Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/24/2014 0031	PMM2		63896

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	32		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		81	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		90	70-130

PQL = Practical quantitation limit | B = Detected in the method blank | E = Quantitation of compound exceeded the calibration range | H = Out of holding time

ND = Not detected at or above the MDL | J = Estimated result < PQL and ≥ MDL | P = The RPD between two GC columns exceeds 40% | N = Recovery is out of criteria

Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

EDB & DBCP by Microextraction

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-009
Description: MW-10
Matrix: Aqueous
Date Sampled: 12/15/2014 1240
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	12/29/2014 1141	MEM	12/27/2014 1145	64083

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0061	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		99	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-010
Description: MW-11
Matrix: Aqueous
Date Sampled: 12/15/2014 1310
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/24/2014 0053	PMM2		63896

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		80	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		90	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

EDB & DBCP by Microextraction

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-010
Description: MW-11
Matrix: Aqueous
Date Sampled: 12/15/2014 1310
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	12/29/2014 1151	MEM	12/27/2014 1145	64083

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0061	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		104	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-011
Description: MW-12
Matrix: Aqueous
Date Sampled: 12/15/2014 1335
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/24/2014 0116	PMM2		63896

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		80	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		89	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

EDB & DBCP by Microextraction

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-011
Description: MW-12
Matrix: Aqueous
Date Sampled: 12/15/2014 1335
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	12/29/2014 1201	MEM	12/27/2014 1145	64083

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0061	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		105	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-012
Description: MW-13
Matrix: Aqueous
Date Sampled: 12/15/2014 1605
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	12/24/2014 0223	PMM2		63896

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	34	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		50	1.0	ug/L	1
Benzene	71-43-2	8260B	20	J	25	1.0	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		25	2.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	100-41-4	8260B	12	J	25	8.5	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	2.0	ug/L	1
Naphthalene	91-20-3	8260B	ND		25	8.5	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	34	ug/L	1
Toluene	108-88-3	8260B	550		25	8.5	ug/L	1
Xylenes (total)	1330-20-7	8260B	59		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		76	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		91	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

EDB & DBCP by Microextraction

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-012
Description: MW-13
Matrix: Aqueous
Date Sampled: 12/15/2014 1605
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	12/29/2014 1212	MEM	12/27/2014 1145	64083

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0062	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		95	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-013
Description: TW-1
Matrix: Aqueous
Date Sampled: 12/13/2014 1230
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	12/24/2014 0245	PMM2		63896

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		400	130	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		200	4.0	ug/L	1
Benzene	71-43-2	8260B	47	J	100	4.0	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		100	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	6.0	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		100	8.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		400	20	ug/L	1
Ethanol	64-17-5	8260B	ND		2000	660	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	34	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		20	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		100	8.0	ug/L	1
Naphthalene	91-20-3	8260B	ND		100	34	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		400	130	ug/L	1
Toluene	108-88-3	8260B	1100		100	34	ug/L	1
Xylenes (total)	1330-20-7	8260B	78	J	100	34	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		75	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		91	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

EDB & DBCP by Microextraction

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-013
Description: TW-1
Matrix: Aqueous
Date Sampled: 12/13/2014 1230
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	12/29/2014 1222	MEM	12/27/2014 1145	64083

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0061	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		110	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-014
Description: TW-2
Matrix: Aqueous
Date Sampled: 12/13/2014 1525
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	12/24/2014 0308	PMM2		63896

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		100	34	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		50	1.0	ug/L	1
Benzene	71-43-2	8260B	8.6	J	25	1.0	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		25	5.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		25	1.5	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		25	2.0	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		100	5.0	ug/L	1
Ethanol	64-17-5	8260B	ND		500	170	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		25	8.5	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		5.0	1.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		25	2.0	ug/L	1
Naphthalene	91-20-3	8260B	ND		25	8.5	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		100	34	ug/L	1
Toluene	108-88-3	8260B	240		25	8.5	ug/L	1
Xylenes (total)	1330-20-7	8260B	29		25	8.5	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		76	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		90	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

EDB & DBCP by Microextraction

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-014
Description: TW-2
Matrix: Aqueous
Date Sampled: 12/13/2014 1525
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	12/29/2014 1233	MEM	12/27/2014 1145	64083

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	ND		0.020	0.0061	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		110	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-015
Description: MW-2 DUPLICATE
Matrix: Aqueous
Date Sampled: 12/13/2014 1200
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1000	12/24/2014 0331	PMM2		63896

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20000	6700	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10000	200	ug/L	1
Benzene	71-43-2	8260B	4300	J	5000	200	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5000	1000	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5000	300	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5000	400	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20000	1000	ug/L	1
Ethanol	64-17-5	8260B	ND		100000	33000	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5000	1700	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1000	200	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5000	400	ug/L	1
Naphthalene	91-20-3	8260B	ND		5000	1700	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20000	6700	ug/L	1
Toluene	108-88-3	8260B	59000		5000	1700	ug/L	1
Xylenes (total)	1330-20-7	8260B	4000	J	5000	1700	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		76	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		90	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

EDB & DBCP by Microextraction

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-015
Description: MW-2 DUPLICATE
Matrix: Aqueous
Date Sampled: 12/13/2014 1200
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	8011	8011	1	12/29/2014 1243	MEM	12/27/2014 1145	64083

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
1,2-Dibromoethane (EDB)	106-93-4	8011	0.44	P	0.020	0.0063	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,1,1,2-Tetrachloroethane		106	57-137

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-016
Description: FIELD BLANK
Matrix: Aqueous
Date Sampled: 12/13/2014 1210
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/23/2014 2153	PMM2		63896

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		83	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		95	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-017
Description: FIELD BLANK
Matrix: Aqueous
Date Sampled: 12/15/2014 1100
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/23/2014 2216	PMM2		63896

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		82	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		96	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

Volatile Organic Compounds by GC/MS

Client: Southeastern Environmental, Inc.
Laboratory ID: PL19021-018
Description: TRIP BLANK
Matrix: Aqueous
Date Sampled: 12/15/2014
Date Received: 12/19/2014

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	12/23/2014 2238	PMM2		63896

Parameter	CAS Number	Analytical Method	Result	Q	PQL	MDL	Units	Run
tert-Amyl alcohol (TAA)	75-85-4	8260B	ND		20	6.7	ug/L	1
tert-Amyl methyl ether (TAME)	994-05-8	8260B	ND		10	0.20	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	0.20	ug/L	1
tert-Butyl formate (TBF)	762-75-4	8260B	ND		5.0	1.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	0.30	ug/L	1
Diisopropyl ether (IPE)	108-20-3	8260B	ND		5.0	0.40	ug/L	1
3,3-Dimethyl-1-butanol	624-95-3	8260B	ND		20	1.0	ug/L	1
Ethanol	64-17-5	8260B	ND		100	33	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	1.7	ug/L	1
Ethyl-tert-butyl ether (ETBE)	637-92-3	8260B	ND		1.0	0.20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	0.40	ug/L	1
Naphthalene	91-20-3	8260B	ND		5.0	1.7	ug/L	1
tert-butyl alcohol (TBA)	75-65-0	8260B	ND		20	6.7	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	1.7	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	1.7	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		84	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		96	70-130

PQL = Practical quantitation limit
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
H = Out of holding time
ND = Not detected at or above the MDL
J = Estimated result < PQL and ≥ MDL
P = The RPD between two GC columns exceeds 40%
N = Recovery is out of criteria
Where applicable, all soil sample analysis are reported on a dry weight basis unless flagged with a "W"

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

SHEALY Chain of Custody Record

Number 44035

Client	Report to Contact	Telephone No. / E-mail	Quote No.
Southeastern Environmental, Inc.	Bruce G. Newell	843-248-3533 sei91@aol.com	

Address	Sampler's Signature	Analysis (Attach list if more space is needed)	Page 1 of 2
323 Main St.	X		PL19021

City	State	Zip Code	Printed Name
Conway	SC	29526-5132	Bruce G. Newell

Project Name: Hucks Plaza

Project No. | P.O. No.

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Grab/Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	BTEX	MTBE	Naphthalene	1,2-DCA	Oxygenates	Ethanol	EDB	VOC	Remarks / Cooler I.D.
MW-1	15 Dec 14	10:53		X									X	X	X	X	X	X	X		
MW-2	13 Dec	11:50		X									X	X	X	X	X	X	X		
MW-4	15 Dec	11:25		X									X	X	X	X	X	X	X		
MW-5	13 Dec	14:10		X									X	X	X	X	X	X	X		
MW-6	15 Dec	14:40		X									X	X	X	X	X	X	X		
MW-7	15 Dec	15:15		X									X	X	X	X	X	X	X		
MW-8	13 Dec	14:45		X									X	X	X	X	X	X	X		
MW-9	15 Dec	12:05		X									X	X	X	X	X	X	X		
MW-10	15 Dec	12:40		X									X	X	X	X	X	X	X		
MW-11	15 Dec	13:10		X									X	X	X	X	X	X	X		

Turn Around Time Required (Prior lab approval required for expedited TAT.)
☒ Standard ☐ Rush (Specify)

Sample Disposal
☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: Bruce G. Newell	12-19-14	1140	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory received by: Kelly M. R.	12-19-14	1140

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) Yes No Ice Pack
Receipt Temp 8.8 °C 5.5 See SRC. RNA 12-19-14

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Level 1 Report v2.1

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

SHEALY ENVIRONMENTAL SERVICES, INC.

Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 44036

Client: Southern Environmental, Inc.	Report to Contact: Bruce G. Newell	Telephone No. / E-mail: 843-248-3533 sei91@aol.com	Quote No.
Address: 323 Main St.	Sampler's Signature:	Analysis (Attach list if more space is needed)	Page 2 of 2
City: Conway / State: SC / Zip Code: 29526-5132	Printed Name: Bruce G. Newell		PL19021
Project Name: Hucks Plaza			
Project No.	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Soil	Air / Gaseous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc / NaOH	BTEX	MTBE	Naphthalene	1,2-DCA	Oxygenates	Ethanol	EDB	VOC	Remarks / Cooler I.D.
MW-12	15 Dec 14	13:35		X									X	X	X	X	X	X	X		
MW-13	15 Dec	16:05		X									X	X	X	X	X	X	X		
TW-1	13 Dec	12:30		X									X	X	X	X	X	X	X		
TW-2	13 Dec	15:25		X									X	X	X	X	X	X	X		
MW-2 Duplicate	13 Dec	12:00		X									X	X	X	X	X	X	X		
Field Blank	13 Dec	12:10		X																X	
Field Blank	15 Dec	11:00		X																X	
Trip Blank				X																X	

Turn Around Time Required (Prior lab approval required for expedited TAT.)
☒ Standard ☐ Rush (Specify)

Sample Disposal
☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Relinquished by	Date	Time	Received by	Date	Time
1.	Bruce G. Newell	12-19-14	1140	1.		
2.				2.		
3.				3.		
4.				4. Laboratory received by:	12-19-14	1140

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) Yes No Ice Pack
Receipt Temp. °C 5.5 12-19-14 see SRC

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Level 1 Report v2.1

Shealy Environmental Services, Inc.
Document Number: F-AD-016
Revision Number: 16

Replaces Date: 07/15/14
Effective Date: 11/07/14

Sample Receipt Checklist (SRC)

Client: Southeastern Cooler Inspected by/date: mcm 12/19/14 Lot #: R149021

Means of receipt: ☐ SLS1 ☑ Client ☐ UPS ☑ FedEx ☐ Airborne Exp ☐ Other			
Yes ☐	No ☑		1. Were custody seals present on the cooler?
Yes ☐	No ☐	NA ☑	2. If custody seals were present, were they intact and unbroken?
Cooler ID/Original temperature upon receipt/Derived (corrected) temperature upon receipt: 5.4/5.5°C / / °C / / °C / / °C Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: #4 IR Gun Correction Factor: 0.1 °C Method of coolant: ☑ Wet Ice ☐ Blue Ice ☐ Dry Ice ☐ None			
Yes ☐	No ☐	NA ☑	3. If temperature of any cooler exceeded 6.0°C, was Project Manager notified? PM notified by SRC, phone, note (circle one), other:_____. (For coolers received via commercial courier, PMs are to be notified immediately.)
Yes ☐	No ☐	NA ☑	4. Is the commercial courier's packing slip attached to this form?
Yes ☑	No ☐		5. Were proper custody procedures (relinquished/received) followed?
Yes ☐	No ☐	NA ☑	5a Were samples relinquished by client to commercial courier?
Yes ☑	No ☐		6. Were sample IDs listed on the COC?
Yes ☑	No ☐		7. Were sample IDs listed on all sample containers?
Yes ☑	No ☐		8. Was collection date & time listed on the COC?
Yes ☑	No ☐		9. Was collection date & time listed on all sample containers?
Yes ☑	No ☐		10. Did all container label information (ID, date, time) agree with the COC?
Yes ☑	No ☐		11. Were tests to be performed listed on the COC?
Yes ☑	No ☐		12. Did all samples arrive in the proper containers for each test?
Yes ☑	No ☐		13. Did all containers arrive in good condition (unbroken, lids on, etc.)?
Yes ☑	No ☐		14. Was adequate sample volume available?
Yes ☑	No ☐		15. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
Yes ☐	No ☑		16. Were any samples containers missing?
Yes ☑	No ☑		17. Were there any excess samples not listed on COC? mcm 12/19/14
Yes ☐	No ☑	NA ☐	18. Were bubbles present >"pea-size" (¼"or 6mm in diameter) in any VOA vials?
Yes ☐	No ☐	NA ☑	19. Were all metals/O&G/HEM/nutrient samples received at a pH of <2?
Yes ☐	No ☐	NA ☑	20. Were all cyanide and/or sulfide samples received at a pH >12?
Yes ☐	No ☐	NA ☑	21. Were all applicable NH3/TKN/cyanide/phenol (<0.2mg/L) samples free of residual chlorine?
Yes ☐	No ☐	NA ☑	22. Were collection temperatures documented on the COC for NC samples?
Yes ☐	No ☐	NA ☑	23. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
Yes ☐	No ☑		24. Was the quote number used taken from the container label?
Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)			
Sample(s)_____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ (H_2SO_4,HNO_3,HCl,NaOH) using SR #_____.			
Sample(s)_____ were received with bubbles >6 mm in diameter.			
Sample(s)_____ were received with TRC >0.2 mg/L (If #21 is No)			
SC Drinking Water Project Sample(s) pH verified to be > 2 by _____ Date: _____ Sample(s)_____ were not received at a pH of <2 and were adjusted accordingly using SR#			
Sample labels applied by: mcm 3 mcm 12/19/14 Verified by:_____ Date: 12/19/14			

Comments:
There were 2 temp blanks 5.5 was the lowest
two trip blanks were received in the same
cooler

D H E C

PROMOTE PROTECT PROSPER

W. Marshall Taylor Jr., Acting Director

Promoting and protecting the health of the public and the environment

HUCKS PLAZA
1102 3RD AVE S
MYRTLE BEACH SC 29577

FEB [illegible] 2015

UST 6tech DOCKETING

Re: AFVR Directive
501 Amoco; 1432 Hwy. 501, Myrtle Beach, SC
UST Permit # 05156; CA# 49660
Release reported December 31, 1991
Monitoring Report received January 23, 2015
Horry County

To Whom It May Concern:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) recognizes your commitment to continue work at this site utilizing Southeastern Environmental, Inc. In accordance with Section 280.64 of the South Carolina Underground Storage Tank Control Regulations, a 96-hour Aggressive Fluid and Vapor Recovery (AFVR) event may commence as outlined in the UST Quality Assurance Program Plan (QAPP) Revision 2.0. **Please be aware that the AFVR Procedures have been updated.** Please connect to MW-3 for the duration of this event. The stingers shall be lowered at six inch intervals starting at the water table interface to a maximum depth of approximately 12.72 feet in the well. A copy of Agency QAPP Version 2.0 for the Underground Storage Tank Division is available at http://www.scdhec.gov/environment/docs/qapp_rev-2_april2013.pdf.

As soon as the beginning date of the event has been scheduled, please contact Jim Martin at martinjm@dhec.sc.gov.

The AFVR Report should be submitted within 90 days from the date of this correspondence. Please note that all applicable South Carolina certification requirements apply to the services and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

Cost Agreement #49660 has been approved in the amount shown on the enclosed cost agreement. Southeastern Environmental, Inc., can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. If the invoice and completed report are not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval is obtained from the UST Management Division. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the Agency for the cost to be paid. The Agency reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Agency reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The Agency grants preapproval for transportation of virgin petroleum-contaminated groundwater from the referenced site to a permitted treatment facility.

On all correspondence concerning this site, please reference UST Permit #05156 and CA #49660. If you have any questions, please contact me at (803) 898-0605 or by e-mail at martinjm@dhec.sc.gov.

Sincerely,

Jim Martin, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: Technical File (with enclosure)
Southeastern Environmental, 323 Main Street, Conway, SC 29526 (with enclosure)

Approved Cost Agreement 49656

Facility: 15059 EDGE MANUFACTURING CO INC

MARTINJM

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
19 RPT/PROJECT MNGT & COORDINATIO						
		PRT	REPORT PREPARATION	0.1200	22,742.25	2,729.07
23 EFR						
		A4	96 HOUR EVENT	1.0000	12,567.50	12,567.50
		C4	OFF GAS TREATMENT 96 HOUR	1 0000	780.00	780.00
		D	SITE RECONNAISSANCE	1 0000	203.25	203.25
		F1	EFFLUENT DISPOSAL	20,000.0000	0.44	8,800.00
		G	AFVR EQUIPMENT MOB	1 0000	391.50	391.50
				Total Amount		25,471 32

Document Receipt Information

☐ Hard Copy ☒ CD ☐ Email

Date Received 5-12-15

Permit Number 05156

Project Manager Jim Martin

Name of Contractor SEI

UST Certification Number

Docket Number 7Eleven

Scanned

AFVR - 96

96 Hour
Aggressive Fluid Vapor Recovery (AFVR) Event

Hucks Plaza

1432 Hwy. 501
Myrtle Beach, South Carolina
UST Permit #05156
CA #49660

Prepared for:

South Carolina Department of Health and Environmental Control

Underground Storage Tank Program

2600 Bull Street

Columbia, South Carolina 29201

Prepared by:

Southeastern Environmental, Inc.

323 Main Street

Conway, South Carolina 29526

17 April 2015

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Hucks Plaza
SC DHEC Site ID # 05156
CA# 49660

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96 hour AFVR Event

Hucks Plaza

1432 Highway 501
Myrtle Beach, SC 29526

Site # 05156, CA # 49660

SEI conducted a 96 hour AFVR event at Hucks Plaza, site # 05156, 1432 Hwy 501, Myrtle Beach, S.C. on the 11th through the 15th of March 2015. The data collected has been reviewed by Dr. Douglas D. Nelson and found to be in accordance with currently accepted quality control practices as prescribed by the South Carolina Department of Health and Environmental Control.

Southeastern Environmental, Inc.

Bruce G. Newell
President, Southeastern Environmental, Inc.
Class I UST Site Rehab Contractor # 82

Douglas D. Nelson, P. G.
South Carolina Registration #391

Narrative

Location: Hucks Plaza 1432 Hwy. 501 Myrtle Beach, SC	Weather: 11-15 Mar 15 – Overcast, some rain
Date: 11-15 March 2015	Temperature: 11-15 Mar 15– 24°low to 52° high
UST Site ID # 05156, CA# 49660	Data Collection By: B.G. Newell/R.S. Stanley and Jason Chiorazzi (VERCO)

Introduction:

South Carolina Department of Health and Environmental Control (SC DHEC) issued a request for a 96 hour AFVR event to be conducted at the above referenced site. The SC DHEC project manager determined the 96 hr. AFVR event should be conducted using MW-2 and MW-3.

Field Work:

Aggressive Fluid Vapor Recovery (AFVR) Events

On the 11th of March 2015, SEI personnel gauged for free phase petroleum in MW-2 and MW-3. VERCO started the 96 hour AFVR event on the 11th of March 2015 at 11:00 hrs. and completed the 96 hour AFVR event 15th of March 2015 at 11:00 hrs. Approximately 823 gallons of non-hazardous petroleum contaminated water was recovered during the 96 hour AFVR event.

SEI personnel gauged for free phase petroleum in MW-2 and MW-3 on the 14th of April 2015, thirty (30) days after the 96 hour AFVR event was completed. The ground water and free product levels are listed in the appendix.

Results:

Free phase petroleum was detected in MW-3. Free phase petroleum readings were;

11 March 15	MW-3	0.92' FP
14 April 15	MW-3	0.73' FP

Total emission calculations at the conclusion of the event were approximately 295.0 pounds or 47.8 gallons of vapor.

Recommendations:

SEI recommends an additional AFVR event be conducted to control free phase petroleum migration and recover contaminating vapors and fluids from the site. The 96 hour AFVR should be conducted within the next 120 days to continue the overall site remediation efforts.

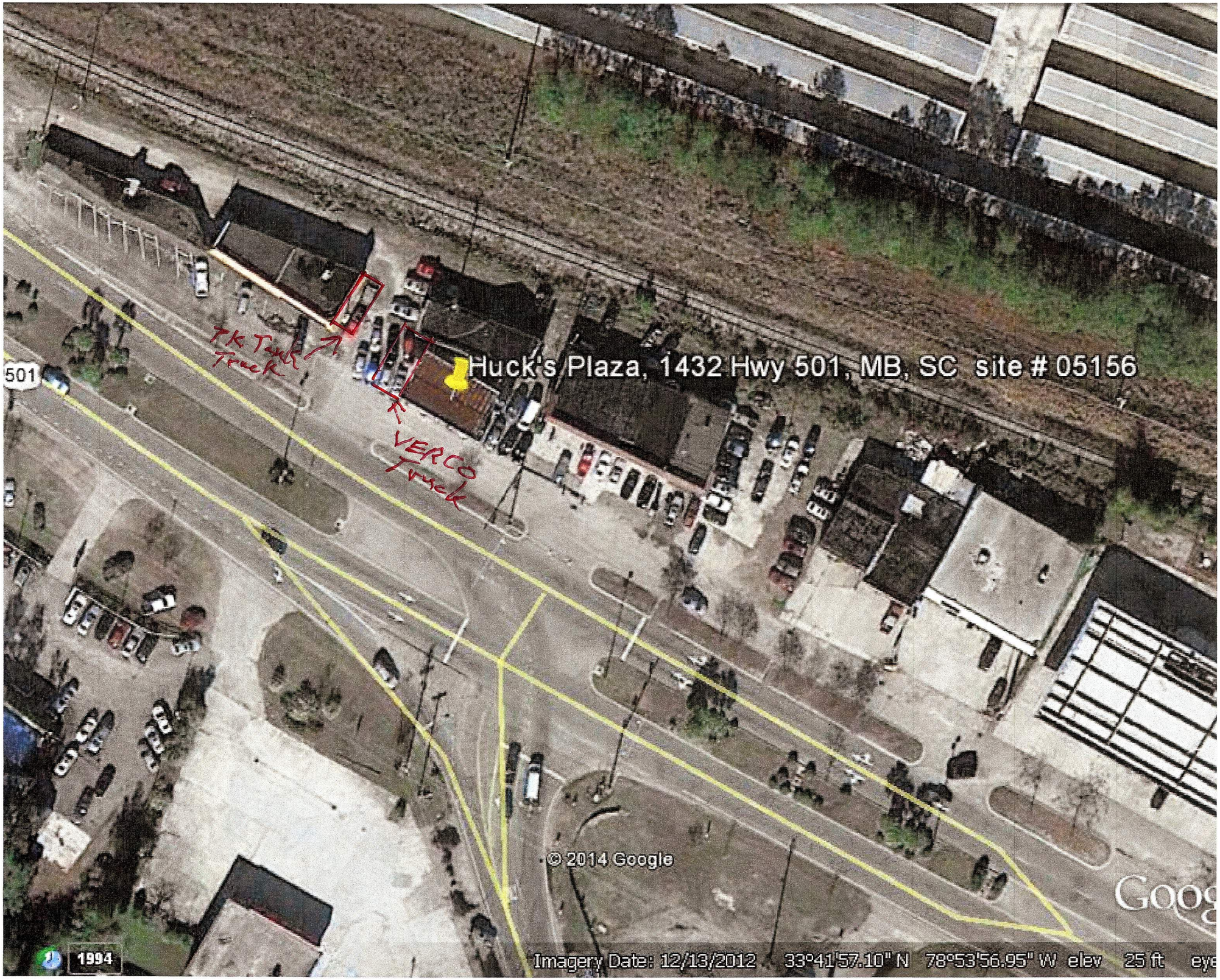
SEI would also recommend a cost analysis of installing a Keck product recovery system, or similar system, to collect free product 24 hours a day seven days per week. This type of system would allow for the removal of free product only and eliminate the cost of transporting and disposing of thousands of gallons of ground water.

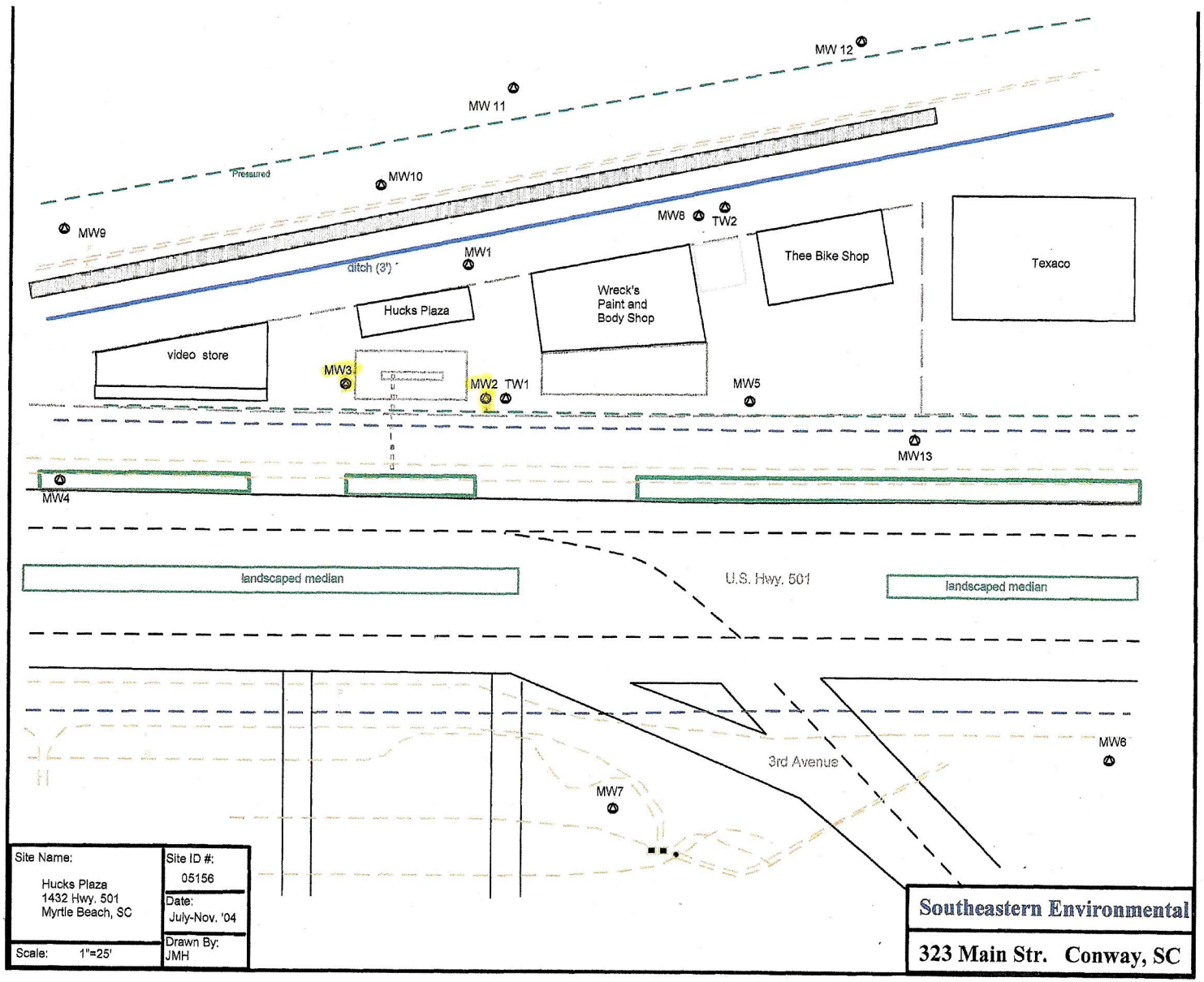
MAPS AND TABLES

APPENDIX A

SITE MAP

Monitoring Well Locations


TK Tank Truck
VERCO Truck
Huck's Plaza, 1432 Hwy 501, MB, SC site # 05156
501
© 2014 Google
1994
Imagery Date: 12/13/2012 33°41'57.10" N 78°53'56.95" W elev 25 ft


MW 12
MW 11
Pressured
MW10
MW9
MW8
TW2
ditch (3')
MW1
Thee Bike Shop
Texaco
Wreck's
Paint and
Body Shop
Hucks Plaza
video store
MW3
MW2
TW1
MW5
MW13
MW4
landscaped median
U.S. Hwy. 501
landscaped median
3rd Avenue
MW6
MW7
Site Name:
Hucks Plaza
1432 Hwy. 501
Myrtle Beach, SC
Site ID #:
05156
Date:
July-Nov. '04
Scale: 1"=25'
Drawn By:
JMH
Southeastern Environmental
323 Main Str. Conway, SC

APPENDIX B

GROUNDWATER/FREE PRODUCT
ELEVATION TABLE

APPENDIX C

AGGRESSIVE FLUID VAPOR RECOVERY (AFVR)
EVENT TABLES

Calculation of Petroleum Vapor Weight Extracted During an AFVR Event at Hucks Plaza, March 11 - 15, 2015

The tables on the following pages contain the data and calculations for one 96 hour AFVR event at Hucks Plaza, Myrtle Beach, S.C., conducted March 11 - 15, 2015. Monitoring well MW3, was evacuated. The amount of COC recovered was moderate but the level of free product in MW3 was nearly the same 30 days after the AFVR event as was before the event.

The weight of COC volatilized during the AFVR event conducted March 11 - 15, 2015, was 295 pounds (47.8 gallons). The AFVR procedure removed all detectable free product from MW3.

Site Name: Huck's Plaza
Location: Myrtle Beach, SC
Date: 3/11/15-3/15/15
EMISSION CALCULATION

Elapsed Time (hr)	Flow Rate (DSCFM)	Concentration (ppm)	K (#C - gas)	PPMg (ppm)	Cg:m (mg/dsm^3)	Cg (lbs/dscf)	PMRg (lb/hr)	PMR (lb)
0								
0.5	87.07	790	4	3160	16811.2	0.001049523	5.482711282	2.741355641
1.0	79.87	786	4	3144	16726.08	0.001044209	5.004300129	2.502150065
1.5	78.68	744	4	2976	15832.32	0.000988412	4.666311909	2.333155955
2.0	78.15	731	4	2924	15555.68	0.000971141	4.55395486	2.27697743
2.5	78.62	804	4	3216	17109.12	0.001068122	5.038365531	2.519182765
3.0	77.34	728	4	2912	15491.84	0.000967156	4.488169253	2.244084627
3.5	79.70	733	4	2932	15598.24	0.000973798	4.656531373	2.328265686
4.0	76.13	629	4	2516	13385.12	0.000835633	3.816808739	1.90840437
4.5	73.94	656	4	2624	13959.68	0.000871503	3.866398896	1.933199448
5.0	77.23	644	4	2576	13704.32	0.000855561	3.964446652	1.982223326
5.5	77.08	702	4	2808	14938.56	0.000932614	4.313341093	2.156670547
6.0	80.45	676	4	2704	14385.28	0.000898073	4.335178644	2.167589322
6.5	80.88	523	4	2092	11129.44	0.000694811	3.371664916	1.685832458
7.0	81.07	474	4	1896	10086.72	0.000629714	3.062953021	1.53147651
7.5	79.86	596	4	2384	12682.88	0.000791792	3.794142547	1.897071274
8.0	76.14	526	4	2104	11193.28	0.000698796	3.192519815	1.596259907
9.0	74.30	662	4	2648	14087.36	0.000879474	3.920883714	3.920883714
10.0	85.39	631	4	2524	13427.68	0.00083829	4.295128812	4.295128812
11.0	83.98	531	4	2124	11299.68	0.000705439	3.554740787	3.554740787
12.0	78.60	537	4	2148	11427.36	0.00071341	3.364269073	6.728538146
13.0	80.02	468	4	1872	9959.04	0.000621743	2.985143709	23.88114967
21.0	83.47	486	4	1944	10342.08	0.000645656	3.233483646	6.466967292
22.0	87.81	310	4	1240	6596.8	0.000411838	2.169736226	4.339472451
23.0	84.70	274	4	1096	5830.72	0.000364012	1.850000782	3.700001565
24.0	87.31	264	4	1056	5617.92	0.000350727	1.837288812	3.674577624
26.0	82.80	247	4	988	5256.16	0.000328142	1.63016749	3.26033498
28.0	84.14	191	4	764	4064.48	0.000253745	1.281023746	2.562047493
30.0	92.42	1429	4	5716	30409.12	0.001898441	10.52683151	21.05366302
32.0	97.18	386	4	1544	8214.08	0.000512805	2.990165173	5.980330346
34.0	99.49	922	4	3688	19620.16	0.001224887	7.311813223	58.49450579
36.0	103.72	272	4	1088	5788.16	0.000361355	2.248834803	4.497669606
45.0	94.75	155	4	620	3298.4	0.000205919	1.170610765	2.341221531
47.0	94.57	129	4	516	2745.12	0.000171378	0.972412335	1.944824671
49.0	85.67	173	4	692	3681.44	0.000229832	1.181437789	2.362875578
51.0	95.63	107	4	428	2276.96	0.000142151	0.815619085	1.631238171
53.0	98.58	112	4	448	2383.36	0.000148793	0.880068115	1.760136229
55.0	93.98	205	4	820	4362.4	0.000272345	1.535634995	3.07126999
57.0	96.36	168	4	672	3575.04	0.00022319	1.290388059	2.580776118
59.0	97.21	291	4	1164	6192.48	0.000386597	2.254854133	18.03883306
61.0	95.85	264	4	1056	5617.92	0.000350727	2.017120059	4.034240117
69.0	90.34	318	4	1272	6767.04	0.000422466	2.289983902	4.579967804
71.0	90.04	379	4	1516	8065.12	0.000503505	2.720145212	5.440290424
73.0	91.11	333	4	1332	7086.24	0.000442394	2.418476044	4.836952087
75.0	89.64	327	4	1308	6958.56	0.000434423	2.33656604	4.673132079
77.0	86.02	342	4	1368	7277.76	0.000454351	2.344950177	4.689900355
79.0	88.12	330	4	1320	7022.4	0.000438408	2.317885434	4.635770868
81.0	82.01	469	4	1876	9980.32	0.000623071	3.065801365	24.52641092
83.0	89.66	446	4	1784	9490.88	0.000592516	3.187518667	6.375037333
85.0	93.29	308	4	1232	6554.24	0.000409181	2.290384095	4.58076819
93.0	87.92	323	4	1292	6873.44	0.000429109	2.263735613	2.263735613
95.0	92.76	285	4	1140	6064.8	0.000378625	2.107238143	4.214476287
96.0	90.36	253	4	1012	5383.84	0.000336113	1.822182195	1.822182195
					Total Emissions in pounds			294.5812918
					Equivalent Gallons (vapor)			47.82163827

DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
SITE - Huck's Plaza
LOCATION - Myrtle Beach, SC
SCDHEC SITE ID # 05156
Date: 3/11/15-3/15/15

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW2		
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
11:00	0.0			
11:30	0.5	1.0		
12:00	1.0	1.0		
12:30	1.5	1.0		
13:00	2.0	1.0		
13:30	2.5	1.0		
14:00	3.0	1.0		
14:30	3.5	1.0		
15:00	4.0	1.0		
15:30	4.5	1.0		
16:00	5.0	1.0		
16:30	5.5	1.0		
17:00	6.0	1.0		
17:30	6.5	1.0		
18:00	7.0	1.0		
18:30	7.5	1.0		
19:00	8.0	1.0		
20:00	9.0	1.0		
21:00	10.0	1.0		
22:00	11.0	1.0		
23:00	12.0	1.0		
0:00	13.0	1.0		
8:00	21.0	1.0		
9:00	22.0	1.0		
10:00	23.0	1.0		
11:00	24.0	1.0		
13:00	26.0	1.0		
15:00	28.0	1.0		
17:00	30.0	1.0		
19:00	32.0	1.0		
21:00	34.0	1.0		
23:00	36.0	1.0		
8:00	45.0	1.0		
10:00	47.0	1.0		
12:00	49.0	1.0		
14:00	51.0	1.0		
16:00	53.0	1.0		
18:00	55.0	1.0		
20:00	57.0	1.0		
22:00	59.0	1.0		
0:00	61.0	1.0		
8:00	69.0	1.0		
10:00	71.0	1.0		
12:00	73.0	1.0		
14:00	75.0	1.0		
16:00	77.0	1.0		
18:00	79.0	1.0		
20:00	81.0	1.0		
22:00	83.0	1.0		
0:00	85.0	1.0		
8:00	93.0	1.0		
10:00	95.0	1.0		
11:00	96.0	1.0		
Maximum Change:		1.0		

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW2		
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior to AFVR	0 hours	6.96		
	24 hours	6.89		
	48 hours	6.45		
	72 hours	6.27		
	96 hours	6.02		
Maximum Change:		0.94		

STINGER LEVEL
Huck's Plaza
Myrtle Beach, South Carolina

3/11/15-3/15/15

STINGER LEVEL

		MW3			
Time	Elapsed Time				
11:00	0.0	6.00			
11:30	0.5	6.50			
12:00	1.0	7.00			
12:30	1.5	7.50			
13:00	2.0	8.00			
13:30	2.5	8.50			
14:00	3.0	9.00			
14:30	3.5	9.50			
15:00	4.0	10.00			
15:30	4.5	10.50			
16:00	5.0	11.00			
16:30	5.5	11.50			
17:00	6.0	12.00			
17:30	6.5	12.50			
18:00	7.0	12.75			
18:30	7.5	12.75			
19:00	8.0	12.75			
20:00	9.0	12.75			
21:00	10.0	12.75			
22:00	11.0	12.75			
23:00	12.0	12.75			
0:00	13.0	12.75			
8:00	21.0	12.75			
9:00	22.0	12.75			
10:00	23.0	12.75			
11:00	24.0	12.75			
13:00	26.0	12.75			
15:00	28.0	12.75			
17:00	30.0	12.75			
19:00	32.0	7.00			
21:00	34.0	7.00			
23:00	36.0	7.00			
8:00	45.0	8.00			
10:00	47.0	8.00			
12:00	49.0	8.00			
14:00	51.0	8.00			
16:00	53.0	9.00			
18:00	55.0	9.00			
20:00	57.0	9.00			
22:00	59.0	9.00			
0:00	61.0	9.00			
8:00	69.0	10.00			
10:00	71.0	10.00			
12:00	73.0	10.00			
14:00	75.0	10.00			
16:00	77.0	11.00			
18:00	79.0	11.00			
20:00	81.0	11.00			
22:00	83.0	11.00			
0:00	85.0	8.00			
8:00	93.0	8.00			
10:00	95.0	8.00			
11:00	96.0	8.00			

AFVR MONITORING DATA
Site Name: Huck's Plaza
Site Location: Myrtle Beach, SC
Date: 3/11/15-3/15/15
SCDHEC ID# 05156

Extraction Well	Time (hh:mm)	Extraction Well Head Vacuum (in. Hg)					Vacuum Truck Exhaust						
		MW3				TRUCK	Relative Humidity	Temp (°F)	Pretreatment Conc. (PPM)	Post Treatment Conc. (PPM)	Offgas Velocity Ft/Min	Water Vapor (%)	Flow Rate (DSCFM)
3/11/2015	11:00	16.0				18							
	11:30	16.0				18	29.2	110	790	0	1958	0.02	87.07
	12:00	16.0				18	28.6	115	786	0	1812	0.02	79.87
	12:30	16.0				18	27.5	115	744	1	1785	0.02	78.68
	13:00	16.0				18	26.0	115	731	4	1773	0.02	78.15
	13:30	16.0				18	28.3	120	804	3	1799	0.02	78.62
	14:00	16.0				18	24.9	123	728	5	1779	0.02	77.34
	14:30	16.0				18	17.3	122	733	9	1830	0.02	79.70
	15:00	16.0				18	19.2	121	629	6	1745	0.02	76.13
	15:30	16.0				18	20.6	120	656	1	1692	0.02	73.94
	16:00	16.0				19	21.1	115	644	9	1752	0.02	77.23
	16:30	16.0				19	21.3	112	702	13	1722	0.01	77.08
	17:00	16.0				18	23.1	110	676	15	1791	0.01	80.45
	17:30	16.0				18	25.4	111	523	12	1822	0.02	80.88
	18:00	16.0				18	21.0	112	474	10	1811	0.01	81.07
	18:30	16.0				18	21.3	111	596	16	1781	0.01	79.86
	19:00	16.0				18	21.5	112	526	19	1701	0.01	76.14
	20:00	16.0				19	21.2	111	662	14	1657	0.01	74.30
	21:00	16.0				18	14.6	110	631	15	1901	0.01	85.39
	22:00	16.0				18	14.0	115	531	21	1886	0.01	83.98
	23:00	16.0				18	13.5	115	537	25	1765	0.01	78.60
	0:00	16.0				18	11.2	123	468	17	1822	0.01	80.02
3/12/2015	8:00	16.0				19	12.4	125	486	34	1907	0.01	83.47
	9:00	16.0				19	9.4	127	310	29	2013	0.01	87.81
	10:00	16.0				19	19.6	125	274	36	1955	0.02	84.70
	11:00	16.0				19	22.4	127	264	30	2022	0.02	87.31
	13:00	16.0				19	15.4	125	247	21	1911	0.02	82.80
	15:00	16.0				19	16.6	125	191	26	1942	0.02	84.14
	17:00	16.0				19	23.1	125	1429	38	2133	0.02	92.42
	19:00	16.0				19	23.4	117	386	41	2190	0.01	97.18
	21:00	16.0				19	17.5	115	922	55	2257	0.02	99.49
	23:00	16.0				19	12.4	110	272	38	2309	0.01	103.72
3/13/2015	8:00	16.0				19	15.5	128	155	31	2198	0.02	94.75
	10:00	16.0				19	12.4	127	129	25	2168	0.01	94.57
	12:00	16.0				19	17.1	124	173	21	1974	0.02	85.67
	14:00	16.0				19	17.7	130	107	13	2226	0.02	95.63
	16:00	16.0				19	16.8	127	112	11	2283	0.02	98.58
	18:00	16.0				20	18.4	125	205	24	2169	0.02	93.98
	20:00	16.0				20	19.9	120	168	29	2205	0.02	96.36
	22:00	16.0				20	12.0	115	291	39	2183	0.01	97.21
3/14/2015	0:00	16.0				20	12.2	125	264	31	2190	0.01	95.85
	8:00	16.0				19	11.2	123	318	42	2057	0.01	90.34
	10:00	16.0				19	11.7	115	379	48	2022	0.01	90.04
	12:00	16.0				19	29.2	110	333	50	2049	0.02	91.11
	14:00	16.0				19	24.1	112	327	42	2023	0.02	89.64
	16:00	16.0				19	23.3	114	342	56	1948	0.02	86.02
	20:00	16.0				20	17.2	126	469	58	1896	0.02	82.01
	22:00	16.0				19	12.3	130	446	65	2066	0.01	89.66
3/15/2015	0:00	16.0				19	12.1	135	308	68	2190	0.02	93.29
	8:00	16.0				19	11.8	135	323	51	2064	0.02	87.92
	10:00	16.0				19	12.4	131	285	59	2141	0.01	92.76
	11:00	16.0				19	18.1	126	253	63	2089	0.02	90.36

Well Gauging Data:				Before AFVR Event			After AFVR Event		
Well No.	Diameter (in)	Total Depth (ft)	Target Stinger Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)
MW3	2.00	12.75	12.75	5.90	6.82	0.92	NONE	9.61	0.00

AFVR Information	
Client	SEI
Equipment Operator:	NR/RF
Blower Discharge I.D.	3 inches

Notes: Pipe ID - The inside diameter of the blower discharge piping (from vacuum truck)

Velocity - The rate at which air flows is measured at the blower discharge piping

Temperature - The temperature of the air stream exiting the blower discharge piping

Relative humidity - The & relative humidity of the air stream exiting the blower discharge piping

Water Vapor in % - Pounds of water per pound of dry air (derived from a Psychrometric chart of temp. vs relative humidity)

Flow rate = (1 - water vapor)(velocity)(Pipe Diameter/24)^2(3.14)(528°R/Temp + 460)

Total Gallons Extracted
823

AFVR Event Ground Water Level Table

Southeastern Environmental, Inc. ***323 Main Street*** ***Conway, SC 29526***	Site Name: Hucks Plaza (501 Amoco)	Site ID: 05156, CA# 49660
	Date: 17 April 2015	Field Personnel: BGN/RSS

Well No.	Date Measured	Top of Casing Elevation *(ft.)*	Screen Interval *(ft.)*	Depth to Free Product (from TOC)	Depth to Ground Water (from TOC)	Free Product Thickness *(ft.)*	Ground Water Elevation *(ft/.msl)*
Ground water levels prior to 96 hour AFVR event conducted 11-15 Mar. 2015							
MW-2	11 Mar 15	21.44'	2.77'/ 12.77'	0.00'	6.96'	0.00'	14.48'
MW-3	11 Mar 15	21.44'	2.72'/ 12.72'	5.90'	6.82'	0.92'	14.62'

Well No.	Date Measured	Top of Casing Elevation *(ft.)*	Screen Interval *(ft.)*	Depth to Free Product (from TOC)	Depth to Ground Water (from TOC)	Free Product Thickness *(ft.)*	Ground Water Elevation *(ft/.msl)*
Ground water levels 30 days after 96 hour AFVR event, 11-15 Mar. 2015							
MW-2	14 Apr 15	21.44'	2.77'/ 12.77'	0.00'	7.61'	0.00'	13.83'
MW-3	14 Apr 15	21.44'	2.72'/ 12.72'	6.32'	7.05'	0.73'	14.39'

Hucks Plaza, Myrtle Beach, S.C.
site # 05156, CA# 49660

Depth to Water Table and Free Product and Free Product Thickness in Feet

	11 Mar 2015	**14 Apr 2015**
MW-2	GW 6.96'	GW 7.61'
	FP 0.00'	FP 0.00'
	0.00'	0.00'
MW-3	GW 6.82'	GW 7.05'
	FP 5.90'	FP 6.32'
	0.92'	0.73'

GW = Depth to Groundwater
FP = Depth to Free Product

SUPPORTING DOCUMENTS

APPENDIX D

DISPOSAL MANIFESTS

CERTIFICATE OF DISPOSAL

Certify to all that

T K TANK SERVICES, INC.

OF GALLONS 823 Contaminant: NONHAZARDOUS PETROLEUM CONTAMINATED WATER

This is to certify that the above water/product has been disposed of

In accordance with EPA regulations on petroleum contaminated water

HUCK'S PLAZA

3/16/2015

DATE

SIGNATURE

D H E C
PROMOTE PROTECT PROSPER
W. Marshall Taylor Jr., Acting Director
Promoting and protecting the health of the public and the environment

MR DANNY TODD
1121 SIMONTON DR
WATKINSVILLE GA 30677

MAY 2 9 2015



Re: AFVR Directive
501 Amoco; 1432 Hwy. 501, Myrtle Beach, SC
UST Permit # 05156; CA# 50318
Release reported December 31, 1991
AFVR Report received May 12, 2015
Horry County

Dear Mr. Todd:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) recognizes your commitment to continue work at this site utilizing Southeastern Environmental, Inc. In accordance with Section 280.64 of the South Carolina Underground Storage Tank Control Regulations, a 96-hour Aggressive Fluid and Vapor Recovery (AFVR) event may commence as outlined in the UST Quality Assurance Program Plan (QAPP) Revision 2.0. **Please be aware that the AFVR Procedures have been updated.** Please connect to MW-3 for the duration of this event. The stingers shall be lowered at six inch intervals starting at the water table interface to a maximum depth of approximately 12.72 feet in the well. A copy of Agency QAPP Version 2.0 for the Underground Storage Tank Division is available at http://www.scdhec.gov/environment/docs/qapp_rev-2_april2013.pdf.

As soon as the beginning date of the event has been scheduled, please contact Jim Martin at martinjm@dhec.sc.gov.

The AFVR Report should be submitted within 90 days from the date of this correspondence. Please note that all applicable South Carolina certification requirements apply to the services and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

Cost Agreement # 50318 has been approved in the amount shown on the enclosed cost agreement. Southeastern Environmental, Inc., can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. If the invoice and completed report are not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval is obtained from the UST Management Division. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the Agency for the cost to be paid. The Agency reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Agency reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The Agency grants preapproval for transportation of virgin petroleum-contaminated groundwater from the referenced site to a permitted treatment facility.

On all correspondence concerning this site, please reference UST Permit #05156 and CA # 50318. If you have any questions, please contact me at (803) 898-0605 or by e-mail at martinjm@dhec.sc.gov.

Sincerely,

Jim Martin, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: Technical File (with enclosure)
Southeastern Environmental, 323 Main Street, Conway, SC 29526 (with enclosure)

Approved Cost Agreement 50318

Facility 05156 501 AMOCO

MARTINJM

PO Number

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
19 RPT/PROJECT MNGT & COORDINATIO						
		PRT	REPORT PREPARATION	0.1200	22,742 25	2,729.07
23 EFR						
		A4	96 HOUR EVENT	1.0000	12,567 50	12,567 50
		C4	OFF GAS TREATMENT 96 HOUR	1 0000	780.00	780.00
		D	SITE RECONNAISSANCE	1 0000	203.25	203 25
		F1	EFFLUENT DISPOSAL	20,000 0000	0 44	8,800 00
		G	AFVR EQUIPMENT MOB	1.0000	391 50	391 50
				Total Amount		25,471.32

Document Receipt Information

☒ Hard Copy ☒ CD ☐ Email

Date Received 8/18/2015

Permit Number 05156

Project Manager Sam Martin

Name of Contractor Southeastern Environmental

UST Certification Number

Docket Number 9 feet

Scanned

96 HOUR APVR EVENT

96 Hour
Aggressive Fluid Vapor Recovery (AFVR) Event

Hucks Plaza

1432 Hwy. 501
Myrtle Beach, South Carolina
UST Permit #05156
CA #50318

Prepared for:

South Carolina Department of Health and Environmental Control

Underground Storage Tank Program

2600 Bull Street

Columbia, South Carolina 29201

Prepared by:

Southeastern Environmental, Inc.

323 Main Street

Conway, South Carolina 29526

31July 2015

96 hour AFVR Event

Hucks Plaza

1432 Highway 501
Myrtle Beach, SC 29526

Site # 05156, CA # 50318

SEI conducted a 96 hour AFVR event at Hucks Plaza, site # 05156, 1432 Hwy 501, Myrtle Beach, S.C. on the 15th through the 19th of June 2015. The data collected has been reviewed by Dr. Douglas D. Nelson and found to be in accordance with currently accepted quality control practices as prescribed by the South Carolina Department of Health and Environmental Control.

Southeastern Environmental, Inc.

Bruce G. Newell
President, Southeastern Environmental, Inc.
Class I UST Site Rehab Contractor # 82

Douglas D. Nelson, P. G.
South Carolina Registration #391

TABLE OF CONTENTS

Hucks Plaza
SC DHEC Site ID # 05156
CA# 50318

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Ground Water/Free Product Elevation Table	B
AFVR Event Tables	C
SUPPORTING DOCUMENTS	
Disposal Manifests	D

Narrative

Location: Hucks Plaza 1432 Hwy. 501 Myrtle Beach, SC	Weather: 15-19 June 15 – Clear
Date: 15-19 June 2015	Temperature: 15-19 June 15– 78° to 98°
UST Site ID # 05156, CA# 50318	Data Collection By: B.G. Newell/R.S. Stanley and Jason Chiorazzi (VERCO)

Introduction:

South Carolina Department of Health and Environmental Control (SC DHEC) issued a request for a 96 hour AFVR event to be conducted at the above referenced site. The SC DHEC project manager determined the 96 hr. AFVR event should be conducted using MW-3.

Field Work:

Aggressive Fluid Vapor Recovery (AFVR) Events

On the 15th of June 2015, SEI personnel gauged for free phase petroleum in MW-3. VERCO started the 96 hour AFVR event on the 15th of June 2015 at 09:30 hrs. and completed the 96 hour AFVR event 19th of June 2015 at 09:30 hrs. Approximately 895 gallons of non-hazardous petroleum contaminated water was recovered during the 96 hour AFVR event.

SEI personnel gauged for free phase petroleum in MW-3 on the 20th of July 2015, thirty one (31) days after the 96 hour AFVR event was completed. The ground water and free product levels are listed below and with historical data in the appendix.

Results:

Free phase petroleum was detected in MW-3. Free phase petroleum readings were;

15 June 15	MW-3	1.01' FP
20 July 15	MW-3	0.28' FP

Total emission calculations at the conclusion of the event were approximately 2235 pounds or approximately 378 gallons.

Recommendations:

SEI recommends an additional AFVR event be conducted to control free phase petroleum migration and recover contaminating vapors and fluids from the site. The 96 hour AFVR should be conducted as soon as possible to continue the overall site remediation efforts.

MAPS AND TABLES

APPENDIX A

SITE MAP

Monitoring Well Locations

.42 TOP OF 10" CASING = 19.48'
.95' TOP OF 2" CASING = 19.09'
GROUND = 19.4'

MW # 11

.45' TOP OF 10" CASING = 19.88'
.16' TOP OF 2" CASING = 19.70'
GROUND = 19.7'

MW # 12

.19' TOP OF 10" CASING = 18.70'
.99' TOP OF 2" CASING = 18.49'
GROUND = 18.60'

GROUND = 21.3'

TW 2

TOP OF 10" CASING = 21.15'
TOP OF 2" CASING = 20.85'
GROUND = 21.1'

SOUTHEASTERN ENVIRONMENTAL, INC.

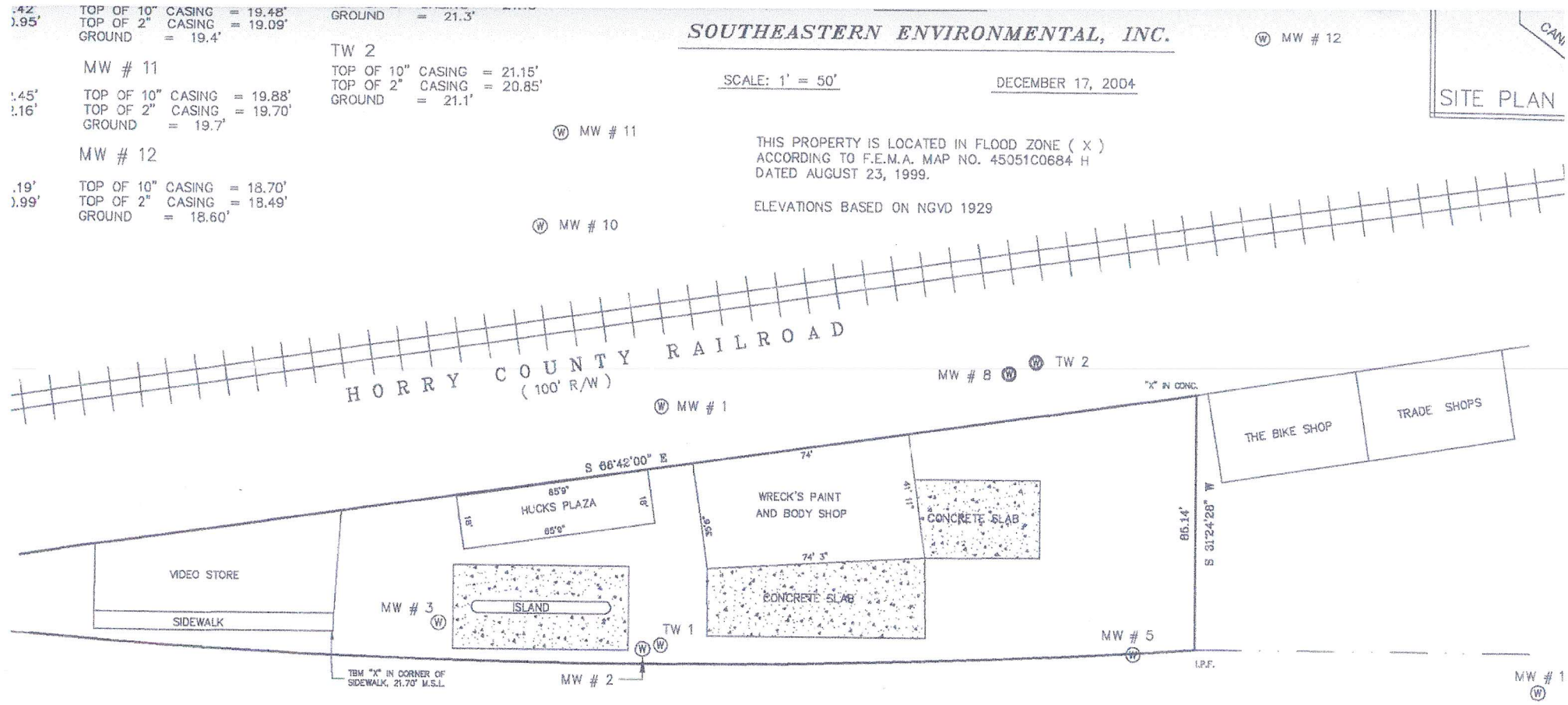
SCALE: 1' = 50'

DECEMBER 17, 2004

SITE PLAN

THIS PROPERTY IS LOCATED IN FLOOD ZONE (X)
ACCORDING TO F.E.M.A. MAP NO. 45051C0684 H
DATED AUGUST 23, 1999.

ELEVATIONS BASED ON NGVD 1929

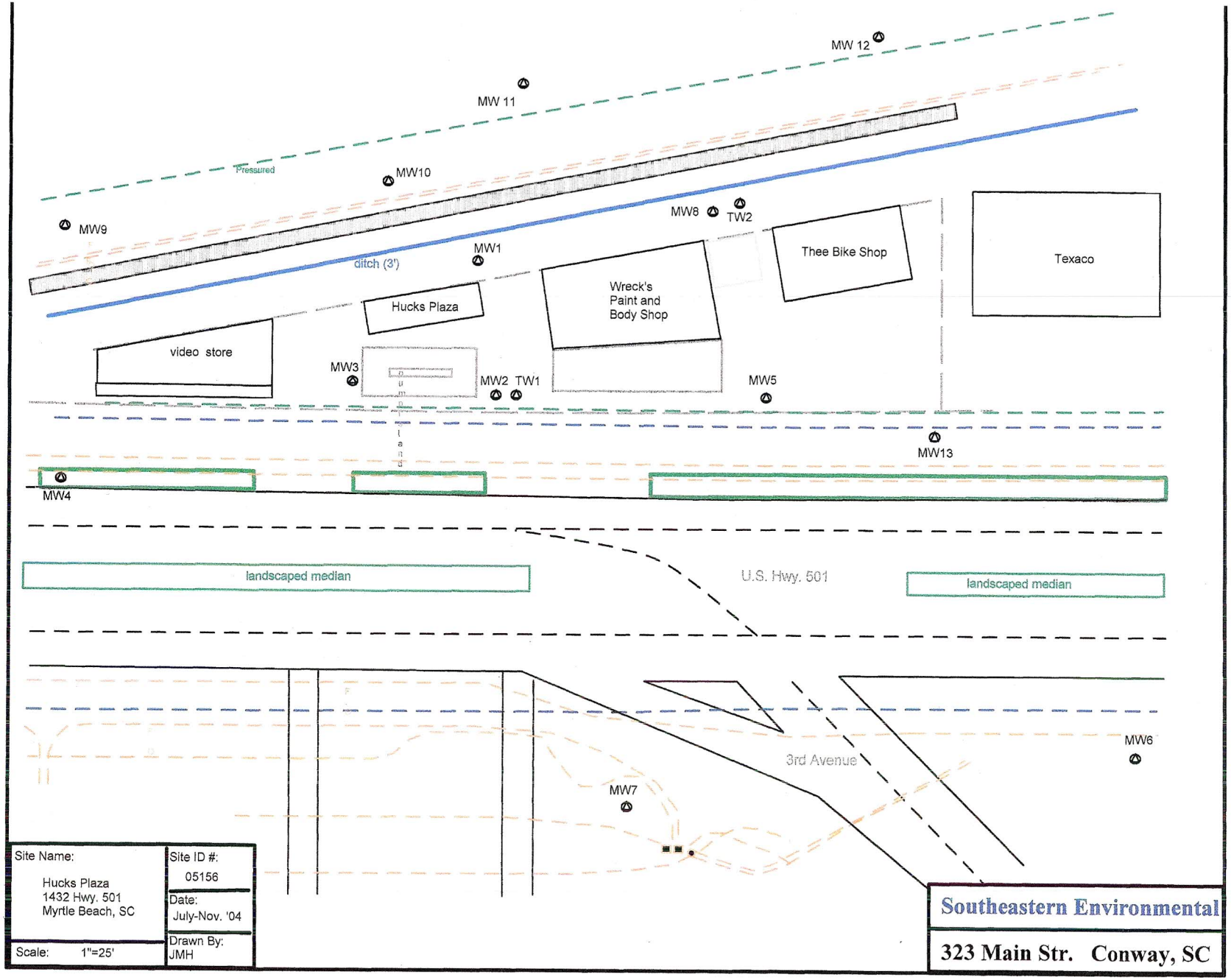


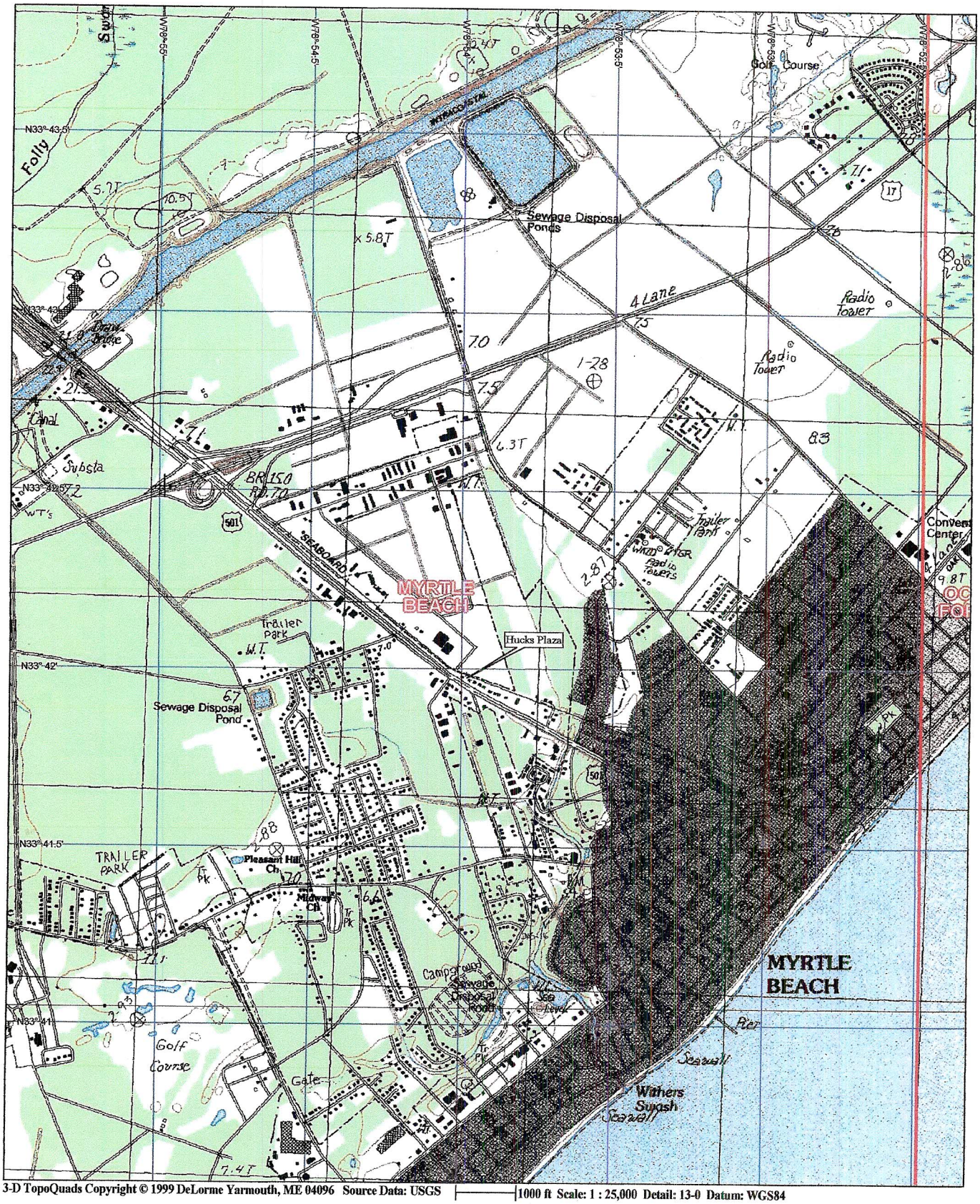
'S PLAZA
HWY 501
LE BEACH, S.C.

ID # 05156

No. 181-01-01-06

JAMES R. BLANTON


MW 12
MW 11
Pressured
MW10
MW9
ditch (3')
MW1
MW8
TW2
Thee Bike Shop
Texaco
Wreck's
Paint and
Body Shop
Hucks Plaza
video store
MW3
MW2
TW1
MW5
MW13
MW4
landscaped median
U.S. Hwy. 501
landscaped median
3rd Avenue
MW6
MW7
Site Name:
Hucks Plaza
1432 Hwy. 501
Myrtle Beach, SC
Site ID #:
05156
Date:
July-Nov. '04
Scale: 1"=25'
Drawn By:
JMH
Southeastern Environmental
323 Main Str. Conway, SC



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS

1000 ft Scale: 1 : 25,000 Detail: 13-0 Datum: WGS84

APPENDIX B

GROUNDWATER/FREE PRODUCT
ELEVATION TABLE

AFVR Event Ground Water Level Table

Southeastern Environmental, Inc. ***323 Main Street*** ***Conway, SC 29526***	Site Name: Hucks Plaza (501 Amoco)	Site ID: 05156, CA# 50318
	Date: 20 July 2015	Field Personnel: BGN/RSS

Well No.	Date Measured	Top of Casing Elevation *(ft.)*	Screen Interval *(ft.)*	Depth to Free Product (from TOC)	Depth to Ground Water (from TOC)	Free Product Thickness *(ft.)*	Ground Water Elevation *(ft/.msl)*
Ground water levels prior to 96 hour AFVR event conducted 15-19 Jun. 2015							
MW-2							
MW-3	15 Jun 15	21.44'	2.72'/ 12.72'	7.39'	8.40	1.01'	13.04'

Well No.	Date Measured	Top of Casing Elevation *(ft.)*	Screen Interval *(ft.)*	Depth to Free Product (from TOC)	Depth to Ground Water (from TOC)	Free Product Thickness *(ft.)*	Ground Water Elevation *(ft/.msl)*
Ground water levels 31 days after 96 hour AFVR event, 15-19 Jun. 2015							
MW-2							
MW-3	20 July 15	21.44'	2.72' / 12.72'	8.47'	8.75'	0.28'	12.69'

Hucks Plaza, Myrtle Beach
site # 05156, CA# 50318

Depth to Water Table and Free Product Thickness in Feet

	11 Mar 15	14 Apr 15	15 June 2015
MW-2	GW 6.96' FP 0.00' 0.00'	GW 7.61' FP 0.00' 0.00'	Not Gauged
MW-3	GW 6.82' FP 5.90' 0.92'	GW 7.05' FP 6.32' 0.73'	GW 8.40' FP 7.39' 1.01'

GW= Groundwater
FP= Free Product

APPENDIX C

AGGRESSIVE FLUID VAPOR RECOVERY (AFVR) EVENT TABLES

Calculation of Petroleum Vapor Weight Extracted During an AFVR Event at Hucks Plaza, Myrtle Beach, SC, June 15 - 19, 2015

The tables on the following pages contain the data and calculations for one 96 hour AFVR event at Hucks Plaza, Myrtle Beach, S.C., conducted June 15 - 19, 2015. Monitoring well MW3, was evacuated. The amount of COC vaporized was large.

The weight of COC volatilized during the AFVR event conducted June 15 - 19, 2015, was 2235 pounds (378 gallons). The AFVR procedure removed all detectable free product from MW3. Resampling 30 days after the AFVR measured a thickness of 0.28 ft. of free product in MW3.

AFVR MONITORING DATA
Site Name: Huck's Plaza
Site Location: Myrtle Beach, SC
Date: 6/15/15-6/19/15
SCDHEC ID# 05156

Extraction Well	Time (hh:mm)	Extraction Well Head Vacuum (in. Hg)				Vacuum Truck Exhaust						
		MW3			TRUCK	Relative Humidity	Temp (°F)	Pretreatment Conc. (PPM)	Post Treatment Conc. (PPM)	Offgas Velocity Ft/Min	Water Vapor (%)	Flow Rate (DSCFM)
6/15/2015	9:30	17.0			21							
	10:00	16.0			21	11.7	170	1948	0	2330	0.03	92.78
	10:30	15.0			21	10.3	175	2143	0	2242	0.03	88.58
	11:00	15.0			21	8.1	179	1426	4	2247	0.03	88.22
	11:30	16.0			21	7.6	184	784	2	2259	0.03	88.00
	12:00	16.0			21	6.7	189	863	6	2323	0.03	89.80
	12:30	16.0			21	6.2	195	894	9	2405	0.03	92.12
	13:00	16.0			22	7.2	195	769	13	2388	0.03	91.46
	13:30	16.0			22	7.1	183	707	10	2262	0.03	88.26
	14:00	16.0			22	9.9	174	661	15	2204	0.03	87.21
	14:30	16.0			22	10.4	169	722	12	2191	0.03	87.39
	15:00	16.0			22	10.9	166	818	13	2232	0.03	89.45
	15:30	17.0			22	11.3	165	1046	15	2241	0.03	89.95
	16:00	17.0			22	12.2	163	1141	18	2191	0.03	88.23
	16:30	17.0			22	12.6	162	1187	21	2182	0.03	88.01
	17:00	17.0			22	13.9	160	1278	25	2241	0.03	90.68
	17:30	17.0			22	13.6	162	779	29	2106	0.03	84.94
	18:30	17.0			22	14.5	160	580	33	2165	0.03	87.60
	19:30	17.0			21	13.6	163	8214	38	2281	0.03	91.85
	20:30	17.0			21	13.5	167	7214	49	2167	0.03	86.71
	21:30	17.0			20	10.6	175	8369	66	2326	0.04	90.95
	22:30	17.0			20	9.9	173	6147	72	2370	0.03	93.93
	23:30	17.0			20	10.1	171	5991	79	2341	0.03	93.07
6/16/2015	8:00	17.0			21	13.2	170	5214	156	2205	0.03	87.81
	10:00	17.0			21	12.1	175	4302	143	2298	0.03	90.79
	12:00	17.0			21	10.9	183	1293	139	2358	0.03	92.00
	14:00	15.0			21	6.5	174	634	145	2313	0.03	91.53
	16:00	16.0			21	11.7	170	608	166	2294	0.04	90.41
	18:00	15.0			21	13.6	160	652	159	2322	0.03	93.96
	20:00	16.0			21	10.8	165	2513	0	2271	0.03	91.16
	22:00	16.0			21	7.9	167	585	0	2354	0.02	95.16
6/17/2015	0:00	16.0			21	7.8	176	394	2	2334	0.03	92.07
	8:00	16.0			21	8.1	173	775	72	2300	0.03	91.16
	10:00	16.0			21	9.1	174	850	61	2355	0.03	93.19
	12:00	15.0			21	7.6	184	672	59	2492	0.03	97.08
	14:00	15.0			21	8.7	174	1222	77	2372	0.03	93.86
	16:00	15.0			21	12.3	167	963	83	2318	0.03	92.75
	18:00	16.0			21	12.8	185	2317	90	2294	0.05	87.39
	20:00	16.0			21	13.3	183	2178	99	3088	0.05	118.00
	22:00	16.0			20	17.8	175	3224	116	3070	0.05	118.79
6/18/2015	0:00	16.0			20	17.8	190	4196	123	3027	0.05	114.42
	8:00	16.0			20	15.3	187	5663	189	3051	0.05	115.86
	10:00	16.0			20	12.0	185	6119	176	3083	0.03	119.92
	12:00	16.0			20	9.6	197	5247	210	3069	0.03	117.19
	14:00	16.0			20	8.2	200	4991	196	3043	0.04	114.48
	16:00	15.0			20	10.7	190	3651	218	2949	0.04	112.65
	20:00	15.0			20	15.0	175	3786	230	2953	0.05	114.26
	22:00	15.0			20	9.6	185	3321	269	2879	0.04	110.83
6/19/2015	0:00	15.0			20	11.8	185	3472	278	2962	0.05	112.83
	8:00	15.0			20	13.8	173	3014	459	2971	0.04	116.54
	9:30	15.0			20	15.3	170	2861	488	3001	0.04	118.27

Well Gauging Data:				Before AFVR Event			After AFVR Event		
Well No.	Diameter (in)	Total Depth (ft)	Target Stinger Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)
MW3	2.00	12.75	12.75	7.39	8.40	1.01	NONE	12.07	0.00

AFVR Information	
Client	SEI
Equipment Operator:	RF/DR
Blower Discharge I.D.	3 inches

Notes: Pipe ID - The inside diameter of the blower discharge piping (from vacuum truck)

Velocity - The rate at which air flows is measured at the blower discharge piping

Temperature - The temperature of the air stream exiting the blower discharge piping

Relative humidity - The & relative humidity of the air stream exiting the blower discharge piping

Water Vapor in % - Pounds of water per pound of dry air (derived from a Psychrometric chart of temp. vs relative humidity)

Flow rate = (1 - water vapor)(velocity)(Pipe Diameter/24)^2(3.14)(528°R/Temp + 460)

Total Gallons Extracted
895

Site Name: Huck's Plaza
Location: Myrtle Beach, SC
Date: 6/15/15-6/19/15
EMISSION CALCULATION

Elapsed Time (hr)	Flow Rate (DSCFM)	Concentration (ppm)	K (#C - gas)	PPMg (ppm)	Cg:m (mg/dsm^3)	Cg (lbs/dscf)	PMRg (lb/hr)	PMR (lb)
0								
0.5	92.78	1948	4	7792	41453.44	0.002587938	14.40722824	7.203614119
1.0	88.58	2143	4	8572	45603.04	0.002846998	15.13073992	7.565369958
1.5	88.22	1426	4	5704	30345.28	0.001894456	10.02761963	5.013809816
2.0	88.00	784	4	3136	16683.52	0.001041552	5.499491541	2.749745771
2.5	89.80	863	4	3452	18364.64	0.001146504	6.177196559	3.08859828
3.0	92.12	894	4	3576	19024.32	0.001187688	6.564284747	3.282142373
3.5	91.46	769	4	3076	16364.32	0.001021624	5.606547093	2.803273547
4.0	88.26	707	4	2828	15044.96	0.000939257	4.973672141	2.48683607
4.5	87.21	661	4	2644	14066.08	0.000878145	4.595152235	2.297576118
5.0	87.39	722	4	2888	15364.16	0.000959185	5.029271044	2.514635522
5.5	89.45	818	4	3272	17407.04	0.001086722	5.832426478	2.916213239
6.0	89.95	1046	4	4184	22258.88	0.001389622	7.500144589	3.750072295
6.5	88.23	1141	4	4564	24280.48	0.00151583	8.024465006	4.012232503
7.0	88.01	1187	4	4748	25259.36	0.001576942	8.327050389	4.163525194
7.5	90.68	1278	4	5112	27195.84	0.001697836	9.237557039	4.618778519
8.0	84.94	779	4	3116	16577.12	0.00103491	5.274503101	2.637251551
9.0	87.60	580	4	2320	12342.4	0.000770536	4.050142623	4.050142623
10.0	91.85	8214	4	32856	174793.92	0.010912384	60.14064054	60.14064054
11.0	86.71	7214	4	28856	153513.92	0.009583874	49.85900652	49.85900652
12.0	90.95	8369	4	33476	178092.32	0.011118304	60.6715603	60.6715603
13.0	93.93	6147	4	24588	130808.16	0.008166353	46.02395764	46.02395764
14.0	93.07	5991	4	23964	127488.48	0.007959106	44.44751511	44.44751511
22.5	87.81	5214	4	20856	110953.92	0.006926853	36.49347193	310.1945114
24.5	90.79	4302	4	17208	91546.56	0.005715252	31.13313231	62.26626461
26.5	92.00	1293	4	5172	27515.04	0.001717764	9.482164053	18.96432811
28.5	91.53	634	4	2536	13491.52	0.000842276	4.625426082	9.250852163
30.5	90.41	608	4	2432	12938.24	0.000807734	4.381593204	8.763186408
32.5	93.96	652	4	2608	13874.56	0.000866189	4.883084434	9.766168868
34.5	91.16	2513	4	10052	53476.64	0.003338547	18.26020789	36.52041578
36.5	95.16	585	4	2340	12448.8	0.000777179	4.437365857	8.874731713
38.5	92.07	394	4	1576	8384.32	0.000523433	2.891452552	5.782905104
46.5	91.16	775	4	3100	16492	0.001029596	5.631212817	45.04970254
48.5	93.19	850	4	3400	18088	0.001129234	6.313885349	12.6277707
50.5	97.08	672	4	2688	14300.16	0.000892759	5.200050435	10.40010087
52.5	93.86	1222	4	4888	26004.16	0.00162344	9.142663694	18.28532739
54.5	92.75	963	4	3852	20492.64	0.001279356	7.119480258	14.23896052
56.5	87.39	2317	4	9268	49305.76	0.003078159	16.13941229	32.27882457
58.5	118.00	2178	4	8712	46347.84	0.002893496	20.48576457	40.97152914
60.5	118.79	3224	4	12896	68606.72	0.004283118	30.52724882	61.05449764
62.5	114.42	4196	4	16784	89290.88	0.00557443	38.27035819	76.54071638
70.5	115.86	5663	4	22652	120508.64	0.007523354	52.30129855	418.4103884
72.5	119.92	6119	4	24476	130212.32	0.008129155	58.48848544	116.9769709
74.5	117.19	5247	4	20988	111656.16	0.006970694	49.01383622	98.02767244
76.5	114.48	4991	4	19964	106208.48	0.006630595	45.54295414	91.08590827
78.5	112.65	3651	4	14604	77693.28	0.004850391	32.78301254	65.56602507
80.5	116.20	710	4	2840	15108.8	0.000943242	6.576026158	13.15205232
82.5	114.26	3786	4	15144	80566.08	0.00502974	34.48246583	68.96493165
84.5	110.83	3321	4	13284	70670.88	0.004411983	29.33772523	58.67545046
86.5	112.83	3472	4	13888	73884.16	0.004612588	31.2271996	62.4543992
94.5	116.54	3014	4	12056	64137.92	0.00400413	27.99740636	223.9792508
96.0	118.27	2861	4	11444	60882.08	0.003800868	26.97235796	40.45853694
					Total Emissions in pounds			2325.420341
					Equivalent Gallons (vapor)			377.5033021

DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
SITE - Huck's Plaza
LOCATION - Myrtle Beach, SC
SCDHEC SITE ID # 05156
Date: 6/15/15-6/19/15

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW2		
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
9:30	0.0			
10:00	0.5	0.0		
10:30	1.0	0.0		
11:00	1.5	0.0		
11:30	2.0	0.0		
12:00	2.5	0.0		
12:30	3.0	0.0		
13:00	3.5	0.0		
13:30	4.0	0.0		
14:00	4.5	0.0		
14:30	5.0	0.0		
15:00	5.5	0.0		
15:30	6.0	0.0		
16:00	6.5	0.0		
16:30	7.0	0.0		
17:00	7.5	0.0		
17:30	8.0	0.0		
18:30	9.0	0.0		
19:30	10.0	0.0		
20:30	11.0	0.0		
21:30	12.0	0.0		
22:30	13.0	0.0		
23:30	14.0	0.0		
8:00	22.5	0.0		
10:00	24.5	0.0		
12:00	26.5	0.0		
14:00	28.5	0.0		
16:00	30.5	0.0		
18:00	32.5	0.0		
20:00	34.5	0.0		
22:00	36.5	0.0		
0:00	38.5	0.0		
8:00	46.5	0.0		
10:00	48.5	0.0		
12:00	50.5	0.0		
14:00	52.5	0.0		
16:00	54.5	0.0		
18:00	56.5	0.0		
20:00	58.5	0.0		
22:00	60.5	0.0		
0:00	62.5	0.0		
8:00	70.5	0.0		
10:00	72.5	0.0		
12:00	74.5	0.0		
14:00	76.5	0.0		
16:00	78.5	0.0		
18:00	80.5	0.0		
20:00	82.5	0.0		
22:00	84.5	0.0		
0:00	86.5	0.0		
8:00	94.5	0.0		
9:30	96.0	0.0		
Maximum Change:		0.0		

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW2		
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior to AFVR	0 hours	8.40		
	24 hours	8.41		
	48 hours	8.40		
	72 hours	8.43		
	96 hours	8.44		
Maximum Change:		0.04		

STINGER LEVEL
Huck's Plaza
Myrtle Beach, South Carolina

6/15/15-6/19/15

STINGER LEVEL

		MW3			
Time	Elapsed Time				
9:30	0.0	8.50			
10:00	0.5	9.00			
10:30	1.0	9.50			
11:00	1.5	10.00			
11:30	2.0	10.50			
12:00	2.5	11.00			
12:30	3.0	11.50			
13:00	3.5	12.00			
13:30	4.0	12.50			
14:00	4.5	12.75			
14:30	5.0	12.75			
15:00	5.5	12.75			
15:30	6.0	10.00			
16:00	6.5	10.00			
16:30	7.0	10.00			
17:00	7.5	10.00			
17:30	8.0	10.00			
18:30	9.0	9.00			
19:30	10.0	9.00			
20:30	11.0	9.00			
21:30	12.0	9.00			
22:30	13.0	9.00			
23:30	14.0	9.00			
8:00	22.5	9.00			
10:00	24.5	9.00			
12:00	26.5	9.00			
14:00	28.5	9.00			
16:00	30.5	9.00			
18:00	32.5	10.00			
20:00	34.5	10.00			
22:00	36.5	10.00			
0:00	38.5	10.00			
8:00	46.5	11.00			
10:00	48.5	12.00			
12:00	50.5	12.00			
14:00	52.5	12.00			
16:00	54.5	12.00			
18:00	56.5	12.00			
20:00	58.5	12.00			
22:00	60.5	12.00			
0:00	62.5	12.00			
8:00	70.5	12.00			
10:00	72.5	12.00			
12:00	74.5	12.00			
14:00	76.5	12.00			
16:00	78.5	12.00			
18:00	80.5	12.00			
20:00	82.5	12.00			
22:00	84.5	12.00			
0:00	86.5	12.00			
8:00	94.5	12.00			
9:30	96.0	12.00			

SUPPORTING DOCUMENTS

APPENDIX D

DISPOSAL MANIFESTS

CERTIFICATE OF DISPOSAL

Certify to all that

T K TANK SERVICES, INC.

OF GALLONS 895 Contaminant: NONHAZARDOUS PETROLEUM CONTAMINATED WATER

This is to certify that the above water/product has been disposed of

In accordance with EPA regulations on petroleum contaminated water

HUCK'S PLAZA

6/19/2015

DATE

SIGNATURE

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number | 2. Page 1 of | 3. Emergency Response Phone | 4. Waste Tracking Number

5. Generator's Name and Mailing Address

SOUTHEASTERN ENVIRONMENTAL
323 MAIN ST.
CONWAY, SC 29526

Generator's Phone:

Generator's Site Address (if different than mailing address)

HUCKS PLAZA
1432 HWY. 501
Myrtle Beach, SC 29572

6. Transporter 1 Company Name

T K TANK SERVICES, INC.

U.S. EPA ID Number

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

T K TANK SERVICES INC.
425 BOULEVARD RD.
SUMTER, SC

U.S. EPA ID Number

Facility's Phone: 803-418-5314

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
	1. nonhazardous petroleum contaminated water/product			895	G	
	2.					
	3.					
	4.					

13. Special Handling Instructions and Additional Information

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 | Signature | Month | Day | Year

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: Michael Palladino | Signature: Michael Palladino | Month: 6 | Day: 19 | Year: 15

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: Casey Keels Newman | Signature: Casey Newman | Month: 6 | Day: 19 | Year: 15

169-BLC-O 5 11977 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

D H E C

PROMOTE PROTECT PROSPER

Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment



MR DANNY TODD
1121 SIMONTON DR
WATKINSVILLE GA 30677

AUG 2 4 2015

Re: AFVR Directive
501 Amoco; 1432 Hwy. 501, Myrtle Beach, SC
UST Permit # 05156; CA# 50879
Release reported December 31, 1991
AFVR Report received August 18, 2015
Horry County

Dear Mr. Todd:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) recognizes your commitment to continue work at this site utilizing Southeastern Environmental, Inc. In accordance with Section 280.64 of the South Carolina Underground Storage Tank Control Regulations, a 96-hour Aggressive Fluid and Vapor Recovery (AFVR) event may commence as outlined in the UST Quality Assurance Program Plan (QAPP) Revision 2.0. **Please be aware that the AFVR Procedures have been updated.** Please connect to MW-3 for the duration of this event. The stingers shall be lowered at six inch intervals starting at the water table interface to a maximum depth of approximately 12.72 feet in the well. A copy of Agency QAPP Version 2.0 for the Underground Storage Tank Division is available at http://www.scdhec.gov/environment/docs/qapp_rev-2_april2013.pdf.

As soon as the beginning date of the event has been scheduled, please contact Jim Martin at martinjm@dhec.sc.gov.

The AFVR Report should be submitted within 90 days from the date of this correspondence. Please note that all applicable South Carolina certification requirements apply to the services and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

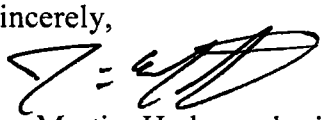
Cost Agreement # 50879 has been approved in the amount shown on the enclosed cost agreement. Southeastern Environmental, Inc., can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. If the invoice and completed report are not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval is obtained from the UST Management Division. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the Agency for the cost to be paid. The Agency reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Agency reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The Agency grants preapproval for transportation of virgin petroleum-contaminated groundwater from the referenced site to a permitted treatment facility.

On all correspondence concerning this site, please reference UST Permit #05156 and CA # 50879. If you have any questions, please contact me at (803) 898-0605 or by e-mail at martinjm@dhec.sc.gov.

Sincerely,



Jim Martin, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: Technical File (with enclosure)
Southeastern Environmental, 323 Main Street, Conway, SC 29526 (with enclosure)

Approved Cost Agreement 50879

Facility: 05156 501 AMOCO
MARTINJM
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
19 RPT/PROJECT MNGT & COORDINATIO						
		PRT	REPORT PREPARATION	0.1200	22,742.25	2,729.07
23 EFR						
		A4	96 HOUR EVENT	1.0000	12,567.50	12,567.50
		C4	OFF GAS TREATMENT 96 HOUR	1.0000	780.00	780.00
		D	SITE RECONNAISSANCE	1.0000	203.25	203.25
		F1	EFFLUENT DISPOSAL	20,000.0000	0.44	8,800.00
		G	AFVR EQUIPMENT MOB	1.0000	391.50	391.50
				Total Amount		25,471.32

Document Receipt Information

[X] Hard Copy [X] CD [ ] Email

Date Received 11-18-2015

Permit Number 05156

Project Manager Jim Martin

Name of Contractor SouthEastern

UST Certification Number

Docket Number 11 tech

Scanned

AFVR

96 Hour
Aggressive Fluid Vapor Recovery (AFVR) Event

Hucks Plaza

1432 Hwy. 501
Myrtle Beach, South Carolina
UST Permit #05156
CA #50879

Prepared for:

South Carolina Department of Health and Environmental Control

Underground Storage Tank Program

2600 Bull Street

Columbia, South Carolina 29201

Prepared by:

Southeastern Environmental, Inc.

323 Main Street

Conway, South Carolina 29526

12 November 2015

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Hucks Plaza
SC DHEC Site ID # 05156
CA# 50879

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Field Work	1
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Recommendations	2
APPENDICES	
MAPS AND TABLES	
Site Map - Monitoring Well Locations	A
Ground Water/Free Product Elevation Table	B
AFVR Event Tables	C
SUPPORTING DOCUMENTS	
Disposal Manifests	D

96 hour AFVR Event

Hucks Plaza

1432 Highway 501
Myrtle Beach, SC 29526

Site # 05156, CA # 50879

SEI conducted a 96 hour AFVR event at Hucks Plaza, site # 05156, 1432 Hwy 501, Myrtle Beach, S.C. beginning on the 8th of October and ending on the 12th of October 2015. The data collected has been reviewed by Dr. Douglas D. Nelson and found to be in accordance with currently accepted quality control practices as prescribed by the South Carolina Department of Health and Environmental Control.

Southeastern Environmental, Inc.

Bruce G. Newell
President, Southeastern Environmental, Inc.
Class I UST Site Rehab Contractor # 82

Douglas D. Nelson, P. G.
South Carolina Registration #391

Narrative

Location: Hucks Plaza 1432 Hwy. 501 Myrtle Beach, SC	Weather: 8-12 Oct. 15 – Clear
Date: 8-12 Oct. 2015	Temperature: 8-12 Oct. 15– 74° to 85°
UST Site ID # 05156, CA# 50879	Data Collection By: B.G. Newell/R.S. Stanley and Jason Chiorazzi (VERCO)

Introduction:

South Carolina Department of Health and Environmental Control (SC DHEC) issued a request for a 96 hour AFVR event to be conducted at the above referenced site. The SC DHEC project manager determined the 96 hr. AFVR event should be conducted using MW-3.

Field Work:

Aggressive Fluid Vapor Recovery (AFVR) Events

On the 8th of October 2015, SEI personnel gauged for free phase petroleum in MW-3. VERCO started the 96 hour AFVR event on the 8th of October 2015 at 11:00 hrs. and completed the 96 hour AFVR event 12th of October 2015 at 11:00 hrs. Approximately 1250 gallons of non-hazardous petroleum contaminated water was recovered during the 96 hour AFVR event.

SEI personnel gauged for free phase petroleum in MW-3 on the 12th of November 2015, thirty one (31) days after the 96 hour AFVR event was completed. The ground water and free product levels are listed below and with historical data in the appendix.

Results:

Free phase petroleum was detected in MW-3. Free phase petroleum readings were;

8 Oct. 15	MW-3	0.26' FP
12 Nov. 15	MW-3	0.46' FP

Total emission calculations at the conclusion of the event were approximately 493 pounds or approximately 80 gallons.

Recommendations:

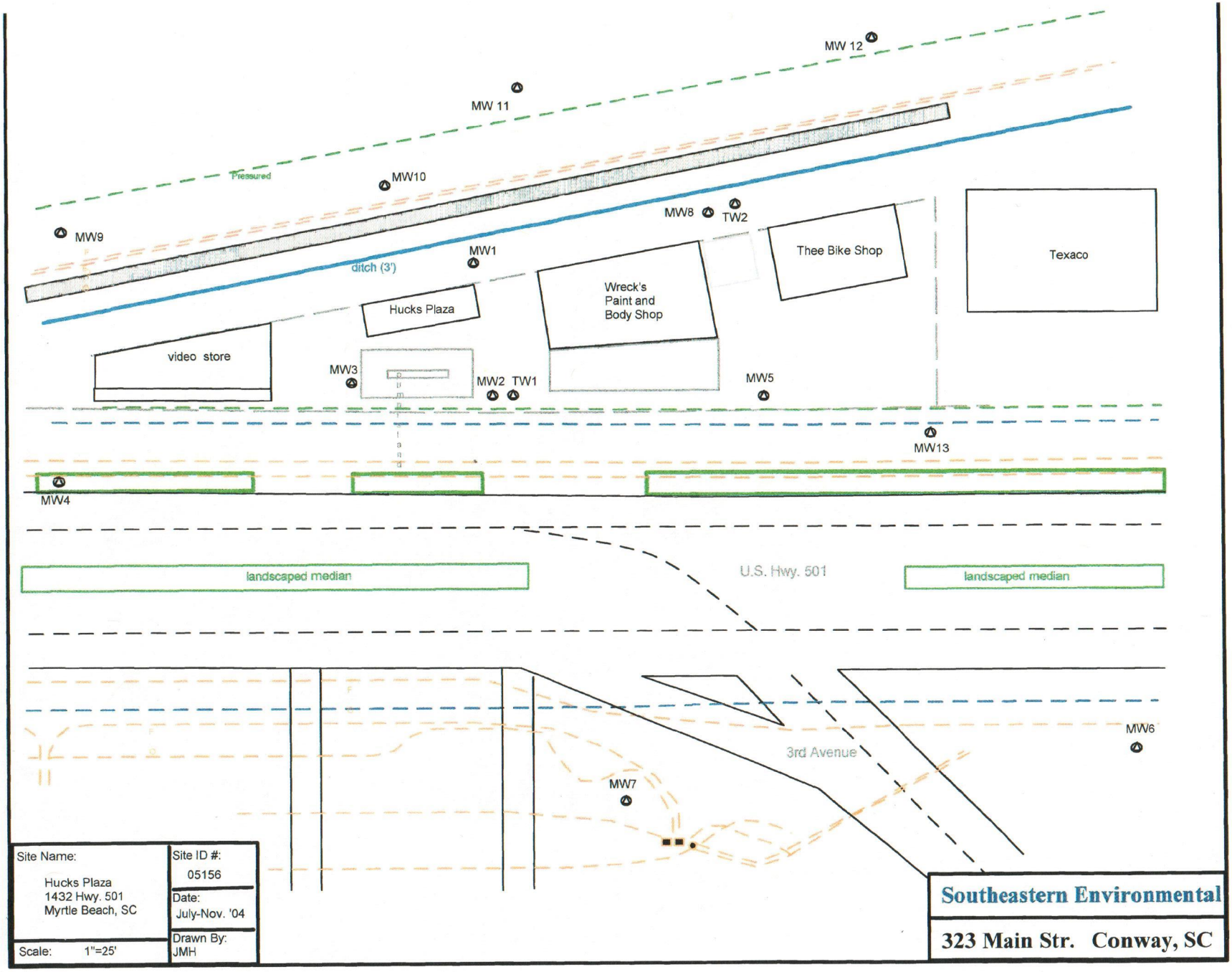
SEI recommends an additional AFVR event be conducted to control free phase petroleum migration and recover contaminating vapors and fluids from the site. The 96 hour AFVR should be conducted as soon as possible to continue the overall site remediation efforts.

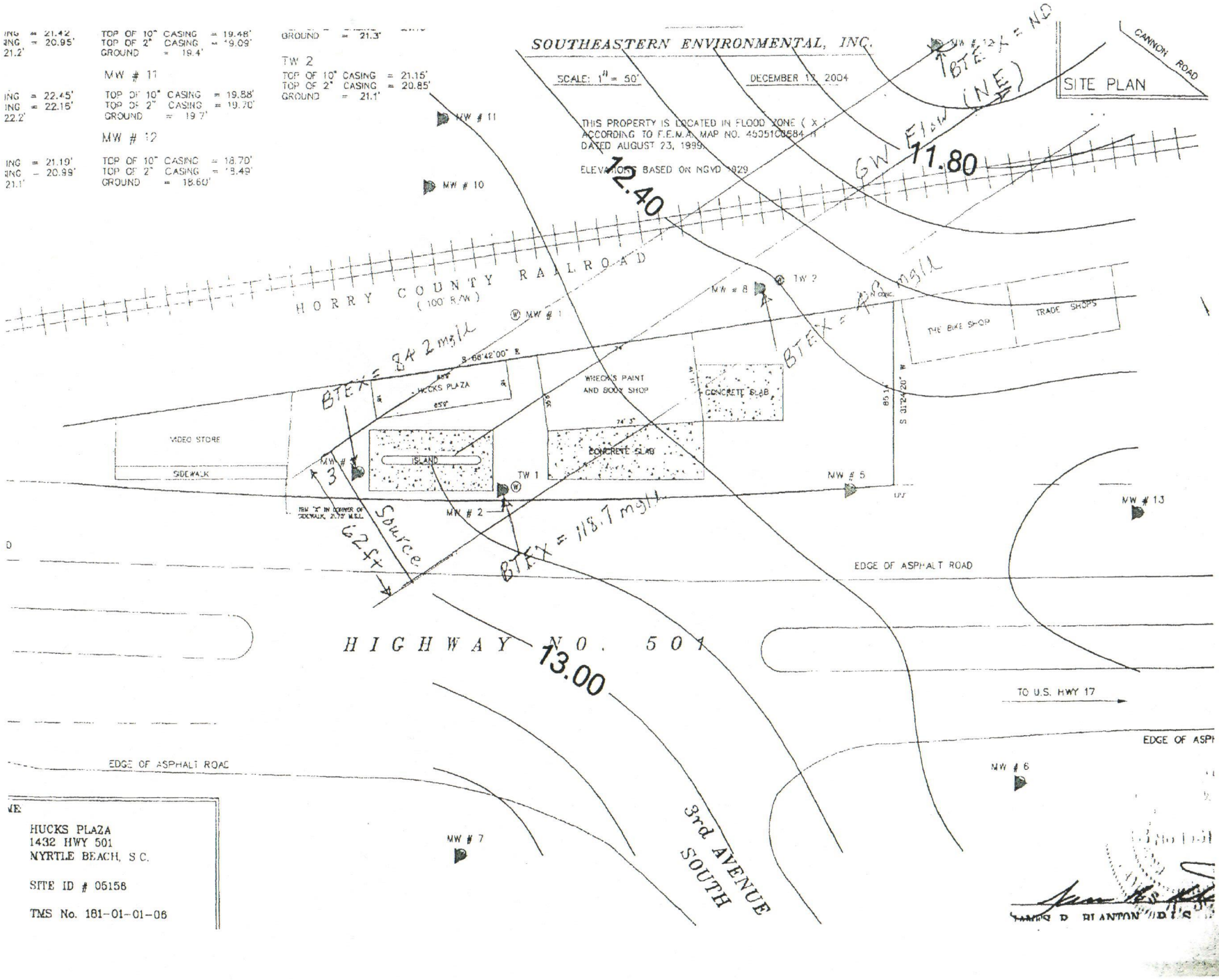
MAPS AND TABLES

APPENDIX A

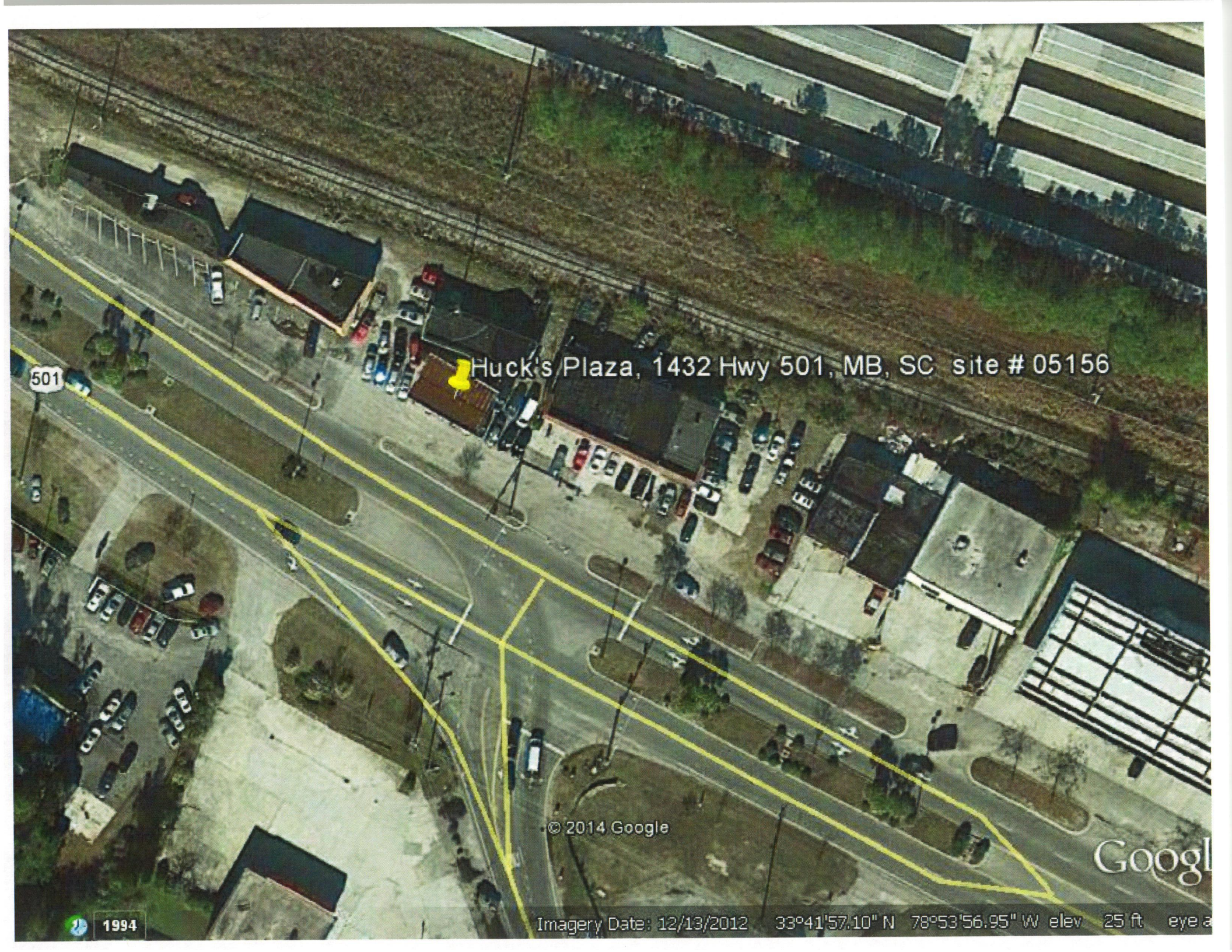
SITE MAP

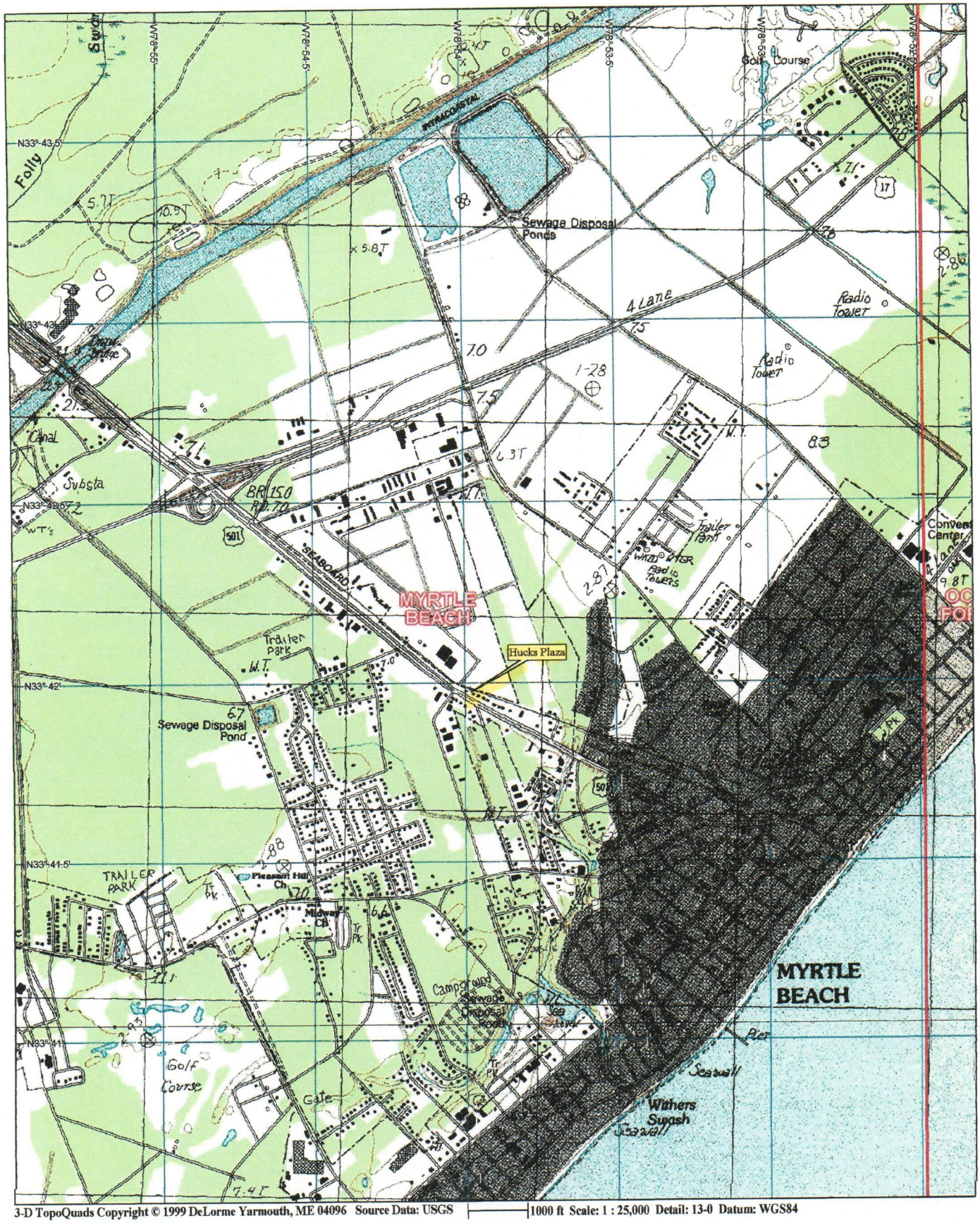
Monitoring Well Locations


MW 12
MW 11
Pressured
MW10
MW9
MW8
TW2
ditch (3')
MW1
Thee Bike Shop
Texaco
Wreck's
Paint and
Body Shop
Hucks Plaza
video store
MW3
MW2
TW1
MW5
MW13
MW4
landscaped median
U.S. Hwy. 501
landscaped median
MW6
3rd Avenue
MW7
Site Name:
Hucks Plaza
1432 Hwy. 501
Myrtle Beach, SC
Site ID #:
05156
Date:
July-Nov. '04
Drawn By:
JMH
Scale: 1"=25'
Southeastern Environmental
323 Main Str. Conway, SC



SOUTHEASTERN ENVIRONMENTAL, INC.
SCALE: 1" = 50'
DECEMBER 17, 2004
SITE PLAN
CANNON ROAD
THIS PROPERTY IS LOCATED IN FLOOD ZONE (X)
ACCORDING TO F.E.M.A. MAP NO. 45051C0584 H
DATED AUGUST 23, 1999.
ELEVATIONS BASED ON NGVD 1929
TOP OF 10" CASING = 19.48'
TOP OF 2" CASING = 19.09'
GROUND = 19.4'
MW # 11
TOP OF 10" CASING = 19.88'
TOP OF 2" CASING = 19.70'
GROUND = 19.7'
MW # 12
TOP OF 10" CASING = 18.70'
TOP OF 2" CASING = 18.49'
GROUND = 18.60'
GROUND = 21.3'
TW 2
TOP OF 10" CASING = 21.15'
TOP OF 2" CASING = 20.85'
GROUND = 21.1'
MW # 11
MW # 10
MW # 12
MW # 1
MW # 8
TW 2
MW # 3
TW 1
MW # 2
MW # 5
MW # 13
MW # 6
MW # 7
HORRY COUNTY RAILROAD
(100' R/W)
S 66°42'00" E
HUCKS PLAZA
WHECK'S PAINT AND BODY SHOP
CONCRETE SLAB
ISLAND
VIDEO STORE
SIDEWALK
THE BIKE SHOP
TRADE SHOPS
S 31°24'20" W
EDGE OF ASPHALT ROAD
HIGHWAY NO. 501
TO U.S. HWY 17
3rd AVENUE SOUTH
12.40
11.80
13.00
BTEX = ND
GW Flow (NE)
BTEX = 84.2 mg/L
BTEX = 48 mg/L
BTEX = 118.7 mg/L
Source 62 ft
HUCKS PLAZA
1432 HWY 501
NYRTLE BEACH, S.C.
SITE ID # 05158
TMS No. 181-01-01-06


Huck's Plaza, 1432 Hwy 501, MB, SC site # 05156
501
© 2014 Google
Google
1994
Imagery Date: 12/13/2012 33°41'57.10" N 78°53'56.95" W elev 25 ft



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS 1000 ft Scale: 1 : 25,000 Detail: 13-0 Datum: WGS84

APPENDIX B

GROUNDWATER/FREE PRODUCT
ELEVATION TABLE

AFVR Event Ground Water Level Table

Southeastern Environmental, Inc. ***323 Main Street*** ***Conway, SC 29526***	Site Name: Hucks Plaza (501 Amoco)	Site ID: 05156, CA# 50879
	Date: 12 Nov. 15	Field Personnel: BGN/RSS

Well No.	Date Measured	Top of Casing Elevation *(ft.)*	Screen Interval *(ft.)*	Depth to Free Product (from TOC)	Depth to Ground Water (from TOC)	Free Product Thickness *(ft.)*	Ground Water Elevation *(ft/.msl)*
Ground water levels prior to 96 hour AFVR event conducted 15-19 Jun. 2015							
MW-2							
MW-3	8 Oct. 15	21.44'	2.72'/ 12.72'	4.76'	5.02'	0.26'	16.42'

Well No.	Date Measured	Top of Casing Elevation *(ft.)*	Screen Interval *(ft.)*	Depth to Free Product (from TOC)	Depth to Ground Water (from TOC)	Free Product Thickness *(ft.)*	Ground Water Elevation *(ft/.msl)*
Ground water levels 31 days after 96 hour AFVR event, 15-19 Jun. 2015							
MW-2							
MW-3	12 Nov. 15	21.44'	2.72' / 12.72'	4.70'	5.16'	0.46'	16.28'

AFVR Event Ground Water Level Table

Southeastern Environmental, Inc. ***323 Main Street*** ***Conway, SC 29526***	Site Name: Hucks Plaza (501 Amoco)	Site ID: 05156, CA# 50318
	Date: 12 November 2015	Field Personnel: BGN/RSS

Well No.	Date Measured	Top of Casing Elevation *(ft.)*	Screen Interval *(ft.)*	Depth to Free Product (from TOC)	Depth to Ground Water (from TOC)	Free Product Thickness *(ft.)*	Ground Water Elevation *(ft/.msl)*
Ground water levels prior to 96 hour AFVR event conducted 15-19 Jun. 2015							
MW-3	11 Mar 15	21.44'	2.72'/ 12.72'	5.90	6.82	0.92	14.62
MW-3	14 Apr 15	21.44'	2.72'/ 12.72'	6.32	7.05	0.73	14.39
MW-3	15 Jun 15	21.44'	2.72'/ 12.72'	7.39'	8.40	1.01'	13.04'
MW-3	20 July 15	21.44'	2.72' / 12.72'	8.47'	8.75'	0.28'	12.69'
MW-3	08 Oct 15	21.44'	2.72'/ 12.72'	4.76	5.02	0.26	16.42
MW-3	12 Nov 15	21.44'	2.72'/ 12.72'	4.70	5.16	0.46	16.28

APPENDIX C

AGGRESSIVE FLUID VAPOR RECOVERY (AFVR)
EVENT TABLES

AFVR MONITORING DATA
Site Name: Huck's Plaza
Site Location: Myrtle Beach, SC
Date: 10/8/15-10/12/15
SCDHEC ID# 05156

Extraction Well	Time (hh:mm)	Extraction Well Head Vacuum (in. Hg)					Vacuum Truck Exhaust						
		MW3				TRUCK	Relative Humidity	Temp (°F)	Pretreatment Conc. (PPM)	Post Treatment Conc. (PPM)	Offgas Velocity Ft/Min	Water Vapor (%)	Flow Rate (DSCFM)
10/8/15	11:00	17.0				22							
	11:30	17.0				22	9.3	155	1144	0	1960	0.02	80.78
	12:00	17.0				22	8.6	170	991	0	2101	0.02	84.53
	12:30	17.0				22	8.0	172	744	1	2018	0.02	80.93
	13:00	17.0				22	7.3	170	856	0	2042	0.02	82.15
	13:30	17.0				21	6.7	169	912	2	2013	0.02	81.12
	14:00	17.0				21	6.9	171	751	4	1950	0.02	78.33
	14:30	17.0				20	7.0	167	769	3	1962	0.02	79.31
	15:00	17.0				20	7.0	165	765	6	1959	0.02	79.45
	15:30	17.0				20	7.2	165	733	9	1976	0.02	80.13
	16:00	17.0				20	7.4	160	641	11	1959	0.02	80.09
	16:30	17.0				20	7.0	166	689	9	1969	0.02	79.72
	17:00	17.0				20	6.9	163	645	12	1968	0.02	80.07
	17:30	17.0				20	6.7	168	706	18	1912	0.02	77.17
	18:00	17.0				20	6.9	166	698	23	1813	0.02	73.41
	18:30	17.0				20	6.1	171	721	21	1832	0.02	73.59
	19:00	17.0				20	6.5	170	726	19	1759	0.02	70.77
	20:00	17.0				21	6.4	176	735	26	1923	0.02	76.64
	21:00	17.0				21	6.4	170	832	28	1941	0.02	78.09
	22:00	17.0				20	6.2	170	957	33	1841	0.02	74.07
	23:00	16.0				20	6.6	168	1021	44	2158	0.02	87.10
10/9/15	0:00	16.0				20	6.9	168	1135	49	2076	0.02	83.79
	8:00	15.0				21	7.3	166	718	67	2018	0.02	81.71
	9:00	15.5				20	7.1	174	777	71	2001	0.02	80.00
	10:00	15.5				20	7.0	180	883	77	1892	0.02	74.93
	11:00	15.5				20	7.0	172	903	72	1921	0.02	77.04
	13:00	18.0				21	7.0	168	843	80	1898	0.02	76.60
	15:00	18.0				21	6.8	160	765	86	1868	0.02	76.37
	17:00	18.0				22	6.5	167	890	91	1556	0.02	62.90
	19:00	18.0				22	6.6	165	914	93	1645	0.02	66.71
	21:00	16.5				22	6.9	174	1006	89	1895	0.02	75.76
	23:00	16.5				20	6.5	171	1135	99	1923	0.02	77.24
10/10/15	8:00	18.5				20	7.0	167	632	123	2018	0.02	81.58
	10:00	16.5				20	7.2	178	721	0	2056	0.02	81.68
	12:00	16.5				20	7.6	181	877	2	2061	0.02	81.50
	14:00	18.5				20	7.7	156	805	6	2043	0.02	84.06
	16:00	18.5				20	7.3	155	789	4	2084	0.02	85.89
	18:00	18.5				20	7.1	163	689	7	2059	0.02	83.77
	20:00	18.5				20	7.0	173	876	9	2026	0.02	81.12
	22:00	18.5				21	6.7	166	789	12	2092	0.02	84.70
10/11/15	0:00	18.5				20	6.6	165	742	14	2085	0.02	84.56
	8:00	18.5				21	7.0	157	1143	27	2118	0.02	87.01
	10:00	18.5				20	7.2	165	1087	31	2045	0.02	82.93
	12:00	18.5				20	7.2	175	1122	37	2112	0.02	84.30
	14:00	18.5				20	7.1	174	865	33	2074	0.02	82.92
	16:00	18.0				20	7.0	173	957	46	2032	0.02	81.36
	20:00	18.5				20	7.0	177	686	52	2094	0.02	83.32
	22:00	18.5				20	6.7	175	776	67	2076	0.02	82.86
10/12/15	0:00	18.5				20	6.5	172	834	80	2079	0.02	83.38
	8:00	18.5				20	6.8	167	621	94	2076	0.02	83.92
	10:00	18.0				20	6.6	170	603	99	2067	0.02	83.16

Well Gauging Data:				Before AFVR Event			After AFVR Event		
Well No.	Diameter (in)	Total Depth (ft)	Target Stinger Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)
MW3	2.00	12.75	12.75	4.76	5.92	**1.16**	NONE	11.76	**0.00**

AFVR Information	
Client	SEI
Equipment Operator:	RF/RU
Blower Discharge I.D.	3 inches

Notes: Pipe ID - The inside diameter of the blower discharge piping (from vacuum truck)
Velocity - The rate at which air flows is measured at the blower discharge piping
Temperature - The temperature of the air stream exiting the blower discharge piping
Relative humidity - The & relative humidity of the air stream exiting the blower discharge piping
Water Vapor in % - Pounds of water per pound of dry air (derived from a Psychrometric chart of temp. vs relative humidity)
Flow rate = (1 - water vapor)(velocity)(Pipe Diameter/24)²(3.14)(528°R/Temp + 460)

Site Name: Huck's Plaza
Location: Myrtle Beach, SC
Date: 10/8/15-10/12/15

EMISSION CALCULATION

Elapsed Time (hr)	Flow Rate (DSCFM)	Concentration (ppm)	K (#C - gas)	PPMg (ppm)	Cg:m (mg/dsm^3)	Cg (lbs/dscf)	PMRg (lb/hr)	PMR (lb)
0								
0.5	80.78	1144	4	4576	24344.32	0.001519816	7.366097002	3.683048501
1.0	84.53	991	4	3964	21088.48	0.001316554	6.677126606	3.338563303
1.5	80.93	744	4	2976	15832.32	0.000988412	4.799626834	2.399813417
2.0	82.15	856	4	3424	18215.68	0.001137205	5.605565177	2.802782589
2.5	81.12	912	4	3648	19407.36	0.001211601	5.89682747	2.948413735
3.0	78.33	751	4	3004	15981.28	0.000997711	4.688950443	2.344475221
3.5	79.31	769	4	3076	16364.32	0.001021624	4.86170111	2.430850555
4.0	79.45	765	4	3060	16279.2	0.00101631	4.844470408	2.422235204
4.5	80.13	733	4	2932	15598.24	0.000973798	4.682107181	2.34105359
5.0	80.09	641	4	2564	13640.48	0.000851575	4.091958586	2.045979293
5.5	79.72	689	4	2756	14661.92	0.000915344	4.378456692	2.189228346
6.0	80.07	645	4	2580	13725.6	0.000856889	4.116491431	2.058245715
6.5	77.17	706	4	2824	15023.68	0.000937928	4.3427357	2.17136785
7.0	73.41	698	4	2792	14853.44	0.0009273	4.084222063	2.042111032
7.5	73.59	721	4	2884	15342.88	0.000957856	4.229235105	2.114617552
8.0	70.77	726	4	2904	15449.28	0.000964499	4.095362642	2.047681321
9.0	76.64	735	4	2940	15640.8	0.000976455	4.489934043	4.489934043
10.0	78.09	832	4	3328	17704.96	0.001105321	5.178914794	5.178914794
11.0	74.07	957	4	3828	20364.96	0.001271384	5.650093444	5.650093444
12.0	87.10	1021	4	4084	21726.88	0.001356409	7.088396334	7.088396334
13.0	83.79	1135	4	4540	24152.8	0.001507859	7.580433122	7.580433122
21.0	81.71	718	4	2872	15279.04	0.00095387	4.676293127	37.41034502
22.0	80.00	777	4	3108	16534.56	0.001032253	4.954608041	4.954608041
23.0	74.93	883	4	3532	18790.24	0.001173075	5.273905155	5.273905155
24.0	77.04	903	4	3612	19215.84	0.001199645	5.545343976	5.545343976
26.0	76.60	843	4	3372	17939.04	0.001119934	5.147479107	10.29495821
28.0	76.37	765	4	3060	16279.2	0.00101631	4.656687251	9.313374502
30.0	62.90	890	4	3560	18939.2	0.001182374	4.462338506	8.924677011
32.0	66.71	914	4	3656	19449.92	0.001214259	4.860293929	9.720587858
34.0	75.76	1006	4	4024	21407.68	0.001336481	6.075029494	12.15005899
36.0	77.24	1135	4	4540	24152.8	0.001507859	6.988375623	13.97675125
45.0	81.58	632	4	2528	13448.96	0.000839619	4.109615143	32.87692114
47.0	81.68	721	4	2884	15342.88	0.000957856	4.694270915	9.38854183
49.0	81.50	877	4	3508	18662.56	0.001165104	5.697049714	11.39409943
51.0	84.06	805	4	3220	17130.4	0.001069451	5.394037836	10.78807567
53.0	85.89	789	4	3156	16789.92	0.001048195	5.401694963	10.80338993
55.0	83.77	689	4	2756	14661.92	0.000915344	4.60063708	9.201274161
57.0	81.12	876	4	3504	18641.28	0.001163775	5.664613601	11.3292272
59.0	84.70	789	4	3156	16789.92	0.001048195	5.327148505	10.65429701
61.0	84.56	742	4	2968	15789.76	0.000985755	5.001040836	10.00208167
69.0	87.01	1143	4	4572	24323.04	0.001518487	7.927157294	63.41725835
71.0	82.93	1087	4	4348	23131.36	0.001444091	7.185769675	14.37153935
73.0	84.30	1122	4	4488	23876.16	0.001490589	7.539516554	15.07903311
75.0	82.92	865	4	3460	18407.2	0.001149161	5.716971869	11.43394374
77.0	81.36	957	4	3828	20364.96	0.001271384	6.206723304	12.41344661
79.0	83.21	710	4	2840	15108.8	0.000943242	4.709231926	9.418463853
81.0	83.32	686	4	2744	14598.08	0.000911358	4.556084963	9.112169926
83.0	82.86	776	4	3104	16513.28	0.001030924	5.125612838	10.25122568
85.0	83.38	834	4	3336	17747.52	0.001107978	5.542860074	11.08572015
93.0	83.92	621	4	2484	13214.88	0.000825005	4.154147015	33.23317612
95.0	83.16	603	4	2412	12831.84	0.000801092	3.997124659	7.994249318
					Total Emissions in pounds			493.1867339
					Equivalent Gallons (vapor)			80.06278148

DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
SITE - Huck's Plaza
LOCATION - Myrtle Beach, SC
SCDHEC SITE ID # 05156
Date: 10/8/15-10/12/15

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW2		
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
11:00	0	-		
11:30	0.5	0.0		
12:00	1.0	0.0		
12:30	1.5	0.1		
13:00	2.0	0.1		
13:30	2.5	0.0		
14:00	3.0	0.0		
14:30	3.5	0.0		
15:00	4.0	0.0		
15:30	4.5	0.0		
16:00	5.0	0.1		
16:30	5.5	0.0		
17:00	6.0	0.1		
17:30	6.5	0.0		
18:00	7.0	0.0		
18:30	7.5	0.0		
19:00	8.0	0.0		
20:00	9.0	0.0		
21:00	10.0	0.0		
22:00	11.0	0.1		
23:00	12.0	0.1		
0:00	13.0	0.1		
8:00	21.0	0.1		
9:00	22.0	0.0		
10:00	23.0	0.0		
11:00	24.0	0.0		
13:00	26.0	0.1		
15:00	28.0	0.0		
17:00	30.0	0.0		
19:00	32.0	0.0		
21:00	34.0	0.0		
23:00	36.0	0.0		
8:00	45.0	0.0		
10:00	47.0	0.0		
12:00	49.0	0.0		
14:00	51.0	0.0		
16:00	53.0	0.1		
18:00	55.0	0.1		
20:00	57.0	0.1		
22:00	59.0	0.0		
0:00	61.0	0.1		
8:00	69.0	0.0		
10:00	71.0	0.0		
12:00	73.0	0.0		
14:00	75.0	0.0		
16:00	77.0	0.1		
18:00	79.0	0.0		
20:00	81.0	0.0		
22:00	83.0	0.1		
0:00	85.0	0.0		
8:00	93.0	0.0		
11:00	96.0	0.0		
Maximum Change:		0.1		

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW2		
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior to AFVR	0 hours	6.88		
	24 hours	7.01		
	48 hours	7.37		
	72 hours	7.48		
	96 hours	7.56		
Maximum Change:		0.68		

STINGER LEVEL
Huck's Plaza
Myrtle Beach, South Carolina

10/8/15-10/12/15

STINGER LEVEL

		MW3			
Time	Elapsed Time				
11:00	0	5.92			
11:30	0.5	6.00			
12:00	1.0	6.50			
12:30	1.5	7.00			
13:00	2.0	7.50			
13:30	2.5	8.00			
14:00	3.0	8.50			
14:30	3.5	9.00			
15:00	4.0	9.50			
15:30	4.5	10.00			
16:00	5.0	10.50			
16:30	5.5	11.00			
17:00	6.0	11.50			
17:30	6.5	12.00			
18:00	7.0	12.50			
18:30	7.5	12.75			
19:00	8.0	12.75			
20:00	9.0	12.75			
21:00	10.0	12.75			
22:00	11.0	11.00			
23:00	12.0	11.00			
0:00	13.0	11.00			
8:00	21.0	10.00			
9:00	22.0	10.00			
10:00	23.0	10.00			
11:00	24.0	10.00			
13:00	26.0	10.00			
15:00	28.0	9.00			
17:00	30.0	9.00			
19:00	32.0	9.00			
21:00	34.0	9.00			
23:00	36.0	9.00			
8:00	45.0	8.00			
10:00	47.0	8.00			
12:00	49.0	8.00			
14:00	51.0	8.00			
16:00	53.0	8.00			
18:00	55.0	8.00			
20:00	57.0	7.00			
22:00	59.0	7.00			
0:00	61.0	7.00			
8:00	69.0	9.00			
10:00	71.0	9.00			
12:00	73.0	9.00			
14:00	75.0	9.00			
16:00	77.0	9.00			
18:00	79.0	10.00			
20:00	81.0	10.00			
22:00	83.0	10.00			
0:00	85.0	10.00			
8:00	93.0	11.00			
11:00	96.0	11.00			

SUPPORTING DOCUMENTS

Calculation of Petroleum Vapor Weight Extracted During an AFVR Event at Hucks Plaza, Myrtle Beach, SC, October 08 - 12, 2015

The tables on the following pages contain the data and calculations for one 96 hour AFVR event at Hucks Plaza, Myrtle Beach, S.C., conducted October 08 - 12, 2015. Monitoring well MW3, was evacuated. The amount of COC vaporized was significant.

The weight of COC volatilized during the AFVR event conducted October 08 - 12, 2015, was 493 pounds (80 gallons). At the start of the AFVR event there was a thickness of 0.26 ft of free product in MW3. The AFVR procedure removed all detectable free product from MW3. Re-sampling 35 days after the AFVR event measured a thickness of 0.46 ft. of free product in MW3. Considering the thickness of free product was greater 35 days after the AFVR than before, this site remains contaminated.

Free Product Thickness in MW3 Before and 35 Days After October 8 – 12, 2015, AFVR event at HUCKS PLAZA

8 Oct. 2015			12 Nov. 2015		
FP	4.76'		FP	4.70'	
H2O	5.02'		H2O	5.16'	
FP	0.26'	thickness	FP	0.46'	thickness

Distances to the top of the free product and the top of the water table are measured downward from the top of the casing in MW3.

March 11 - 15, 2015
295 pounds (47.8 gallons)
.092 feet 34 days 0.73 feet

June 15 - 19, 2015
2235 pounds (378 gallons)
1.01 feet 35 days 0.82 feet

October 08 - 12, 2015
493 pounds (80 gallons)
0.26 feet 35 days 0.46 Feet

APPENDIX D

DISPOSAL MANIFESTS

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number

GENERATOR

5. Generator's Name and Mailing Address

VERCO
2047 INDUSTRIAL BOULEVARD
LEXINGTON, SC

Generator's Phone:

Generator's Site Address (if different than mailing address)

HUCK'S PLAZA

6. Transporter 1 Company Name: VERCO INC.

U.S. EPA ID Number:

7. Transporter 2 Company Name:

U.S. EPA ID Number:

8. Designated Facility Name and Site Address

T K TANK SERVICES INC.
425 BOULEVARD RD.
SUMTER, SC

U.S. EPA ID Number: SCR000778274

Facility's Phone: 803-418-5314

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Nonhazardous petroleum contaminated water/product			1250		
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

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: Richard Fann

Signature:

Month: 10 Day: 12 Year: 15

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: Signature: Month: Day: Year:

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: Casey Keels

Signature:

Month: 10 Day: 12 Year: 15

169-BLC-O 5 11977 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

CERTIFICATE OF DISPOSAL

Certify to all that

T K TANK SERVICES, INC.

OF GALLONS 1,250 Contaminant: NONHAZARDOUS PETROLEUM CONTAMINATED WATER

This is to certify that the above water/product has been disposed of

In accordance with EPA regulations on petroleum contaminated water

HUCK'S PLAZA / AMOCO 501

10/12/2015

DATE

SIGNATURE

D H E C

PROMOTE PROTECT PROSPER

Catherine E. Heigel, Director

Promoting and protecting the health of the public and the environment

UST 12 tech DOCKETING

MR DANNY TODD
1121 SIMONTON DR
WATKINSVILLE GA 30677

DEC 16 2015

Re: AFVR Directive
501 Amoco; 1432 Hwy. 501, Myrtle Beach, SC
UST Permit # 05156; CA# 51603
Release reported December 31, 1991
AFVR Report received November 18, 2015
Horry County

Dear Mr. Todd:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) recognizes your commitment to continue work at this site utilizing Southeastern Environmental, Inc. In accordance with Section 280.64 of the South Carolina Underground Storage Tank Control Regulations, a 96-hour Aggressive Fluid and Vapor Recovery (AFVR) event may commence as outlined in the UST Quality Assurance Program Plan (QAPP) Revision 3.0. **Please be aware that the AFVR Procedures have been updated.** Please connect to MW-3 for the duration of this event. The stingers shall be lowered at six inch intervals starting at the water table interface to a maximum depth of approximately 12.72 feet in the well. A copy of Agency QAPP Version 3.0 for the Underground Storage Tank Division is available at http://www.scdhec.gov/Environment/docs/QAPPRevision3.0.pdf

As soon as the beginning date of the event has been scheduled, please contact Jim Martin at martinjm@dhec.sc.gov.

The AFVR Report should be submitted within 90 days from the date of this correspondence. Please note that all applicable South Carolina certification requirements apply to the services and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

Cost Agreement #51603 has been approved in the amount shown on the enclosed cost agreement. Southeastern Environmental, Inc., can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. If the invoice and completed report are not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval is obtained from the UST Management Division. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the Agency for the cost to be paid. The Agency reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Agency reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The Agency grants preapproval for transportation of virgin petroleum-contaminated groundwater from the referenced site to a permitted treatment facility.

On all correspondence concerning this site, please reference UST Permit #05156 and CA # 51603. If you have any questions, please contact me at (803) 898-0605 or by e-mail at martinjm@dhec.sc.gov.

Sincerely,

Jim Martin, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: Technical File (with enclosure)
Southeastern Environmental, 323 Main Street, Conway, SC 29526 (with enclosure)

Approved Cost Agreement 51603

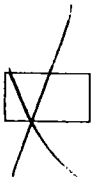
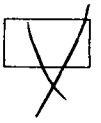
Facility: 05156 501 AMOCO

MARTINJM

PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
19 RPT/PROJECT MNGT & COORDINATIO						
		PRT	REPORT PREPARATION	0.1200	22,742.25	2,729.07
23 EFR						
		A4	96 HOUR EVENT	1.0000	12,567.50	12,567.50
		C4	OFF GAS TREATMENT 96 HOUR	1.0000	780.00	780.00
		D	SITE RECONNAISSANCE	1.0000	203.25	203.25
		F1	EFFLUENT DISPOSAL	20,000.0000	0.44	8,800.00
		G	AFVR EQUIPMENT MOB	1.0000	391.50	391.50
				Total Amount		25,471.32

Document Receipt Information

 Hard Copy  CD ☐ Email

Date Received 2-19-16

Permit Number 05156

Project Manager Jim Martin

Name of Contractor SEI

UST Certification Number _____

Docket Number 13tech

Scanned _____

AFVR 96.hi

96 Hour
Aggressive Fluid Vapor Recovery (AFVR) Event

Hucks Plaza

1432 Hwy. 501
Myrtle Beach, South Carolina
UST Permit #05156
CA #51603

Prepared for:

South Carolina Department of Health and Environmental Control

Underground Storage Tank Program

2600 Bull Street

Columbia, South Carolina 29201

Prepared by:

Southeastern Environmental, Inc.

323 Main Street

Conway, South Carolina 29526

15 February 2016

TABLE OF CONTENTS

Hucks Plaza
SC DHEC Site ID # 05156
CA# 51603

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96 hour AFVR Event

Hucks Plaza

1432 Highway 501
Myrtle Beach, SC 29526

Site # 05156, CA # 51603

SEI conducted a 96 hour AFVR event at Hucks Plaza, site # 05156, 1432 Hwy 501, Myrtle Beach, S.C. beginning on the 4th of January and ending on the 8th of January 2016. The data collected has been reviewed by Dr. Douglas D. Nelson and found to be in accordance with currently accepted quality control practices as prescribed by the South Carolina Department of Health and Environmental Control.

Southeastern Environmental, Inc.

Bruce G. Newell
President, Southeastern Environmental, Inc.
Class I UST Site Rehab Contractor # 82

Douglas D. Nelson, P. G.
South Carolina Registration #391

Narrative

Location: Hucks Plaza 1432 Hwy. 501 Myrtle Beach, SC	Weather: 4-8 Feb. 16 – Overcast/lt. rain
Date: 4-8 Feb. 16	Temperature: 4-8 Feb. 16 42° to 65°
UST Site ID # 05156, CA# 51603	Data Collection By: B.G. Newell/R.S. Stanley and Jason Chiorazzi (VERCO)

Introduction:

South Carolina Department of Health and Environmental Control (SC DHEC) issued a request for a 96 hour AFVR event to be conducted at the above referenced site. The SC DHEC project manager determined the 96 hr. AFVR event should be conducted using MW-3.

Field Work:

Aggressive Fluid Vapor Recovery (AFVR) Events

On the 4th of January 2016, SEI personnel gauged for free phase petroleum in MW-3. VERCO started the 96 hour AFVR event on the 4th of January 2016 at 12:00 hrs. and completed the 96 hour AFVR event 8th of January 2016 at 12:00 hrs. Approximately 1653 gallons of non-hazardous petroleum contaminated water was recovered during the 96 hour AFVR event.

SEI personnel gauged for free phase petroleum in MW-3 on the 8th of February 2016, thirty one (31) days after the 96 hour AFVR event was completed. The ground water and free product levels are listed below and with historical data in the appendix.

Results:

Free phase petroleum was detected in MW-3. Free phase petroleum readings were;

4 Jan. 16	MW-3	0.48' FP
12 Nov. 15	MW-3	0.51' FP

Total emission calculations at the conclusion of the event were approximately 183 pounds or approximately 30 gallons.

Recommendations:

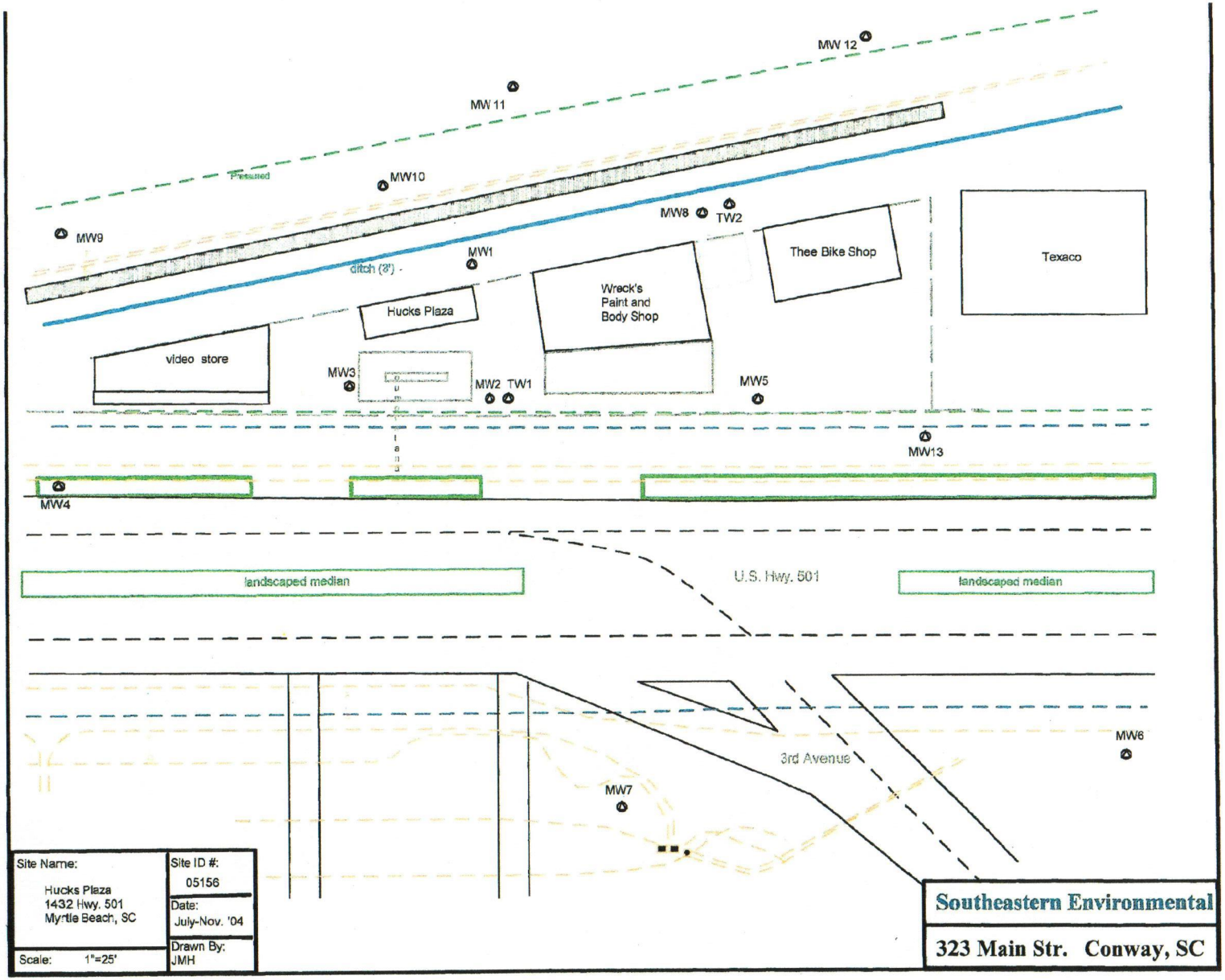
SEI recommends an additional AFVR event be conducted to control free phase petroleum migration and recover contaminating vapors and fluids from the site. The 96 hour AFVR should be conducted as soon as possible to continue the overall site remediation efforts.

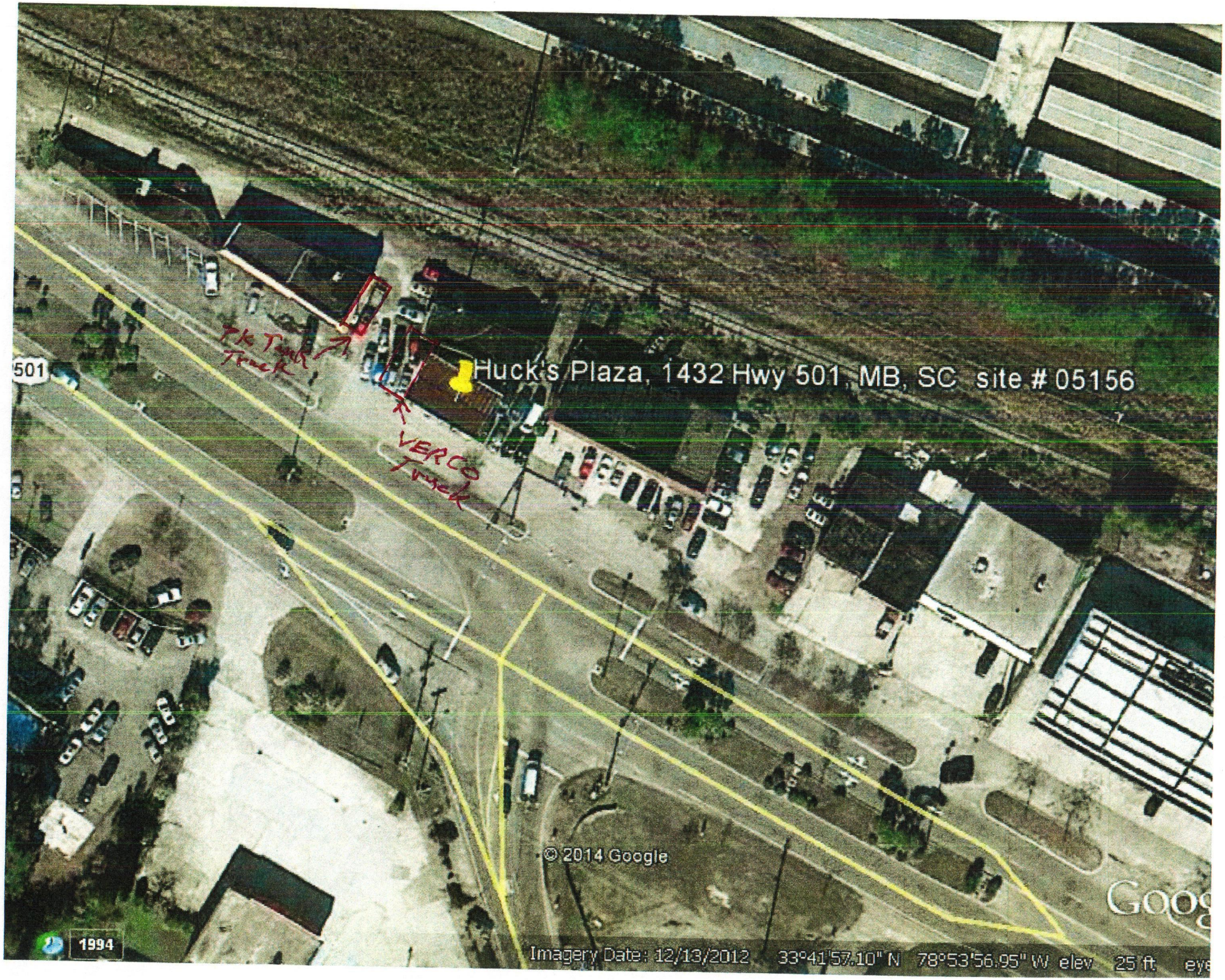
MAPS AND TABLES

APPENDIX A

SITE MAP

Monitoring Well Locations


MW 12
MW 11
Pressured
MW10
MW9
MW8
TW2
ditch (3') -
MW1
Thee Bike Shop
Texaco
Wreck's
Paint and
Body Shop
Hucks Plaza
video store
MW3
MW2
TW1
MW5
MW13
MW4
landscaped median
U.S. Hwy. 501
landscaped median
MW6
3rd Avenue
MW7
Site Name:
Hucks Plaza
1432 Hwy. 501
Myrtle Beach, SC
Site ID #:
05156
Date:
July-Nov. '04
Drawn By:
JMH
Scale: 1"=25'
Southeastern Environmental
323 Main Str. Conway, SC


501
TK Tank Truck
VERCO Truck
Huck's Plaza, 1432 Hwy 501, MB, SC site # 05156
© 2014 Google
1994
Imagery Date: 12/13/2012 33°41'57.10" N 78°53'56.95" W elev 25 ft

APPENDIX B

GROUNDWATER/FREE PRODUCT
ELEVATION TABLE

AFVR Event Ground Water Level Table

Southeastern Environmental, Inc. ***323 Main Street*** ***Conway, SC 29526***	Site Name: Hucks Plaza (501 Amoco)	Site ID: 05156, CA# 51603
	Date: 8 Feb. 16	Field Personnel: BGN/RSS

Well No.	Date Measured	Top of Casing Elevation *(ft.)*	Screen Interval *(ft.)*	Depth to Free Product (from TOC)	Depth to Ground Water (from TOC)	Free Product Thickness *(ft.)*	Ground Water Elevation *(ft/.msl)*
Ground water levels prior to 96 hour AFVR event conducted 15-19 Jun. 2015							
MW-2	N/A						
MW-3	4 Jan. 16	21.44'	2.72'/ 12.72'	5.02'	5.50'	0.48'	15.94'

Well No.	Date Measured	Top of Casing Elevation *(ft.)*	Screen Interval *(ft.)*	Depth to Free Product (from TOC)	Depth to Ground Water (from TOC)	Free Product Thickness *(ft.)*	Ground Water Elevation *(ft/.msl)*
Ground water levels 31 days after 96 hour AFVR event, 15-19 Jun. 2015							
MW-2	N/A						
MW-3	8 Feb. 16	21.44'	2.72' / 12.72'	4.05'	4.56'	0.51'	16.88'

APPENDIX C

AGGRESSIVE FLUID VAPOR RECOVERY (AFVR)
EVENT TABLES

Calculation of Petroleum Vapor Weight Extracted During an AFVR Event at Hucks Plaza, Myrtle Beach, SC, January 04 - 08, 2016

The tables on the following pages contain the data and calculations for one 96 hour AFVR event at Hucks Plaza, Myrtle Beach, S.C., conducted January 04 - 08, 2016. Monitoring well MW3, was evacuated. The amount of COC vaporized was significant.

The weight of COC volatilized during the AFVR event conducted January 04 - 08, 2016, was 183 pounds (30 gallons). At the start of the AFVR event there was a thickness of 0.48 ft of free product in MW3. The AFVR procedure removed all detectable free product from MW3. Re-sampling 35 days after the AFVR event measured a thickness of 0.51 ft. of free product in MW3. Considering the thickness of free product was slightly greater 35 days after the AFVR than before, this site remains contaminated.

Summary of AFVR Results at Hucks Plaza

March 11 - 15, 2015
295 pounds (47.8 gallons) of vapor equivalent COC removed during 96 hour AFVR event
.92 feet34 days 0.73 feet Free product thicknesses before and after AFVR

June 15 - 19, 2015
2235 pounds (378 gallons) of vapor equivalent COC removed during 96 hour AFVR event
1.01 feet 35 days 0.82 feet Free product thicknesses before and after AFVR

October 08 - 12, 2015
493 pounds (80 gallons) of vapor equivalent COC removed during 96 hour AFVR event
0.26 feet 35 days 0.46 feet Free product thicknesses before and after AFVR

January 04 – 08, 2016
183 pounds (30 gallons) of vapor equivalent COC removed during 96 hour AFVR event
0.48 feet 35 days 0.51 feet Free product thicknesses before and after AFVR

Free Product Thickness in MW3 Before and 35 Days After AFVR events at HUCKS PLAZA

Before AFVR		**35 Days After AFVR**		
8 Oct. 2015		12 Nov. 2015		
FP 4.76'		FP 4.70'		
H2O 5.02'		H2O 5.16'		
FP 0.26'	thickness	FP 0.46'	thickness	0.20' increase
4 Jan. 2016		8 Feb. 2016		
FP 5.02'		FP 4.56'		
H2O 5.50'		H2O 4.05'		
FP 0.48'	thickness	FP 0.51'	thickness	0.03' increase

Distances to the top of the free product and the top of the water table are measured downward from the top of the casing in MW3.

AFVR MONITORING DATA
Site Name: Huck's Plaza
Site Location: Myrtle Beach, SC
Date: 1/4/16-1/8/16
SCDHEC ID# 05156

Extraction Well	Time (hh:mm)	Extraction Well Head Vacuum (in. Hg)					Vacuum Truck Exhaust						
		MW3				TRUCK	Relative Humidity	Temp (°F)	Pretreatment Conc. (PPM)	Post Treatment Conc. (PPM)	Offgas Velocity Ft/Min	Water Vapor (%)	Flow Rate (DSCFM)
1/4/16	12:00	20.0				23.0							
	12:30	20.0				23.0	8.8	130	147	0	2300	0.01	99.82
	13:00	19.0				23.0	6.9	145	154	0	2300	0.01	97.34
	13:30	19.0				23.0	4.5	150	154	0	2300	0.01	96.54
	14:00	19.0				22.0	5.2	150	149	1	2300	0.01	96.54
	14:30	19.0				22.0	4.3	145	172	0	2300	0.01	97.34
	15:00	19.0				22.0	3.8	149	177	2	2300	0.01	96.70
	15:30	19.0				22.0	4.4	146	176	1	2300	0.01	97.18
	16:00	19.0				22.0	4.2	150	159	3	2300	0.01	96.54
	16:30	18.5				22.0	4.2	145	198	2	2300	0.01	97.34
	17:00	18.5				22.0	4.2	145	178	4	2300	0.01	97.34
	17:30	18.0				22.0	3.2	155	133	6	2300	0.01	95.76
	18:00	18.0				22.0	3.4	147	161	4	2300	0.01	97.02
	18:30	18.0				22.0	3.3	150	184	3	2300	0.01	96.54
	19:00	18.0				22.0	3.1	150	176	6	2300	0.01	96.54
	19:30	18.0				22.0	3.4	150	174	8	2300	0.01	96.54
	20:00	18.0				23.0	3.6	148	184	5	2300	0.01	96.86
	21:00	18.0				22.0	3.2	152	176	7	2300	0.01	96.23
	22:00	18.0				22.0	3.5	153	174	7	2300	0.01	96.07
	23:00	18.0				22.0	3.7	157	143	9	2300	0.01	95.45
1/5/16	0:00	18.0				22.0	3.6	153	139	6	2300	0.01	96.07
	8:00	18.0				22.0	5.9	155	147	14	2600	0.01	108.25
	9:00	18.0				22.0	3.5	140	189	12	2600	0.01	110.95
	10:00	18.0				22.0	4.8	140	112	16	2600	0.01	110.95
	11:00	18.0				22.0	4.6	138	193	18	2600	0.01	111.33
	12:00	18.0				22.0	3.9	150	198	21	2600	0.01	109.14
	14:00	18.0				22.0	2.5	156	190	16	2600	0.01	108.07
	16:00	18.0				22.0	2.4	159	195	19	2600	0.01	107.55
	18:00	18.0				22.0	3.1	165	179	24	2600	0.01	106.52
	20:00	18.0				22.0	3.0	167	180	27	2600	0.01	106.18
	22:00	18.0				22.0	2.7	155	190	30	2600	0.01	108.25
1/6/16	0:00	18.0				22.0	2.5	150	210	33	2600	0.01	109.14
	8:00	18.0				23.0	4.1	149	171	38	2600	0.01	109.31
	10:00	18.0				23.0	4.1	154	186	0	2600	0.01	108.42
	12:00	18.0				23.0	4.6	152	167	0	2500	0.01	104.60
	14:00	19.0				23.0	5.3	160	242	2	2600	0.01	107.38
	16:00	19.0				23.0	5.1	167	245	5	2500	0.01	102.09
	18:00	19.0				23.0	5.1	166	251	4	2600	0.01	106.35
	20:00	19.0				22.0	5.5	166	266	10	2600	0.01	106.35
	22:00	18.0				22.0	4.4	175	257	9	2600	0.01	104.84
1/7/16	0:00	18.0				22.0	4.2	170	248	13	2600	0.01	105.67
	8:00	19.0				22.0	6.0	159	227	24	2600	0.01	107.55
	10:00	19.0				22.0	6.6	157	315	19	2500	0.01	103.75
	12:00	19.0				22.0	6.8	168	363	27	2600	0.02	104.94
	14:00	19.0				22.0	6.0	176	326	33	2600	0.02	103.62
	16:00	19.0				22.0	6.6	170	426	40	2600	0.02	104.60
	20:00	19.0				22.0	5.7	175	233	39	2600	0.02	103.78
	22:00	19.0				22.0	5.1	177	281	46	2600	0.02	103.45
1/8/16	0:00	19.0				22.0	5.6	180	335	49	2600	0.02	102.97
	8:00	19.0				22.0	5.2	178	411	62	2500	0.02	99.32
	10:00	19.0				22.0	5.2	179	456	68	2600	0.02	103.13
	12:00	19.0				22.0	5.3	180	449	83	3001	0.02	118.85

Well Gauging Data:				Before AFVR Event			After AFVR Event		
Well No.	Diameter (in)	Total Depth (ft)	Target Stinger Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)
MW3	2.00	12.75	12.75	5.02	5.50	0.48	NONE	11.87	0.00

AFVR Information	
Client	SEI
Equipment Operator:	RF/RU
Blower Discharge I.D.	3 inches

Notes: Pipe ID - The inside diameter of the blower discharge piping (from vacuum truck)
Velocity - The rate at which air flows is measured at the blower discharge piping
Temperature - The temperature of the air stream exiting the blower discharge piping
Relative humidity - The & relative humidity of the air stream exiting the blower discharge piping
Water Vapor in % - Pounds of water per pound of dry air (derived from a Psychrometric chart of temp. vs relative humidity)
Flow rate = (1 - water vapor)(velocity)(Pipe Diameter/24)^2(3.14)(528°R/Temp + 460)

Total Gallons Extracted
1653

Site Name: Huck's Plaza
Location: Myrtle Beach, SC
Date: 1/4/16-1/8/16

EMISSION CALCULATION

Elapsed Time (hr)	Flow Rate (DSCFM)	Concentration (ppm)	K (#C - gas)	PPMg (ppm)	Cg:m (mg/dsm^3)	Cg (lbs/dscf)	PMRg (lb/hr)	PMR (lb)
0								
0.5	99.82	147	4	588	3128.16	0.000195291	1.169587536	0.584793768
1.0	97.34	154	4	616	3277.12	0.000204591	1.194903284	0.597451642
1.5	96.54	154	4	616	3277.12	0.000204591	1.185108995	0.592554497
2.0	96.54	149	4	596	3170.72	0.000197948	1.14663143	0.573315715
2.5	97.34	172	4	688	3660.16	0.000228504	1.334567304	0.667283652
3.0	96.70	177	4	708	3766.56	0.000235146	1.36434242	0.68217121
3.5	97.18	176	4	704	3745.28	0.000233818	1.363350282	0.681675141
4.0	96.54	159	4	636	3383.52	0.000211233	1.223586559	0.61179328
4.5	97.34	198	4	792	4213.44	0.000263045	1.536304222	0.768152111
5.0	97.34	178	4	712	3787.84	0.000236475	1.381121978	0.690560989
5.5	95.76	133	4	532	2830.24	0.000176692	1.015182058	0.507591029
6.0	97.02	161	4	644	3426.08	0.00021389	1.245101033	0.622550517
6.5	96.54	184	4	736	3915.52	0.000244446	1.415974383	0.707987192
7.0	96.54	176	4	704	3745.28	0.000233818	1.35441028	0.67720514
7.5	96.54	174	4	696	3702.72	0.000231161	1.339019254	0.669509627
8.0	96.86	184	4	736	3915.52	0.000244446	1.420632194	0.710316097
9.0	96.23	176	4	704	3745.28	0.000233818	1.349984102	1.349984102
10.0	96.07	174	4	696	3702.72	0.000231161	1.332466142	1.332466142
11.0	95.45	143	4	572	3043.04	0.000189977	1.087973411	1.087973411
12.0	96.07	139	4	556	2957.92	0.000184663	1.064441343	1.064441343
20.0	108.25	147	4	588	3128.16	0.000195291	1.268396805	1.268396805
21.0	110.95	189	4	756	4021.92	0.000251088	1.67156579	1.67156579
22.0	110.95	112	4	448	2383.36	0.000148793	0.990557505	8.419738792
23.0	111.33	193	4	772	4107.04	0.000256403	1.712651682	3.425303365
24.0	109.14	198	4	792	4213.44	0.000263045	1.722456551	3.444913103
26.0	108.07	190	4	760	4043.2	0.000252417	1.636763039	3.273526077
28.0	107.55	195	4	780	4149.6	0.00025906	1.671694381	3.343388763
30.0	106.52	179	4	716	3809.12	0.000237803	1.519798229	3.039596458
32.0	106.18	180	4	720	3830.4	0.000239132	1.523413798	3.046827596
34.0	108.25	190	4	760	4043.2	0.000252417	1.639424442	3.278848884
36.0	109.14	210	4	840	4468.8	0.000278987	1.826847857	3.653695715
44.0	109.31	171	4	684	3638.88	0.000227175	1.490018766	11.92015013
46.0	108.42	186	4	744	3958.08	0.000247103	1.607524104	3.215048207
48.0	104.60	167	4	668	3553.76	0.000221861	1.392337853	2.784675705
50.0	107.38	242	4	968	5149.76	0.0003215	2.071269437	4.142538874
52.0	102.09	245	4	980	5213.6	0.000325485	1.993784084	3.987568167
54.0	106.35	251	4	1004	5341.28	0.000333456	2.127709383	4.255418766
56.0	106.35	266	4	1064	5660.48	0.000353384	2.25486333	4.50972666
58.0	104.84	257	4	1028	5468.96	0.000341427	2.147693578	4.295387156
60.0	105.67	248	4	992	5277.44	0.000329471	2.088930793	4.177861586
68.0	107.55	227	4	908	4830.56	0.000301572	1.946023716	15.56818973
70.0	103.75	315	4	1260	6703.2	0.000418481	2.604983465	5.209966929
72.0	104.94	363	4	1452	7724.64	0.000482249	3.03634267	6.072685341
74.0	103.62	326	4	1304	6937.28	0.000433094	2.692553157	5.385106314
76.0	104.60	426	4	1704	9065.28	0.000565945	3.551999134	7.103998268
78.0	103.62	425	4	1700	9044	0.000564617	3.510230343	7.020460685
80.0	103.78	233	4	932	4958.24	0.000309543	1.927462766	3.854925532
82.0	103.45	281	4	1124	5979.68	0.000373311	2.317238253	4.634476505
84.0	102.97	335	4	1340	7128.8	0.000445051	2.7495944	5.4991888
92.0	99.32	411	4	1644	8746.08	0.000546018	3.253805624	26.03044499
94.0	103.13	456	4	1824	9703.68	0.000605801	3.748588652	5.622882977
96.0	118.85	449	4	1796	9554.72	0.000596501	4.253660419	6.380490628
					Total Emissions in pounds			182.7133963
					Equivalent Gallons (vapor)			29.66126563

DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
SITE - Huck's Plaza
LOCATION - Myrtle Beach, SC
SCDHEC SITE ID # 05156
Date: 1/4/16-1/8/16

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW2		
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
12:00	0	.		
12:30	0.5	0.0		
13:00	1.0	0.0		
13:30	1.5	0.0		
14:00	2.0	0.0		
14:30	2.5	0.0		
15:00	3.0	0.0		
15:30	3.5	0.0		
16:00	4.0	0.0		
16:30	4.5	0.0		
17:00	5.0	0.0		
17:30	5.5	0.0		
18:00	6.0	0.0		
18:30	6.5	0.0		
19:00	7.0	0.0		
19:30	7.5	0.0		
20:00	8.0	0.0		
21:00	9.0	0.0		
22:00	10.0	0.0		
23:00	11.0	0.0		
0:00	12.0	0.0		
8:00	20.0	0.0		
9:00	21.0	0.0		
10:00	22.0	0.0		
11:00	23.0	0.0		
12:00	24.0	0.0		
14:00	26.0	0.0		
16:00	28.0	0.0		
18:00	30.0	0.0		
20:00	32.0	0.0		
22:00	34.0	0.0		
0:00	36.0	0.0		
8:00	44.0	0.0		
10:00	46.0	0.0		
12:00	48.0	0.0		
14:00	50.0	0.0		
16:00	52.0	0.0		
18:00	54.0	0.0		
20:00	56.0	0.0		
22:00	58.0	0.0		
0:00	60.0	0.0		
8:00	68.0	0.0		
10:00	70.0	0.0		
12:00	72.0	0.0		
14:00	74.0	0.0		
16:00	76.0	0.0		
18:00	78.0	0.0		
20:00	80.0	0.0		
22:00	82.0	0.0		
0:00	84.0	0.0		
8:00	92.0	0.0		
10:00	94.0	0.0		
12:00	96.0	0.0		
Maximum Change:		0.0		

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW2		
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior to AFVR	0 hours	6.19		
	24 hours	6.21		
	48 hours	6.22		
	72 hours	6.23		
	96 hours	6.22		
Maximum Change:		0.04		

STINGER LEVEL
Huck's Plaza
Myrtle Beach, South Carolina

1/4/16-1/8/16

STINGER LEVEL

		MW3		
Time	Elapsed Time			
12:00	0	5.50		
12:30	0.5	6.00		
13:00	1.0	6.50		
13:30	1.5	7.00		
14:00	2.0	7.50		
14:30	2.5	8.00		
15:00	3.0	8.50		
15:30	3.5	9.00		
16:00	4.0	9.50		
16:30	4.5	10.00		
17:00	5.0	10.50		
17:30	5.5	11.00		
18:00	6.0	11.50		
18:30	6.5	12.00		
19:00	7.0	12.50		
19:30	7.5	12.50		
20:00	8.0	12.50		
21:00	9.0	11.00		
22:00	10.0	11.00		
23:00	11.0	11.00		
0:00	12.0	11.00		
8:00	20.0	9.00		
9:00	21.0	9.00		
10:00	22.0	9.00		
11:00	23.0	9.00		
12:00	24.0	8.00		
14:00	26.0	8.00		
16:00	28.0	8.00		
18:00	30.0	6.00		
20:00	32.0	6.00		
22:00	34.0	6.00		
0:00	36.0	7.00		
8:00	44.0	7.00		
10:00	46.0	8.00		
12:00	48.0	8.00		
14:00	50.0	8.00		
16:00	52.0	8.00		
18:00	54.0	9.00		
20:00	56.0	9.00		
22:00	58.0	9.00		
0:00	60.0	10.00		
8:00	68.0	10.00		
10:00	70.0	10.00		
12:00	72.0	11.00		
14:00	74.0	11.00		
16:00	76.0	11.00		
18:00	78.0	12.00		
20:00	80.0	12.00		
22:00	82.0	12.00		
0:00	84.0	12.00		
8:00	92.0	11.00		
10:00	94.0	11.00		
12:00	96.0	11.00		

SUPPORTING DOCUMENTS

APPENDIX D

DISPOSAL MANIFESTS

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number

GENERATOR

5. Generator's Name and Mailing Address
Hucks Pizza
1432 Hwy 501
Myrtle Beach SC
Generator's Phone

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name
VERCO
U.S. EPA ID Number

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
TEIC Talk Service
425 Bakland Rd
Santee SC
Facility's Phone:
U.S. EPA ID Number

	9. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Na Haz Water	1	TT	1653	G	
2.						
3.						
4.						

13. Special Handling Instructions and Additional Information

14. **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.

Generator's/Offeror's Printed/Typed Name: On Behalf of Southern
Signature:
Month: 1 Day: 8 Year: 16

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: Robert Fran
Signature:
Month: 1 Day: 8 Year: 16

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: Jason Newman
Signature:
Month: 1 Day: 8 Year: 16

6-NHM-C-SO-1158

1-DESIGNATED FACILITY TO DESTINATION

CERTIFICATE OF DISPOSAL

Certify to all that

T K TANK SERVICES, INC.

OF GALLONS 1,653 Contaminant: NONHAZARDOUS PETROLEUM CONTAMINATED WATER

This is to certify that the above water/product has been disposed of

In accordance with EPA regulations on petroleum contaminated water

HUCK'S PLAZA

1/8/2016

DATE

SIGNATURE

D H E C
PROMOTE PROTECT PROSPER
Catherine E. Heigel, Director
Promoting and protecting the health of the public and the environment

DOCKETING
1446

MR DANNY TODD
1121 SIMONTON DR
WATKINSVILLE GA 30677

MAR 0 8 2016

Re: AFVR Directive
501 Amoco; 1432 Hwy. 501, Myrtle Beach, SC
UST Permit # 05156; CA# 52059
Release reported December 31, 1991
AFVR Report received February 19, 2016
Horry County

Dear Mr. Todd:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) recognizes your commitment to continue work at this site utilizing Southeastern Environmental, Inc. In accordance with Section 280.64 of the South Carolina Underground Storage Tank Control Regulations, a 96-hour Aggressive Fluid and Vapor Recovery (AFVR) event may commence as outlined in the UST Quality Assurance Program Plan (QAPP) Revision 3.0. **Please be aware that the AFVR Procedures have been updated.** Please connect to MW-3 for the duration of this event. The stinger shall be lowered at six inch intervals starting at the water table interface to a maximum depth of approximately 12.72 feet in the well. A copy of Agency QAPP Version 3.0 for the Underground Storage Tank Division is available at http://www.scdhec.gov/Environment/docs/QAPPRevision3.0.pdf

As soon as the beginning date of the event has been scheduled, please contact Jim Martin at martinjm@dhec.sc.gov.

The AFVR Report should be submitted within 90 days from the date of this correspondence. Please note that all applicable South Carolina certification requirements apply to the services and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

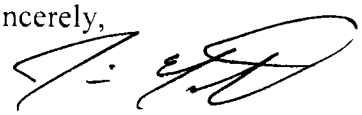
Cost Agreement # 52059 has been approved in the amount shown on the enclosed cost agreement. Southeastern Environmental, Inc., can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. If the invoice and completed report are not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval is obtained from the UST Management Division. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the Agency for the cost to be paid. The Agency reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Agency reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The Agency grants preapproval for transportation of virgin petroleum-contaminated groundwater from the referenced site to a permitted treatment facility.

On all correspondence concerning this site, please reference UST Permit #05156 and CA # 52059. If you have any questions, please contact me at (803) 898-0605 or by e-mail at martinjm@dhec.sc.gov.

Sincerely,



Jim Martin, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: Technical File (with enclosure)
Southeastern Environmental, 323 Main Street, Conway, SC 29526 (with enclosure)

Approved Cost Agreement 52059

Facility. 05156 501 AMOCO
MARTINJM
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
19 RPT/PROJECT MNGT & COORDINATIO						
		PRT	REPORT PREPARATION	0.1200	$22,742.250	2,729 07
23 EFR						
		A4	96 HOUR EVENT	1.0000	$12,567.500	12,567.50
		C4	OFF GAS TREATMENT 96 HOUR	1.0000	$780.000	780.00
		D	SITE RECONNAISSANCE	1.0000	$203.250	203.25
		F1	EFFLUENT DISPOSAL	20,000 0000	$0 440	8,800.00
		G	AFVR EQUIPMENT MOB	1.0000	$391 500	391 50
				Total Amount		25,471 32

Document Receipt Information

[X] Hard Copy [X] CD [ ] Email

Date Received 6/9/2016

Permit Number 05156

Project Manager Jim Martin

Name of Contractor Southeastern Envir

UST Certification Number

Docket Number 15 teen

Scanned

Description 96 HOUR AFVR Event

96 Hour
Aggressive Fluid Vapor Recovery (AFVR) Event

Hucks Plaza

1432 Hwy. 501
Myrtle Beach, South Carolina
UST Permit #05156
CA #52059

Prepared for:

South Carolina Department of Health and Environmental Control

Underground Storage Tank Program

2600 Bull Street

Columbia, South Carolina 29201

Prepared by:

Southeastern Environmental, Inc.

323 Main Street

Conway, South Carolina 29526

6 June 2016

TABLE OF CONTENTS

Hucks Plaza
SC DHEC Site ID # 05156
CA# 52059

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Signature Page	
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Field Work	1
Results	2
Recommendations	2
APPENDICES	
MAPS AND TABLES	
Site Map - Monitoring Well Locations	A
Ground Water/Free Product Elevation Table	B
AFVR Event Tables	C
SUPPORTING DOCUMENTS	
Disposal Manifests	D

96 hour AFVR Event

Hucks Plaza

1432 Highway 501
Myrtle Beach, SC 29526

Site # 05156, CA # 52059

SEI conducted a 96 hour AFVR event at Hucks Plaza, site # 05156, 1432 Hwy 501, Myrtle Beach, S.C. beginning on the 25th of April and ending on the 31st of May 2016. The data collected has been reviewed by Dr. Douglas D. Nelson and found to be in accordance with currently accepted quality control practices as prescribed by the South Carolina Department of Health and Environmental Control.

Southeastern Environmental, Inc.

Bruce G. Newell
President, Southeastern Environmental, Inc.
Class I UST Site Rehab Contractor # 82

Douglas D. Nelson, P. G.
South Carolina Registration #391

Narrative

Location: Hucks Plaza 1432 Hwy. 501 Myrtle Beach, SC	Weather: 25-29 Apr. 16 – Clear
Date: 6 June 16	Temperature: 25-29 Apr. 16 48° to 79° F
UST Site ID # 05156, CA# 52059	Data Collection By: B.G. Newell/R.S. Stanley and Jason Chiorazzi (VERCO)

Introduction:

South Carolina Department of Health and Environmental Control (SC DHEC) issued a request for a 96 hour AFVR event to be conducted at the above referenced site. The SC DHEC project manager determined the 96 hr. AFVR event should be conducted using MW-3.

Field Work:

Aggressive Fluid Vapor Recovery (AFVR) Events

On the 25th of April 2016, SEI personnel gauged for free phase petroleum in MW-3. VERCO started the 96 hour AFVR event on the 25th of April 2016 at 12:00 hrs. and completed the 96 hour AFVR event 29th of April 2016 at 12:00 hrs. Approximately 1664 gallons of non-hazardous petroleum contaminated water was recovered during the 96 hour AFVR event.

SEI personnel gauged for free phase petroleum in MW-3 on the 31st of May 2016, thirty two (32) days after the 96 hour AFVR event was completed. The ground water and free product levels are listed below and with historical data in the appendix.

Results:

Free phase petroleum was detected in MW-3. Free phase petroleum readings were;

25 Apr. 16	MW-3	0.38' FP
31 May 16	MW-3	0.18' FP

Total emission calculations at the conclusion of the event were approximately 1235 pounds or approximately 200 gallons.

Recommendations:

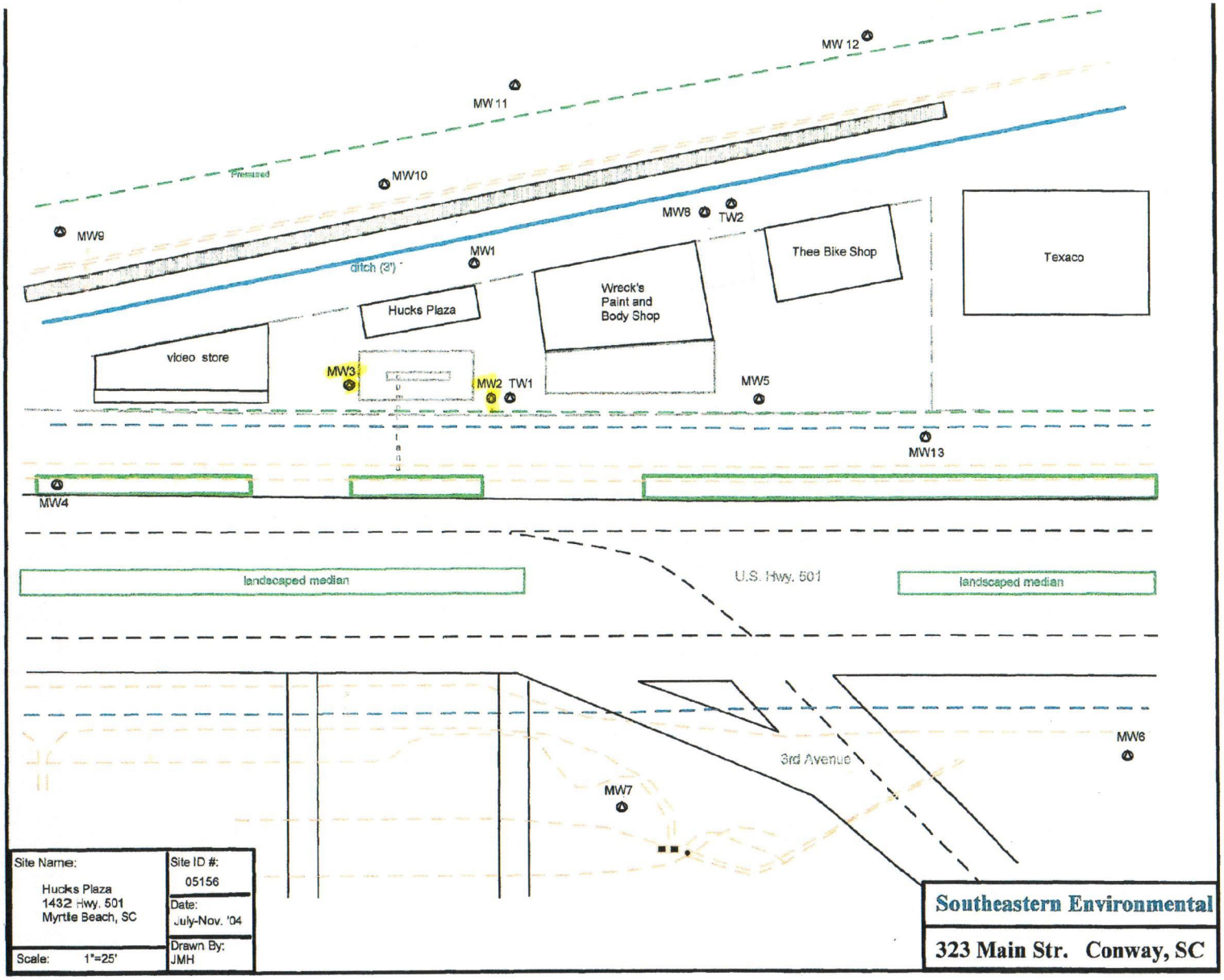
SEI recommends additional AFVR events be conducted to control free phase petroleum migration and recover contaminating vapors and fluids from the site. The 96 hour AFVR should be conducted as soon as possible to continue the overall site remediation efforts.

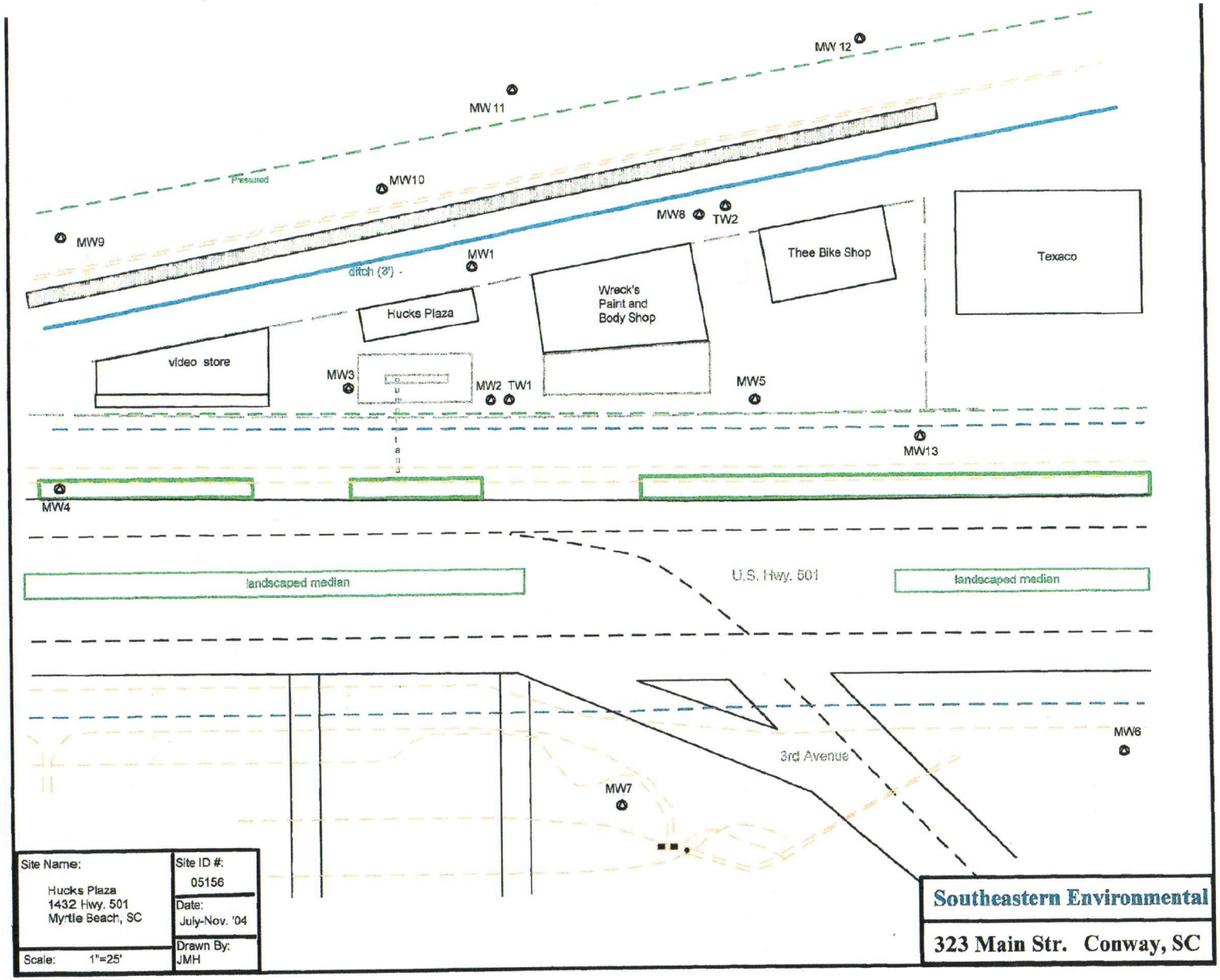
MAPS AND TABLES

APPENDIX A

SITE MAP

Monitoring Well Locations


MW 12
MW 11
MW10
MW9
MW8
TW2
MW1
ditch (3')
Thee Bike Shop
Texaco
Wreck's
Paint and
Body Shop
Hucks Plaza
video store
MW3
MW2
TW1
MW5
MW13
MW4
landscaped median
U.S. Hwy. 501
landscaped median
MW6
3rd Avenue
MW7
Site Name:
Hucks Plaza
1432 Hwy. 501
Myrtle Beach, SC
Site ID #:
05156
Date:
July-Nov. '04
Drawn By:
JMH
Scale: 1"=25'
Southeastern Environmental
323 Main Str. Conway, SC


MW 12
MW 11
Pressured
MW10
MW9
MW8
TW2
ditch (3') -
MW1
Thee Bike Shop
Texaco
Wreck's
Paint and
Body Shop
Hucks Plaza
video store
MW3
MW2
TW1
MW5
MW13
MW4
landscaped median
U.S. Hwy. 501
landscaped median
MW6
3rd Avenue
MW7
Site Name:
Hucks Plaza
1432 Hwy. 501
Myrtle Beach, SC
Site ID #:
05156
Date:
July-Nov. '04
Drawn By:
JMH
Scale: 1"=25'
Southeastern Environmental
323 Main Str. Conway, SC

= 21.42' TOP OF 10" CASING = 19.48'
= 20.95' TOP OF 2" CASING = 19.09'
GROUND = 19.4'

MW # 11

= 22.45' TOP OF 10" CASING = 19.88'
= 22.16' TOP OF 2" CASING = 19.70'
GROUND = 19.7'

MW # 12

= 21.19' TOP OF 10" CASING = 18.70'
= 20.99' TOP OF 2" CASING = 18.49'
GROUND = 18.60'

GROUND = 21.3'

TW 2

TOP OF 10" CASING = 21.15'
TOP OF 2" CASING = 20.85'
GROUND = 21.1'

SOUTHEASTERN ENVIRONMENTAL, INC.

SCALE: 1' = 50'

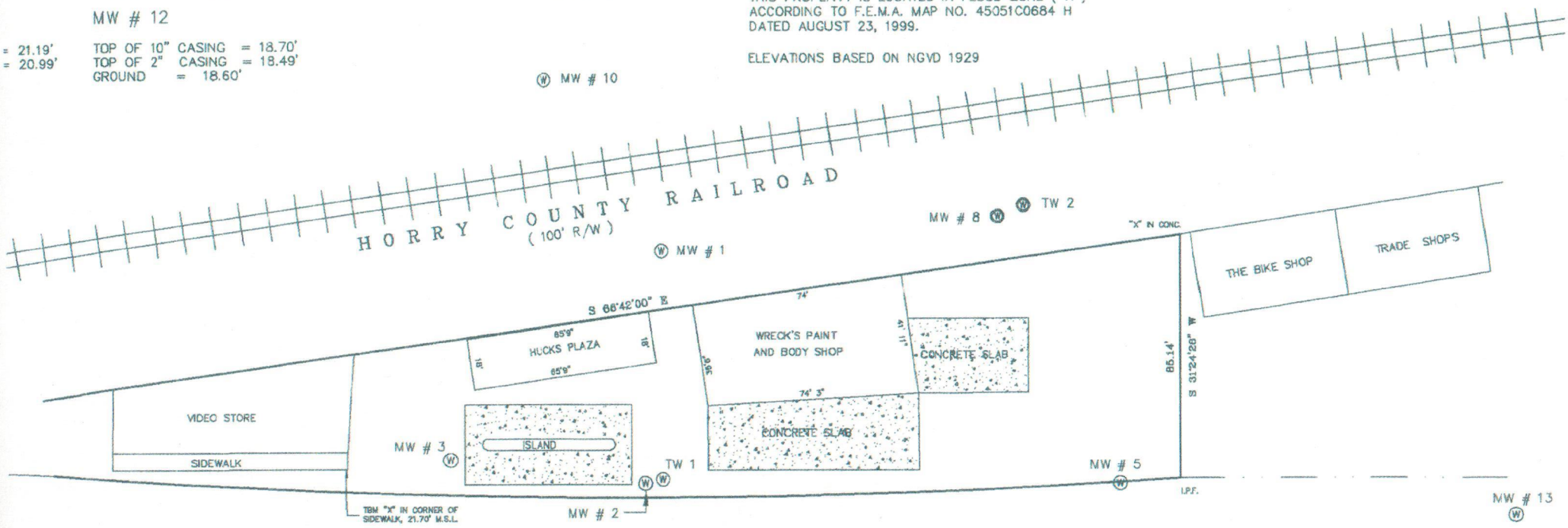
DECEMBER 17, 2004

CANNON

SITE PLAN

THIS PROPERTY IS LOCATED IN FLOOD ZONE (X)
ACCORDING TO F.E.M.A. MAP NO. 45051C0684 H
DATED AUGUST 23, 1999.

ELEVATIONS BASED ON NGVD 1929

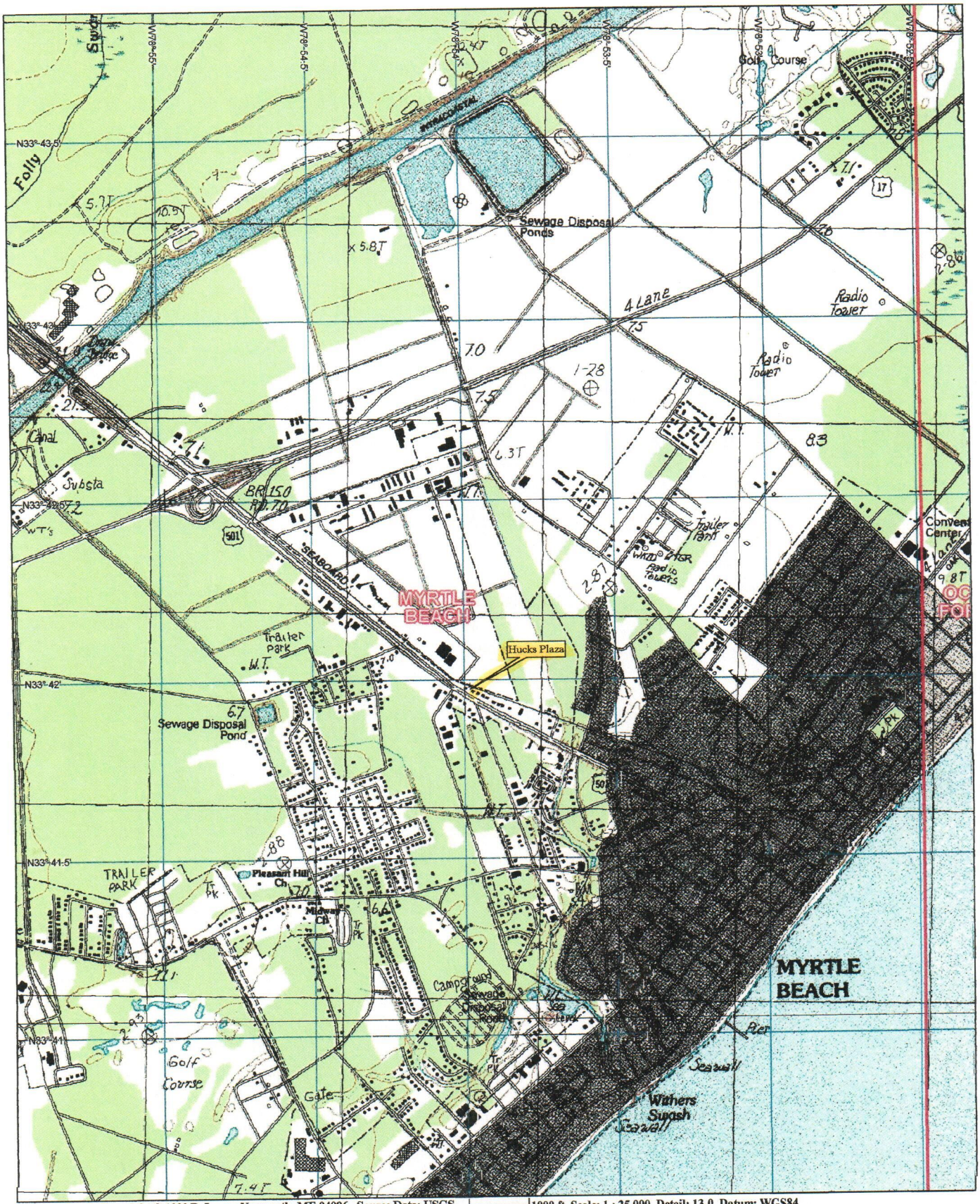


UCKS PLAZA
-32 HWY 501
YRTLE BEACH, S.C.

TE ID # 05156

AS No. 181-01-01-06

JAMES R. BLANTON, P.E.



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS 1000 ft Scale: 1 : 25,000 Detail: 13-0 Datum: WGS84

APPENDIX B

GROUNDWATER/FREE PRODUCT
ELEVATION TABLE

Hucks Plaza, Myrtle Beach
Site # 05156, CA# 52059

Depth to Water Table and Free Product Thickness in Feet

	11 Mar 15	14 Apr 15	15 June 15	12 Nov 15	31 May 16
MW-2	GW 6.96' FP 0.00' 0.00'	GW 7.61' FP 0.00' 0.00'	Not Gauged	Not Gauged	Not Gauged
MW-3	GW 6.82' FP 5.90' 0.92'	GW 7.05' FP 6.32' 0.73'	GW 8.40' FP 7.39' 1.01	GW 5.16' FP 4.70' 0.46'	GW 7.45' FP 7.27' 0.18'

GW= Groundwater
FP= Free Product

AFVR Event Ground Water Level Table

Southeastern Environmental, Inc. ***323 Main Street*** ***Conway, SC 29526***	Site Name: Hucks Plaza (501 Amoco)	Site ID: 05156, CA# 52059
	Date: 31 May 16	Field Personnel: BGN/RSS

Well No.	Date Measured	Top of Casing Elevation *(ft.)*	Screen Interval *(ft.)*	Depth to Free Product (from TOC)	Depth to Ground Water (from TOC)	Free Product Thickness *(ft.)*	Ground Water Elevation *(ft/.msl)*
Ground water levels prior to 96 hour AFVR event conducted 15-19 Jun. 2015							
MW-2	N/A						
MW-3	25 Apr. 16	21.44'	2.72'/ 12.72'	6.69'	7.07'	0.38'	14.37'

Well No.	Date Measured	Top of Casing Elevation *(ft.)*	Screen Interval *(ft.)*	Depth to Free Product (from TOC)	Depth to Ground Water (from TOC)	Free Product Thickness *(ft.)*	Ground Water Elevation *(ft/.msl)*
Ground water levels 31 days after 96 hour AFVR event, 15-19 Jun. 2015							
MW-2	N/A						
MW-3	31 May 16	21.44'	2.72' / 12.72'	7.27'	7.45'	0.18'	13.99'

APPENDIX C

AGGRESSIVE FLUID VAPOR RECOVERY (AFVR)
EVENT TABLES

Calculation of Petroleum Vapor Weight Extracted During an AFVR Event at Hucks Plaza, Myrtle Beach, SC, April 25 - 29, 2016

The tables on the following pages contain the data and calculations for one 96 hour AFVR event at Hucks Plaza, Myrtle Beach, S.C., conducted April 25 - 29, 2016. Monitoring well MW3, was evacuated. The amount of COC vaporized was significant.

The weight of COC volatilized during the AFVR event conducted April 25 - 29, 2016, was 1235 pounds (200 gallons). At the start of the AFVR event there was a thickness of 0.38 ft of free product in MW3. The AFVR procedure removed all detectable free product from MW3. MW # 3 was gauged for Free Product 32 days after the AFVR event was completed. Free Product measured a thickness of 0.18 ft. of free product in MW3.

Free Product Thickness in MW3 Before and 35 Days After AFVR events at HUCKS PLAZA

Before AFVR			**30 Days After AFVR**		
8 Oct. 2015			12 Nov. 2015		
FP 4.76'			FP 4.70'		
H_2O 5.02'			H_2O 5.16'		
FP 0.26'	thickness		FP 0.46'	thickness	0.20' increase
4 Jan. 2016			8 Feb. 2016		
FP 5.02'			FP 4.05'		
H_2O 5.50'			H_2O 4.56'		
FP 0.48'	thickness		FP 0.51'	thickness	0.03' increase
25 Apr. 2016			31 May 2016		
FP 6.69'			FP 7.27'		
H_2O 7.07'			H_2O 7.45'		
FP 0.38'	thickness		FP 0.18'	thickness	0.20' decrease

Distances to the top of the free product and the top of the water table are measured downward from the top of the casing in MW3.

Summary of AFVR Results at Hucks Plaza

March 11 - 15, 2015
295 pounds (47.8 gallons) of vapor equivalent COC removed during 96 hour AFVR event
.92 feet34 days 0.73 feet Free product thicknesses before and after AFVR

June 15 - 19, 2015
2235 pounds (378 gallons) of vapor equivalent COC removed during 96 hour AFVR event
1.01 feet 35 days 0.82 feet Free product thicknesses before and after AFVR

October 08 - 12, 2015
493 pounds (80 gallons) of vapor equivalent COC removed during 96 hour AFVR event
0.26 feet 35 days 0.46 feet Free product thicknesses before and after AFVR

January 04 – 08, 2016
183 pounds (30 gallons) of vapor equivalent COC removed during 96 hour AFVR event
0.48 feet 35 days 0.51 feet Free product thicknesses before and after AFVR

April 25 – 29, 2016
1235 pounds (200 gallons) of vapor equivalent COC removed during 96 hour AFVR event
0.38 feet 32 days 0.18 feet Free product thicknesses before and after AFVR

AFVR MONITORING DATA
Site Name: Huck's Plaza
Site Location: Myrtle Beach, SC
Date: 4/25/16-4/29/16
SCDHEC ID# 05156

Extraction Well	Time (hh:mm)	Extraction Well Head Vacuum (in. Hg)					Vacuum Truck Exhaust						
		MW3				TRUCK	Relative Humidity	Temp (°F)	Pretreatment Conc. (PPM)	Post Treatment Conc. (PPM)	Offgas Velocity Ft/Min	Water Vapor (%)	Flow Rate (DSCFM)
4/25/16	12:00	20.0				22.0							
	12:30	20.0				22.0	10.3	127	1594	0	2300	0.01	100.33
	13:00	20.0				22.0	8.4	144	837	0	2300	0.01	97.50
	13:30	20.0				22.0	6.6	163	734	1	2300	0.02	93.57
	14:00	20.0				22.0	6.7	179	694	1	2300	0.02	91.23
	14:30	20.0				22.0	6.6	184	713	0	2300	0.03	89.60
	15:00	20.0				22.0	6.8	188	824	0	2300	0.03	89.05
	15:30	20.0				22.0	6.9	200	744	1	2300	0.04	86.53
	16:00	20.0				22.0	6.8	198	860	2	2300	0.04	86.79
	16:30	20.0				22.0	6.8	200	1183	2	2300	0.04	86.53
	17:00	20.0				22.0	6.6	200	2590	5	2300	0.04	86.53
	17:30	20.0				22.0	6.5	204	2622	3	2300	0.04	86.00
	18:00	20.0				22.0	6.1	210	2513	6	2300	0.04	85.23
	18:30	20.0				22.0	6.2	219	2671	9	2300	0.04	84.10
	19:00	20.0				22.0	5.9	223	2511	13	2300	0.04	83.61
	19:30	20.0				22.0	5.7	219	2354	24	2300	0.04	84.10
	20:00	20.0				22.0	5.6	200	2328	27	2300	0.04	86.53
	21:00	20.0				22.0	5.3	184	1936	35	2300	0.02	90.52
	22:00	20.0				22.0	4.8	175	2178	31	2300	0.01	92.74
	23:00	19.0				22.0	4.7	175	2009	36	2300	0.01	92.74
4/26/16	0:00	19.0				22.0	4.5	185	2229	84	2300	0.02	90.38
	8:00	19.0				22.0	5.7	190	1657	89	2300	0.02	89.69
	9:00	19.0				22.0	6.2	200	1786	96	2300	0.03	87.43
	10:00	19.0				22.0	7.7	215	1547	108	2400	0.05	87.36
	11:00	19.0				22.0	7.9	224	1435	123	2300	0.06	81.75
	12:00	19.0				22.0	7.4	210	1763	117	2300	0.05	84.35
	14:00	19.0				22.0	6.0	200	2094	126	2400	0.03	91.23
	16:00	19.0				22.0	6.2	194	1941	132	2300	0.03	88.23
	18:00	19.0				22.0	5.9	193	1869	145	2400	0.03	92.21
	20:00	19.0				22.0	5.3	195	2192	155	2400	0.02	92.87
	22:00	19.0				22.0	4.9	197	2216	166	2400	0.02	92.59
4/27/16	0:00	19.0				22.0	4.7	200	2376	172	2400	0.03	91.23
	8:00	19.0				22.0	5.1	210	1709	254	2400	0.03	89.87
	10:00	19.0				22.0	5.5	212	1534	269	2400	0.04	88.68
	12:00	19.0				22.0	5.3	212	1870	282	2400	0.04	88.68
	14:00	19.0				22.0	5.7	206	1657	299	2400	0.03	90.41
	16:00	19.0				22.0	5.4	205	1743	0	2400	0.03	90.54
	18:00	19.0				22.0	5.1	190	1432	0	2400	0.02	93.59
	20:00	19.0				22.0	5.5	184	1597	0	2400	0.02	94.46
	22:00	19.0				22.0	5.2	205	1654	1	2400	0.03	90.54
4/28/16	0:00	19.0				22.0	5.0	200	1982	3	2400	0.03	91.23
	8:00	19.0				21.0	5.5	195	1669	55	2500	0.03	95.75
	10:00	19.0				21.0	5.2	198	1703	61	2500	0.03	95.32
	12:00	19.0				21.0	5.0	220	1997	69	2400	0.04	87.63
	14:00	19.0				21.0	5.0	218	2064	84	2400	0.04	87.89
	16:00	18.0				21.0	5.3	212	2212	88	2500	0.04	92.37
	20:00	18.0				21.0	4.9	214	1954	97	2500	0.04	92.10
	22:00	18.0				21.0	5.1	210	1980	101	2400	0.04	88.94
4/29/16	0:00	19.0				21.0	4.8	208	1732	111	2500	0.03	93.89
	8:00	18.0				21.0	4.7	196	2317	169	2500	0.03	95.61
	10:00	18.0				21.0	4.6	199	2454	183	2400	0.03	91.37
	12:00	18.0				21.0	4.4	203	2113	197	2500	0.03	94.60

Well Gauging Data:				Before AFVR Event			After AFVR Event		
Well No.	Diameter (in)	Total Depth (ft)	Target Stinger Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)
MW3	2.00	12.75	12.75	6.69	7.07	0.38	NONE	10.88	0.00

AFVR Information	
Client	SEI
Equipment Operator:	RF/RU
Blower Discharge I.D.	3 inches

Notes: Pipe ID - The inside diameter of the blower discharge piping (from vacuum truck)
Velocity - The rate at which air flows is measured at the blower discharge piping
Temperature - The temperature of the air stream exiting the blower discharge piping
Relative humidity - The & relative humidity of the air stream exiting the blower discharge piping
Water Vapor in % - Pounds of water per pound of dry air (derived from a Psychrometric chart of temp. vs relative humidity)
Flow rate = (1 - water vapor)(velocity)(Pipe Diameter/24)^2(3.14)(528°R/Temp + 460)

Total Gallons Extracted
1664

Site Name: Huck's Plaza
Location: Myrtle Beach, SC
Date: 4/25/16-4/29/16
EMISSION CALCULATION

Elapsed Time (hr)	Flow Rate (DSCFM)	Concentration (ppm)	K (#C - gas)	PPMg (ppm)	Cg:m (mg/dsm^3)	Cg (lbs/dscf)	PMRg (lb/hr)	PMR (lb)
0								
0.5	100.33	1594	4	6376	33920.32	0.002117646	12.7472829	6.373641452
1.0	97.50	837	4	3348	17811.36	0.001111963	6.505129219	3.25256461
1.5	93.57	734	4	2936	15619.52	0.000975127	5.474775346	2.737387673
2.0	91.23	694	4	2776	14768.32	0.000921986	5.046809384	2.523404692
2.5	89.60	713	4	2852	15172.64	0.000947228	5.092225304	2.546112652
3.0	89.05	824	4	3296	17534.72	0.001094693	5.84865702	2.92432851
3.5	86.53	744	4	2976	15832.32	0.000988412	5.131359557	2.565679779
4.0	86.79	860	4	3440	18300.8	0.001142519	5.949438843	2.974719422
4.5	86.53	1183	4	4732	25174.24	0.001571628	8.159137575	4.079568788
5.0	86.53	2590	4	10360	55115.2	0.003440842	17.86320061	8.931600304
5.5	86.00	2622	4	10488	55796.16	0.003483354	17.97496506	8.987482532
6.0	85.23	2513	4	10052	53476.64	0.003338547	17.07344394	8.536721969
6.5	84.10	2671	4	10684	56838.88	0.003548451	17.90637027	8.953185136
7.0	83.61	2511	4	10044	53434.08	0.00333589	16.73514409	8.367572045
7.5	84.10	2354	4	9416	50093.12	0.003127313	15.7812039	7.890601951
8.0	86.53	2328	4	9312	49539.84	0.003092772	16.05618958	8.028094791
9.0	90.52	1936	4	7744	41198.08	0.002571996	13.96940071	13.96940071
10.0	92.74	2178	4	8712	46347.84	0.002893496	16.10095212	16.10095212
11.0	92.74	2009	4	8036	42751.52	0.002668977	14.85161286	14.85161286
12.0	90.38	2229	4	8916	47433.12	0.00296125	16.05863561	16.05863561
20.0	89.69	1657	4	6628	35260.96	0.002201342	11.84588307	11.84588307
21.0	87.43	1786	4	7144	38006.08	0.00237272	12.44633446	12.44633446
22.0	87.36	1547	4	6188	32920.16	0.002055206	10.77272977	91.56820302
23.0	81.75	1435	4	5740	30536.8	0.001906412	9.350952843	18.70190569
24.0	84.35	1763	4	7052	37516.64	0.002342164	11.85313768	23.70627535
26.0	91.23	2094	4	8376	44560.32	0.002781901	15.22720153	30.45440307
28.0	88.23	1941	4	7764	41304.48	0.002578639	13.65059982	27.30119965
30.0	92.21	1869	4	7476	39772.32	0.002482986	13.73673354	27.47346708
32.0	92.87	2192	4	8768	46645.76	0.002912095	16.22710122	32.45420244
34.0	92.59	2216	4	8864	47156.48	0.002943979	16.35483179	32.70966358
36.0	91.23	2376	4	9504	50561.28	0.003156541	17.27785618	34.55571236
44.0	89.87	1709	4	6836	36367.52	0.002270424	12.24206311	97.93650485
46.0	88.68	1534	4	6136	32643.52	0.002037935	10.84283725	21.68567451
48.0	88.68	1870	4	7480	39793.6	0.002484314	13.2178003	26.4356006
50.0	90.41	1657	4	6628	35260.96	0.002201342	11.94086073	23.88172146
52.0	90.54	1743	4	6972	37091.04	0.002315594	12.57949178	25.15898356
54.0	93.59	1432	4	5728	30472.96	0.001902427	10.682462	21.364924
56.0	94.46	1597	4	6388	33984.16	0.002121631	12.02432605	24.0486521
58.0	90.54	1654	4	6616	35197.12	0.002197356	11.93716546	23.87433093
60.0	91.23	1982	4	7928	42176.96	0.002633108	14.41275713	28.82551427
68.0	95.75	1669	4	6676	35516.32	0.002217284	12.73887739	101.9110191
70.0	95.32	1703	4	6812	36239.84	0.002262453	12.93912401	25.87824802
72.0	87.63	1997	4	7988	42496.16	0.002653035	13.94941532	27.89883064
74.0	87.89	2064	4	8256	43921.92	0.002742045	14.45995201	28.91990403
76.0	92.37	2212	4	8848	47071.36	0.002938665	16.28663896	32.57327793
78.0	99.63	425	4	1700	9044	0.000564617	3.375221483	6.750442967
80.0	92.10	1954	4	7816	41581.12	0.002595909	14.34433048	28.68866096
82.0	88.94	1980	4	7920	42134.4	0.002630451	14.03709503	28.07419007
84.0	93.89	1732	4	6928	36856.96	0.00230098	12.96246349	25.92492697
92.0	95.61	2317	4	9268	49305.76	0.003078159	17.65787	141.26296
94.0	91.37	2454	4	9816	52221.12	0.003260165	17.87213753	26.80820629
96.0	94.60	2113	4	8452	44964.64	0.002807142	15.93316632	23.89974947
					Total Emissions in pounds			1234.964884
					Equivalent Gallons (vapor)			200.4813124

STINGER LEVEL
Huck's Plaza
Myrtle Beach, South Carolina

4/25/16-4/29/16

STINGER LEVEL

		MW3		
Time	**Elapsed Time**			
12:00	0	7.00		
12:30	0.5	7.50		
13:00	1.0	8.00		
13:30	1.5	8.50		
14:00	2.0	9.00		
14:30	2.5	9.50		
15:00	3.0	10.00		
15:30	3.5	10.50		
16:00	4.0	11.00		
16:30	4.5	11.50		
17:00	5.0	12.00		
17:30	5.5	12.50		
18:00	6.0	12.75		
18:30	6.5	12.75		
19:00	7.0	12.75		
19:30	7.5	12.75		
20:00	8.0	12.75		
21:00	9.0	12.75		
22:00	10.0	12.75		
23:00	11.0	12.75		
0:00	12.0	12.75		
8:00	20.0	12.75		
9:00	21.0	10.00		
10:00	22.0	10.00		
11:00	23.0	10.00		
12:00	24.0	10.00		
14:00	26.0	10.00		
16:00	28.0	10.00		
18:00	30.0	10.00		
20:00	32.0	10.00		
22:00	34.0	10.00		
0:00	36.0	10.00		
8:00	44.0	10.00		
10:00	46.0	8.00		
12:00	48.0	8.00		
14:00	50.0	8.00		
16:00	52.0	8.00		
18:00	54.0	8.00		
20:00	56.0	8.00		
22:00	58.0	8.00		
0:00	60.0	8.00		
8:00	68.0	8.00		
10:00	70.0	10.00		
12:00	72.0	10.00		
14:00	74.0	10.00		
16:00	76.0	10.00		
18:00	78.0	10.00		
20:00	80.0	10.00		
22:00	82.0	10.00		
0:00	84.0	10.00		
8:00	92.0	10.00		
10:00	94.0	10.00		
12:00	96.0	10.00		

DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
SITE - Huck's Plaza
LOCATION - Myrtle Beach, SC
SCDHEC SITE ID # 05156
Date: 4/25/16-4/29/16

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW2		
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
12:00	0			
12:30	0.5	0.0		
13:00	1.0	0.0		
13:30	1.5	0.0		
14:00	2.0	0.0		
14:30	2.5	0.0		
15:00	3.0	0.0		
15:30	3.5	0.0		
16:00	4.0	0.0		
16:30	4.5	0.0		
17:00	5.0	0.0		
17:30	5.5	0.0		
18:00	6.0	0.0		
18:30	6.5	0.0		
19:00	7.0	0.0		
19:30	7.5	0.0		
20:00	8.0	0.0		
21:00	9.0	0.0		
22:00	10.0	0.0		
23:00	11.0	0.0		
0:00	12.0	0.0		
8:00	20.0	0.0		
9:00	21.0	0.0		
10:00	22.0	0.0		
11:00	23.0	0.0		
12:00	24.0	0.0		
14:00	26.0	0.0		
16:00	28.0	0.0		
18:00	30.0	0.0		
20:00	32.0	0.0		
22:00	34.0	0.0		
0:00	36.0	0.0		
8:00	44.0	0.0		
10:00	46.0	0.0		
12:00	48.0	0.0		
14:00	50.0	0.0		
16:00	52.0	0.0		
18:00	54.0	0.0		
20:00	56.0	0.0		
22:00	58.0	0.0		
0:00	60.0	0.0		
8:00	68.0	0.0		
10:00	70.0	0.0		
12:00	72.0	0.0		
14:00	74.0	0.0		
16:00	76.0	0.0		
18:00	78.0	0.0		
20:00	80.0	0.0		
22:00	82.0	0.0		
0:00	84.0	0.0		
8:00	92.0	0.0		
10:00	94.0	0.0		
12:00	96.0	0.0		
Maximum Change:		0.0		

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW2		
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior to AFVR	0 hours	7.45		
	24 hours	7.45		
	48 hours	7.44		
	72 hours	7.46		
	96 hours	7.48		
Maximum Change:		0.03		

SUPPORTING DOCUMENTS

APPENDIX D

DISPOSAL MANIFESTS

CERTIFICATE OF DISPOSAL

Certify to all that

T K TANK SERVICES, INC.

OF GALLONS 1,664 Contaminant: NONHAZARDOUS PETROLEUM CONTAMINATED WATER

This is to certify that the above water/product has been disposed of

In accordance with EPA regulations on petroleum contaminated water

HUCK'S PLAZA

4/29/2016

DATE

SIGNATURE

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST

1. Generator's Number
2. Page 1 of
3. Emergency Response Phone
4. Waste Tracking Number

5. Generator's Name and Mailing Address: Hucks Plaza, 1744 3rd Ave South, Myrtle Beach SC
Generator's Site Address (if different than mailing address)
Generator's Phone

6. Transporter 1 Company Name: VERCO
U.S. EPA ID Number

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address: T/C Tank Services
U.S. EPA ID Number
Facility's Phone

	9. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group, if any)	10. Containers No.	Type	11. Total Quantity	12. Unit Wt./Vol.
1	Non Haz Water	1	Tt	1,664	gal
2					
3					
4					

13. Special Handling Instructions and Additional Information

14. 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.

Generator's Offeror's Printed/Typed Name: Robert Fran on behalf of Southeastern
Signature: [signature]
Month 4 Day 29 Year 16

15. International Shipments: ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit
Transporter signature (for exports only) Date leaving U.S.

16. Transporter Acknowledgement of Receipt of Materials

Transporter 1 Printed/Typed Name: Robert Fran
Signature
Month 4 Day 29 Year 16

Transporter 2 Printed/Typed Name
Signature
Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number

18. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone

19. Signature of Alternate Facility (or Generator)
Month Day Year

20. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 19a

Printed/Typed Name: Richard Sorcut
Signature: [signature]
Month 9 Day 29 Year 16

GENERATOR

TRANSPORTER INT'L

DESIGNATED FACILITY

6-NHMC-SO-1158

1-DESIGNATED FACILITY TO DESTINATION

D H E C
PROMOTE PROTECT PROSPER
Catherine E. Heigel, Director
Promoting and protecting the health of the public and the environment



MR DANNY TODD
1121 SIMONTON DR
WATKINSVILLE GA 30677

JUN 15 2016

Re: AFVR Directive
501 Amoco; 1432 Hwy. 501, Myrtle Beach, SC
UST Permit # 05156; CA# 52729
Release reported December 31, 1991
AFVR Report received June 9, 2016
Horry County

Dear Mr. Todd:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (Agency) recognizes your commitment to continue work at this site utilizing Southeastern Environmental, Inc. In accordance with Section 280.64 of the South Carolina Underground Storage Tank Control Regulations, a 96-hour Aggressive Fluid and Vapor Recovery (AFVR) event may commence as outlined in the UST Quality Assurance Program Plan (QAPP) Revision 3.0. **Please be aware that the AFVR Procedures have been updated.** Please connect to MW-3 for the duration of this event. The stinger shall be lowered at six inch intervals starting at the water table interface to a maximum depth of approximately 12.72 feet in the well. A copy of Agency QAPP Version 3.0 for the Underground Storage Tank Division is available at http://www.scdhec.gov/Environment/docs/QAPPRevision3.0.pdf

As soon as the beginning date of the event has been scheduled, please contact Jim Martin at martinjm@dhec.sc.gov.

The AFVR Report should be submitted within 90 days from the date of this correspondence. Please note that all applicable South Carolina certification requirements apply to the services and report preparation. All site rehabilitation activities must be performed and submitted by a South Carolina Certified Underground Storage Tank Site Rehabilitation Contractor.

Cost Agreement # 52729 has been approved in the amount shown on the enclosed cost agreement. Southeastern Environmental, Inc., can submit an invoice for direct billing from the State Underground Petroleum Environmental Response Bank (SUPERB) Account. If the invoice and completed report are not submitted within 120 days from the date of this letter, monies allocated to pay this invoice will be uncommitted. This means that the invoice will not be processed for payment until all other committed funds are paid or monies become available.

Please note that Sections 44-2-110(4) and 44-2-130 of the SUPERB Statute state that no costs will be allowed unless prior approval is obtained from the UST Management Division. If for any reason additional tasks will be completed, these additional tasks and the associated cost must be preapproved by the Agency for the cost to be paid. The Agency reserves the authority to pay only for work properly performed and/or technically justified and will only pay rates in accordance with established criteria. Further, the Agency reserves the right to question and/or reject costs if deemed unreasonable and the right to audit project records at any time during the project or after completion of work.

The Agency grants preapproval for transportation of virgin petroleum-contaminated groundwater from the referenced site to a permitted treatment facility.

On all correspondence concerning this site, please reference UST Permit #05156 and CA # 52729. If you have any questions, please contact me at (803) 898-0605 or by e-mail at martinjm@dhec.sc.gov.

Sincerely,

Jim Martin, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Approved Cost Agreement

cc: Technical File (with enclosure)
Southeastern Environmental, 323 Main Street, Conway, SC 29526 (with enclosure)

Approved Cost Agreement 52729

Facility: 05156 501 AMOCO
MARTINJM
PO Number:

Task / Description	Categories	Item	Description	Qty / Pct	Unit Price	Amount
19 RPT/PROJECT MNGT & COORDINATIO						
		PRT	REPORT PREPARATION	0.1200	$22,742.250	2,729.07
23 EFR						
		A4	96 HOUR EVENT	1.0000	$12,567.500	12,567.50
		C4	OFF GAS TREATMENT 96 HOUR	1.0000	$780.000	780.00
		D	SITE RECONNAISSANCE	1.0000	$203.250	203.25
		F1	EFFLUENT DISPOSAL	20,000.0000	$0.440	8,800.00
		G	AFVR EQUIPMENT MOB	1.0000	$391.500	391.50
				Total Amount		25,471.32

Document Receipt Information

☒ Hard Copy ☒ CD ☐ Email

Date Received 8/29/14

Permit Number 05756

Project Manager Joel Padgett

Name of Contractor SET

UST Certification Number _____

Docket Number _____ 17Tech

Scanned _____

AFVR

SCANNED

UST
Joel
AUG 29 2016
PROGRAM

96 Hour
Aggressive Fluid Vapor Recovery (AFVR) Event

Hucks Plaza

1432 Hwy. 501
Myrtle Beach, South Carolina
UST Permit #05156
CA #52729

COPY

Prepared for:

South Carolina Department of Health and Environmental Control

Underground Storage Tank Program

2600 Bull Street

Columbia, South Carolina 29201

Prepared by:

Southeastern Environmental, Inc.

323 Main Street

Conway, South Carolina 29526

25 August 2016

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Hucks Plaza
SC DHEC Site ID # 05156
CA# 52729

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96 hour AFVR Event

Hucks Plaza

1432 Highway 501
Myrtle Beach, SC 29526

Site # 05156, CA # 52729

SEI conducted a 96 hour AFVR event at Hucks Plaza, site # 05156, 1432 Hwy 501, Myrtle Beach, S.C. beginning on the 11th of July and ending on the 15th of July 2016. The data collected has been reviewed by Dr. Douglas D. Nelson and found to be in accordance with currently accepted quality control practices as prescribed by the South Carolina Department of Health and Environmental Control.

Southeastern Environmental, Inc.

Bruce G. Newell
President, Southeastern Environmental, Inc.
Class I UST Site Rehab Contractor # 82

Douglas D. Nelson, P. G.
South Carolina Registration #391

Narrative

Location: Hucks Plaza 1432 Hwy. 501 Myrtle Beach, SC	Weather: 11-15 Jul. 16 – Clear daytime, cloudy with scattered showers early afternoon
Date: 25 August 16	Temperature: 11-15 Jul. 16 75° to 98° F
UST Site ID # 05156, CA# 52729	Data Collection By: B.G. Newell/R.S. Stanley and Jason Chiorazzi (VERCO)

Introduction:

South Carolina Department of Health and Environmental Control (SC DHEC) issued a request for a 96 hour AFVR event to be conducted at the above referenced site. The SC DHEC project manager determined the 96 hr. AFVR event should be conducted using MW-3.

Field Work:

Aggressive Fluid Vapor Recovery (AFVR) Events

On the 11th of July 2016, SEI personnel gauged for free phase petroleum in MW-3. VERCO started the 96 hour AFVR event on the 11th of July 2016 at 12:00 hrs. and completed the 96 hour AFVR event 15th of July 2016 at 12:00 hrs. Approximately 1360 gallons of non-hazardous petroleum contaminated water was recovered during the 96 hour AFVR event.

SEI personnel gauged for free phase petroleum in MW-3 on the 15th of August 2016, thirty one (31) days after the 96 hour AFVR event was completed. The ground water and free product levels are listed below and with historical data in the appendix.

Results:

Free phase petroleum was detected in MW-3. Free phase petroleum readings were;

11 Jul. 16	MW-3	0.28' FP
15 Aug.16	MW-3	0.14' FP

Total emission calculations at the conclusion of the event were approximately 582 pounds or approximately 95 gallons.

Recommendations:

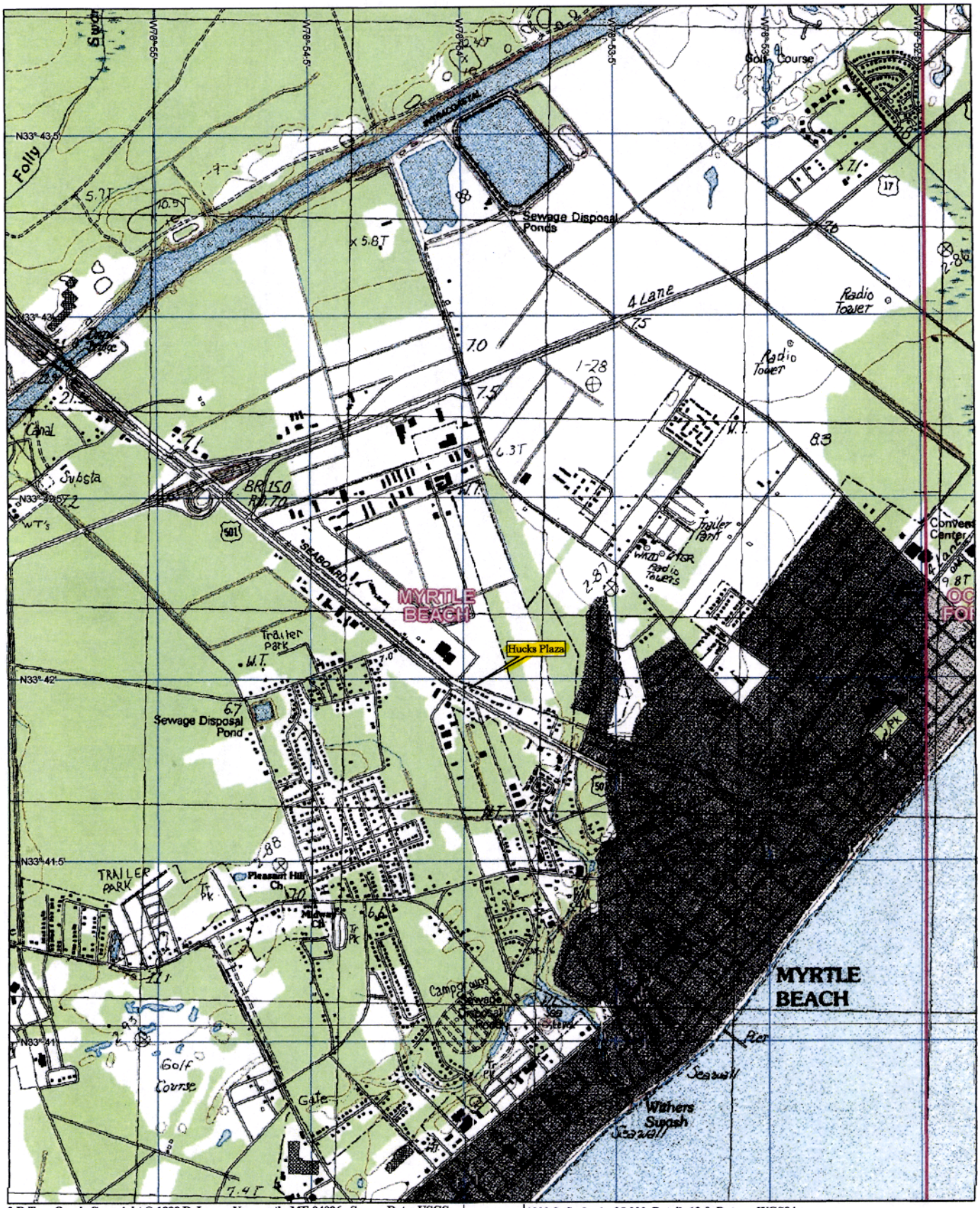
SEI recommends additional AFVR events be conducted to control free phase petroleum migration and recover contaminating vapors and fluids from the site. The 96 hour AFVR should be conducted as soon as possible to continue the overall site remediation efforts.

MAPS AND TABLES

APPENDIX A

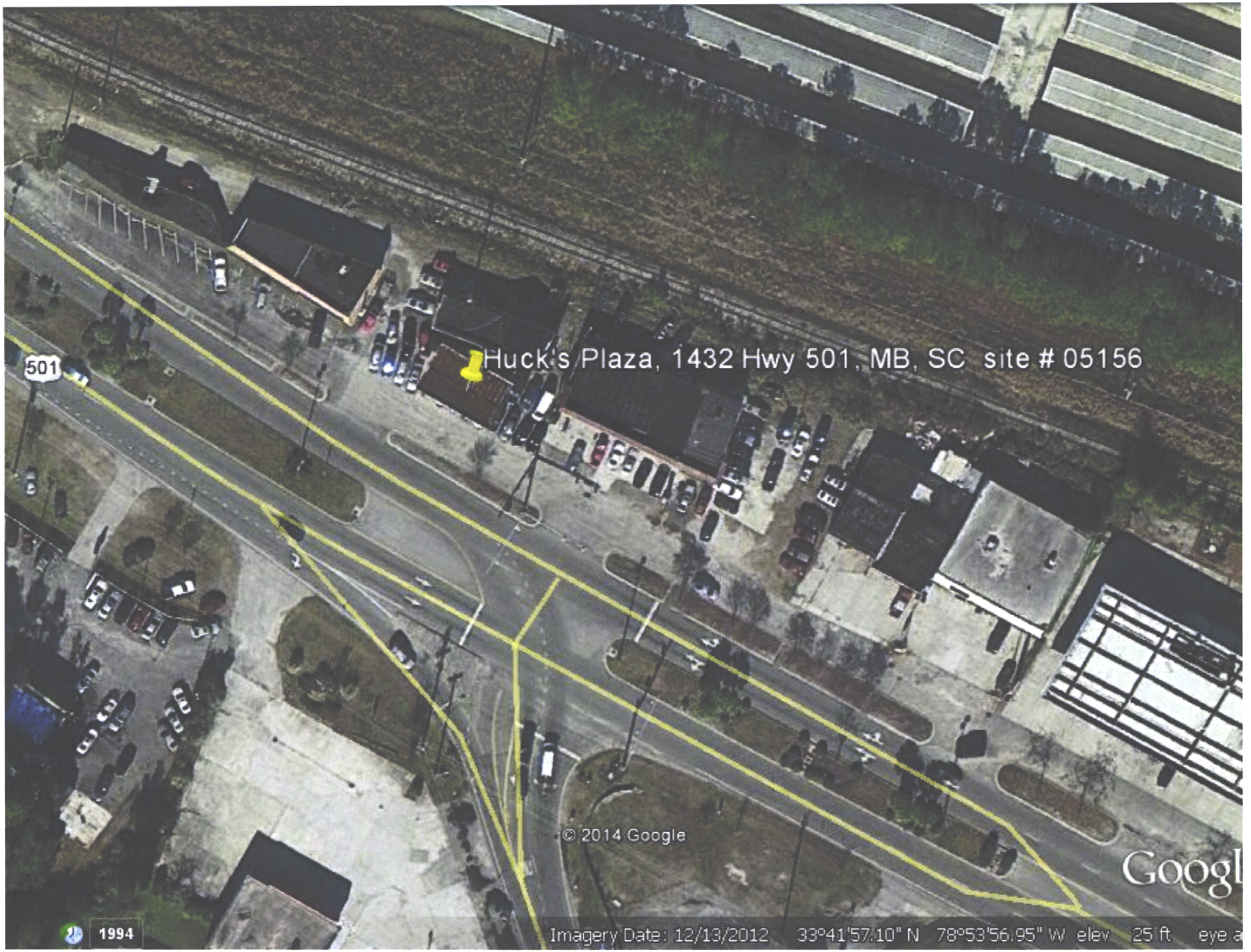
SITE MAP

Monitoring Well Locations



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS 1000 ft Scale: 1 : 25,000 Detail: 13-0 Datum: WGS84


Huck's Plaza, 1432 Hwy 501, MB, SC site # 05156
Robert M Grissom Pkwy
Executive Ave
Trade St
501
Nance St
Blue St
Washington St
Ragin St
King St
Randall Ave
Spivey Ave
18th Ave N
16th Ave N
14th Ave N
Mt Joe White Ave
Campbell St
Legion St
Racepath St
Linen Dr
Ace Dr
Cedar St
3rd Ave N
Balsam St
Terminal St
8th Ave N
Oak St
Withers Dr
Withers Alley
Ocean Blvd
Myrtle Beach Boardway
Alder St
Main St
17
Broadway
Owens Dr
Todd St
3rd Ave S
Maple St
Hwy 15
Oak Dr
Pine Dr
Park Dr
ach, SC
9th Ave S
Columbia Dr
Charlotte Dr
5th Ave S
Southpar Dr
Scott
Collins
Kings Hwy
York St
6th Ave N
Myrtle Beach
Agg St
© 2014 Google
Google
1994
Imagery Date: 12/13/2012 33°41'46.03" N 78°53'30.33" W elev 25 ft eye al


Huck's Plaza, 1432 Hwy 501, MB, SC site # 05156
501
© 2014 Google
1994
Imagery Date: 12/13/2012 33°41'57.10" N 78°53'56.95" W elev 25 ft

= 21.42' TOP OF 10" CASING = 19.48'
= 20.95' TOP OF 2" CASING = 19.09'
GROUND = 19.4'

MW # 11

= 22.45' TOP OF 10" CASING = 19.88'
= 22.16' TOP OF 2" CASING = 19.70'
GROUND = 19.7'

MW # 12

= 21.19' TOP OF 10" CASING = 18.70'
= 20.99' TOP OF 2" CASING = 18.49'
GROUND = 18.60'

GROUND = 21.3'

TW 2

TOP OF 10" CASING = 21.15'
TOP OF 2" CASING = 20.85'
GROUND = 21.1'

SOUTHEASTERN ENVIRONMENTAL, INC.

SCALE: 1' = 50'

DECEMBER 17, 2004

MW # 12

CANNON

SITE PLAN

MW # 11

THIS PROPERTY IS LOCATED IN FLOOD ZONE (X)
ACCORDING TO F.E.M.A. MAP NO. 45051C0684 H
DATED AUGUST 23, 1999.

ELEVATIONS BASED ON NGVD 1929

MW # 10

HORRY COUNTY RAILROAD
(100' R/W)

MW # 8 TW 2

MW # 1

"X" IN CONC.

THE BIKE SHOP

TRADE SHOPS

S 66°42'00" E

74'

65'9"

HUCKS PLAZA

WRECK'S PAINT
AND BODY SHOP

CONCRETE SLAB

86.14'

S 31°24'26" W

VIDEO STORE

SIDEWALK

MW # 3

ISLAND

TW 1

CONCRETE SLAB

MW # 5

I.P.F.

TBM "X" IN CORNER OF SIDEWALK, 21.70' M.S.L.

MW # 2

MW # 13

EDGE OF ASPHALT ROAD

Install 4" RW.
Screen 5-15'

HIGHWAY NO. 501

TO U.S. HWY 17

EDGE OF ASPHALT ROAD

EDGE C

MW # 6

UCKS PLAZA
-32 HWY 501
YRTLE BEACH, S.C.

TE ID # 05156

4S No. 181-01-01-06

MW # 7

3rd AVENUE
SOUTH

SCANNED

DOCKETING
18

JAMES P. RIANTON P.E.

APPENDIX B

GROUNDWATER/FREE PRODUCT
ELEVATION TABLE

AFVR Event Ground Water Level Table

Southeastern Environmental, Inc.	Site Name: Hucks Plaza (501 Amoco)	Site ID: 05156, CA# 52729
323 Main Street		
Conway, SC 29526	Date: 15 Aug. 16	Field Personnel: BGN/RSS

Well No.	Date Measured	Top of Casing Elevation *(ft.)*	Screen Interval *(ft.)*	Depth to Free Product (from TOC)	Depth to Ground Water (from TOC)	Free Product Thickness *(ft.)*	Ground Water Elevation *(ft/.msl)*
Ground water levels prior to 96 hour AFVR event conducted 15-19 Jun. 2015							
MW-2	N/A						
MW-3	11 July 16	21.44'	2.72'/ 12.72'	7.54'	7.82'	0.28'	13.62'

Well No.	Date Measured	Top of Casing Elevation *(ft.)*	Screen Interval *(ft.)*	Depth to Free Product (from TOC)	Depth to Ground Water (from TOC)	Free Product Thickness *(ft.)*	Ground Water Elevation *(ft/.msl)*
Ground water levels 31 days after 96 hour AFVR event, 15-19 Jun. 2015							
MW-2	N/A						
MW-3	15 Aug. 16	21.44'	2.72' / 12.72'	8.08'	8.22'	0.14'	13.22'

APPENDIX C

AGGRESSIVE FLUID VAPOR RECOVERY (AFVR)
EVENT TABLES

Calculation of Petroleum Vapor Weight Extracted During an AFVR Event at Hucks Plaza, Myrtle Beach, SC, July 11 - 15, 2016

The tables on the following pages contain the data and calculations for one 96 hour AFVR event at Hucks Plaza, Myrtle Beach, S.C., conducted July 11 - 15, 2016. Monitoring well #3 (MW-3) was evacuated. The amount of COC vaporized was significant.

The weight of COC volatilized during the AFVR event conducted July 11 - 15, 2016, was 582 pounds (95 gallons). At the start of the AFVR event there was a thickness of 0.28 ft of free product in MW3. The AFVR procedure removed all detectable free product from MW-3. Free product thickness was gauged at 0.14' in MW-3 31 days after the AFVR event was concluded.

Free Product Thickness in MW3 Before and 30 Days After AFVR events at HUCKS PLAZA

Before AFVR			**35 Days After AFVR**		
8 Oct. 2015	35 days		12 Nov. 2015		
FP 4.76'			FP 4.70'		
H_2O 5.02'			H_2O 5.16'		
FP 0.26'	thickness		FP 0.46'	thickness	0.20' increase
4 Jan. 2016	35 days		8 Feb. 2016		
FP 5.02'			FP 4.05'		
H_2O 5.50'			H_2O 4.56'		
FP 0.48'	thickness		FP 0.51'	thickness	0.03' increase
25 Apr. 2016	36 days		31 May 2016		
FP 6.69'			FP 7.27'		
H_2O 7.07'			H_2O 7.45'		
FP 0.38'	thickness		FP 0.18'	thickness	0.20' decrease
11 Jul. 2016	35 days		15 Aug 2016		
FP 7.54'			FP 8.08'		
H_2O 7.82'			H_2O 8.22'		
FP 0.28'	thickness		FP 0.14'	thickness	0.14' decrease

Distances to the top of the free product and the top of the water table are measured downward from the top of the casing in MW-3.

Summary of AFVR Results at Hucks Plaza

March 11 - 15, 2015
295 pounds (47.8 gallons) of vapor equivalent COC removed during 96 hour AFVR event
.92 feet34 days 0.73 feet Free product thicknesses before and after AFVR

June 15 - 19, 2015
2235 pounds (378 gallons) of vapor equivalent COC removed during 96 hour AFVR event
1.01 feet 35 days 0.82 feet Free product thicknesses before and after AFVR

October 08 - 12, 2015
493 pounds (80 gallons) of vapor equivalent COC removed during 96 hour AFVR event
0.26 feet 35 days 0.46 feet Free product thicknesses before and after AFVR

January 04 – 08, 2016
183 pounds (30 gallons) of vapor equivalent COC removed during 96 hour AFVR event
0.48 feet 35 days 0.51 feet Free product thicknesses before and after AFVR

April 25 – 29, 2016
1235 pounds (200 gallons) of vapor equivalent COC removed during 96 hour AFVR event
0.38 feet 36 days 0.18 feet Free product thicknesses before and after AFVR

July 11 – 15, 2016
582 pounds (95 gallons) of vapor equivalent COC removed during 96 hour AFVR event
0.28 feet 35 days 0.14 feet Free product thicknesses before and after AFVR

AFVR MONITORING DATA
Site Name: Huck's Plaza
Site Location: Myrtle Beach, SC
Date: 7/11/16-7/15/16
SCDHEC ID# 05156

Extraction Well	Time (hh:mm)	Extraction Well Head Vacuum (in. Hg)					Vacuum Truck Exhaust						
		MW3				TRUCK	Relative Humidity	Temp (°F)	Pretreatment Conc. (PPM)	Post Treatment Conc. (PPM)	Offgas Velocity Ft/Min	Water Vapor (%)	Flow Rate (DSCFM)
7/11/16	12:00	19.0				22.0							
	12:30	19.0				22.0	9.2	173	4116	0	2200	0.01	88.99
	13:00	19.0				22.0	8.6	184	2718	2	2200	0.01	87.47
	13:30	19.0				22.0	8.4	190	748	1	2300	0.02	89.69
	14:00	19.0				22.0	7.2	197	634	3	2300	0.02	88.73
	14:30	19.0				22.0	6.6	210	441	2	2300	0.03	86.12
	15:00	19.0				22.0	6.5	208	459	2	2300	0.03	86.39
	15:30	19.0				22.0	6.7	205	477	4	2300	0.04	85.87
	16:00	19.0				22.0	6.0	205	581	2	2300	0.04	85.87
	16:30	19.0				22.0	5.6	205	538	2	2300	0.04	85.87
	17:00	19.0				22.0	5.5	205	173	5	2300	0.04	85.87
	17:30	19.0				22.0	5.5	205	467	7	2300	0.04	85.87
	18:00	19.0				22.0	5.5	205	458	9	2300	0.04	85.87
	18:30	19.0				22.0	5.5	205	451	14	2300	0.04	85.87
	19:00	19.0				22.0	5.7	205	414	11	2300	0.04	85.87
	19:30	19.0				22.0	6.0	205	426	16	2300	0.04	85.87
	20:00	19.0				22.0	6.0	207	512	15	2300	0.04	85.62
	21:00	19.0				22.0	5.5	205	563	22	2300	0.02	87.66
	22:00	19.0				22.0	4.9	215	575	19	2300	0.01	87.25
	23:00	19.0				22.0	5.7	215	660	27	2300	0.01	87.25
7/12/16	0:00	19.0				22.0	6.2	215	847	26	2300	0.02	86.37
	8:00	19.0				22.0	6.0	210	865	63	2300	0.02	87.01
	9:00	18.0				22.0	5.7	205	769	69	2300	0.03	86.77
	10:00	18.0				22.0	4.8	223	1328	75	2400	0.05	86.34
	11:00	18.0				22.0	4.7	225	1265	83	2300	0.06	81.63
	12:00	18.0				22.0	4.5	228	520	89	2300	0.05	82.14
	14:00	18.0				22.0	5.7	233	617	92	2400	0.03	86.88
	16:00	18.0				22.0	6.2	215	595	97	2300	0.03	85.48
	18:00	18.0				22.0	7.7	205	622	103	2400	0.03	90.54
	20:00	18.0				22.0	6.4	216	569	109	2400	0.02	89.99
	22:00	18.0				22.0	6.8	210	628	0	2400	0.02	90.79
7/13/16	0:00	18.0				22.0	6.0	220	1313	0	2400	0.03	88.54
	8:00	19.0				22.0	6.2	220	870	39	2400	0.03	88.54
	10:00	19.0				22.0	5.3	215	1121	44	2400	0.04	88.28
	12:00	19.0				22.0	5.5	210	2172	52	2400	0.04	88.94
	14:00	19.0				22.0	5.1	223	635	58	2400	0.03	88.16
	16:00	19.0				22.0	5.4	218	641	63	2400	0.03	88.81
	18:00	19.0				20.0	5.5	210	624	68	2400	0.02	90.79
	20:00	17.0				20.0	5.2	217	686	71	2400	0.02	89.85
	22:00	17.0				20.0	4.7	225	1262	76	2400	0.03	87.90
7/14/16	0:00	17.0				20.0	4.8	225	684	79	2400	0.03	87.90
	8:00	17.0				20.0	4.9	220	693	111	2500	0.03	92.23
	10:00	17.0				20.0	5.1	215	947	119	2500	0.03	92.92
	12:00	17.0				20.0	4.9	220	573	0	2400	0.04	87.63
	14:00	17.0				20.0	5.6	210	579	3	2400	0.04	88.94
	16:00	17.0				20.0	6.4	205	624	5	2500	0.04	93.34
	20:00	17.0				20.0	6.6	210	686	7	2500	0.04	92.65
	22:00	17.0				20.0	6.4	216	906	12	2400	0.04	88.15
7/15/16	0:00	17.0				20.0	6.5	223	878	18	2500	0.03	91.83
	8:00	17.0				20.0	6.3	213	972	58	2500	0.03	93.19
	10:00	17.0				20.0	5.8	219	1124	69	2400	0.03	88.68
	12:00	17.0				20.0	5.5	226	996	78	2500	0.03	91.43

Well Gauging Data:				Before AFVR Event			After AFVR Event		
Well No.	Diameter (in)	Total Depth (ft)	Target Stinger Depth (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)	Depth to Product (ft)	Depth to Water (ft)	Product Thickness (ft)
MW3	2.00	12.75	12.75	7.54	7.82	0.28	NONE	12.75	0.00

AFVR Information	
Client	SEI
Equipment Operator	RF/RU
Blower Discharge I.D.	3 inches

Notes: Pipe ID - The inside diameter of the blower discharge piping (from vacuum truck)
Velocity - The rate at which air flows is measured at the blower discharge piping
Temperature - The temperature of the air stream exiting the blower discharge piping
Relative humidity - The % relative humidity of the air stream exiting the blower discharge piping
Water Vapor in % - Pounds of water per pound of dry air (derived from a Psychrometric chart of temp. vs relative humidity)
Flow rate = (1 - water vapor)(velocity)(Pipe Diameter/24)^2(3.14)(528°R/Temp + 460)

Site Name: Huck's Plaza
Location: Myrtle Beach, SC
Date: 7/11/16-7/15/16
EMISSION CALCULATION

Elapsed Time (hr)	Flow Rate (DSCFM)	Concentration (ppm)	K (#C - gas)	PPMg (ppm)	Cg:m (mg/dsm^3)	Cg (lbs/dscf)	PMRg (lb/hr)	PMR (lb)
0								
0.5	88.99	4116	4	16464	87588.48	0.005468149	29.19670954	14.59835477
1.0	87.47	2718	4	10872	57839.04	0.003610891	18.95072539	9.475362694
1.5	89.69	746	4	2985.2	15881.264	0.000991467	5.335294227	2.667647114
2.0	88.73	634	4	2536	13491.52	0.000842276	4.484171126	2.242085563
2.5	86.12	441	4	1764	9384.48	0.000585873	3.027385559	1.513692779
3.0	86.38	459	4	1836	9767.52	0.000609786	3.160386305	1.580193153
3.5	85.87	477	4	1906.8	10144.176	0.000633301	3.263074231	1.631537116
4.0	85.87	581	4	2324	12363.68	0.000771865	3.977021456	1.988510728
4.5	85.87	538	4	2153.2	11455.024	0.000715137	3.684734337	1.842367169
5.0	85.87	173	4	692	3681.44	0.000229832	1.184207766	0.592103883
5.5	85.87	467	4	1868	9937.76	0.000620414	3.196676455	1.598338227
6.0	85.87	458	4	1832	9746.24	0.000608458	3.13507027	1.567535135
6.5	85.87	451	4	1804	9597.28	0.000599158	3.087154349	1.543577175
7.0	85.87	414	4	1656	8809.92	0.000550003	2.83388448	1.41694224
7.5	85.87	426	4	1704	9065.28	0.000565945	2.916026059	1.45801303
8.0	85.62	512	4	2048	10895.36	0.000680197	3.494198509	1.747099254
9.0	87.66	563	4	2252	11980.64	0.000747951	3.934096777	3.934096777
10.0	87.25	575	4	2300	12236	0.000763893	3.998816545	3.998816545
11.0	87.25	660	4	2638.8	14038.416	0.000876418	4.587859609	4.587859609
12.0	86.37	847	4	3388.4	18026.288	0.001125381	5.831619755	5.831619755
20.0	87.01	865	4	3461.2	18413.584	0.00114956	6.001367066	6.001367066
21.0	86.77	769	4	3077.2	16370.704	0.001022023	5.320813483	5.320813483
22.0	86.34	1328	4	5312	28259.84	0.001764262	9.139377082	77.68470519
23.0	81.63	1265	4	5060	26919.2	0.001680566	8.231140626	16.46228125
24.0	82.14	520	4	2079.6	11063.472	0.000690693	3.403981557	6.807963114
26.0	86.88	617	4	2468	13129.76	0.000819691	4.273062876	8.546125752
28.0	85.48	595	4	2379.6	12659.472	0.000790331	4.053630363	8.107260726
30.0	90.54	622	4	2488.4	13238.288	0.000826466	4.489788776	8.979577552
32.0	89.99	569	4	2274.4	12099.808	0.000755391	4.078513036	8.157026071
34.0	90.79	628	4	2512	13363.84	0.000834305	4.544923068	9.089846137
36.0	88.54	1313	4	5252	27940.64	0.001744334	9.267085443	18.53417089
44.0	88.54	870	4	3480.8	18517.856	0.00115607	6.141826163	49.13460931
46.0	88.28	1121	4	4484	23854.88	0.0014892 6	7.888395786	15.77679157
48.0	88.94	2172	4	8688	46220.16	0.002885525	15.39826789	30.79653577
50.0	88.16	635	4	2541.2	13519.184	0.000844003	4.464219144	8.928438288
52.0	88.81	641	4	2564	13640.48	0.000851575	4.53749009	9.07498018
54.0	90.79	624	4	2496	13278.72	0.00082899	4.515974514	9.031949027
56.0	89.85	686	4	2745.6	14606.592	0.00091189	4.916208592	9.832417184
58.0	87.90	1262	4	5048	26855.36	0.00167658	8.842114558	17.68422912
60.0	87.90	664	4	2656.8	14134.176	0.000882397	4.653670752	9.307341504
68.0	92.23	693	4	2772	14747.04	0.000920658	5.094956058	40.75964846
70.0	92.92	947	4	3788	20152.16	0.001258099	7.013944531	14.02788906
72.0	87.63	573	4	2292	12193.44	0.000761236	4.002511256	8.005022512
74.0	88.94	579	4	2316	12321.12	0.000769208	4.104786881	8.209573763
76.0	93.34	624	4	2496	13278.72	0.00082899	4.642784907	9.285569815
78.0	95.00	638	4	2553.2	13583.024	0.000847988	4.833586253	9.667172506
80.0	92.65	686	4	2743.2	14593.824	0.000911092	5.064520084	10.12904017
82.0	88.15	906	4	3624	19279.68	0.00120363	6.366025214	12.73205043
84.0	91.83	878	4	3512	18683.84	0.001166432	6.4267282	12.8534564
92.0	93.19	972	4	3886.4	20675.648	0.001290781	7.217529419	57.74023535
94.0	88.68	1124	4	4496	23918.72	0.001493246	7.944816866	11.9172253
96.0	91.43	998	4	3992	21237.44	0.001325853	7.273150033	10.90972505
					Total Emissions in pounds			582.4838404
					Equivalent Gallons (vapor)			94.55906499

DIFFERENTIAL PRESSURE AND GROUNDWATER DRAWDOWN DATA
SITE - Huck's Plaza
LOCATION - Myrtle Beach, SC
SCDHEC SITE ID # 05156
Date: 7/11/16-7/15/16

DIFFERENTIAL PRESSURE DATA

		Well Designation:		
		MW2		
Time	Elapsed Time	Differential Pressure Readings (inches of water)		
12:00	0	Well Covered		
12:30	0.5			
13:00	1.0			
13:30	1.5			
14:00	2.0			
14:30	2.5			
15:00	3.0			
15:30	3.5			
16:00	4.0			
16:30	4.5			
17:00	5.0			
17:30	5.5			
18:00	6.0			
18:30	6.5			
19:00	7.0			
19:30	7.5			
20:00	8.0			
21:00	9.0			
22:00	10.0			
23:00	11.0			
0:00	12.0			
8:00	20.0			
9:00	21.0			
10:00	22.0			
11:00	23.0			
12:00	24.0			
14:00	26.0			
16:00	28.0			
18:00	30.0			
20:00	32.0			
22:00	34.0			
0:00	36.0			
8:00	44.0			
10:00	46.0			
12:00	48.0			
14:00	50.0			
16:00	52.0			
18:00	54.0			
20:00	56.0			
22:00	58.0			
0:00	60.0			
8:00	68.0			
10:00	70.0			
12:00	72.0			
14:00	74.0			
16:00	76.0			
18:00	78.0			
20:00	80.0			
22:00	82.0			
0:00	84.0			
8:00	92.0			
10:00	94.0			
12:00	96.0			
Maximum Change:				

GROUNDWATER DRAWDOWN DATA

		Well Designation:		
		MW2		
Time	Elapsed Time	Depth to Liquid (feet below of casing):		
Prior to AFVR	0 hours			
	24 hours			
	48 hours			
	72 hours			
	96 hours			
Maximum Change:				

STINGER LEVEL
Huck's Plaza
Myrtle Beach, South Carolina

7/11/16-7/15/16

STINGER LEVEL

		MW3		
Time	**Elapsed Time**			
12:00	0	7.50		
12:30	0.5	8.00		
13:00	1.0	8.50		
13:30	1.5	9.00		
14:00	2.0	9.50		
14:30	2.5	10.00		
15:00	3.0	10.50		
15:30	3.5	11.00		
16:00	4.0	11.50		
16:30	4.5	12.00		
17:00	5.0	12.50		
17:30	5.5	12.75		
18:00	6.0	12.75		
18:30	6.5	12.75		
19:00	7.0	12.75		
19:30	7.5	12.75		
20:00	8.0	12.75		
21:00	9.0	12.75		
22:00	10.0	12.75		
23:00	11.0	12.75		
0:00	12.0	12.75		
8:00	20.0	10.00		
9:00	21.0	10.00		
10:00	22.0	10.00		
11:00	23.0	10.00		
12:00	24.0	10.00		
14:00	26.0	10.00		
16:00	28.0	10.00		
18:00	30.0	10.00		
20:00	32.0	10.00		
22:00	34.0	10.00		
0:00	36.0	10.00		
8:00	44.0	10.00		
10:00	46.0	8.00		
12:00	48.0	8.00		
14:00	50.0	8.00		
16:00	52.0	8.00		
18:00	54.0	8.00		
20:00	56.0	8.00		
22:00	58.0	8.00		
0:00	60.0	8.00		
8:00	68.0	8.00		
10:00	70.0	10.00		
12:00	72.0	10.00		
14:00	74.0	10.00		
16:00	76.0	10.00		
18:00	78.0	10.00		
20:00	80.0	10.00		
22:00	82.0	10.00		
0:00	84.0	11.00		
8:00	92.0	11.00		
10:00	94.0	11.00		
12:00	96.0	11.00		

SUPPORTING DOCUMENTS

APPENDIX D

DISPOSAL MANIFESTS

CERTIFICATE OF DISPOSAL

Certify to all that

T K TANK SERVICES, INC.

OF GALLONS 1,360 Contaminant: NONHAZARDOUS PETROLEUM CONTAMINATED WATER

This is to certify that the above water/product has been disposed of

In accordance with EPA regulations on petroleum contaminated water

HUCK'S PIZZA

7/15/2016

DATE

SIGNATURE

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Waste Tracking Number
			1785A

GENERATOR

5. Generator's Name and Mailing Address
Trucks Pizza
1432 Hwy 501
Myrtle Beach South Carolina
Generator's Phone:

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: VERCO — U.S. EPA ID Number

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address — U.S. EPA ID Number
Facility's Phone:

	9. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1	Non Haz Wste	1	TT	1,360	GAL	
2						
3						
4						

13. Special Handling Instructions and Additional Information

14. **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.

Generator's/Offeror's Printed/Typed Name: Bruce G. Newell — Signature: [signature] — Month: 7 — Day: 15 — Year: 16

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: Rohl Finn — Signature: [signature] — Month: 7 — Day: 15 — Year: 16

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: Casey Newman — Signature: [signature] — Month: 7 — Day: 15 — Year: 16

6-NHM-C-SO-1158

1-DESIGNATED FACILITY TO DESTINATION

= 21.42' TOP OF 10" CASING = 19.48'
= 20.95' TOP OF 2" CASING = 19.09'
GROUND = 19.4'

MW # 11

= 22.45' TOP OF 10" CASING = 19.88'
= 22.16' TOP OF 2" CASING = 19.70'
GROUND = 19.7'

MW # 12

= 21.19' TOP OF 10" CASING = 18.70'
= 20.99' TOP OF 2" CASING = 18.49'
GROUND = 18.60'

GROUND = 21.3'

TW 2

TOP OF 10" CASING = 21.15'
TOP OF 2" CASING = 20.85'
GROUND = 21.1'

SOUTHEASTERN ENVIRONMENTAL, INC.

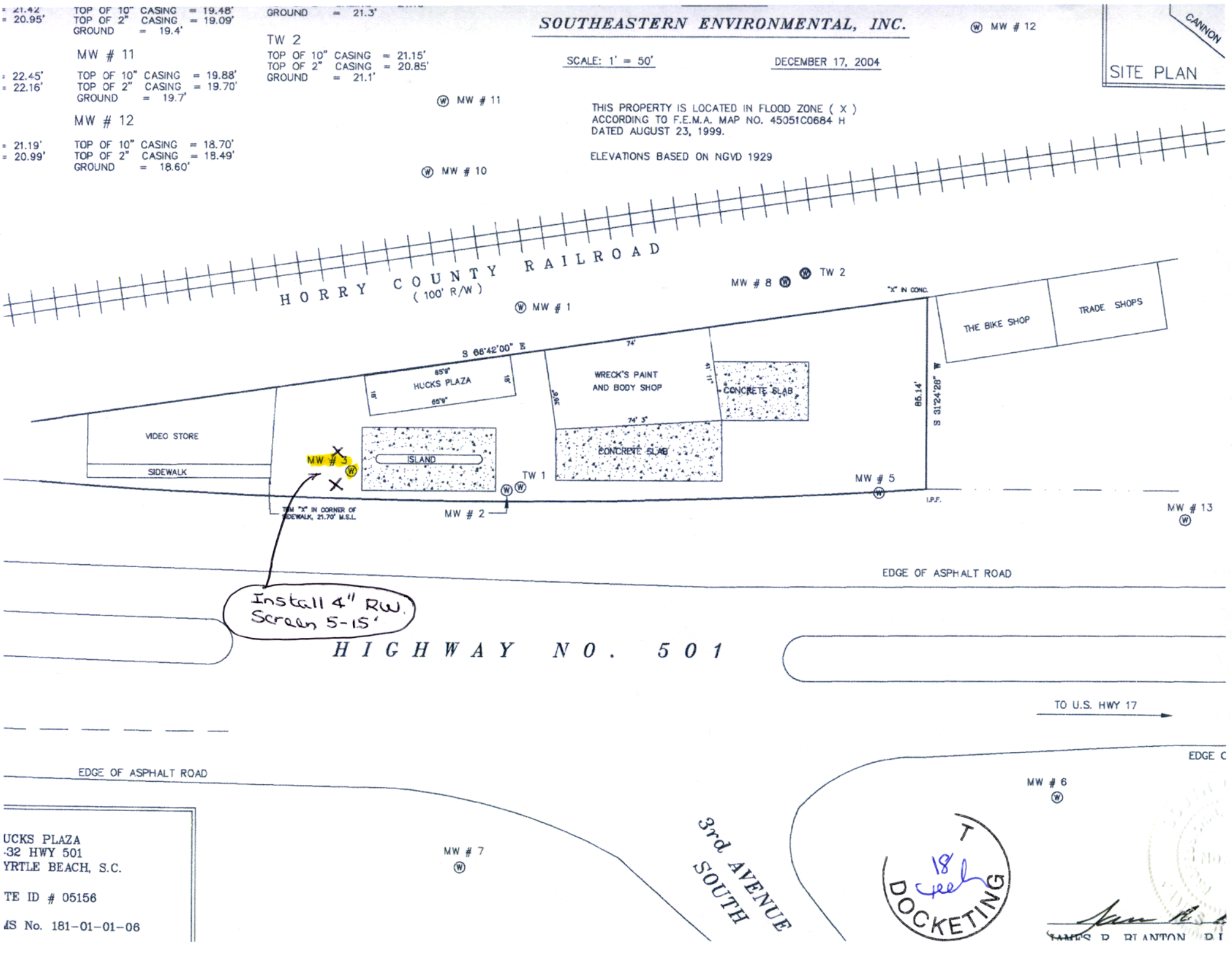
SCALE: 1' = 50'

DECEMBER 17, 2004

SITE PLAN

THIS PROPERTY IS LOCATED IN FLOOD ZONE (X)
ACCORDING TO F.E.M.A. MAP NO. 45051C0684 H
DATED AUGUST 23, 1999.

ELEVATIONS BASED ON NGVD 1929



UCKS PLAZA
-32 HWY 501
YRTLE BEACH, S.C.

TE ID # 05156

MS No. 181-01-01-06

DOCKETING
18

JAMES R. BLANTON, P.E.

dhec
Healthy People. Healthy Communities.

APR 17 2017

MR DANNY TODD
HUCKS PLAZA
1121 SIMONTON DR
WATKINSVILLE GA 30677

UST 19 DOCKETING

Re: **Site Specific Work Plan Request**
501 Amoco; 1432 Highway 501, Myrtle Beach, SC
UST Permit # 05156
Release reported December 31, 1991
AFVR Report received June 9, 2016
Horry County

Dear Mr. Todd:

The Underground Storage Tank (UST) Management Division of the South Carolina Department of Health and Environmental Control (DHEC) has reviewed the referenced report. The report indicates the presence of chemicals of concern in the groundwater.

To determine what risk the referenced release may pose to the environment and public health and in accordance with Section 280.65 of the South Carolina Underground Storage Tank Control Regulations, installation of two recovery wells is requested. The recovery wells should be installed within 20 feet of MW-3 in order to be utilized in AFVR events and in the vicinity of the areas on the enclosed map. Following the recovery well installation, a 96-hour AFVR event should be performed on the two newly installed recovery wells. All assessment/corrective action related activities should be conducted in accordance with the Southeastern Environmental, Inc. Annual Contractor Quality Assurance Plan (ACQAP) and must be conducted in compliance with all applicable regulations. A copy of the Agency's QAPP for the Underground Storage Tank Division is available at http://www.dhec.sc.gov/Environment/LW/UST/ReleaseAssessmentClean-up/QualityAssurance/.

Please have your contractor complete and submit the Site Specific Work Plan and Cost Agreement within thirty (30) days of the date of this letter. The Site Specific Work Plan form can be found at http://www.dhec.sc.gov/Environment/LW/UST/ReleaseAssessmentClean-up/QualityAssurance/. Every component may not be necessary to complete the above scope of work. The State Underground Petroleum Environmental Response Bank (SUPERB) Account allowable cost for each component is included on the Assessment Component Cost Agreement Form. **Please note that technical and financial preapproval from DHEC must be issued before work begins**.

On all correspondence regarding this site, please reference UST Permit #05156. If you have questions or need additional information, feel free to email me at gathinnr@dhec.sc.gov or call me at (803) 898-0605.

Sincerely,

Nicholas Gathings, Hydrogeologist
Corrective Action Section
Underground Storage Tank Management Division
Bureau of Land and Waste Management

enc: Map

cc: Southeastern Environmental Inc., 994 Highway 905, Conway, SC 29526 (w/ enc)

Technical File

D H E C
PROMOTE PROTECT PROSPER

Site-Specific Work Plan for Approved ACQAP
Underground Storage Tank Management Division

UST MAY 11 2017 DIVISION

To: Nicholas Gathings (SCDHEC Project Manager)
From: Bruce G. Newell (SEI) (Contractor Project Manager)
Contractor: Southeastern Env., Inc. UST Contractor Certification Number: #82

Facility Name: Huck's Plaza (a.k.a. 501 Amoco) UST Permit #: 05156
Facility Address: 1432 US Hwy. 501, Myrtle Beach, SC
Responsible Party: Danny Todd Phone: 706-540-0799
RP Address: 1121 Simonton Dr., Watkinsville, GA 30677
Property Owner (if different): _____
Property Owner Address: _____
Current Use of Property: Used car lot

UST 43T DOCKETING

Scope of Work (Please check all that apply)

- ☐ IGWA
- ☐ Tier I
- ☐ Tier II
- ☐ Monitoring Well Installation
- ☐ Groundwater Sampling
- ☑ Other Recovery well installation and 96 hr. AFVR
- ☐ GAC

Analyses (Please check all that apply)

Groundwater/Surface Water:

- ☐ BTEXNMDCA (8260B)
- ☐ Oxygenates (8260B)
- ☐ EDB (8011)
- ☐ PAH (8270D)
- ☐ Lead
- ☐ 8 RCRA Metals
- ☐ TPH
- ☐ pH
- ☐ BOD
- ☐ Nitrate
- ☐ Sulfate
- ☐ Other _____
- ☐ Methane
- ☐ Ethanol
- ☐ Dissolved Iron

Soil:

- ☐ BTEXN
- ☐ PAH
- ☐ 8 RCRA Metals
- ☐ Oil & Grease (9071)
- ☐ TPH-DRO (3550B/8015B)
- ☐ TPH-GRO (5030B/8015B)
- ☐ Grain Size
- ☐ TOC

Air:

- ☐ BTEXN

Sample Collection (Estimate the number of samples of each matrix that are expected to be collected.)

_____ Soil _____ Water Supply Wells _____ Air _____ Field Blank
_____ Monitoring Wells _____ Surface Water _____ Duplicate _____ Trip Blank

Field Screening Methodology

Estimate number and total completed depth for each point, and include their proposed locations on the attached map.
# of shallow points proposed: 12 Estimated Footage: 5 feet per point
# of deep points proposed: _____ Estimated Footage: _____ feet per point
Field Screening Methodology: Soil samples checked with PID at 2' intervals to determine location of RWs.

Permanent Monitoring Wells

Estimate number and total completed depth for each well, and include their proposed locations on the attached map.
# of shallow wells: _____ Estimated Footage: _____ feet per point
# of deep wells: _____ Estimated Footage: _____ feet per point
# of recovery wells: 2 Estimated Footage: 15 feet per point
Monitoring Well development method (consistent with SOP): Yes
Comments, if warranted:

UST Permit #: 05156 Facility Name: Hucks Plaza

Implementation Schedule (Number of calendar days from approval)
Field Work Start-Up: 30 Field Work Completion: 5
Report Submittal: 45 # of Copies Provided to Property Owners: 1

Aquifer Characterization
Pump Test: ☐ Slug Test: ☐ (Check one and provide explanation below for choice)

Investigation Derived Waste Disposal
Soil: 0.5 Tons Purge Water: _____ Gallons
Drilling Fluids: 200 Gallons Free-Phase Product: 20 Gallons

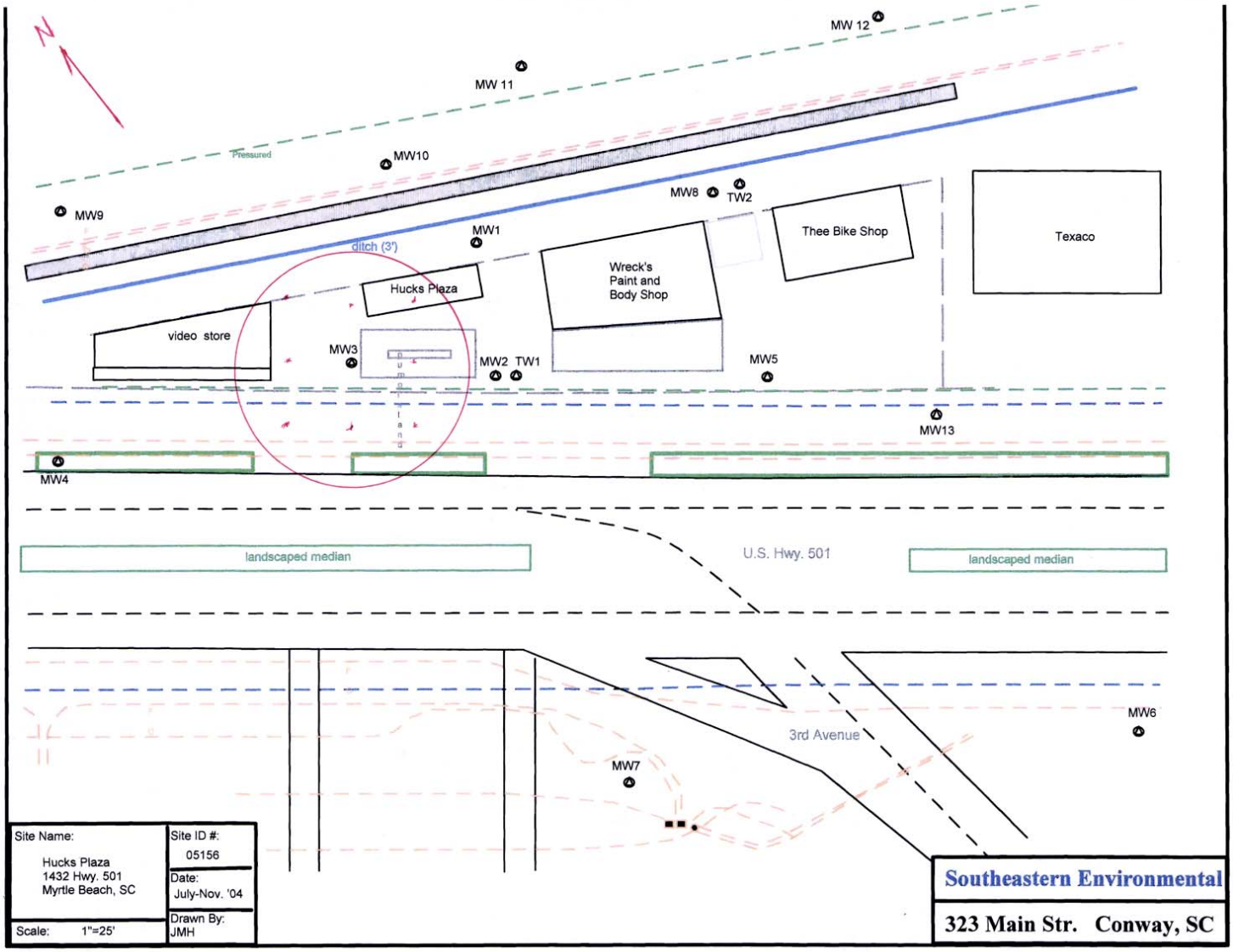
Additional Details For This Scope of Work
For example, list wells to be sampled, wells to be abandoned/repaired, well pads/bolts/caps to replace, details of AFVR event, etc.
Two 4" Recovery Wells will be installed within 20' of MW-3 as directed. 96 hr. AFVR will begin the next day. Soil will be monitored using a PID at 2' intervals to determine best location of Recovery Wells.

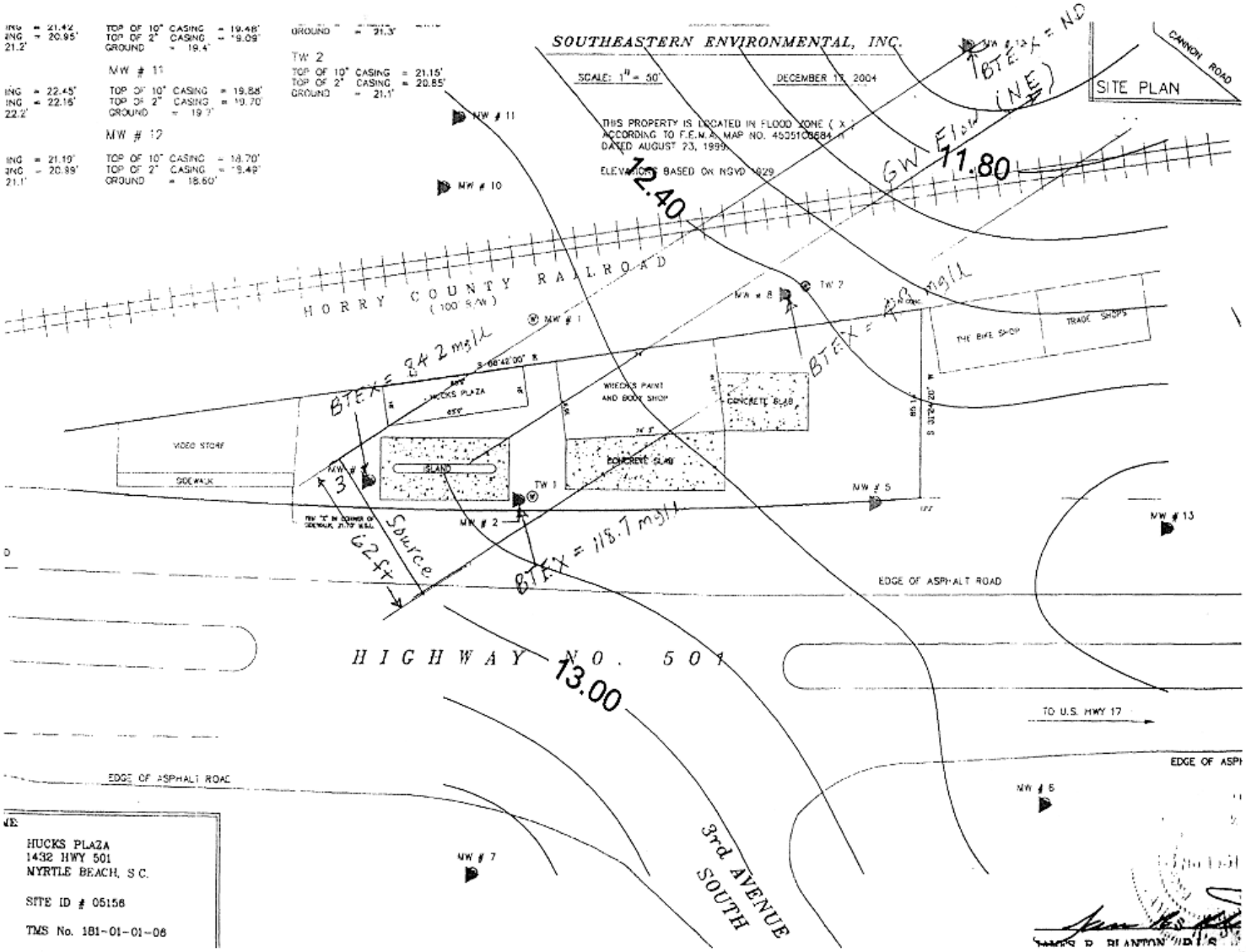
Compliance With Annual Contractor Quality Assurance Plan (ACQAP)
____ Laboratory as indicated in ACQAP? (Yes/No) If no, indicate laboratory information below.
Name of Laboratory: _____
SCDHEC Certification Number: _____
Name of Laboratory Director: _____

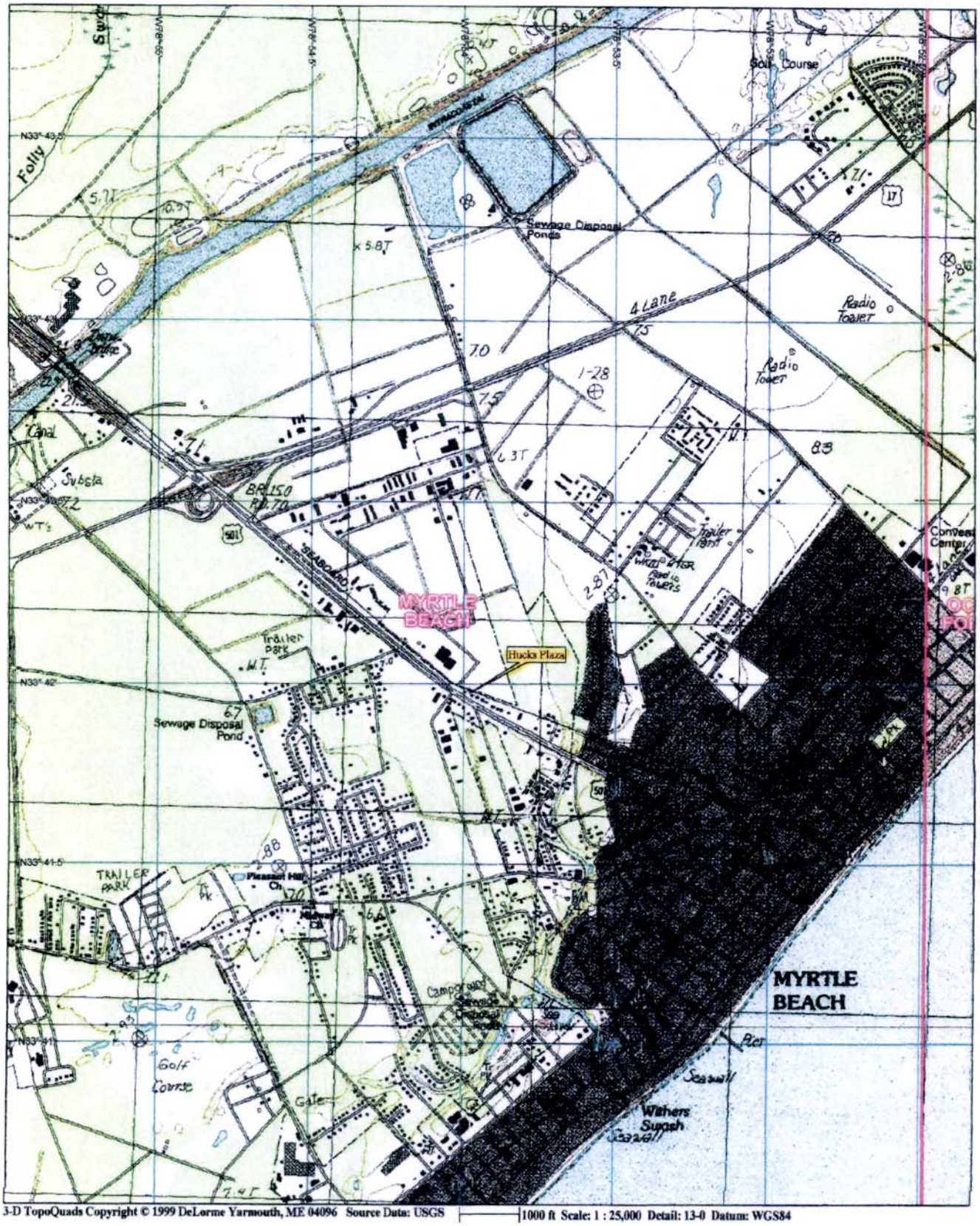
Yes Well Driller as indicated in ACQAO? (Yes/No) If no, indicate driller information below.
Name of Well Driller: _____
SCLLR Certification Number: _____

____ Other variations from ACQAP. Please describe below.

Attachments
1. Attach a copy of the relevant portion of the USGS topographic map showing the site location.
2. Prepare a site base map. This map must be accurately scaled, but does not need to be surveyed. The map must include the following:
   - North Arrow
   - Location of property lines
   - Location of buildings
   - Previous soil sampling locations
   - Previous monitoring well locations
   - Proposed soil boring locations
   - Proposed monitoring well locations
   - Legend with facility name and address, UST permit number, and bar scale
   - Streets or highways (indicate names and numbers)
   - Location of all present and former ASTs and USTs
   - Location of all potential receptors
3. Assessment Component Cost Agreement, SCDHEC Form D-3664


N
MW 12
MW 11
Pressured
MW10
MW9
MW8
TW2
MW1
ditch (3')
Thee Bike Shop
Texaco
Wreck's
Paint and
Body Shop
Hucks Plaza
video store
MW3
MW2
TW1
MW5
MW13
MW4
landscaped median
U.S. Hwy. 501
landscaped median
3rd Avenue
MW6
MW7
Site Name:
Hucks Plaza
1432 Hwy. 501
Myrtle Beach, SC
Site ID #:
05156
Date:
July-Nov. '04
Scale: 1"=25'
Drawn By:
JMH
Southeastern Environmental
323 Main Str. Conway, SC


SOUTHEASTERN ENVIRONMENTAL, INC.
SCALE: 1" = 50'
DECEMBER 17, 2004
SITE PLAN
CANNON ROAD
THIS PROPERTY IS LOCATED IN FLOOD ZONE (X) ACCORDING TO F.E.M.A. MAP NO. 45051C0584 H DATED AUGUST 23, 1999
ELEVATIONS BASED ON NGVD 1929
MW # 11
MW # 10
MW # 12
TW 2
TOP OF 10" CASING = 21.15'
TOP OF 2" CASING = 20.85'
GROUND = 21.1'
MW # 11
TOP OF 10" CASING = 19.48'
TOP OF 2" CASING = 19.09'
GROUND = 19.4'
MW # 12
TOP OF 10" CASING = 18.70'
TOP OF 2" CASING = 18.49'
GROUND = 18.60'
GW Elev 11.80
12.40
BTEX = ND (NEW)
BTEX = 24.2 mg/L
BTEX = 4.8 mg/L
BTEX = 118.7 mg/L
HORRY COUNTY RAILROAD
(100 R/W)
HUCKS PLAZA
WRECKS PAINT AND BODY SHOP
CONCRETE SLAB
THE BIKE SHOP
TRADE SHOPS
VIDEO STORE
SIDEWALK
ISLAND
CONCRETE SLAB
MW # 1
MW # 2
MW # 3
MW # 5
MW # 6
MW # 7
MW # 8
MW # 13
TW 1
TW 2
Source
62'±
EDGE OF ASPHALT ROAD
HIGHWAY NO. 501
13.00
TO U.S. HWY 17
3rd AVENUE SOUTH
HUCKS PLAZA
1432 HWY 501
MYRTLE BEACH, S.C.
SITE ID # 05156
TMS No. 181-01-01-06



3-D TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04096 Source Data: USGS
1000 ft Scale: 1 : 25,000 Detail: 13-0 Datum: WGS84

= 21.94' TOP OF 10" CASING = 19.48'
= 20.95' TOP OF 2" CASING = 19.09'
GROUND = 19.4'

MW # 11

= 22.45' TOP OF 10" CASING = 19.88'
= 22.16' TOP OF 2" CASING = 19.70'
GROUND = 19.7'

MW # 12

= 21.19' TOP OF 10" CASING = 18.70'
= 20.99' TOP OF 2" CASING = 18.49'
GROUND = 18.60'

GROUND = 21.3'

TW 2

TOP OF 10" CASING = 21.15'
TOP OF 2" CASING = 20.85'
GROUND = 21.1'

SOUTHEASTERN ENVIRONMENTAL, INC.

SCALE: 1" = 50'

DECEMBER 17, 2004

MW # 12

CANNON

SITE PLAN

MW # 11

THIS PROPERTY IS LOCATED IN FLOOD ZONE (X)
ACCORDING TO F.E.M.A. MAP NO. 45051C0684 H
DATED AUGUST 23, 1999.

ELEVATIONS BASED ON NGVD 1929

MW # 10

HORRY COUNTY RAILROAD
(100' R/W)

MW # 8 MW # 1 TW 2

"X" IN CONC.

THE BIKE SHOP

TRADE SHOPS

S 68°48'00" E

74'

65'8"

HICKS PLAZA

65'8"

WRECK'S PAINT AND BODY SHOP

CONCRETE SLAB

86.14'

S 31°24'28" W

VIDEO STORE

SIDEWALK

MW # 3

ISLAND

TW 1

MW # 5

CONCRETE SLAB

TBM "X" IN CORNER OF SIDEWALK, 21.70' M.S.L.

MW # 2

MW # 13

EDGE OF ASPHALT ROAD

HIGHWAY NO. 501

TO U.S. HWY 17

EDGE OF ASPHALT ROAD

EDGE C

MW # 6

MW # 7

3rd AVENUE SOUTH

UCKS PLAZA
32 HWY 501
YRTLE BEACH, S.C.

TE ID # 05156

AS No. 181-01-01-06

JAMES D. BRANTON, P.E.


Huck's Plaza, 1432 Hwy 501, MB, SC site # 05156
501
© 2014 Google
1994
Imagery Date: 12/13/2012 33°41'57.10" N 78°53'56.95" W elev 25 ft eye a

dhec
Healthy People. Healthy Communities.

ASSESSMENT COMPONENT INVOICE
SOUTH CAROLINA
Department of Health and Environmental Control
Underground Storage Tank Management Division
State Underground Petroleum Environmental Response Bank Account
August 16, 2016

Facility Name: Huck's Plaza (a.k.a. 501 Amoco)

UST Permit #: 05156 **Cost Agreement #:** _____

ITEM	QUANTITY	UNIT	UNIT PRICE		TOTAL
1. **Plan Preparation**					
A1. Site-specific Work Plan	1	each	$150.00		$150.00
B1. Tax Map		each	$70.00		$0.00
C1. Tier II or Comp. Plan /QAPP Appendix B		each	$250.00		$0.00
2. A1. **Receptor Survey** *		each	$551.00		$0.00
3. **Survey (500 ft x 500 ft)**					
A1. Comprehensive Survey	1	each	$1,040.00		$1,040.00
B. Subsurface Geophysical Survey					
1B. < 10 meters below grade		each	$1,300.00		$0.00
2B. > 10 meters below grade		each	$2,310.00		$0.00
C1. Geophysical UST or Drum Survey		each	$910.00		$0.00
4. **Mob/Demob**					
A1. Equipment	1	each	$1,020.00		$1,020.00
B1. Personnel	2	each	$423.00		$846.00
C1. Adverse Terrain Vehicle		each	$500.00		$0.00
5. A1. **Soil Borings (hand auger)***		foot	$5.00		$0.00
6. **Soil Borings (requiring equipment, push technology, etc)* or Field Screening (including water sample, soil sample, soil gas sample, etc.)***					
AA. Standard	60	per foot	$15.00		$900.00
C1. Fractured Rock		per foot	$20.20		$0.00
7. A1. **Soil Leachability Model**		each	$60.00		$0.00
8. **Abandonment (per foot)***					
A1. 2" diameter or less	60	per foot	$3.10		$186.00
B1. Greater than 2" to 6" diameter		per foot	$4.50		$0.00
C1. Dug/Bored well (up to 6 feet diameter)		per foot	$15.00		$0.00
9. **Well Installation (per foot)***					
A1. Water Table (hand augered)		per foot	$10.60		$0.00
B1. Water Table (drill rig)		per foot	$38.00		$0.00
CC. Telescoping		per foot	$50.00		$0.00
DD. Rock Drilling		per foot	$58.00		$0.00
E1. 2" Rock Coring		per foot	$30.90		$0.00
G1. Rock Multi-sampling ports/screens		per foot	$33.40		$0.00
HH. Recovery Well (4" diameter)	30	per foot	$45.00		$1,350.00
II. Pushed Pre-packed screen (1.25" dia)		per foot	$15.00		$0.00
J1. Rotosonic (2" diameter)		per foot	$44.00		$0.00
K. Re-develop Existing Well		per foot	$11.00		$0.00
10. **Groundwater Sample Collection / Gauge Depth to Water or Product** *					
A1. Groundwater Purge		per well/receptor	$60.00		$0.00
B1. Air or Vapors		per receptor	$12.00		$0.00
C1. Water Supply		per well/receptor	$22.00		$0.00
D1. Groundwater (No Purge or Duplicate)		per well/receptor	$28.00		$0.00
E1. Gauge Well only		per well	$7.00		$0.00

F1. Sample Below Product		per well	$12.00		$0.00
G1. Passive Diffusion Bag		each	$26.00		$0.00
H1. Field Blank		each	$24.60		$0.00

11. Laboratory Analyses-Groundwater					
A2. BTEXNM+Oxyg's+1,2 DCA+Eth(8260B)		per sample	$122.00		$0.00
AA1. Lead, Filtered		per sample	$13.80		$0.00
B2. Rush EPA Method 8260B (All of item A.)		per sample	$153.60		$0.00
C2. Trimethal, Butyl, and Isopropyl Benzenes		per sample	$36.40		$0.00
D1. PAH's		per sample	$60.60		$0.00
E1. Lead		per sample	$16.00		$0.00
F1. EDB by EPA 8011		per sample	$45.20		$0.00
FF1. EDB by EPA Method 8011 Rush		per sample	$68.20		$0.00
G1. 8 RCRA Metals		per sample	$63.40		$0.00
H1. TPH (9070)		per sample	$41.00		$0.00
II. pH		per sample	$5.20		$0.00
J1. BOD		per sample	$20.00		$0.00
PP. Ethanol		per sample	$14.80		$0.00
11. Analyses-Drinking Water					
L. BTEXNM+1,2 DCA (524.2)		per sample	$124.05		$0.00
M. 7-OXYGENATES & ETHANOL (8260B)		per sample	$91.75		$0.00
N. EDB (504.1)		per sample	$79.50		$0.00
O. RCRA METALS (200.8)		per sample	$100.00		$0.00
11. **Analyses-Soil**					
Q1. BTEX + Naphth.		per sample	$64.00		$0.00
R1. PAH's		per sample	$64.04		$0.00
S1. 8 RCRA Metals		per sample	$56.40		$0.00
U1. TPH-DRO (3550C/8015C)		per sample	$40.00		$0.00
V1. TPH- GRO (5030B/8015C)		per sample	$35.96		$0.00
W1. Grain size/hydrometer		per sample	$104.00		$0.00
X1. Total Organic Carbon		per sample	$30.60		$0.00
11. **Analyses-Air**					
Y1. BTEX + Naphthalene		per sample	$216.00		$0.00
11. **Analyses-Free Phase Product**					
Z1. Hydrocarbon Fuel Identification		per sample	$357.00		$0.00
12. **Aquifer Characterization**					
A1. Pumping Test*		per hour	$23.00		$0.00
B1. Slug Test*		per test	$191.00		$0.00
C1. Fractured Rock		per test	$100.00		$0.00
13. A1. **Free Product Recovery Rate Test***		each	$38.00		$0.00
14. **Fate/Transport Modeling**					
A1. Mathematical Model		each	$100.00		$0.00
B1. Computer Model		each	$100.00		$0.00
15. **Risk Evaluation**					
A. Tier I Risk Evaluation		each	$300.00		$0.00
B1. Tier II Risk Evaluation		each	$100.00		$0.00
16. A1. **Subsequent Survey***		each	$260.00		$0.00
17. **Disposal (gallons or tons)***					
AA. Wastewater	55	gallon	$0.56		$30.80
BB. Free Product		gallon	$0.50		$0.00
C1. Soil Treatment/Disposal		ton	$60.00		$0.00
D1. Drilling fluids		gallon	$0.42		$0.00
18. **Miscellaneous (attach receipts)**					
		each	$0.00		$0.00
		each	$0.00		$0.00
		each	$0.00		$0.00
20. **Tier I Assessment (Use DHEC 3665 form)**		standard			$0.00

21. **IGWA (Use DHEC 3666 form)**	standard			$0.00
22. **Corrective Action (Use DHEC 3667 form)**	PFP Bid			$0.00

23. **Aggressive Fluid & Vapor Recovery (AFVR)**					
A1. 8-hour Event*		each	$1,375.00		$0.00
AA. 24-hour Event*		each	$3,825.00		$0.00
A3. 48-hour Event*		each	$6,265.00		$0.00
A4. 96-hour Event*	1	each	$12,567.50		$12,567.50
C1. Off-gas Treatment 8 hour		per event	$122.50		$0.00
C2. Off-gas Treatment 24 hour		per event	$241.50		$0.00
C3. Off-gas Treatment 48 hour		per event	$327.00		$0.00
C4. Off-gas Treatment 96 hour	1	per event	$780.00		$780.00
D. Site Reconnaissance		each	$203.25		$0.00
E1. Additional Hook-ups		each	$25.75		$0.00
F1. Effluent Disposal	20000	gallon	$0.44		$8,800.00
G. AFVR Mobilization/Demobilization		each	$391.50		$0.00
24. **Granulated Activated Carbon (GAC) filter system installation & service:**					
A1. New GAC System Installation*		each	$1,900.00		$0.00
BB. Refurbished GAC Sys. Install*		each	$900.00		$0.00
C1. Filter replacement/removal*		each	$350.00		$0.00
DD. GAC System removal, cleaning, & refurbishment*		each	$275.00		$0.00
E1. GAC System housing*		each	$250.00		$0.00
F. In-line particulate filter		each	$150.00		$0.00
G1. Additional piping & fittings		foot	$1.50		$0.00
25. **Well Repair**					
A1. Additional Copies of the Report Delivered		each	$50.00		$0.00
B1. Repair 2x2 MW pad*		each	$50.00		$0.00
C1. Repair 4x4 MW pad*		each	$88.00		$0.00
D1. Repair well vault*		each	$118.00		$0.00
F1. Replace well cover bolts		each	$2.60		$0.00
G. Replace locking well cap & lock		each	$15.00		$0.00
H1. Replace/Repair stick-up*		each	$134.00		$0.00
I1. Convert Flush-mount to Stick-up*		each	$150.00		$0.00
J1. Convert Stick-up to Flush-mount*		each	$130.00		$0.00
K1. Replace missing/illegible well ID plate		each	$12.00		$0.00
Report Prep & Project Coordination	12%	percent	$27,670.30		$3,320.44
TOTAL					$30,990.74

*The appropriate mobilization cost can be added to complete these tasks, as necessary. DHEC