

**PRELIMINARY ASSESSMENT REPORT
BURLINGTON INDUSTRIES CHERAW
SCS 123 457 698
CHERAW, SOUTH CAROLINA
CHESTERFIELD COUNTY**

Prepared for:



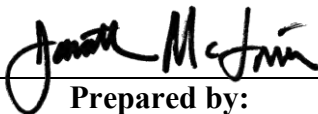
**U.S. ENVIRONMENTAL PROTECTION AGENCY
Region 4
61 Forsyth Street
Atlanta, Georgia 30303**

Prepared by:



**South Carolina Department of Health and Environmental Control
Division of Site Assessment and Remediation
Federal & State Site Assessment Section
2600 Bull Street
Columbia, South Carolina 29201**

September 9, 2016


Prepared by:

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Superfund Site Evaluation
Section, USEPA Region IV**

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1.0 INTRODUCTION

Under the authority of the Comprehensive Environmental Response, Compensation, and Liability Act of 1980 (CERCLA) and the Superfund Amendments and Reauthorization Act of 1986 (SARA), the Federal and State Site Assessment Section, South Carolina Department of Health and Environmental Control (DHEC) has conducted a Preliminary Assessment (PA) for the Burlington Industries Cheraw site (the Site) in Chesterfield County, South Carolina. The information gathered from this investigation will be used to decide future CERCLA activity at the site.

2.0 LOCATION

The site is located at 650 Chesterfield Highway within the city limits of Cheraw, in Chesterfield County. The site encompasses an approximate 50-acre parcel with a large manufacturing complex (now owned and operated as Highland Industries), and multiple residential lots to the north and northwest (developed and vacant) where former sludge drying beds were located. When Burlington Industries originally built the plant in the late 1950's, the lots were part of the plant property (Ref. 7). The geographic coordinates of the Site are 34.695531° N, -79.913499° W (Appendix B).

3.0 OWNERSHIP

Manufacturing Facility:

Highland Industries (formerly Burlington Industries, also known as James Fabrics Plant)
Takata Corporation of Japan (Parent Company)
650 Chesterfield Hwy
Cheraw, SC 29520

Residential Lots:

Vacant Little John Rd Parcel
Gregory J and Janet T Killalea
205 Fetterbush Rd
Elgin, SC 29045

601 Robin Hood Dr
Melvin and Karen L Wilkerson
601 Robin Hood Dr
Cheraw, SC 29520

(Ref. 7)

4.0 SITE HISTORY / DESCRIPTION

A previous Pre-CERCLIS Screening Assessment for this site focused on two residential properties north of the manufacturing facility where sludge drying beds had been historically located (Previous site name - Burlington Industries Cheraw Former Lagoon). This PA and any additional CERCLA activity will include the manufacturing facility as well as all past and present waste sources; therefore, the site name has been modified to "Burlington Industries Cheraw".

Burlington Industries Cheraw
SCS 123 457 698
Preliminary Assessment Report

In October 2015, the SCDHEC Site Assessment section was contacted by a resident that had reason to believe that some sort of wastewater unit had been historically located on his property and/or an adjacent vacant lot. Research during the PSA concluded that there had been permitted sludge drying beds located on at least one (now vacant) residential lot. Sampling for the PSA found elevated levels of PCBs (Aroclor 1248) in the vacant residential lot and the adjacent drainage ditch, which originates on the manufacturing property (See Appendix A for selected 2016 PSA Analytical Data).

In March 1974, SCDHEC issued Construction Permit 2852-C to Burlington Industries for “a chemical pretreatment system having recycling capabilities comprising units for neutralization, chemical precipitation, dissolved air flotation and sludge handling” (Ref. 11). According to a 1989 letter from Burlington requesting permission to remove or cover remaining sludge:

In the early to mid-1970's, the plant was applying latex and acrylic finishes along with pigment dyes and delusterants to fiberglass fabrics and some of this material was falling out in the sewer lines causing blockage problems for the city. At their request, the plant installed a settling tank and the sludges from this tank were pumped onto drying beds behind the plant.

(Ref. 12)

Analytical data was also sent to SCDHEC but is not present in available files. The letter only mentions that the sludge had been tested in 1980 and 1989 and found to be “non-hazardous”. SCDHEC issued a waste disposal authorization to Burlington to dispose of 300 yd³ of dried sludge at the Chesterfield County landfill (SCDHEC DWP-128) (Ref. 13).

A large land tract owned by Burlington Industries was sold in 1990 to a developer who subdivided it into the current residential neighborhood (Ref. 7). Based on overlays of historical aerial photography, it appears that the sludge drying beds sat predominantly on the vacant lot at the intersection of Little John Road and Robin Hood Drive. Today, this lot is mostly cleared with woods bordering south, east, and west boundaries. Noted during field activities at the site are small pieces of a dark green/dark gray rubbery sludge-like material across the lot and the adjoining lot on Robin Hood Drive. This same material is present in larger “chunks” along the western edge of the vacant lot, appearing as though the material was pushed to that side of the property as the lot was graded. Significant deposits of sludge-like material were not found at depth during this investigation, indicating that the majority of the material was in fact likely removed as requested by Burlington Industries in 1989 (Ref. 6).

5.0 PATHWAY EVALUATION

5.1 GROUNDWATER MIGRATION PATHWAY

The Town of Cheraw municipal water system provides drinking water to the area surrounding the site, sourced from an up-gradient location on the Great Pee Dee River (Ref. 2). There are no known drinking water wells within ¼-mile of the site, and due to the presence of public water lines in the area it is unlikely that any wells are located within 1 mile (Ref. 1, 3, 6). Based on the limited groundwater use in the area, the groundwater pathway was not evaluated for this report.

5.2 SURFACE WATER MIGRATION PATHWAY

Regional Characteristics / Targets

The site lies within the Pee Dee River sub-basin (Ref. 8). A small drainage ditch that appears to begin on Highland Industries property flows along the western edge of the vacant lot in a northerly direction approximately 1,000 feet to meet an easterly-flowing creek. This intermittent creek flows approximately one mile to the east meet the perennial Wilson Branch (Ref. 1). Wilson Branch flows in a northeasterly direction for ½-mile to meet Huckleberry Branch. Huckleberry Branch flows 1.5 miles east/southeasterly to reach the Great Pee Dee River. The 15-mile target distance limit for purposes of this report ends 13 miles downstream in the Great Pee Dee River near Bennettsville (Ref. 1). There are several ponds located along the surface water pathway near the intersection of Wilson Branch. The interaction of the creek and these ponds is not fully documented at this time.

The entire surface water pathway from Wilson Branch on is lined by wetlands (Ref. 1). Fishing is likely to occur in the ponds east of the site as well as Wilson Branch, Huckleberry Branch, and the Great Pee Dee River (Ref. 1, 8).

Surface Water Impacts

Sampling for the PSA found levels of PCB 1248 and several polycyclic aromatic hydrocarbons (PAHs) in both sediment samples at levels significantly elevated above screening values (Ref. 5). See Appendix A for selected PSA analytical data. Additional evaluation of the surface water pathway is needed to delineate the extent of impact from the site. Also, a second drainage pathway exits the northeast corner of the Highland Industries plant site and flows through a residential area before intersecting the un-named intermittent creek near Long Junior High (Ref 1). The Burlington Industries facility began operations in the early 1960's; wastewater disposal practices from the early years are unknown.

5.3 SOIL EXPOSURE / AIR PATHWAYS

Regional Characteristics / Targets

The site is located within the city limits of Cheraw, SC (Ref. 1). The city has a total population of 5,851 (Ref. 4). On-site soil is classified as Pelion loamy sand (Ref. 3). Long Junior High School is located approximately 1500 feet east of the site at the intersection of W Greene Street and Jersey Street. No schools or daycares are located within 200 feet of the site (Ref. 1, 9). Access to the site is not restricted (Ref. 6).

The population within ¼-mile of the site is estimated to be 156, within ½-mile 720 (Ref. 1, 4).

Soil Exposure Impacts

Sampling for the PSA included the collection of seven (7) surface and sub-surface soil samples from the vacant residential lot where the sludge drying beds were located and the northern adjacent, occupied lot. In addition, a surface and sub-surface background soil sample was collected from an undeveloped residential area approximately 1,400 feet north of the vacant lot.

PCB-1248 was detected in 5 of 7 on-site soil samples at levels ranging from 300 – 14,000 ug/kg, greater than the USEPA Regional Screening Level (RSL) for residential soil of 230 ug/kg (Ref. 5, 10). Bis(2-ethylhexyl)phthalate, several polycyclic aromatic hydrocarbons (PAHs), and a few metals were found above background levels, but none above RSLs (Ref. 5, 10).

Additional evaluation of the soil exposure pathway is warranted for nearby residential properties given the detections in samples for this investigation. Additionally, assessment of residential yards along the pathway of the drainage ditch is recommended to assess whether contaminants may have been spread by flooding onto residential property.

6.0 SUMMARY / CONCLUSIONS

The Burlington Industries Cheraw Former Lagoon site was initially a citizen complaint to SCDHEC questioning whether wastewater units had been located on residential property. The previous PSA confirmed the historical presence of sludge-drying beds on what is now one or two residential lots and found elevated PCBs on those properties and in the adjacent drainage ditch.

Further assessment is warranted to delineate the extent of contamination in soil. Additional assessment work is also needed along the surface water pathway to assess downstream ponds and potential of flooding having contaminated residential properties. SCDHEC had discussions with the current owner of the manufacturing facility, Highland Industries. However, as they never owned the parcels where the sludge drying beds were located, they declined to enter into a Voluntary Cleanup Contract. The SCDHEC State Remediation section is therefore planning additional assessment of the site due to the concern of residential property contamination. The Site Assessment Section will work in cooperation on this assessment and it is recommended that a Site Inspection be completed utilizing the data from the SCDHEC investigation.

7.0 REFERENCES

1. Google Earth Professional. Last accessed April 2016.
2. SCDHEC, Environmental Facility Information System (EFIS). Last accessed July 2016.
3. SoilWeb: An Online Soil Survey Browser. <http://casoilresource.lawr.ucdavis.edu/gmap/>. Accessed in March 2016.
4. US Department of Commerce. US Census Bureau Statistics. <http://censusviewer.com/city/SC/Cheraw>. Last accessed March 2016.
5. USEPA Region 4 Science and Ecosystem Support Division. Final Analytical Report for Burlington Industries Cheraw former Lagoon. VOAs - March 21, 2016, OCP/PCB – March 31, 2016, Metals – April 4, 2016, SVOA - April 8, 2016.
6. SCDHEC Site Assessment Section: Jonathan McInnis, Project Manager. Trip Report for Burlington Industries Cheraw former Lagoon XPSA, February 26, 2016.
7. Chesterfield County Online Tax Assessor: last accessed March 24, 2016. <http://www.chesterfieldcountysc.com/services/OnlineAssesor/default.aspx>
8. SC Water Resources Commission. SC State Water Assessment. September 1983. Available at DHEC.
9. SC Department of Social Services., SC Child Care Provider Database. <http://www.sccildcare.org/> last accessed April 2016.
10. USEPA. Regional Screening Levels for Chemical Contaminants at Superfund Sites. <http://www.epa.gov/region9/superfund/prg/> last accessed April 2016.
11. SCDHEC. Construction Permit for Wastewater Unit – Burlington Industries, Permit #2852-C, March 7, 1974.
12. Theodore H. LeJeune, P.E., Senior Environmental Engineer, Burlington Industries. Letter to Harold Seabrook, SCDHEC concerning Disposal of Sludge Residues. November 20, 1989.
13. Gerald Shealy, SCDHEC. Letter to Burlington Industries authorizing sludge disposal in sanitary landfill. November 30, 1989.
14. National Oceanic and Atmospheric Administration. Screening Quick Reference Tables for Organics – Sediment. Probable Effect Levels from MacDonald, et al, 2000. Canadian Sediment Quality Guidelines for the Protection of Aquatic Life, <http://st-ts.ccme.ca/en/index.html>

APPENDIX A: SELECTED PSA ANALYTICAL DATA

Table 1: Burlington Industries Cheraw former Lagoon February 2016 Expanded Pre-CERCLIS Screening Assessment Polycyclic Aromatic Hydrocarbons (PAH) detections			
	BIC-006-SD	BIC-007-SD	PEL - Probable Effect Level Freshwater Sediment (Ref. 14)
	UPSTREAM SEDIMENT	DOWNSTREAM SEDIMENT	
Benzo(a)anthracene	76 J,O ug/kg	930 ug/kg	385 ug/kg
Benzo(a)pyrene	150 ug/kg	2500 ug/kg	782 ug/kg
Benzo(b)fluoranthene	220 ug/kg	4300 ug/kg	NA
Benzo(g,h,i)perylene	130 ug/kg	2200 ug/kg	NA
Benzo(k)fluoranthene	190 ug/kg	3700 ug/kg	NA
Bis(2-ethylhexyl) phthalate	420 U ug/kg	590 U ug/kg	NA
Carbazole	83 U ug/kg	450 ug/kg	NA
Chrysene	200 ug/kg	3500 ug/kg	862 ug/kg
Dibenz(a,h)anthracene	83 U ug/kg	650 ug/kg	135 ug/kg
Fluoranthene	320 ug/kg	4600 ug/kg	2,355 ug/kg
Fluorene	83 U ug/kg	120 U ug/kg	144 ug/kg
Indeno (1,2,3-cd) pyrene	120 ug/kg	2100 ug/kg	NA
Phenanthrene	90 ug/kg	1300 ug/kg	515 ug/kg
Pyrene	260 ug/kg	3900 ug/kg	875 ug/kg

U - undetected

J - estimated

0 - result greater than MDL but less than MRL

Table 2: Burlington Industries Cheraw former Lagoon February 2016 Expanded Pre-CERCLIS Screening Assessment PCB-1248 detections			
	BIC-006-SD	BIC-007-SD	PEL - Probable Effect Level Freshwater Sediment (Ref. 14)
	UPSTREAM SEDIMENT	DOWNSTREAM SEDIMENT	
PCB-1248	30,000 ug/kg J,O	50,000 ug/kg J,O	277 ug/kg (total PCBs)

J - the identification of the analyte is acceptable; the reported value is an estimate

0 - mixture of Aroclors in sample; predominant Aroclors reported

APPENDIX B: MAPS / FIGURES

Figure 1 - General Location

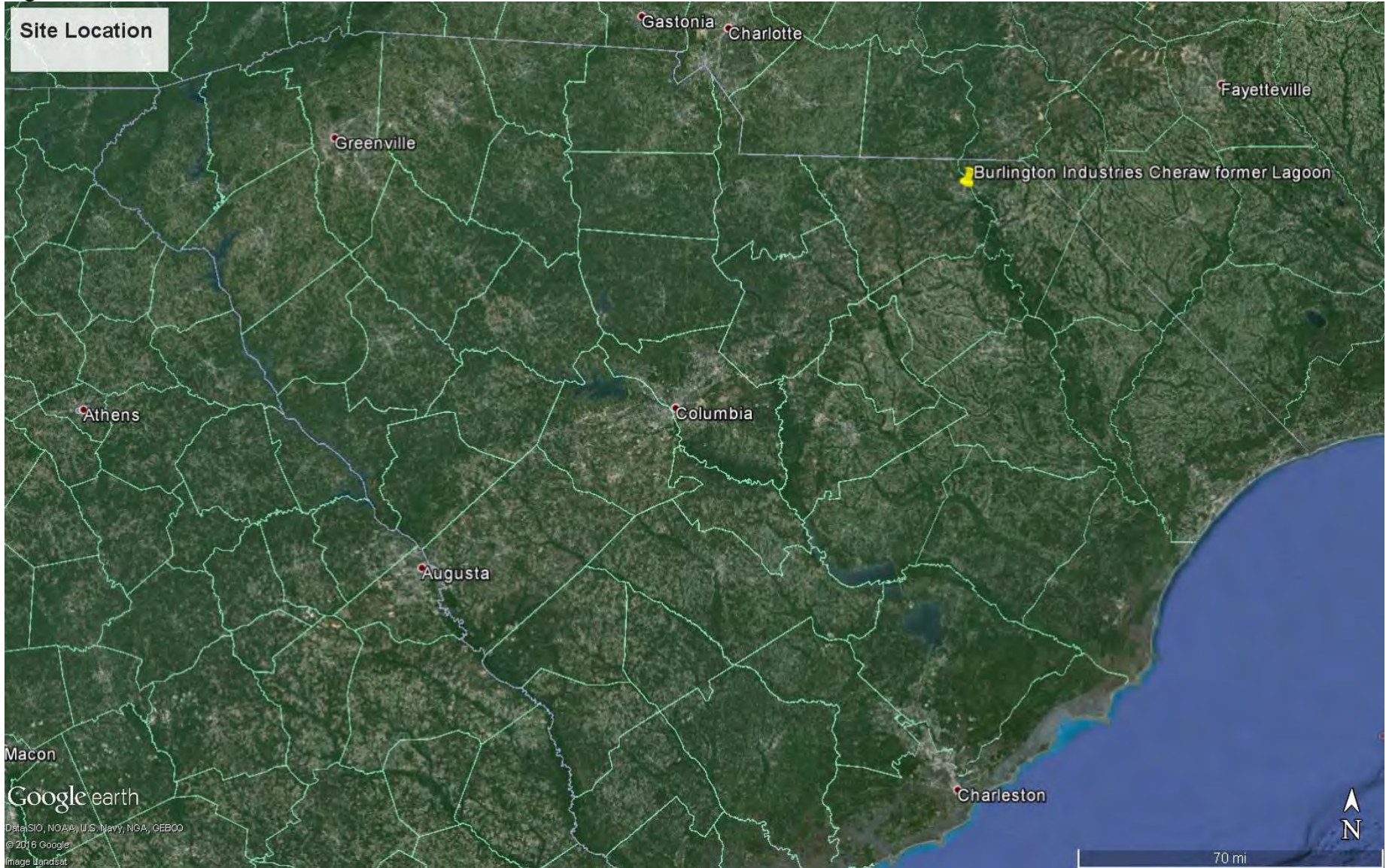


Figure 2 – Site Location in City of Cheraw

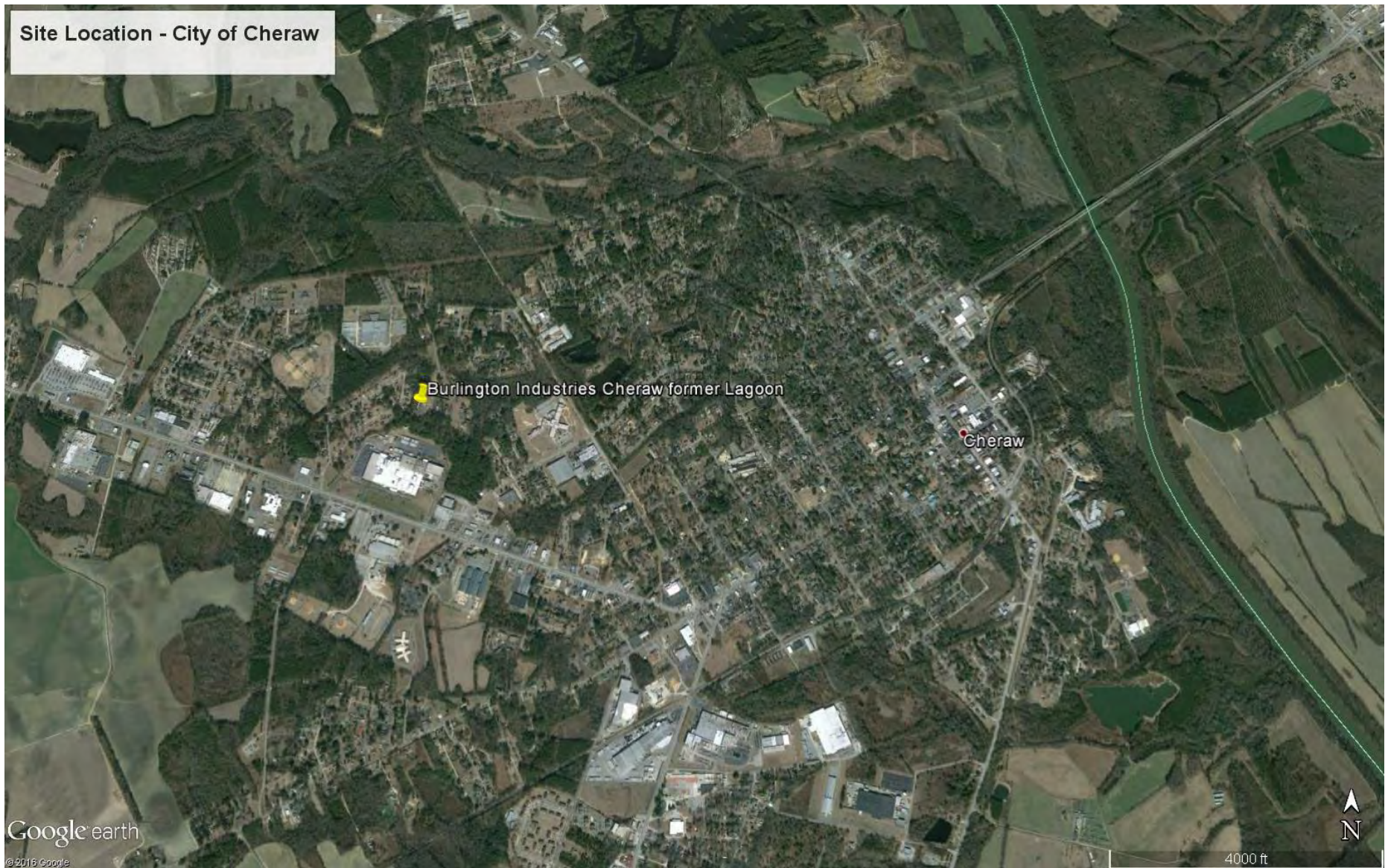


Figure 3



Figure 4 – 1975 aerial photo overlay from Google Earth



Figure 5 – 1981 aerial photo overlay from Google Earth



Figure 6 – Surface Water Pathway to Great Pee Dee River

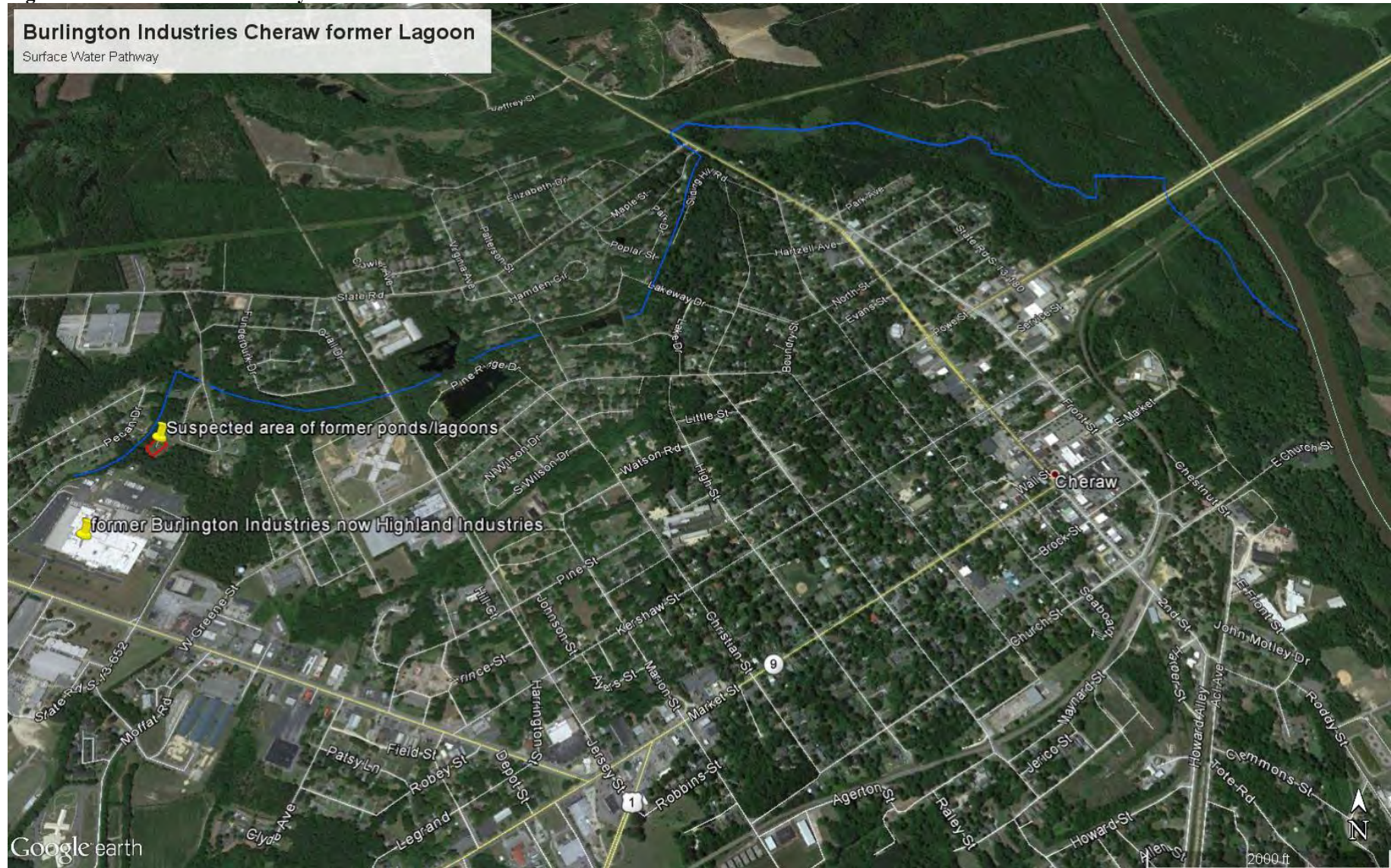


Figure 7 – Samples collected for 2016 Expanded PSA

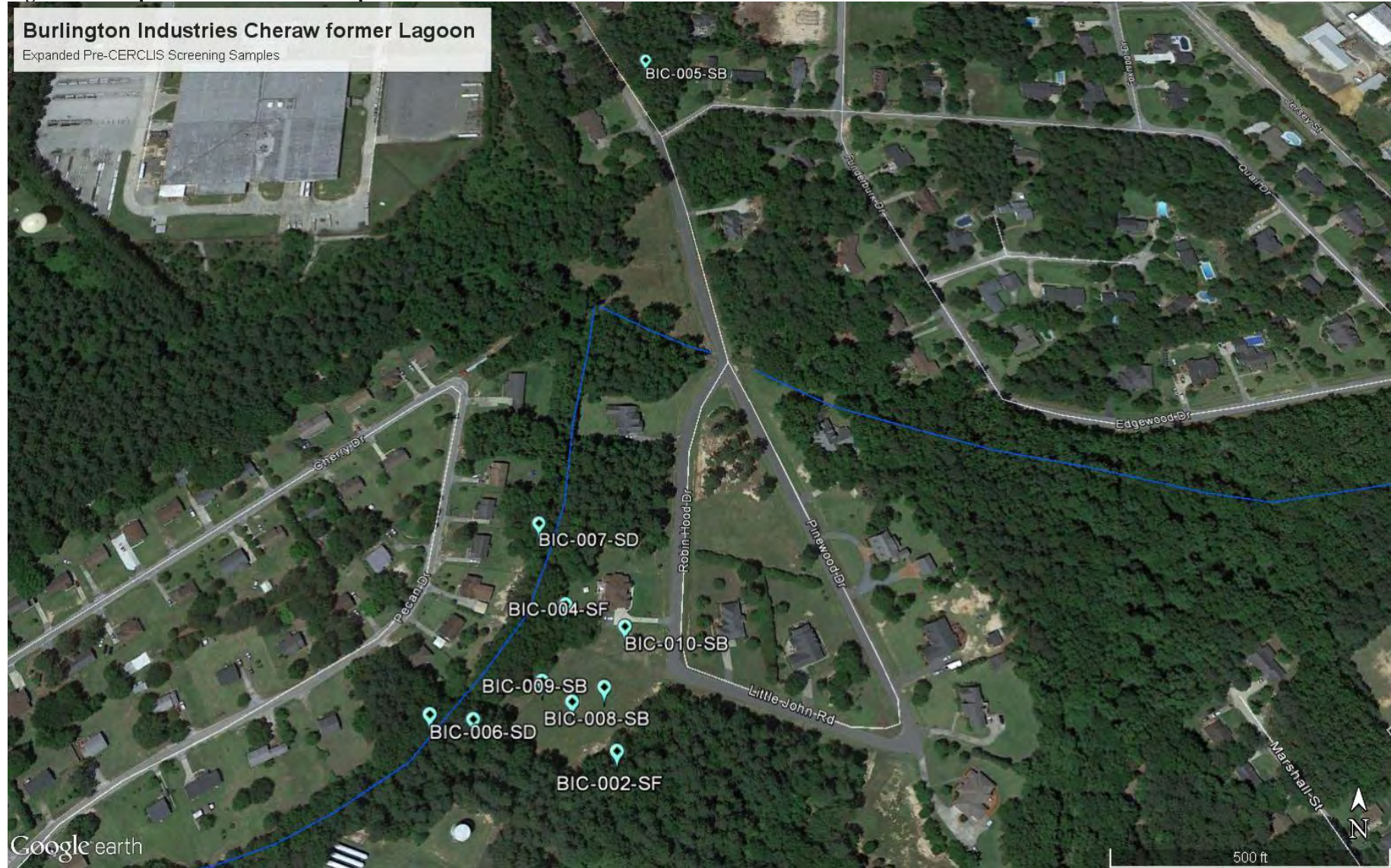


Figure 8 – 2016 Expanded PSA Samples – close-up



APPENDIX C: SITE COORDINATE COLLECTION

Site Latitude: 34.695531° N
Site Longitude: -79.913499° W
Feature Description: approximate manufacturing facility front door

Collection Date: March 1, 2016

Note: Site Coordinates collected by photo interpretation in Google Earth (estimated accuracy ~20 meters).

APPENDIX D: ATTACHED REFERENCES



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

March 31, 2016

4SESD-ASB

MEMORANDUM

SUBJECT: FINAL Analytical Report
 Project: 16-0282, Burlington Ind. Cheraw Former Lagoon
 Superfund Remedial

FROM: Jason Collum
 OCS Analyst

THRU: Floyd Wellborn, Chief
 ASB Organic Chemistry Section

TO: Jeffery Crowley

Attached are the final results for the analytical groups listed below. These analyses were performed in accordance with the Analytical Support Branch's (ASB) Laboratory Operations and Quality Assurance Manual (ASB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the ASB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Section 5.2 of the ASB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:	Method Used:	Accreditations:
Organochlorine Pesticides (OCP)		
Organochlorine pesticides	EPA 8270D (modified) (Soil)	NR
PCB Aroclors (PCBA)		
PCB aroclors	EPA 8082 (Soil)	ISO



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Sample Disposal Policy

Because of the laboratory's limited space for long term sample storage, our policy is to dispose of samples on a periodic schedule. Please note that within 60 days of this memo, the original samples and all sample extracts and/or sample digestates will be disposed of in accordance with applicable regulations. The 60-day sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time if you have a special project need. If you wish for the laboratory to hold samples beyond the 60-day period, please contact our Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov, and provide a reason for holding samples beyond 60 days

cc: Nardina Turner



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SAMPLES INCLUDED IN THIS REPORT

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
BIC-001-SF	E160907-02	Surface Soil	2/25/16 11:55	2/26/16 10:13
BIC-002-SF	E160907-03	Surface Soil	2/25/16 11:40	2/26/16 10:13
BIC-003-SF	E160907-04	Surface Soil	2/25/16 11:20	2/26/16 10:13
BIC-004-SF	E160907-05	Surface Soil	2/25/16 11:05	2/26/16 10:13
BIC-005-SB	E160907-06	Subsurface Soil	2/25/16 10:45	2/26/16 10:13
BIC-005-SF	E160907-07	Surface Soil	2/25/16 10:30	2/26/16 10:13
BIC-006-SD	E160907-08	Sediment	2/25/16 12:25	2/26/16 10:13
BIC-007-SD	E160907-09	Sediment	2/25/16 12:38	2/26/16 10:13
BIC-008-SB	E160907-10	Subsurface Soil	2/25/16 11:47	2/26/16 10:13
BIC-009-SB	E160907-11	Subsurface Soil	2/25/16 12:20	2/26/16 10:13
BIC-010-SB	E160907-12	Subsurface Soil	2/25/16 12:55	2/26/16 10:13



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DATA QUALIFIER DEFINITIONS

U	The analyte was not detected at or above the reporting limit.
CR	MRL raised due to the presence of Ar1248.
CRa	MRL raised due to the presence of Ar1254.
D-4	MRL elevated due to interferences.
I-5	Mixture of Aroclors in sample; predominant Aroclors reported
J	The identification of the analyte is acceptable; the reported value is an estimate.
Q-2	Result greater than MDL but less than MRL.
QI-1	Internal standard was outside of method control limits.

ACRONYMS AND ABBREVIATIONS

CAS	Chemical Abstracts Service Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.
MDL	Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.
MRL	Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.
TIC	Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO	The test, if analyzed after June 26, 2012, is accredited under the EPA Region 4 ASB's ISO/IEC 17025 accreditation issued by ANSI-ASQ National Accreditation Board/ACLASS. Refer to certificate and scope of accreditation AT-1691.
NR	The EPA Region 4 Laboratory has not requested accreditation for this test.



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Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-001-SF**

Lab ID: **E160907-02**

Station ID: **BIC001**

Matrix: Surface Soil

Date Collected: 2/25/16 11:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
72-54-8	4,4'-DDD (p,p'-DDD)	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
72-55-9	4,4'-DDE (p,p'-DDE)	3.5		ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
50-29-3	4,4'-DDT (p,p'-DDT)	1.9		ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
309-00-2	Aldrin	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
319-84-6	alpha-BHC	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
5103-71-9	alpha-Chlordane	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
319-85-7	beta-BHC	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
319-86-8	delta-BHC	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
60-57-1	Dieldrin	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
959-98-8	Endosulfan I (alpha)	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
33213-65-9	Endosulfan II (beta)	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
1031-07-8	Endosulfan Sulfate	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
72-20-8	Endrin	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
7421-93-4	Endrin aldehyde	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
53494-70-5	Endrin ketone	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
58-89-9	gamma-BHC (Lindane)	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
5566-34-7	gamma-Chlordane	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
76-44-8	Heptachlor	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
1024-57-3	Heptachlor epoxide	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)
72-43-5	Methoxychlor	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)



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Organochlorine Pesticides

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Sample ID: BIC-001-SF

Lab ID: E160907-02

Station ID: BIC001

Matrix: Surface Soil

Date Collected: 2/25/16 11:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
8001-35-2	Toxaphene	220	U	ug/kg dry	220	3/04/16 12:36	3/17/16 17:05	EPA 8270D (modified)



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PCB Aroclors

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-001-SF

Lab ID: E160907-02

Station ID: BIC001

Matrix: Surface Soil

Date Collected: 2/25/16 11:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
12674-11-2	PCB-1016 (Aroclor 1016)	31	U, CRa, D-4	ug/kg dry	31	3/04/16 12:40	3/21/16 13:08	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	22	U	ug/kg dry	22	3/04/16 12:40	3/21/16 13:08	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	31	U, CRa, D-4	ug/kg dry	31	3/04/16 12:40	3/21/16 13:08	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	31	U, CRa, D-4	ug/kg dry	31	3/04/16 12:40	3/21/16 13:08	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	31	U, CRa, D-4	ug/kg dry	31	3/04/16 12:40	3/21/16 13:08	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	30	J, I-5	ug/kg dry	11	3/04/16 12:40	3/21/16 13:08	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	31	U, CRa, D-4	ug/kg dry	31	3/04/16 12:40	3/21/16 13:08	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	31	U, CRa, D-4	ug/kg dry	31	3/04/16 12:40	3/21/16 13:08	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	11	U	ug/kg dry	11	3/04/16 12:40	3/21/16 13:08	EPA 8082



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-002-SF**

Lab ID: **E160907-03**

Station ID: **BIC002**

Matrix: Surface Soil

Date Collected: 2/25/16 11:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
72-54-8	4,4'-DDD (p,p'-DDD)	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
72-55-9	4,4'-DDE (p,p'-DDE)	22		ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
50-29-3	4,4'-DDT (p,p'-DDT)	18		ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
309-00-2	Aldrin	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
319-84-6	alpha-BHC	0.51	J, Q-2	ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
5103-71-9	alpha-Chlordane	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
319-85-7	beta-BHC	2.9		ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
319-86-8	delta-BHC	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
60-57-1	Dieldrin	1.0	J, Q-2	ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
959-98-8	Endosulfan I (alpha)	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
33213-65-9	Endosulfan II (beta)	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
1031-07-8	Endosulfan Sulfate	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
72-20-8	Endrin	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
7421-93-4	Endrin aldehyde	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
53494-70-5	Endrin ketone	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
58-89-9	gamma-BHC (Lindane)	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
5566-34-7	gamma-Chlordane	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
76-44-8	Heptachlor	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
1024-57-3	Heptachlor epoxide	0.43	J, Q-2	ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)
72-43-5	Methoxychlor	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-002-SF

Lab ID: E160907-03

Station ID: BIC002

Matrix: Surface Soil

Date Collected: 2/25/16 11:40

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
8001-35-2	Toxaphene	300	U	ug/kg dry	300	3/04/16 12:36	3/17/16 17:19	EPA 8270D (modified)



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

PCB Aroclors

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-002-SF

Lab ID: E160907-03

Station ID: BIC002

Matrix: Surface Soil

Date Collected: 2/25/16 11:40

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
12674-11-2	PCB-1016 (Aroclor 1016)	98	U, CRa, D-4	ug/kg dry	98	3/04/16 12:40	3/21/16 13:23	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	30	U	ug/kg dry	30	3/04/16 12:40	3/21/16 13:23	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	98	U, CRa, D-4	ug/kg dry	98	3/04/16 12:40	3/21/16 13:23	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	98	U, CRa, D-4	ug/kg dry	98	3/04/16 12:40	3/21/16 13:23	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	98	U, CRa, D-4	ug/kg dry	98	3/04/16 12:40	3/21/16 13:23	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	97	J, I-5	ug/kg dry	15	3/04/16 12:40	3/21/16 13:23	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	98	U, CRa, D-4	ug/kg dry	98	3/04/16 12:40	3/21/16 13:23	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	98	U, CRa, D-4	ug/kg dry	98	3/04/16 12:40	3/21/16 13:23	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	15	U	ug/kg dry	15	3/04/16 12:40	3/21/16 13:23	EPA 8082



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-003-SF**

Lab ID: **E160907-04**

Station ID: **BIC003**

Matrix: Surface Soil

Date Collected: 2/25/16 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
72-54-8	4,4'-DDD (p,p'-DDD)	3.8		ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
72-55-9	4,4'-DDE (p,p'-DDE)	68		ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
50-29-3	4,4'-DDT (p,p'-DDT)	41		ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
309-00-2	Aldrin	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
319-84-6	alpha-BHC	1.1	J, Q-2	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
5103-71-9	alpha-Chlordane	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
319-85-7	beta-BHC	3.0		ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
319-86-8	delta-BHC	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
60-57-1	Dieldrin	1.6	Q-2	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
959-98-8	Endosulfan I (alpha)	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
33213-65-9	Endosulfan II (beta)	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
1031-07-8	Endosulfan Sulfate	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
72-20-8	Endrin	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
7421-93-4	Endrin aldehyde	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
53494-70-5	Endrin ketone	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
58-89-9	gamma-BHC (Lindane)	0.52	J, Q-2	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
5566-34-7	gamma-Chlordane	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
76-44-8	Heptachlor	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
1024-57-3	Heptachlor epoxide	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)
72-43-5	Methoxychlor	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-003-SF

Lab ID: E160907-04

Station ID: BIC003

Matrix: Surface Soil

Date Collected: 2/25/16 11:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
8001-35-2	Toxaphene	200	U	ug/kg dry	200	3/04/16 12:36	3/17/16 17:34	EPA 8270D (modified)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

PCB Aroclors

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-003-SF

Lab ID: E160907-04

Station ID: BIC003

Matrix: Surface Soil

Date Collected: 2/25/16 11:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
12674-11-2	PCB-1016 (Aroclor 1016)	8200	U, CR, D-4	ug/kg dry	8200	3/04/16 12:40	3/22/16 9:36	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	4000	U	ug/kg dry	4000	3/04/16 12:40	3/22/16 9:36	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	8200	U, CR, D-4	ug/kg dry	8200	3/04/16 12:40	3/22/16 9:36	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	8200	U, CR, D-4	ug/kg dry	8200	3/04/16 12:40	3/22/16 9:36	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	8100	J, I-5	ug/kg dry	2000	3/04/16 12:40	3/22/16 9:36	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	8200	U, CR, D-4	ug/kg dry	8200	3/04/16 12:40	3/22/16 9:36	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	2000	U	ug/kg dry	2000	3/04/16 12:40	3/22/16 9:36	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	2000	U	ug/kg dry	2000	3/04/16 12:40	3/22/16 9:36	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	2000	U	ug/kg dry	2000	3/04/16 12:40	3/22/16 9:36	EPA 8082



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-004-SF

Lab ID: E160907-05

Station ID: BIC004

Matrix: Surface Soil

Date Collected: 2/25/16 11:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
72-54-8	4,4'-DDD (p,p'-DDD)	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
72-55-9	4,4'-DDE (p,p'-DDE)	2.1		ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
50-29-3	4,4'-DDT (p,p'-DDT)	1.2	J, Q-2	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
309-00-2	Aldrin	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
319-84-6	alpha-BHC	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
5103-71-9	alpha-Chlordane	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
319-85-7	beta-BHC	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
319-86-8	delta-BHC	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
60-57-1	Dieldrin	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
959-98-8	Endosulfan I (alpha)	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
33213-65-9	Endosulfan II (beta)	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
1031-07-8	Endosulfan Sulfate	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
72-20-8	Endrin	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
7421-93-4	Endrin aldehyde	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
53494-70-5	Endrin ketone	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
58-89-9	gamma-BHC (Lindane)	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
5566-34-7	gamma-Chlordane	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
76-44-8	Heptachlor	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
1024-57-3	Heptachlor epoxide	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)
72-43-5	Methoxychlor	1.6	U	ug/kg dry	1.6	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-004-SF

Lab ID: E160907-05

Station ID: BIC004

Matrix: Surface Soil

Date Collected: 2/25/16 11:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
8001-35-2	Toxaphene	200	U	ug/kg dry	200	3/04/16 12:36	3/17/16 17:48	EPA 8270D (modified)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

PCB Aroclors

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-004-SF

Lab ID: E160907-05

Station ID: BIC004

Matrix: Surface Soil

Date Collected: 2/25/16 11:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
12674-11-2	PCB-1016 (Aroclor 1016)	480	U, CR, D-4	ug/kg dry	480	3/04/16 12:40	3/22/16 9:52	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	200	U	ug/kg dry	200	3/04/16 12:40	3/22/16 9:52	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	480	U, CR, D-4	ug/kg dry	480	3/04/16 12:40	3/22/16 9:52	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	480	U, CR, D-4	ug/kg dry	480	3/04/16 12:40	3/22/16 9:52	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	470	J, I-5	ug/kg dry	100	3/04/16 12:40	3/22/16 9:52	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	480	U, CR, D-4	ug/kg dry	480	3/04/16 12:40	3/22/16 9:52	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	100	U	ug/kg dry	100	3/04/16 12:40	3/22/16 9:52	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	100	U	ug/kg dry	100	3/04/16 12:40	3/22/16 9:52	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	100	U	ug/kg dry	100	3/04/16 12:40	3/22/16 9:52	EPA 8082



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-005-SB

Lab ID: E160907-06

Station ID: BIC005

Matrix: Subsurface Soil

Date Collected: 2/25/16 10:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
72-54-8	4,4'-DDD (p,p'-DDD)	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
72-55-9	4,4'-DDE (p,p'-DDE)	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
50-29-3	4,4'-DDT (p,p'-DDT)	0.27	J, Q-2	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
309-00-2	Aldrin	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
319-84-6	alpha-BHC	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
5103-71-9	alpha-Chlordane	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
319-85-7	beta-BHC	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
319-86-8	delta-BHC	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
60-57-1	Dieldrin	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
959-98-8	Endosulfan I (alpha)	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
33213-65-9	Endosulfan II (beta)	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
1031-07-8	Endosulfan Sulfate	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
72-20-8	Endrin	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
7421-93-4	Endrin aldehyde	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
53494-70-5	Endrin ketone	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
58-89-9	gamma-BHC (Lindane)	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
5566-34-7	gamma-Chlordane	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
76-44-8	Heptachlor	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
1024-57-3	Heptachlor epoxide	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)
72-43-5	Methoxychlor	1.8	U	ug/kg dry	1.8	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-005-SB

Lab ID: E160907-06

Station ID: BIC005

Matrix: Subsurface Soil

Date Collected: 2/25/16 10:45

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
8001-35-2	Toxaphene	220	U	ug/kg dry	220	3/04/16 12:36	3/17/16 18:03	EPA 8270D (modified)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

PCB Aroclors

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-005-SB

Lab ID: E160907-06

Station ID: BIC005

Matrix: Subsurface Soil

Date Collected: 2/25/16 10:45

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
12674-11-2	PCB-1016 (Aroclor 1016)	11	U	ug/kg dry	11	3/04/16 12:40	3/21/16 15:30	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	22	U	ug/kg dry	22	3/04/16 12:40	3/21/16 15:30	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	11	U	ug/kg dry	11	3/04/16 12:40	3/21/16 15:30	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	11	U	ug/kg dry	11	3/04/16 12:40	3/21/16 15:30	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	11	U	ug/kg dry	11	3/04/16 12:40	3/21/16 15:30	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	11	U	ug/kg dry	11	3/04/16 12:40	3/21/16 15:30	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	11	U	ug/kg dry	11	3/04/16 12:40	3/21/16 15:30	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	11	U	ug/kg dry	11	3/04/16 12:40	3/21/16 15:30	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	11	U	ug/kg dry	11	3/04/16 12:40	3/21/16 15:30	EPA 8082



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-005-SF

Lab ID: E160907-07

Station ID: BIC005

Matrix: Surface Soil

Date Collected: 2/25/16 10:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
72-54-8	4,4'-DDD (p,p'-DDD)	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
72-55-9	4,4'-DDE (p,p'-DDE)	1.1	J, Q-2	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
50-29-3	4,4'-DDT (p,p'-DDT)	0.95	J, Q-2	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
309-00-2	Aldrin	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
319-84-6	alpha-BHC	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
5103-71-9	alpha-Chlordane	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
319-85-7	beta-BHC	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
319-86-8	delta-BHC	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
60-57-1	Dieldrin	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
959-98-8	Endosulfan I (alpha)	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
33213-65-9	Endosulfan II (beta)	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
1031-07-8	Endosulfan Sulfate	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
72-20-8	Endrin	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
7421-93-4	Endrin aldehyde	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
53494-70-5	Endrin ketone	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
58-89-9	gamma-BHC (Lindane)	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
5566-34-7	gamma-Chlordane	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
76-44-8	Heptachlor	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
1024-57-3	Heptachlor epoxide	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)
72-43-5	Methoxychlor	1.9	U	ug/kg dry	1.9	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-005-SF

Lab ID: E160907-07

Station ID: BIC005

Matrix: Surface Soil

Date Collected: 2/25/16 10:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
8001-35-2	Toxaphene	230	U	ug/kg dry	230	3/04/16 12:36	3/17/16 18:17	EPA 8270D (modified)



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

PCB Aroclors

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-005-SF

Lab ID: E160907-07

Station ID: BIC005

Matrix: Surface Soil

Date Collected: 2/25/16 10:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
12674-11-2	PCB-1016 (Aroclor 1016)	12	U	ug/kg dry	12	3/04/16 12:40	3/21/16 15:45	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	23	U	ug/kg dry	23	3/04/16 12:40	3/21/16 15:45	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	12	U	ug/kg dry	12	3/04/16 12:40	3/21/16 15:45	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	12	U	ug/kg dry	12	3/04/16 12:40	3/21/16 15:45	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	12	U	ug/kg dry	12	3/04/16 12:40	3/21/16 15:45	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	12	U	ug/kg dry	12	3/04/16 12:40	3/21/16 15:45	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	12	U	ug/kg dry	12	3/04/16 12:40	3/21/16 15:45	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	12	U	ug/kg dry	12	3/04/16 12:40	3/21/16 15:45	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	12	U	ug/kg dry	12	3/04/16 12:40	3/21/16 15:45	EPA 8082



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-006-SD

Lab ID: E160907-08

Station ID: BIC006

Matrix: Sediment

Date Collected: 2/25/16 12:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
72-54-8	4,4'-DDD (p,p'-DDD)	3.8		ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
72-55-9	4,4'-DDE (p,p'-DDE)	31		ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
50-29-3	4,4'-DDT (p,p'-DDT)	4.8		ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
309-00-2	Aldrin	1.7	U, J, QI-1	ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
319-84-6	alpha-BHC	1.7	U, J, QI-1	ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
5103-71-9	alpha-Chlordane	1.7	U, J, QI-1	ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
319-85-7	beta-BHC	0.42	J, Q-2, QI-1	ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
319-86-8	delta-BHC	1.7	U, J, QI-1	ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
60-57-1	Dieldrin	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
959-98-8	Endosulfan I (alpha)	1.7	U, J, QI-1	ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
33213-65-9	Endosulfan II (beta)	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
1031-07-8	Endosulfan Sulfate	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
72-20-8	Endrin	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
7421-93-4	Endrin aldehyde	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
53494-70-5	Endrin ketone	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
58-89-9	gamma-BHC (Lindane)	1.7	U, J, QI-1	ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
5566-34-7	gamma-Chlordane	1.7	U, J, QI-1	ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
76-44-8	Heptachlor	1.7	U, J, QI-1	ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
1024-57-3	Heptachlor epoxide	1.7	U, J, QI-1	ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)
72-43-5	Methoxychlor	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-006-SD

Lab ID: E160907-08

Station ID: BIC006

Matrix: Sediment

Date Collected: 2/25/16 12:25

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
8001-35-2	Toxaphene	210	U	ug/kg dry	210	3/04/16 12:36	3/17/16 18:31	EPA 8270D (modified)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

PCB Aroclors

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-006-SD

Lab ID: E160907-08

Station ID: BIC006

Matrix: Sediment

Date Collected: 2/25/16 12:25

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
12674-11-2	PCB-1016 (Aroclor 1016)	31000	U, CR, D-4	ug/kg dry	31000	3/04/16 12:40	3/22/16 10:08	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	11000	U	ug/kg dry	11000	3/04/16 12:40	3/22/16 10:08	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	31000	U, CR, D-4	ug/kg dry	31000	3/04/16 12:40	3/22/16 10:08	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	31000	U, CR, D-4	ug/kg dry	31000	3/04/16 12:40	3/22/16 10:08	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	30000	J, I-5	ug/kg dry	5300	3/04/16 12:40	3/22/16 10:08	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	31000	U, CR, D-4	ug/kg dry	31000	3/04/16 12:40	3/22/16 10:08	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	5300	U	ug/kg dry	5300	3/04/16 12:40	3/22/16 10:08	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	5300	U	ug/kg dry	5300	3/04/16 12:40	3/22/16 10:08	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	5300	U	ug/kg dry	5300	3/04/16 12:40	3/22/16 10:08	EPA 8082



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-007-SD

Lab ID: E160907-09

Station ID: BIC007

Matrix: Sediment

Date Collected: 2/25/16 12:38

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
72-54-8	4,4'-DDD (p,p'-DDD)	0.60	J, Q-2	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
72-55-9	4,4'-DDE (p,p'-DDE)	9.5		ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
50-29-3	4,4'-DDT (p,p'-DDT)	3.0		ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
309-00-2	Aldrin	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
319-84-6	alpha-BHC	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
5103-71-9	alpha-Chlordane	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
319-85-7	beta-BHC	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
319-86-8	delta-BHC	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
60-57-1	Dieldrin	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
959-98-8	Endosulfan I (alpha)	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
33213-65-9	Endosulfan II (beta)	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
1031-07-8	Endosulfan Sulfate	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
72-20-8	Endrin	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
7421-93-4	Endrin aldehyde	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
53494-70-5	Endrin ketone	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
58-89-9	gamma-BHC (Lindane)	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
5566-34-7	gamma-Chlordane	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
76-44-8	Heptachlor	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
1024-57-3	Heptachlor epoxide	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)
72-43-5	Methoxychlor	2.4	U	ug/kg dry	2.4	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-007-SD

Lab ID: E160907-09

Station ID: BIC007

Matrix: Sediment

Date Collected: 2/25/16 12:38

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
8001-35-2	Toxaphene	300	U	ug/kg dry	300	3/04/16 12:36	3/17/16 18:46	EPA 8270D (modified)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

PCB Aroclors

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-007-SD

Lab ID: E160907-09

Station ID: BIC007

Matrix: Sediment

Date Collected: 2/25/16 12:38

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
12674-11-2	PCB-1016 (Aroclor 1016)	51000	U, CR, D-4	ug/kg dry	51000	3/04/16 12:40	3/22/16 10:23	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	15000	U	ug/kg dry	15000	3/04/16 12:40	3/22/16 10:23	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	51000	U, CR, D-4	ug/kg dry	51000	3/04/16 12:40	3/22/16 10:23	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	51000	U, CR, D-4	ug/kg dry	51000	3/04/16 12:40	3/22/16 10:23	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	50000	J, I-5	ug/kg dry	7500	3/04/16 12:40	3/22/16 10:23	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	51000	U, CR, D-4	ug/kg dry	51000	3/04/16 12:40	3/22/16 10:23	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	7500	U	ug/kg dry	7500	3/04/16 12:40	3/22/16 10:23	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	7500	U	ug/kg dry	7500	3/04/16 12:40	3/22/16 10:23	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	7500	U	ug/kg dry	7500	3/04/16 12:40	3/22/16 10:23	EPA 8082



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-008-SB

Lab ID: E160907-10

Station ID: BIC008

Matrix: Subsurface Soil

Date Collected: 2/25/16 11:47

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
72-54-8	4,4'-DDD (p,p'-DDD)	22		ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
72-55-9	4,4'-DDE (p,p'-DDE)	82		ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
50-29-3	4,4'-DDT (p,p'-DDT)	12		ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
309-00-2	Aldrin	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
319-84-6	alpha-BHC	0.55	J, Q-2	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
5103-71-9	alpha-Chlordane	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
319-85-7	beta-BHC	4.5		ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
319-86-8	delta-BHC	0.22	J, Q-2	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
60-57-1	Dieldrin	1.4	J, Q-2	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
959-98-8	Endosulfan I (alpha)	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
33213-65-9	Endosulfan II (beta)	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
1031-07-8	Endosulfan Sulfate	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
72-20-8	Endrin	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
7421-93-4	Endrin aldehyde	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
53494-70-5	Endrin ketone	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
58-89-9	gamma-BHC (Lindane)	0.29	J, Q-2	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
5566-34-7	gamma-Chlordane	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
76-44-8	Heptachlor	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
1024-57-3	Heptachlor epoxide	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)
72-43-5	Methoxychlor	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-008-SB

Lab ID: E160907-10

Station ID: BIC008

Matrix: Subsurface Soil

Date Collected: 2/25/16 11:47

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
8001-35-2	Toxaphene	190	U	ug/kg dry	190	3/04/16 12:36	3/17/16 19:00	EPA 8270D (modified)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

PCB Aroclors

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-008-SB

Lab ID: E160907-10

Station ID: BIC008

Matrix: Subsurface Soil

Date Collected: 2/25/16 11:47

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
12674-11-2	PCB-1016 (Aroclor 1016)	310	U, CR, D-4	ug/kg dry	310	3/04/16 12:40	3/22/16 10:39	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	93	U	ug/kg dry	93	3/04/16 12:40	3/22/16 10:39	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	310	U, CR, D-4	ug/kg dry	310	3/04/16 12:40	3/22/16 10:39	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	310	U, CR, D-4	ug/kg dry	310	3/04/16 12:40	3/22/16 10:39	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	300	J, I-5	ug/kg dry	46	3/04/16 12:40	3/22/16 10:39	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	310	U, D-4, CR	ug/kg dry	310	3/04/16 12:40	3/22/16 10:39	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	46	U	ug/kg dry	46	3/04/16 12:40	3/22/16 10:39	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	46	U	ug/kg dry	46	3/04/16 12:40	3/22/16 10:39	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	46	U	ug/kg dry	46	3/04/16 12:40	3/22/16 10:39	EPA 8082



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-009-SB**

Lab ID: **E160907-11**

Station ID: **BIC009**

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
72-54-8	4,4'-DDD (p,p'-DDD)	2.6		ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
72-55-9	4,4'-DDE (p,p'-DDE)	16		ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
50-29-3	4,4'-DDT (p,p'-DDT)	33		ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
309-00-2	Aldrin	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
319-84-6	alpha-BHC	1.2	J, Q-2	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
5103-71-9	alpha-Chlordane	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
319-85-7	beta-BHC	1.2	J, Q-2	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
319-86-8	delta-BHC	0.49	J, Q-2	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
60-57-1	Dieldrin	6.5		ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
959-98-8	Endosulfan I (alpha)	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
33213-65-9	Endosulfan II (beta)	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
1031-07-8	Endosulfan Sulfate	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
72-20-8	Endrin	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
7421-93-4	Endrin aldehyde	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
53494-70-5	Endrin ketone	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
58-89-9	gamma-BHC (Lindane)	0.53	J, Q-2	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
5566-34-7	gamma-Chlordane	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
76-44-8	Heptachlor	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
1024-57-3	Heptachlor epoxide	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)
72-43-5	Methoxychlor	1.5	U	ug/kg dry	1.5	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-009-SB

Lab ID: E160907-11

Station ID: BIC009

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
8001-35-2	Toxaphene	190	U	ug/kg dry	190	3/04/16 12:36	3/17/16 19:14	EPA 8270D (modified)



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

PCB Aroclors

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-009-SB

Lab ID: E160907-11

Station ID: BIC009

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
12674-11-2	PCB-1016 (Aroclor 1016)	22	U, CRa, D-4	ug/kg dry	22	3/04/16 12:40	3/21/16 16:01	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	19	U	ug/kg dry	19	3/04/16 12:40	3/21/16 16:01	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	22	U, CRa, D-4	ug/kg dry	22	3/04/16 12:40	3/21/16 16:01	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	22	U, CRa, D-4	ug/kg dry	22	3/04/16 12:40	3/21/16 16:01	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	22	U, CRa, D-4	ug/kg dry	22	3/04/16 12:40	3/21/16 16:01	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	21	J, I-5	ug/kg dry	9.7	3/04/16 12:40	3/21/16 16:01	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	22	U, CRa, D-4	ug/kg dry	22	3/04/16 12:40	3/21/16 16:01	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	22	U, CRa, D-4	ug/kg dry	22	3/04/16 12:40	3/21/16 16:01	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	9.7	U	ug/kg dry	9.7	3/04/16 12:40	3/21/16 16:01	EPA 8082



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-010-SB

Lab ID: E160907-12

Station ID: BIC010

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
72-54-8	4,4'-DDD (p,p'-DDD)	9.9		ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
72-55-9	4,4'-DDE (p,p'-DDE)	100		ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
50-29-3	4,4'-DDT (p,p'-DDT)	19		ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
309-00-2	Aldrin	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
319-84-6	alpha-BHC	0.23	J, Q-2	ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
5103-71-9	alpha-Chlordane	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
319-85-7	beta-BHC	2.5		ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
319-86-8	delta-BHC	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
60-57-1	Dieldrin	2.9		ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
959-98-8	Endosulfan I (alpha)	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
33213-65-9	Endosulfan II (beta)	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
1031-07-8	Endosulfan Sulfate	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
72-20-8	Endrin	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
7421-93-4	Endrin aldehyde	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
53494-70-5	Endrin ketone	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
58-89-9	gamma-BHC (Lindane)	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
5566-34-7	gamma-Chlordane	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
76-44-8	Heptachlor	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
1024-57-3	Heptachlor epoxide	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)
72-43-5	Methoxychlor	1.7	U	ug/kg dry	1.7	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-010-SB

Lab ID: E160907-12

Station ID: BIC010

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
8001-35-2	Toxaphene	210	U	ug/kg dry	210	3/04/16 12:36	3/17/16 19:29	EPA 8270D (modified)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

PCB Aroclors

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-010-SB

Lab ID: E160907-12

Station ID: BIC010

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
12674-11-2	PCB-1016 (Aroclor 1016)	15000	U, CR, D-4	ug/kg dry	15000	3/04/16 12:40	3/22/16 10:55	EPA 8082
11104-28-2	PCB-1221 (Aroclor 1221)	2100	U	ug/kg dry	2100	3/04/16 12:40	3/22/16 10:55	EPA 8082
11141-16-5	PCB-1232 (Aroclor 1232)	15000	U, D-4, CR	ug/kg dry	15000	3/04/16 12:40	3/22/16 10:55	EPA 8082
53469-21-9	PCB-1242 (Aroclor 1242)	15000	U, CR, D-4	ug/kg dry	15000	3/04/16 12:40	3/22/16 10:55	EPA 8082
12672-29-6	PCB-1248 (Aroclor 1248)	14000	J, I-5	ug/kg dry	1000	3/04/16 12:40	3/22/16 10:55	EPA 8082
11097-69-1	PCB-1254 (Aroclor 1254)	15000	U, CR, D-4	ug/kg dry	15000	3/04/16 12:40	3/22/16 10:55	EPA 8082
11096-82-5	PCB-1260 (Aroclor 1260)	1000	U	ug/kg dry	1000	3/04/16 12:40	3/22/16 10:55	EPA 8082
37324-23-5	PCB-1262 (Aroclor 1262)	1000	U	ug/kg dry	1000	3/04/16 12:40	3/22/16 10:55	EPA 8082
11100-14-4	PCB-1268 (Aroclor 1268)	1000	U	ug/kg dry	1000	3/04/16 12:40	3/22/16 10:55	EPA 8082



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides (OCP) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603024 - E 3545A Modified

Blank (1603024-BLK1)

Prepared: 03/04/16 Analyzed: 03/17/16

EPA 8270D (modified)

Surrogate: Decachlorobiphenyl (DCB)	35.7		ug/kg dry	33.333		107	40.4-121			
Surrogate: Tetrachloro-meta-xylene	14.7		"	16.667		87.9	51.2-112			
4,4'-DDD (p,p'-DDD)	U	1.3	"							U
4,4'-DDE (p,p'-DDE)	U	1.3	"							U
4,4'-DDT (p,p'-DDT)	U	1.3	"							U
Aldrin	U	1.3	"							U
alpha-BHC	U	1.3	"							U
alpha-Chlordane	U	1.3	"							U
beta-BHC	U	1.3	"							U
delta-BHC	U	1.3	"							U
Dieldrin	U	1.3	"							U
Endosulfan I (alpha)	U	1.3	"							U
Endosulfan II (beta)	U	1.3	"							U
Endosulfan Sulfate	U	1.3	"							U
Endrin	U	1.3	"							U
Endrin aldehyde	U	1.3	"							U
Endrin ketone	U	1.3	"							U
gamma-BHC (Lindane)	U	1.3	"							U
gamma-Chlordane	U	1.3	"							U
Heptachlor	U	1.3	"							U
Heptachlor epoxide	U	1.3	"							U
Methoxychlor	0.25388	1.3	"							B-3, J
Toxaphene	U	170	"							U

LCS (1603024-BS1)

Prepared: 03/04/16 Analyzed: 03/17/16

EPA 8270D (modified)

Surrogate: Decachlorobiphenyl (DCB)	32.9		ug/kg dry	33.333		98.8	40.4-121			
Surrogate: Tetrachloro-meta-xylene	13.7		"	16.667		82.1	51.2-112			
4,4'-DDD (p,p'-DDD)	12.483	1.3	"	13.333		93.6	54.2-104			
4,4'-DDE (p,p'-DDE)	12.305	1.3	"	13.333		92.3	51.8-103			
4,4'-DDT (p,p'-DDT)	11.156	1.3	"	13.333		83.7	43.1-120			
Aldrin	11.284	1.3	"	13.333		84.6	39.6-121			
alpha-BHC	11.428	1.3	"	13.333		85.7	46.8-101			
alpha-Chlordane	10.765	1.3	"	13.333		80.7	48.1-107			
beta-BHC	12.110	1.3	"	13.333		90.8	46.2-113			
delta-BHC	9.5921	1.3	"	13.333		71.9	52.3-101			
Dieldrin	12.196	1.3	"	13.333		91.5	20-149			
Endosulfan I (alpha)	10.172	1.3	"	13.333		76.3	29.2-118			



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Organochlorine Pesticides (OCP) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603024 - E 3545A Modified

LCS (1603024-BS1)

Prepared: 03/04/16 Analyzed: 03/17/16

Endosulfan II (beta)	11.252	1.3	ug/kg dry	13.333		84.4	42.8-131			
Endosulfan Sulfate	11.292	1.3	"	13.333		84.7	55.9-98.8			
Endrin	12.069	1.3	"	13.333		90.5	54.4-118			
Endrin aldehyde	9.9184	1.3	"	13.333		74.4	10-119			
Endrin ketone	12.185	1.3	"	13.333		91.4	51.2-116			
gamma-BHC (Lindane)	11.325	1.3	"	13.333		84.9	49-118			
gamma-Chlordane	11.067	1.3	"	13.333		83.0	56.7-109			
Heptachlor	9.9375	1.3	"	13.333		74.5	59.8-127			
Heptachlor epoxide	10.816	1.3	"	13.333		81.1	45.1-115			
Methoxychlor	11.338	1.3	"	13.333		85.0	57.2-134			

Matrix Spike (1603024-MS1)

Source: E160907-05

Prepared: 03/04/16 Analyzed: 03/17/16

EPA 8270D (modified)

Surrogate: Decachlorobiphenyl (DCB)	28.0		ug/kg dry	39.730		70.4	40.4-121			
Surrogate: Tetrachloro-meta-xylene	16.4		"	19.865		82.6	51.2-112			
4,4'-DDD (p,p'-DDD)	13.598	1.6	"	15.892	U	85.6	19.9-151			
4,4'-DDE (p,p'-DDE)	15.365	1.6	"	15.892	2.1156	83.4	10-166			
4,4'-DDT (p,p'-DDT)	12.969	1.6	"	15.892	1.1648	74.3	42.9-130			
Aldrin	12.376	1.6	"	15.892	U	77.9	40.8-117			
alpha-BHC	14.784	1.6	"	15.892	U	93.0	28-132			
alpha-Chlordane	11.790	1.6	"	15.892	U	74.2	29.2-140			
beta-BHC	16.087	1.6	"	15.892	U	101	34.7-137			
delta-BHC	12.128	1.6	"	15.892	U	76.3	30.1-129			
Dieldrin	13.838	1.6	"	15.892	U	87.1	31.3-118			
Endosulfan I (alpha)	12.045	1.6	"	15.892	U	75.8	35.6-118			
Endosulfan II (beta)	14.121	1.6	"	15.892	U	88.9	32.2-135			
Endosulfan Sulfate	13.508	1.6	"	15.892	U	85.0	40.3-138			
Endrin	15.760	1.6	"	15.892	U	99.2	53-135			
Endrin aldehyde	9.5466	1.6	"	15.892	U	60.1	10-118			
Endrin ketone	14.258	1.6	"	15.892	U	89.7	37.5-135			
gamma-BHC (Lindane)	14.690	1.6	"	15.892	U	92.4	53-104			
gamma-Chlordane	11.675	1.6	"	15.892	U	73.5	16.9-155			
Heptachlor	11.959	1.6	"	15.892	U	75.3	44.9-114			
Heptachlor epoxide	13.273	1.6	"	15.892	U	83.5	49.9-114			
Methoxychlor	14.459	1.6	"	15.892	U	91.0	41.3-143			



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides (OCP) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603024 - E 3545A Modified

Matrix Spike Dup (1603024-MSD1)

Source: E160907-05

Prepared: 03/04/16 Analyzed: 03/17/16

EPA 8270D (modified)

Surrogate: Decachlorobiphenyl (DCB)	28.9		ug/kg dry	39.401		73.4	40.4-121			
Surrogate: Tetrachloro-meta-xylene	15.0		"	19.701		76.2	51.2-112			
4,4'-DDD (p,p'-DDD)	12.556	1.6	"	15.760	U	79.7	19.9-151	7.97	47.7	
4,4'-DDE (p,p'-DDE)	18.753	1.6	"	15.760	2.1156	106	10-166	19.9	59.6	
4,4'-DDT (p,p'-DDT)	13.853	1.6	"	15.760	1.1648	80.5	42.9-130	6.59	32.7	
Aldrin	12.166	1.6	"	15.760	U	77.2	40.8-117	1.71	29	
alpha-BHC	13.280	1.6	"	15.760	U	84.3	28-132	10.7	30.3	
alpha-Chlordane	11.548	1.6	"	15.760	U	73.3	29.2-140	2.07	39.1	
beta-BHC	14.696	1.6	"	15.760	U	93.2	34.7-137	9.04	27.1	
delta-BHC	12.021	1.6	"	15.760	U	76.3	30.1-129	0.882	25.2	
Dieldrin	14.060	1.6	"	15.760	U	89.2	31.3-118	1.59	22.3	
Endosulfan I (alpha)	11.669	1.6	"	15.760	U	74.0	35.6-118	3.17	28.5	
Endosulfan II (beta)	13.978	1.6	"	15.760	U	88.7	32.2-135	1.01	27.9	
Endosulfan Sulfate	14.490	1.6	"	15.760	U	91.9	40.3-138	7.01	29.3	
Endrin	16.497	1.6	"	15.760	U	105	53-135	4.57	29.9	
Endrin aldehyde	10.187	1.6	"	15.760	U	64.6	10-118	6.49	44.8	
Endrin ketone	14.180	1.6	"	15.760	U	90.0	37.5-135	0.548	32.1	
gamma-BHC (Lindane)	13.235	1.6	"	15.760	U	84.0	53-104	10.4	21.4	
gamma-Chlordane	11.956	1.6	"	15.760	U	75.9	16.9-155	2.38	37.8	
Heptachlor	11.676	1.6	"	15.760	U	74.1	44.9-114	2.40	38.2	
Heptachlor epoxide	13.136	1.6	"	15.760	U	83.3	49.9-114	1.04	28.4	
Methoxychlor	15.043	1.6	"	15.760	U	95.4	41.3-143	3.96	26.6	

MRL Verification (1603024-PS1)

Prepared: 03/04/16 Analyzed: 03/17/16

EPA 8270D (modified)

Surrogate: Decachlorobiphenyl (DCB)	33.8		ug/kg dry	33.333		101	40.4-121			
Surrogate: Tetrachloro-meta-xylene	14.3		"	16.667		85.8	51.2-112			
4,4'-DDD (p,p'-DDD)	0.57902	1.3	"	0.66667		86.9	42.5-140			MRL-3, J
4,4'-DDE (p,p'-DDE)	0.61527	1.3	"	0.66667		92.3	39-140			MRL-3, J
4,4'-DDT (p,p'-DDT)	0.67781	1.3	"	0.66667		102	49.2-141			MRL-3, J
Aldrin	0.53111	1.3	"	0.66667		79.7	41-132			MRL-3, J
alpha-BHC	0.55625	1.3	"	0.66667		83.4	30.9-136			MRL-3, J
alpha-Chlordane	0.62044	1.3	"	0.66667		93.1	36.5-145			MRL-3, J
beta-BHC	0.57451	1.3	"	0.66667		86.2	42.8-141			MRL-3, J
delta-BHC	0.44788	1.3	"	0.66667		67.2	30.1-131			MRL-3, J
Dieldrin	0.65402	1.3	"	0.66667		98.1	45.1-133			MRL-3, J
Endosulfan I (alpha)	0.58684	1.3	"	0.66667		88.0	10-143			MRL-3, J
Endosulfan II (beta)	0.45915	1.3	"	0.66667		68.9	10-145			MRL-3, J



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

Organochlorine Pesticides (OCP) - Quality Control

US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603024 - E 3545A Modified

MRL Verification (1603024-PS1)

Prepared: 03/04/16 Analyzed: 03/17/16

Endosulfan Sulfate	0.51720	1.3	ug/kg dry	0.66667		77.6	37.3-146			MRL-3, J
Endrin	0.65224	1.3	"	0.66667		97.8	50.8-142			MRL-3, J
Endrin aldehyde	0.57837	1.3	"	0.66667		86.8	23.8-135			MRL-3, J
Endrin ketone	0.54767	1.3	"	0.66667		82.2	42.2-141			MRL-3, J
gamma-BHC (Lindane)	0.51956	1.3	"	0.66667		77.9	40-129			MRL-3, J
gamma-Chlordane	0.62109	1.3	"	0.66667		93.2	36.3-148			MRL-3, J
Heptachlor	0.60359	1.3	"	0.66667		90.5	51.8-126			MRL-3, J
Heptachlor epoxide	0.61342	1.3	"	0.66667		92.0	51-130			MRL-3, J
Methoxychlor	0.70926	1.3	"	0.66667		106	61.8-148			MRL-3, J



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Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

PCB Aroclors (PCBA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603025 - E 3545A Modified

Blank (1603025-BLK1)

Prepared: 03/04/16 Analyzed: 03/17/16

EPA 8082

PCB-1016 (Aroclor 1016)	U	8.3	ug/kg dry							U
PCB-1016 (Aroclor 1016) [2C]	U	8.3	"							U
PCB-1221 (Aroclor 1221)	U	17	"							U
PCB-1221 (Aroclor 1221) [2C]	U	17	"							U
PCB-1232 (Aroclor 1232)	U	8.3	"							U
PCB-1232 (Aroclor 1232) [2C]	U	8.3	"							U
PCB-1242 (Aroclor 1242)	U	8.3	"							U
PCB-1242 (Aroclor 1242) [2C]	U	8.3	"							U
PCB-1248 (Aroclor 1248)	U	8.3	"							U
PCB-1248 (Aroclor 1248) [2C]	U	8.3	"							U
PCB-1254 (Aroclor 1254)	U	8.3	"							U
PCB-1254 (Aroclor 1254) [2C]	U	8.3	"							U
PCB-1260 (Aroclor 1260)	U	8.3	"							U
PCB-1260 (Aroclor 1260) [2C]	U	8.3	"							U
PCB-1262 (Aroclor 1262)	U	8.3	"							U
PCB-1262 (Aroclor 1262) [2C]	U	8.3	"							U
PCB-1268 (Aroclor 1268)	U	8.3	"							U
PCB-1268 (Aroclor 1268) [2C]	U	8.3	"							U

LCS (1603025-BS1)

Prepared: 03/04/16 Analyzed: 03/17/16

EPA 8082

PCB-1016 (Aroclor 1016)	U	42	ug/kg dry				46.6-138			U
PCB-1016 (Aroclor 1016) [2C]	U	42	"				46.6-138			U
PCB-1221 (Aroclor 1221)	U	83	"				46.6-138			U
PCB-1221 (Aroclor 1221) [2C]	U	83	"				46.6-138			U
PCB-1232 (Aroclor 1232)	U	42	"				46.6-138			U
PCB-1232 (Aroclor 1232) [2C]	U	42	"				46.6-138			U
PCB-1242 (Aroclor 1242)	178.01	42	"	166.67		107	46.6-138			
PCB-1242 (Aroclor 1242) [2C]	167.40	42	"	166.67		100	46.6-138			
PCB-1248 (Aroclor 1248)	U	42	"				46.6-138			U
PCB-1248 (Aroclor 1248) [2C]	U	42	"				46.6-138			U
PCB-1254 (Aroclor 1254)	U	42	"				52-134			U
PCB-1254 (Aroclor 1254) [2C]	U	42	"				52-134			U
PCB-1260 (Aroclor 1260)	U	42	"				52-134			U
PCB-1260 (Aroclor 1260) [2C]	U	42	"				52-134			U
PCB-1262 (Aroclor 1262)	U	42	"				52-134			U
PCB-1262 (Aroclor 1262) [2C]	U	42	"				52-134			U
PCB-1268 (Aroclor 1268)	169.08	42	"	166.67		101	52-134			
PCB-1268 (Aroclor 1268) [2C]	172.34	42	"	166.67		103	52-134			



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

PCB Aroclors (PCBA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603025 - E 3545A Modified

LCS (1603025-BS1)

Prepared: 03/04/16 Analyzed: 03/17/16

Matrix Spike (1603025-MS1)

Source: E160907-05

Prepared: 03/04/16 Analyzed: 03/17/16

EPA 8082

PCB-1016 (Aroclor 1016)	U	50	ug/kg dry		U		25.5-136			U
PCB-1016 (Aroclor 1016) [2C]	U	50	"		U		25.5-136			U
PCB-1221 (Aroclor 1221)	U	100	"		U		25.5-136			U
PCB-1221 (Aroclor 1221) [2C]	U	100	"		U		25.5-136			U
PCB-1232 (Aroclor 1232)	U	50	"		U		25.5-136			U
PCB-1232 (Aroclor 1232) [2C]	U	50	"		U		25.5-136			U
PCB-1242 (Aroclor 1242)	423.03	50	"	200.32	U	211	25.5-136			X-3
PCB-1242 (Aroclor 1242) [2C]	488.66	50	"	200.32	U	244	25.5-136			X-3
PCB-1248 (Aroclor 1248)	U	50	"		558.41		25.5-136			U
PCB-1248 (Aroclor 1248) [2C]	U	50	"		466.40		25.5-136			U
PCB-1254 (Aroclor 1254)	U	50	"		U		16.1-145			U
PCB-1254 (Aroclor 1254) [2C]	U	50	"		U		16.1-145			U
PCB-1260 (Aroclor 1260)	U	50	"		U		16.1-145			U
PCB-1260 (Aroclor 1260) [2C]	U	50	"		U		16.1-145			U
PCB-1262 (Aroclor 1262)	U	50	"		U		16.1-145			U
PCB-1262 (Aroclor 1262) [2C]	U	50	"		U		16.1-145			U
PCB-1268 (Aroclor 1268)	158.71	50	"	200.32	U	79.2	16.1-145			
PCB-1268 (Aroclor 1268) [2C]	196.21	50	"	200.32	U	97.9	16.1-145			

Matrix Spike Dup (1603025-MSD1)

Source: E160907-05

Prepared: 03/04/16 Analyzed: 03/17/16

EPA 8082

PCB-1016 (Aroclor 1016)	U	49	ug/kg dry		U		25.5-136		36.4	U
PCB-1016 (Aroclor 1016) [2C]	U	49	"		U		25.5-136		36.4	U
PCB-1221 (Aroclor 1221)	U	98	"		U		25.5-136		36.4	U
PCB-1221 (Aroclor 1221) [2C]	U	98	"		U		25.5-136		36.4	U
PCB-1232 (Aroclor 1232)	U	49	"		U		25.5-136		36.4	U
PCB-1232 (Aroclor 1232) [2C]	U	49	"		U		25.5-136		36.4	U
PCB-1242 (Aroclor 1242)	380.22	49	"	196.54	U	193	25.5-136	10.7	36.4	X-3
PCB-1242 (Aroclor 1242) [2C]	434.19	49	"	196.54	U	221	25.5-136	11.8	36.4	X-3
PCB-1248 (Aroclor 1248)	U	49	"		558.41		25.5-136		36.4	U
PCB-1248 (Aroclor 1248) [2C]	U	49	"		466.40		25.5-136		36.4	U
PCB-1254 (Aroclor 1254)	U	49	"		U		16.1-145		34.4	U
PCB-1254 (Aroclor 1254) [2C]	U	49	"		U		16.1-145		34.4	U
PCB-1260 (Aroclor 1260)	U	49	"		U		16.1-145		34.4	U
PCB-1260 (Aroclor 1260) [2C]	U	49	"		U		16.1-145		34.4	U
PCB-1262 (Aroclor 1262)	U	49	"		U		16.1-145		34.4	U



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jason Collum

PCB Aroclors (PCBA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603025 - E 3545A Modified

Matrix Spike Dup (1603025-MSD1)

Source: E160907-05

Prepared: 03/04/16 Analyzed: 03/17/16

PCB-1262 (Aroclor 1262) [2C]	U	49	ug/kg dry		U		16.1-145		34.4	U
PCB-1268 (Aroclor 1268)	167.76	49	"	196.54	U	85.4	16.1-145	5.54	34.4	
PCB-1268 (Aroclor 1268) [2C]	207.40	49	"	196.54	U	106	16.1-145	5.54	34.4	

MRL Verification (1603025-PS1)

Prepared: 03/04/16 Analyzed: 03/17/16

EPA 8082

PCB-1016 (Aroclor 1016)	U	8.3	ug/kg dry				26.6-158			U
PCB-1016 (Aroclor 1016) [2C]	U	8.3	"				26.6-158			U
PCB-1221 (Aroclor 1221)	U	17	"				26.6-158			U
PCB-1221 (Aroclor 1221) [2C]	U	17	"				26.6-158			U
PCB-1232 (Aroclor 1232)	U	8.3	"				26.6-158			U
PCB-1232 (Aroclor 1232) [2C]	U	8.3	"				26.6-158			U
PCB-1242 (Aroclor 1242)	9.7927	8.3	"	8.3333		118	26.6-158			MRL-3
PCB-1242 (Aroclor 1242) [2C]	9.9490	8.3	"	8.3333		119	26.6-158			MRL-3
PCB-1248 (Aroclor 1248)	U	8.3	"				26.6-158			U
PCB-1248 (Aroclor 1248) [2C]	U	8.3	"				26.6-158			U
PCB-1254 (Aroclor 1254)	U	8.3	"				32-154			U
PCB-1254 (Aroclor 1254) [2C]	U	8.3	"				32-154			U
PCB-1260 (Aroclor 1260)	U	8.3	"				32-154			U
PCB-1260 (Aroclor 1260) [2C]	U	8.3	"				32-154			U
PCB-1262 (Aroclor 1262)	U	8.3	"				32-154			U
PCB-1262 (Aroclor 1262) [2C]	U	8.3	"				32-154			U
PCB-1268 (Aroclor 1268)	8.4793	8.3	"	8.3333		102	32-154			MRL-3
PCB-1268 (Aroclor 1268) [2C]	8.9350	8.3	"	8.3333		107	32-154			MRL-3



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Notes and Definitions for QC Samples

- U The analyte was not detected at or above the reporting limit.
- B-3 Level in blank does not impact data quality
- J The identification of the analyte is acceptable; the reported value is an estimate.
- MRL-3 MRL verification for Soil matrix
- X-3 Co-eluting/interfering target analyte(s) preclude recovery calculation



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April 4, 2016

4SESD-ASB

MEMORANDUM

SUBJECT: FINAL Analytical Report
 Project: 16-0282, Burlington Ind. Cheraw Former Lagoon
 Superfund Remedial

FROM: Jeffrey Hendel
 ASB Inorganic Chemistry Section Chief

THRU: Danny France, Chief
 Analytical Support Branch

TO: Jeffery Crowley

Attached are the final results for the analytical groups listed below. These analyses were performed in accordance with the Analytical Support Branch's (ASB) Laboratory Operations and Quality Assurance Manual (ASB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the ASB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Section 5.2 of the ASB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:	Method Used:	Accreditations:
Physical Properties (PHYSP)		
Physical Properties	EPA 200.2 (Soil)	NR
Total Metals (TMTL)		
Speciated Metals	EPA 218.6 (Soil)	NR
Total Mercury	EPA 245.5 (Soil)	ISO
Total Metals	EPA 200.8 (Soil)	ISO
Total Metals	EPA 6010 (Soil)	ISO



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Sample Disposal Policy

Because of the laboratory's limited space for long term sample storage, our policy is to dispose of samples on a periodic schedule. Please note that within 60 days of this memo, the original samples and all sample extracts and/or sample digestates will be disposed of in accordance with applicable regulations. The 60-day sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time if you have a special project need. If you wish for the laboratory to hold samples beyond the 60-day period, please contact our Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov, and provide a reason for holding samples beyond 60 days

cc: Nardina Turner



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Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

SAMPLES INCLUDED IN THIS REPORT

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
BIC-011-TS	E160907-01	Trip Blank - Soil	2/25/16 10:30	2/26/16 10:13
BIC-001-SF	E160907-02	Surface Soil	2/25/16 11:55	2/26/16 10:13
BIC-002-SF	E160907-03	Surface Soil	2/25/16 11:40	2/26/16 10:13
BIC-003-SF	E160907-04	Surface Soil	2/25/16 11:20	2/26/16 10:13
BIC-004-SF	E160907-05	Surface Soil	2/25/16 11:05	2/26/16 10:13
BIC-005-SB	E160907-06	Subsurface Soil	2/25/16 10:45	2/26/16 10:13
BIC-005-SF	E160907-07	Surface Soil	2/25/16 10:30	2/26/16 10:13
BIC-006-SD	E160907-08	Sediment	2/25/16 12:25	2/26/16 10:13
BIC-007-SD	E160907-09	Sediment	2/25/16 12:38	2/26/16 10:13
BIC-008-SB	E160907-10	Subsurface Soil	2/25/16 11:47	2/26/16 10:13
BIC-009-SB	E160907-11	Subsurface Soil	2/25/16 12:20	2/26/16 10:13
BIC-010-SB	E160907-12	Subsurface Soil	2/25/16 12:55	2/26/16 10:13



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

DATA QUALIFIER DEFINITIONS

U	The analyte was not detected at or above the reporting limit.
B-2	Reporting level elevated due to trace amounts of analyte present in the method blank.
J	The identification of the analyte is acceptable; the reported value is an estimate.
QC-5	Calibration check standard less than method control limits.
QM-1	Matrix Spike Recovery less than method control limits
QR-2	MRL verification recovery greater than upper control limits.

ACRONYMS AND ABBREVIATIONS

CAS	Chemical Abstracts Service Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.
MDL	Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.
MRL	Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.
TIC	Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO	The test, if analyzed after June 26, 2012, is accredited under the EPA Region 4 ASB's ISO/IEC 17025 accreditation issued by ANSI-ASQ National Accreditation Board/ACLASS. Refer to certificate and scope of accreditation AT-1691.
NR	The EPA Region 4 Laboratory has not requested accreditation for this test.



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Physical Properties

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-011-TS

Lab ID: E160907-01

Station ID:

Matrix: Trip Blank - Soil

Date Collected: 2/25/16 10:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	100		%	0.0	3/09/16 8:07	3/11/16 5:30	EPA 200.2



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-001-SF**

Lab ID: **E160907-02**

Station ID: **BIC001**

Matrix: Surface Soil

Date Collected: 2/25/16 11:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
18540-29-9	Chromium, Hexavalent	5.7	U	mg/kg dry	5.7	3/17/16 9:46	3/22/16 19:37	EPA 218.6
7439-97-6	Mercury	0.046	U	mg/kg dry	0.046	3/23/16 9:14	3/23/16 14:53	EPA 245.5
7429-90-5	Aluminum	4800	J, QM-1	mg/kg dry	9.9	3/14/16 8:17	3/15/16 15:45	EPA 6010
7440-36-0	Antimony	0.20	U, J, QM-1	mg/kg dry	0.20	3/14/16 8:21	3/16/16 17:42	EPA 200.8
7440-38-2	Arsenic	0.70	J, QM-1	mg/kg dry	0.20	3/14/16 8:21	3/16/16 17:42	EPA 200.8
7440-39-3	Barium	41		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:45	EPA 6010
7440-41-7	Beryllium	0.36		mg/kg dry	0.30	3/14/16 8:17	3/15/16 15:45	EPA 6010
7440-43-9	Cadmium	0.099	U	mg/kg dry	0.099	3/14/16 8:21	3/16/16 17:42	EPA 200.8
7440-70-2	Calcium	330		mg/kg dry	25	3/14/16 8:17	3/15/16 15:45	EPA 6010
7440-47-3	Chromium	9.4		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:45	EPA 6010
7440-48-4	Cobalt	1.0		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:45	EPA 6010
7440-50-8	Copper	3.7	J, QR-2	mg/kg dry	0.99	3/14/16 8:17	3/15/16 15:45	EPA 6010
7439-89-6	Iron	9500		mg/kg dry	9.9	3/14/16 8:17	3/15/16 15:45	EPA 6010
7439-92-1	Lead	14		mg/kg dry	0.20	3/14/16 8:21	3/16/16 17:42	EPA 200.8
7439-95-4	Magnesium	170		mg/kg dry	25	3/14/16 8:17	3/15/16 15:45	EPA 6010
7439-96-5	Manganese	23		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:45	EPA 6010
7439-98-7	Molybdenum	0.99	U, J, QM-1	mg/kg dry	0.99	3/14/16 8:17	3/15/16 15:45	EPA 6010
7440-02-0	Nickel	1.0		mg/kg dry	0.99	3/14/16 8:17	3/15/16 15:45	EPA 6010
7440-09-7	Potassium	140	J, QC-5	mg/kg dry	99	3/14/16 8:17	3/15/16 15:45	EPA 6010
7782-49-2	Selenium	0.39	U, J, QM-1	mg/kg dry	0.39	3/14/16 8:21	3/16/16 17:42	EPA 200.8
7440-22-4	Silver	0.49	U	mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:45	EPA 6010
7440-23-5	Sodium	99	U	mg/kg dry	99	3/14/16 8:17	3/15/16 15:45	EPA 6010
7440-24-6	Strontium	2.2		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:45	EPA 6010
7440-28-0	Thallium	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 17:42	EPA 200.8
7440-31-5	Tin	1.5	U	mg/kg dry	1.5	3/14/16 8:17	3/15/16 15:45	EPA 6010
7440-32-6	Titanium	9.4	J, QM-1	mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:45	EPA 6010
7440-62-2	Vanadium	20		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:45	EPA 6010



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-001-SF

Lab ID: E160907-02

Station ID: BIC001

Matrix: Surface Soil

Date Collected: 2/25/16 11:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
7440-65-5	Yttrium	3.8		mg/kg dry	0.30	3/14/16 8:17	3/15/16 15:45	EPA 6010
7440-66-6	Zinc	8.3		mg/kg dry	0.99	3/14/16 8:17	3/15/16 15:45	EPA 6010



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Physical Properties

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-001-SF

Lab ID: E160907-02

Station ID: BIC001

Matrix: Surface Soil

Date Collected: 2/25/16 11:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	78		%	0.0	3/09/16 8:07	3/11/16 5:30	EPA 200.2



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-002-SF**

Lab ID: **E160907-03**

Station ID: **BIC002**

Matrix: Surface Soil

Date Collected: 2/25/16 11:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
18540-29-9	Chromium, Hexavalent	7.6	U	mg/kg dry	7.6	3/17/16 9:46	3/22/16 19:37	EPA 218.6
7439-97-6	Mercury	0.075		mg/kg dry	0.049	3/23/16 9:14	3/23/16 14:53	EPA 245.5
7429-90-5	Aluminum	1600		mg/kg dry	10	3/14/16 8:17	3/15/16 15:54	EPA 6010
7440-36-0	Antimony	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 17:53	EPA 200.8
7440-38-2	Arsenic	0.65		mg/kg dry	0.20	3/14/16 8:21	3/16/16 17:53	EPA 200.8
7440-39-3	Barium	13		mg/kg dry	0.50	3/14/16 8:17	3/15/16 15:54	EPA 6010
7440-41-7	Beryllium	0.30	U	mg/kg dry	0.30	3/14/16 8:17	3/15/16 15:54	EPA 6010
7440-43-9	Cadmium	0.10	U	mg/kg dry	0.10	3/14/16 8:21	3/16/16 17:53	EPA 200.8
7440-70-2	Calcium	530		mg/kg dry	25	3/14/16 8:17	3/15/16 15:54	EPA 6010
7440-47-3	Chromium	2.2		mg/kg dry	0.50	3/14/16 8:17	3/15/16 15:54	EPA 6010
7440-48-4	Cobalt	0.50	U	mg/kg dry	0.50	3/14/16 8:17	3/15/16 15:54	EPA 6010
7440-50-8	Copper	2.9	J, QR-2	mg/kg dry	1.0	3/14/16 8:17	3/15/16 15:54	EPA 6010
7439-89-6	Iron	1300		mg/kg dry	10	3/14/16 8:17	3/15/16 15:54	EPA 6010
7439-92-1	Lead	5.7		mg/kg dry	0.20	3/14/16 8:21	3/16/16 17:53	EPA 200.8
7439-95-4	Magnesium	100		mg/kg dry	25	3/14/16 8:17	3/15/16 15:54	EPA 6010
7439-96-5	Manganese	19		mg/kg dry	0.50	3/14/16 8:17	3/15/16 15:54	EPA 6010
7439-98-7	Molybdenum	1.0	U	mg/kg dry	1.0	3/14/16 8:17	3/15/16 15:54	EPA 6010
7440-02-0	Nickel	1.2		mg/kg dry	1.0	3/14/16 8:17	3/15/16 15:54	EPA 6010
7440-09-7	Potassium	150	J, QC-5	mg/kg dry	100	3/14/16 8:17	3/15/16 15:54	EPA 6010
7782-49-2	Selenium	0.40	U	mg/kg dry	0.40	3/14/16 8:21	3/16/16 17:53	EPA 200.8
7440-22-4	Silver	0.50	U	mg/kg dry	0.50	3/14/16 8:17	3/15/16 15:54	EPA 6010
7440-23-5	Sodium	100	U	mg/kg dry	100	3/14/16 8:17	3/15/16 15:54	EPA 6010
7440-24-6	Strontium	2.4		mg/kg dry	0.50	3/14/16 8:17	3/15/16 15:54	EPA 6010
7440-28-0	Thallium	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 17:53	EPA 200.8
7440-31-5	Tin	1.5	U	mg/kg dry	1.5	3/14/16 8:17	3/15/16 15:54	EPA 6010
7440-32-6	Titanium	15		mg/kg dry	0.50	3/14/16 8:17	3/15/16 15:54	EPA 6010
7440-62-2	Vanadium	4.0		mg/kg dry	0.50	3/14/16 8:17	3/15/16 15:54	EPA 6010



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-002-SF

Lab ID: E160907-03

Station ID: BIC002

Matrix: Surface Soil

Date Collected: 2/25/16 11:40

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
7440-65-5	Yttrium	0.74		mg/kg dry	0.30	3/14/16 8:17	3/15/16 15:54	EPA 6010
7440-66-6	Zinc	14		mg/kg dry	1.0	3/14/16 8:17	3/15/16 15:54	EPA 6010



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Physical Properties

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-002-SF

Lab ID: E160907-03

Station ID: BIC002

Matrix: Surface Soil

Date Collected: 2/25/16 11:40

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	56		%	0.0	3/09/16 8:07	3/11/16 5:30	EPA 200.2



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-003-SF**

Lab ID: **E160907-04**

Station ID: **BIC003**

Matrix: Surface Soil

Date Collected: 2/25/16 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
18540-29-9	Chromium, Hexavalent	5.2		mg/kg dry	4.9	3/17/16 9:46	3/22/16 19:37	EPA 218.6
7439-97-6	Mercury	0.048	U	mg/kg dry	0.048	3/23/16 9:14	3/23/16 14:53	EPA 245.5
7429-90-5	Aluminum	4300		mg/kg dry	9.8	3/14/16 8:17	3/15/16 15:56	EPA 6010
7440-36-0	Antimony	20		mg/kg dry	0.20	3/14/16 8:21	3/16/16 17:57	EPA 200.8
7440-38-2	Arsenic	0.95		mg/kg dry	0.20	3/14/16 8:21	3/16/16 17:57	EPA 200.8
7440-39-3	Barium	260		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:56	EPA 6010
7440-41-7	Beryllium	0.29	U	mg/kg dry	0.29	3/14/16 8:17	3/15/16 15:56	EPA 6010
7440-43-9	Cadmium	0.18		mg/kg dry	0.098	3/14/16 8:21	3/16/16 17:57	EPA 200.8
7440-70-2	Calcium	780		mg/kg dry	25	3/14/16 8:17	3/15/16 15:56	EPA 6010
7440-47-3	Chromium	13		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:56	EPA 6010
7440-48-4	Cobalt	0.49	U	mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:56	EPA 6010
7440-50-8	Copper	8.0		mg/kg dry	0.98	3/14/16 8:17	3/15/16 15:56	EPA 6010
7439-89-6	Iron	5400		mg/kg dry	9.8	3/14/16 8:17	3/15/16 15:56	EPA 6010
7439-92-1	Lead	9.7		mg/kg dry	0.20	3/14/16 8:21	3/16/16 17:57	EPA 200.8
7439-95-4	Magnesium	100		mg/kg dry	25	3/14/16 8:17	3/15/16 15:56	EPA 6010
7439-96-5	Manganese	48		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:56	EPA 6010
7439-98-7	Molybdenum	0.98	U	mg/kg dry	0.98	3/14/16 8:17	3/15/16 15:56	EPA 6010
7440-02-0	Nickel	0.98	U	mg/kg dry	0.98	3/14/16 8:17	3/15/16 15:56	EPA 6010
7440-09-7	Potassium	110	J, QC-5	mg/kg dry	98	3/14/16 8:17	3/15/16 15:56	EPA 6010
7782-49-2	Selenium	0.39	U	mg/kg dry	0.39	3/14/16 8:21	3/16/16 17:57	EPA 200.8
7440-22-4	Silver	0.49	U	mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:56	EPA 6010
7440-23-5	Sodium	98	U	mg/kg dry	98	3/14/16 8:17	3/15/16 15:56	EPA 6010
7440-24-6	Strontium	5.4		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:56	EPA 6010
7440-28-0	Thallium	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 17:57	EPA 200.8
7440-31-5	Tin	1.5	U	mg/kg dry	1.5	3/14/16 8:17	3/15/16 15:56	EPA 6010
7440-32-6	Titanium	11		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:56	EPA 6010
7440-62-2	Vanadium	13		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:56	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-003-SF

Lab ID: E160907-04

Station ID: BIC003

Matrix: Surface Soil

Date Collected: 2/25/16 11:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
7440-65-5	Yttrium	2.7		mg/kg dry	0.29	3/14/16 8:17	3/15/16 15:56	EPA 6010
7440-66-6	Zinc	370		mg/kg dry	0.98	3/14/16 8:17	3/15/16 15:56	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Physical Properties

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-003-SF

Lab ID: E160907-04

Station ID: BIC003

Matrix: Surface Soil

Date Collected: 2/25/16 11:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	86		%	0.0	3/09/16 8:07	3/11/16 5:30	EPA 200.2



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Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-004-SF**

Lab ID: **E160907-05**

Station ID: **BIC004**

Matrix: Surface Soil

Date Collected: 2/25/16 11:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
18540-29-9	Chromium, Hexavalent	4.9	U	mg/kg dry	4.9	3/17/16 9:46	3/22/16 19:37	EPA 218.6
7439-97-6	Mercury	0.049	U	mg/kg dry	0.049	3/23/16 9:14	3/23/16 14:53	EPA 245.5
7429-90-5	Aluminum	800		mg/kg dry	9.8	3/14/16 8:17	3/15/16 15:59	EPA 6010
7440-36-0	Antimony	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:01	EPA 200.8
7440-38-2	Arsenic	0.30		mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:01	EPA 200.8
7440-39-3	Barium	3.8		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:59	EPA 6010
7440-41-7	Beryllium	0.30	U	mg/kg dry	0.30	3/14/16 8:17	3/15/16 15:59	EPA 6010
7440-43-9	Cadmium	0.098	U	mg/kg dry	0.098	3/14/16 8:21	3/16/16 18:01	EPA 200.8
7440-70-2	Calcium	290		mg/kg dry	25	3/14/16 8:17	3/15/16 15:59	EPA 6010
7440-47-3	Chromium	1.4		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:59	EPA 6010
7440-48-4	Cobalt	0.49	U	mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:59	EPA 6010
7440-50-8	Copper	0.98	U	mg/kg dry	0.98	3/14/16 8:17	3/15/16 15:59	EPA 6010
7439-89-6	Iron	1000		mg/kg dry	9.8	3/14/16 8:17	3/15/16 15:59	EPA 6010
7439-92-1	Lead	0.83		mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:01	EPA 200.8
7439-95-4	Magnesium	55		mg/kg dry	25	3/14/16 8:17	3/15/16 15:59	EPA 6010
7439-96-5	Manganese	14		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:59	EPA 6010
7439-98-7	Molybdenum	0.98	U	mg/kg dry	0.98	3/14/16 8:17	3/15/16 15:59	EPA 6010
7440-02-0	Nickel	0.98	U	mg/kg dry	0.98	3/14/16 8:17	3/15/16 15:59	EPA 6010
7440-09-7	Potassium	98	U, J, QC-5	mg/kg dry	98	3/14/16 8:17	3/15/16 15:59	EPA 6010
7782-49-2	Selenium	0.39	U	mg/kg dry	0.39	3/14/16 8:21	3/16/16 18:01	EPA 200.8
7440-22-4	Silver	0.49	U	mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:59	EPA 6010
7440-23-5	Sodium	98	U	mg/kg dry	98	3/14/16 8:17	3/15/16 15:59	EPA 6010
7440-24-6	Strontium	0.51		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:59	EPA 6010
7440-28-0	Thallium	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:01	EPA 200.8
7440-31-5	Tin	1.5	U	mg/kg dry	1.5	3/14/16 8:17	3/15/16 15:59	EPA 6010
7440-32-6	Titanium	9.6		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:59	EPA 6010
7440-62-2	Vanadium	2.6		mg/kg dry	0.49	3/14/16 8:17	3/15/16 15:59	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-004-SF

Lab ID: E160907-05

Station ID: BIC004

Matrix: Surface Soil

Date Collected: 2/25/16 11:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
7440-65-5	Yttrium	0.45		mg/kg dry	0.30	3/14/16 8:17	3/15/16 15:59	EPA 6010
7440-66-6	Zinc	3.2		mg/kg dry	0.98	3/14/16 8:17	3/15/16 15:59	EPA 6010



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Physical Properties

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-004-SF

Lab ID: E160907-05

Station ID: BIC004

Matrix: Surface Soil

Date Collected: 2/25/16 11:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	87		%	0.0	3/09/16 8:07	3/11/16 5:30	EPA 200.2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-005-SB**

Lab ID: **E160907-06**

Station ID: **BIC005**

Matrix: Subsurface Soil

Date Collected: 2/25/16 10:45

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
18540-29-9	Chromium, Hexavalent	6.6	U	mg/kg dry	6.6	3/17/16 9:46	3/22/16 19:37	EPA 218.6
7439-97-6	Mercury	0.049	U	mg/kg dry	0.049	3/23/16 9:14	3/23/16 14:53	EPA 245.5
7429-90-5	Aluminum	6300		mg/kg dry	10	3/14/16 8:17	3/15/16 16:02	EPA 6010
7440-36-0	Antimony	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:13	EPA 200.8
7440-38-2	Arsenic	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:13	EPA 200.8
7440-39-3	Barium	52		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:02	EPA 6010
7440-41-7	Beryllium	0.49		mg/kg dry	0.30	3/14/16 8:17	3/15/16 16:02	EPA 6010
7440-43-9	Cadmium	0.10	U	mg/kg dry	0.10	3/14/16 8:21	3/16/16 18:13	EPA 200.8
7440-70-2	Calcium	25	U	mg/kg dry	25	3/14/16 8:17	3/15/16 16:02	EPA 6010
7440-47-3	Chromium	12		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:02	EPA 6010
7440-48-4	Cobalt	2.2		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:02	EPA 6010
7440-50-8	Copper	5.0		mg/kg dry	1.0	3/14/16 8:17	3/15/16 16:02	EPA 6010
7439-89-6	Iron	16000		mg/kg dry	10	3/14/16 8:17	3/15/16 16:02	EPA 6010
7439-92-1	Lead	8.8		mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:13	EPA 200.8
7439-95-4	Magnesium	170		mg/kg dry	25	3/14/16 8:17	3/15/16 16:02	EPA 6010
7439-96-5	Manganese	13		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:02	EPA 6010
7439-98-7	Molybdenum	1.0	U	mg/kg dry	1.0	3/14/16 8:17	3/15/16 16:02	EPA 6010
7440-02-0	Nickel	1.6		mg/kg dry	1.0	3/14/16 8:17	3/15/16 16:02	EPA 6010
7440-09-7	Potassium	100	U, J, QC-5	mg/kg dry	100	3/14/16 8:17	3/15/16 16:02	EPA 6010
7782-49-2	Selenium	0.40	U	mg/kg dry	0.40	3/14/16 8:21	3/16/16 18:13	EPA 200.8
7440-22-4	Silver	0.50	U	mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:02	EPA 6010
7440-23-5	Sodium	100	U	mg/kg dry	100	3/14/16 8:17	3/15/16 16:02	EPA 6010
7440-24-6	Strontium	1.1		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:02	EPA 6010
7440-28-0	Thallium	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:13	EPA 200.8
7440-31-5	Tin	1.5	U	mg/kg dry	1.5	3/14/16 8:17	3/15/16 16:02	EPA 6010
7440-32-6	Titanium	8.4		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:02	EPA 6010
7440-62-2	Vanadium	24		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:02	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-005-SB

Lab ID: E160907-06

Station ID: BIC005

Matrix: Subsurface Soil

Date Collected: 2/25/16 10:45

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
7440-65-5	Yttrium	4.2		mg/kg dry	0.30	3/14/16 8:17	3/15/16 16:02	EPA 6010
7440-66-6	Zinc	3.9		mg/kg dry	1.0	3/14/16 8:17	3/15/16 16:02	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Physical Properties

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-005-SB

Lab ID: E160907-06

Station ID: BIC005

Matrix: Subsurface Soil

Date Collected: 2/25/16 10:45

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	74		%	0.0	3/09/16 8:07	3/11/16 5:30	EPA 200.2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-005-SF**

Lab ID: **E160907-07**

Station ID: **BIC005**

Matrix: Surface Soil

Date Collected: 2/25/16 10:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
18540-29-9	Chromium, Hexavalent	5.4	U	mg/kg dry	5.4	3/17/16 9:46	3/22/16 19:37	EPA 218.6
7439-97-6	Mercury	0.046	U	mg/kg dry	0.046	3/23/16 9:14	3/23/16 14:53	EPA 245.5
7429-90-5	Aluminum	2800		mg/kg dry	9.8	3/14/16 8:17	3/15/16 16:05	EPA 6010
7440-36-0	Antimony	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:16	EPA 200.8
7440-38-2	Arsenic	0.41		mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:16	EPA 200.8
7440-39-3	Barium	20		mg/kg dry	0.49	3/14/16 8:17	3/15/16 16:05	EPA 6010
7440-41-7	Beryllium	0.29	U	mg/kg dry	0.29	3/14/16 8:17	3/15/16 16:05	EPA 6010
7440-43-9	Cadmium	0.098	U	mg/kg dry	0.098	3/14/16 8:21	3/16/16 18:16	EPA 200.8
7440-70-2	Calcium	25		mg/kg dry	25	3/14/16 8:17	3/15/16 16:05	EPA 6010
7440-47-3	Chromium	4.8		mg/kg dry	0.49	3/14/16 8:17	3/15/16 16:05	EPA 6010
7440-48-4	Cobalt	0.92		mg/kg dry	0.49	3/14/16 8:17	3/15/16 16:05	EPA 6010
7440-50-8	Copper	2.1	J, QR-2	mg/kg dry	0.98	3/14/16 8:17	3/15/16 16:05	EPA 6010
7439-89-6	Iron	5200		mg/kg dry	9.8	3/14/16 8:17	3/15/16 16:05	EPA 6010
7439-92-1	Lead	16		mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:16	EPA 200.8
7439-95-4	Magnesium	78		mg/kg dry	25	3/14/16 8:17	3/15/16 16:05	EPA 6010
7439-96-5	Manganese	57		mg/kg dry	0.49	3/14/16 8:17	3/15/16 16:05	EPA 6010
7439-98-7	Molybdenum	0.98	U	mg/kg dry	0.98	3/14/16 8:17	3/15/16 16:05	EPA 6010
7440-02-0	Nickel	0.98	U	mg/kg dry	0.98	3/14/16 8:17	3/15/16 16:05	EPA 6010
7440-09-7	Potassium	98	U, J, QC-5	mg/kg dry	98	3/14/16 8:17	3/15/16 16:05	EPA 6010
7782-49-2	Selenium	0.39	U	mg/kg dry	0.39	3/14/16 8:21	3/16/16 18:16	EPA 200.8
7440-22-4	Silver	0.49	U	mg/kg dry	0.49	3/14/16 8:17	3/15/16 16:05	EPA 6010
7440-23-5	Sodium	98	U	mg/kg dry	98	3/14/16 8:17	3/15/16 16:05	EPA 6010
7440-24-6	Strontium	0.76		mg/kg dry	0.49	3/14/16 8:17	3/15/16 16:05	EPA 6010
7440-28-0	Thallium	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:16	EPA 200.8
7440-31-5	Tin	1.5	U	mg/kg dry	1.5	3/14/16 8:17	3/15/16 16:05	EPA 6010
7440-32-6	Titanium	8.8		mg/kg dry	0.49	3/14/16 8:17	3/15/16 16:05	EPA 6010
7440-62-2	Vanadium	10		mg/kg dry	0.49	3/14/16 8:17	3/15/16 16:05	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-005-SF

Lab ID: E160907-07

Station ID: BIC005

Matrix: Surface Soil

Date Collected: 2/25/16 10:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
7440-65-5	Yttrium	1.4		mg/kg dry	0.29	3/14/16 8:17	3/15/16 16:05	EPA 6010
7440-66-6	Zinc	3.0		mg/kg dry	0.98	3/14/16 8:17	3/15/16 16:05	EPA 6010



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Physical Properties

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-005-SF

Lab ID: E160907-07

Station ID: BIC005

Matrix: Surface Soil

Date Collected: 2/25/16 10:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	71		%	0.0	3/09/16 8:07	3/11/16 5:30	EPA 200.2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-006-SD

Lab ID: E160907-08

Station ID: BIC006

Matrix: Sediment

Date Collected: 2/25/16 12:25

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
18540-29-9	Chromium, Hexavalent	6.1	U	mg/kg dry	6.1	3/18/16 14:42	3/23/16 0:18	EPA 218.6
7439-97-6	Mercury	0.047	U	mg/kg dry	0.047	3/23/16 9:14	3/23/16 14:53	EPA 245.5
7429-90-5	Aluminum	2300		mg/kg dry	9.9	3/14/16 8:17	3/15/16 16:22	EPA 6010
7440-36-0	Antimony	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:20	EPA 200.8
7440-38-2	Arsenic	0.95		mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:20	EPA 200.8
7440-39-3	Barium	21		mg/kg dry	0.49	3/14/16 8:17	3/15/16 16:22	EPA 6010
7440-41-7	Beryllium	0.30	U	mg/kg dry	0.30	3/14/16 8:17	3/15/16 16:22	EPA 6010
7440-43-9	Cadmium	0.16		mg/kg dry	0.099	3/14/16 8:21	3/16/16 18:20	EPA 200.8
7440-70-2	Calcium	590		mg/kg dry	25	3/14/16 8:17	3/15/16 16:22	EPA 6010
7440-47-3	Chromium	4.6		mg/kg dry	0.49	3/14/16 8:17	3/15/16 16:22	EPA 6010
7440-48-4	Cobalt	0.55		mg/kg dry	0.49	3/14/16 8:17	3/15/16 16:22	EPA 6010
7440-50-8	Copper	4.3	J, QR-2	mg/kg dry	0.99	3/14/16 8:17	3/15/16 16:22	EPA 6010
7439-89-6	Iron	2800		mg/kg dry	9.9	3/14/16 8:17	3/15/16 16:22	EPA 6010
7439-92-1	Lead	9.1		mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:20	EPA 200.8
7439-95-4	Magnesium	150		mg/kg dry	25	3/14/16 8:17	3/15/16 16:22	EPA 6010
7439-96-5	Manganese	49		mg/kg dry	0.49	3/14/16 8:17	3/15/16 16:22	EPA 6010
7439-98-7	Molybdenum	0.99	U	mg/kg dry	0.99	3/14/16 8:17	3/15/16 16:22	EPA 6010
7440-02-0	Nickel	1.3		mg/kg dry	0.99	3/14/16 8:17	3/15/16 16:22	EPA 6010
7440-09-7	Potassium	110	J, QC-5	mg/kg dry	99	3/14/16 8:17	3/15/16 16:22	EPA 6010
7782-49-2	Selenium	0.39	U	mg/kg dry	0.39	3/14/16 8:21	3/16/16 18:20	EPA 200.8
7440-22-4	Silver	0.49	U	mg/kg dry	0.49	3/14/16 8:17	3/15/16 16:22	EPA 6010
7440-23-5	Sodium	99	U	mg/kg dry	99	3/14/16 8:17	3/15/16 16:22	EPA 6010
7440-24-6	Strontium	2.9		mg/kg dry	0.49	3/14/16 8:17	3/15/16 16:22	EPA 6010
7440-28-0	Thallium	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:20	EPA 200.8
7440-31-5	Tin	1.5	U	mg/kg dry	1.5	3/14/16 8:17	3/15/16 16:22	EPA 6010
7440-32-6	Titanium	21		mg/kg dry	0.49	3/14/16 8:17	3/15/16 16:22	EPA 6010
7440-62-2	Vanadium	8.1		mg/kg dry	0.49	3/14/16 8:17	3/15/16 16:22	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-006-SD

Lab ID: E160907-08

Station ID: BIC006

Matrix: Sediment

Date Collected: 2/25/16 12:25

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
7440-65-5	Yttrium	2.2		mg/kg dry	0.30	3/14/16 8:17	3/15/16 16:22	EPA 6010
7440-66-6	Zinc	38		mg/kg dry	0.99	3/14/16 8:17	3/15/16 16:22	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Physical Properties

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-006-SD

Lab ID: E160907-08

Station ID: BIC006

Matrix: Sediment

Date Collected: 2/25/16 12:25

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	79		%	0.0	3/09/16 8:07	3/11/16 5:30	EPA 200.2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-007-SD

Lab ID: E160907-09

Station ID: BIC007

Matrix: Sediment

Date Collected: 2/25/16 12:38

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
18540-29-9	Chromium, Hexavalent	8.1	U	mg/kg dry	8.1	3/18/16 14:42	3/23/16 0:18	EPA 218.6
7439-97-6	Mercury	0.061		mg/kg dry	0.050	3/23/16 9:14	3/23/16 14:53	EPA 245.5
7429-90-5	Aluminum	5300		mg/kg dry	10	3/14/16 8:17	3/15/16 16:24	EPA 6010
7440-36-0	Antimony	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:24	EPA 200.8
7440-38-2	Arsenic	1.9		mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:24	EPA 200.8
7440-39-3	Barium	63		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:24	EPA 6010
7440-41-7	Beryllium	0.30	U	mg/kg dry	0.30	3/14/16 8:17	3/15/16 16:24	EPA 6010
7440-43-9	Cadmium	0.42		mg/kg dry	0.10	3/14/16 8:21	3/16/16 18:24	EPA 200.8
7440-70-2	Calcium	2100		mg/kg dry	25	3/14/16 8:17	3/15/16 16:24	EPA 6010
7440-47-3	Chromium	9.1		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:24	EPA 6010
7440-48-4	Cobalt	2.9		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:24	EPA 6010
7440-50-8	Copper	12		mg/kg dry	1.0	3/14/16 8:17	3/15/16 16:24	EPA 6010
7439-89-6	Iron	5800		mg/kg dry	10	3/14/16 8:17	3/15/16 16:24	EPA 6010
7439-92-1	Lead	63		mg/kg dry	1.0	3/14/16 8:21	3/16/16 18:28	EPA 200.8
7439-95-4	Magnesium	420		mg/kg dry	25	3/14/16 8:17	3/15/16 16:24	EPA 6010
7439-96-5	Manganese	340		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:24	EPA 6010
7439-98-7	Molybdenum	1.0	U	mg/kg dry	1.0	3/14/16 8:17	3/15/16 16:24	EPA 6010
7440-02-0	Nickel	3.4		mg/kg dry	1.0	3/14/16 8:17	3/15/16 16:24	EPA 6010
7440-09-7	Potassium	290	J, QC-5	mg/kg dry	100	3/14/16 8:17	3/15/16 16:24	EPA 6010
7782-49-2	Selenium	0.44	U, B-2	mg/kg dry	0.44	3/14/16 8:21	3/16/16 18:24	EPA 200.8
7440-22-4	Silver	0.50	U	mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:24	EPA 6010
7440-23-5	Sodium	100	U	mg/kg dry	100	3/14/16 8:17	3/15/16 16:24	EPA 6010
7440-24-6	Strontium	12		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:24	EPA 6010
7440-28-0	Thallium	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:24	EPA 200.8
7440-31-5	Tin	1.5	U	mg/kg dry	1.5	3/14/16 8:17	3/15/16 16:24	EPA 6010
7440-32-6	Titanium	39		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:24	EPA 6010
7440-62-2	Vanadium	14		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:24	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-007-SD

Lab ID: E160907-09

Station ID: BIC007

Matrix: Sediment

Date Collected: 2/25/16 12:38

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
7440-65-5	Yttrium	5.8		mg/kg dry	0.30	3/14/16 8:17	3/15/16 16:24	EPA 6010
7440-66-6	Zinc	150		mg/kg dry	1.0	3/14/16 8:17	3/15/16 16:24	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Physical Properties

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-007-SD

Lab ID: E160907-09

Station ID: BIC007

Matrix: Sediment

Date Collected: 2/25/16 12:38

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	57		%	0.0	3/09/16 8:07	3/11/16 5:30	EPA 200.2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-008-SB

Lab ID: E160907-10

Station ID: BIC008

Matrix: Subsurface Soil

Date Collected: 2/25/16 11:47

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
18540-29-9	Chromium, Hexavalent	5.5	U	mg/kg dry	5.5	3/18/16 14:42	3/23/16 0:18	EPA 218.6
7439-97-6	Mercury	0.047	U	mg/kg dry	0.047	3/23/16 9:14	3/23/16 14:53	EPA 245.5
7429-90-5	Aluminum	5900		mg/kg dry	10	3/14/16 8:17	3/15/16 16:27	EPA 6010
7440-36-0	Antimony	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:32	EPA 200.8
7440-38-2	Arsenic	0.81		mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:32	EPA 200.8
7440-39-3	Barium	17		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:27	EPA 6010
7440-41-7	Beryllium	0.30	U	mg/kg dry	0.30	3/14/16 8:17	3/15/16 16:27	EPA 6010
7440-43-9	Cadmium	0.10	U	mg/kg dry	0.10	3/14/16 8:21	3/16/16 18:32	EPA 200.8
7440-70-2	Calcium	340		mg/kg dry	25	3/14/16 8:17	3/15/16 16:27	EPA 6010
7440-47-3	Chromium	10		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:27	EPA 6010
7440-48-4	Cobalt	0.51		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:27	EPA 6010
7440-50-8	Copper	2.2	J, QR-2	mg/kg dry	1.0	3/14/16 8:17	3/15/16 16:27	EPA 6010
7439-89-6	Iron	9600		mg/kg dry	10	3/14/16 8:17	3/15/16 16:27	EPA 6010
7439-92-1	Lead	4.6		mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:32	EPA 200.8
7439-95-4	Magnesium	74		mg/kg dry	25	3/14/16 8:17	3/15/16 16:27	EPA 6010
7439-96-5	Manganese	9.5		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:27	EPA 6010
7439-98-7	Molybdenum	1.0	U	mg/kg dry	1.0	3/14/16 8:17	3/15/16 16:27	EPA 6010
7440-02-0	Nickel	1.0	U	mg/kg dry	1.0	3/14/16 8:17	3/15/16 16:27	EPA 6010
7440-09-7	Potassium	100	J, QC-5	mg/kg dry	100	3/14/16 8:17	3/15/16 16:27	EPA 6010
7782-49-2	Selenium	0.40	U	mg/kg dry	0.40	3/14/16 8:21	3/16/16 18:32	EPA 200.8
7440-22-4	Silver	0.50	U	mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:27	EPA 6010
7440-23-5	Sodium	100	U	mg/kg dry	100	3/14/16 8:17	3/15/16 16:27	EPA 6010
7440-24-6	Strontium	1.6		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:27	EPA 6010
7440-28-0	Thallium	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:32	EPA 200.8
7440-31-5	Tin	1.5	U	mg/kg dry	1.5	3/14/16 8:17	3/15/16 16:27	EPA 6010
7440-32-6	Titanium	16		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:27	EPA 6010
7440-62-2	Vanadium	20		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:27	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-008-SB

Lab ID: E160907-10

Station ID: BIC008

Matrix: Subsurface Soil

Date Collected: 2/25/16 11:47

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
7440-65-5	Yttrium	2.6		mg/kg dry	0.30	3/14/16 8:17	3/15/16 16:27	EPA 6010
7440-66-6	Zinc	7.1		mg/kg dry	1.0	3/14/16 8:17	3/15/16 16:27	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Physical Properties

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-008-SB

Lab ID: E160907-10

Station ID: BIC008

Matrix: Subsurface Soil

Date Collected: 2/25/16 11:47

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	89		%	0.0	3/09/16 8:07	3/11/16 5:30	EPA 200.2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-009-SB**

Lab ID: **E160907-11**

Station ID: **BIC009**

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
18540-29-9	Chromium, Hexavalent	5.1	U	mg/kg dry	5.1	3/18/16 14:42	3/23/16 0:18	EPA 218.6
7439-97-6	Mercury	0.049	U	mg/kg dry	0.049	3/23/16 9:14	3/23/16 14:53	EPA 245.5
7429-90-5	Aluminum	6400		mg/kg dry	9.9	3/14/16 8:17	3/15/16 16:30	EPA 6010
7440-36-0	Antimony	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:36	EPA 200.8
7440-38-2	Arsenic	0.60		mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:36	EPA 200.8
7440-39-3	Barium	16		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:30	EPA 6010
7440-41-7	Beryllium	0.30	U	mg/kg dry	0.30	3/14/16 8:17	3/15/16 16:30	EPA 6010
7440-43-9	Cadmium	0.099	U	mg/kg dry	0.099	3/14/16 8:21	3/16/16 18:36	EPA 200.8
7440-70-2	Calcium	430		mg/kg dry	25	3/14/16 8:17	3/15/16 16:30	EPA 6010
7440-47-3	Chromium	11		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:30	EPA 6010
7440-48-4	Cobalt	0.50	U	mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:30	EPA 6010
7440-50-8	Copper	2.2	J, QR-2	mg/kg dry	0.99	3/14/16 8:17	3/15/16 16:30	EPA 6010
7439-89-6	Iron	11000		mg/kg dry	9.9	3/14/16 8:17	3/15/16 16:30	EPA 6010
7439-92-1	Lead	5.9		mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:36	EPA 200.8
7439-95-4	Magnesium	94		mg/kg dry	25	3/14/16 8:17	3/15/16 16:30	EPA 6010
7439-96-5	Manganese	6.1		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:30	EPA 6010
7439-98-7	Molybdenum	0.99	U	mg/kg dry	0.99	3/14/16 8:17	3/15/16 16:30	EPA 6010
7440-02-0	Nickel	0.99	U	mg/kg dry	0.99	3/14/16 8:17	3/15/16 16:30	EPA 6010
7440-09-7	Potassium	99	U, J, QC-5	mg/kg dry	99	3/14/16 8:17	3/15/16 16:30	EPA 6010
7782-49-2	Selenium	0.40	U	mg/kg dry	0.40	3/14/16 8:21	3/16/16 18:36	EPA 200.8
7440-22-4	Silver	0.50	U	mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:30	EPA 6010
7440-23-5	Sodium	99	U	mg/kg dry	99	3/14/16 8:17	3/15/16 16:30	EPA 6010
7440-24-6	Strontium	2.0		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:30	EPA 6010
7440-28-0	Thallium	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:36	EPA 200.8
7440-31-5	Tin	1.5	U	mg/kg dry	1.5	3/14/16 8:17	3/15/16 16:30	EPA 6010
7440-32-6	Titanium	9.7		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:30	EPA 6010
7440-62-2	Vanadium	25		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:30	EPA 6010



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-009-SB

Lab ID: E160907-11

Station ID: BIC009

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
7440-65-5	Yttrium	2.6		mg/kg dry	0.30	3/14/16 8:17	3/15/16 16:30	EPA 6010
7440-66-6	Zinc	12		mg/kg dry	0.99	3/14/16 8:17	3/15/16 16:30	EPA 6010



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Physical Properties

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-009-SB

Lab ID: E160907-11

Station ID: BIC009

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	88		%	0.0	3/09/16 8:07	3/11/16 5:30	EPA 200.2



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-010-SB

Lab ID: E160907-12

Station ID: BIC010

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
18540-29-9	Chromium, Hexavalent	6.1		mg/kg dry	5.3	3/18/16 14:42	3/23/16 0:18	EPA 218.6
7439-97-6	Mercury	0.049		mg/kg dry	0.048	3/23/16 9:14	3/23/16 14:53	EPA 245.5
7429-90-5	Aluminum	6300		mg/kg dry	10	3/14/16 8:17	3/15/16 16:32	EPA 6010
7440-36-0	Antimony	0.20	U, J, QM-1	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:39	EPA 200.8
7440-38-2	Arsenic	0.50	J, QM-1	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:39	EPA 200.8
7440-39-3	Barium	36		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:32	EPA 6010
7440-41-7	Beryllium	0.30	U	mg/kg dry	0.30	3/14/16 8:17	3/15/16 16:32	EPA 6010
7440-43-9	Cadmium	0.10	U	mg/kg dry	0.10	3/14/16 8:21	3/16/16 18:39	EPA 200.8
7440-70-2	Calcium	1000		mg/kg dry	25	3/14/16 8:17	3/15/16 16:32	EPA 6010
7440-47-3	Chromium	14		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:32	EPA 6010
7440-48-4	Cobalt	0.50	U	mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:32	EPA 6010
7440-50-8	Copper	4.4	J, QR-2	mg/kg dry	1.0	3/14/16 8:17	3/15/16 16:32	EPA 6010
7439-89-6	Iron	8500		mg/kg dry	10	3/14/16 8:17	3/15/16 16:32	EPA 6010
7439-92-1	Lead	7.4		mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:39	EPA 200.8
7439-95-4	Magnesium	120		mg/kg dry	25	3/14/16 8:17	3/15/16 16:32	EPA 6010
7439-96-5	Manganese	4.8		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:32	EPA 6010
7439-98-7	Molybdenum	1.0	U, J, QM-1	mg/kg dry	1.0	3/14/16 8:17	3/15/16 16:32	EPA 6010
7440-02-0	Nickel	1.0	U	mg/kg dry	1.0	3/14/16 8:17	3/15/16 16:32	EPA 6010
7440-09-7	Potassium	100	U, J, QC-5	mg/kg dry	100	3/14/16 8:17	3/15/16 16:32	EPA 6010
7782-49-2	Selenium	0.40	U, J, QM-1	mg/kg dry	0.40	3/14/16 8:21	3/16/16 18:39	EPA 200.8
7440-22-4	Silver	0.50	U	mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:32	EPA 6010
7440-23-5	Sodium	100	U	mg/kg dry	100	3/14/16 8:17	3/15/16 16:32	EPA 6010
7440-24-6	Strontium	2.3		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:32	EPA 6010
7440-28-0	Thallium	0.20	U	mg/kg dry	0.20	3/14/16 8:21	3/16/16 18:39	EPA 200.8
7440-31-5	Tin	1.5	U	mg/kg dry	1.5	3/14/16 8:17	3/15/16 16:32	EPA 6010
7440-32-6	Titanium	11	J, QM-1	mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:32	EPA 6010
7440-62-2	Vanadium	20		mg/kg dry	0.50	3/14/16 8:17	3/15/16 16:32	EPA 6010



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-010-SB

Lab ID: E160907-12

Station ID: BIC010

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
7440-65-5	Yttrium	5.2		mg/kg dry	0.30	3/14/16 8:17	3/15/16 16:32	EPA 6010
7440-66-6	Zinc	18		mg/kg dry	1.0	3/14/16 8:17	3/15/16 16:32	EPA 6010



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Physical Properties

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-010-SB

Lab ID: E160907-12

Station ID: BIC010

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
E1642941	% Solids	86		%	0.0	3/09/16 8:07	3/11/16 5:30	EPA 200.2



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals (TMTL) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1603034 - M 245.5 Hg Soil-Waste										
Blank (1603034-BLK1)					Prepared & Analyzed: 03/23/16					
EPA 245.5										
Mercury	U	0.047	mg/kg dry							U
LCS (1603034-BS1)					Prepared & Analyzed: 03/23/16					
EPA 245.5										
Mercury	1.3970	0.049	mg/kg dry	1.4000		99.8	85-115			
LCS Dup (1603034-BSD1)					Prepared & Analyzed: 03/23/16					
EPA 245.5										
Mercury	1.4477	0.047	mg/kg dry	1.4000		103	85-115	3.57	20	
Matrix Spike (1603034-MS1)					Source: E160907-02		Prepared & Analyzed: 03/23/16			
EPA 245.5										
Mercury	1.0248	0.049	mg/kg dry	0.97276	0.032810	102	85-115			
Matrix Spike (1603034-MS2)					Source: E160907-12		Prepared & Analyzed: 03/23/16			
EPA 245.5										
Mercury	1.0009	0.047	mg/kg dry	0.93371	0.049094	102	85-115			
Matrix Spike Dup (1603034-MSD1)					Source: E160907-02		Prepared & Analyzed: 03/23/16			
EPA 245.5										
Mercury	0.99807	0.048	mg/kg dry	0.96432	0.032810	100	85-115	2.64	20	
Matrix Spike Dup (1603034-MSD2)					Source: E160907-12		Prepared & Analyzed: 03/23/16			
EPA 245.5										
Mercury	0.97435	0.047	mg/kg dry	0.93284	0.049094	99.2	85-115	2.69	20	
MRL Verification (1603034-PS1)					Prepared & Analyzed: 03/23/16					
EPA 245.5										
Mercury	0.000098000	0.00010	mg/kg dry	0.00010000		98.0	65-135			MRL-3, U

Batch 1603068 - M 200.2 Metals Soil

Blank (1603068-BLK1)					Prepared: 03/14/16 Analyzed: 03/15/16					
EPA 6010										
Aluminum	U	10	mg/kg dry							U



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Total Metals (TMTL) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603068 - M 200.2 Metals Soil

Blank (1603068-BLK1)

Prepared: 03/14/16 Analyzed: 03/15/16

Barium	U	0.50	mg/kg dry							U
Beryllium	U	0.30	"							U
Calcium	U	25	"							U
Chromium	U	0.50	"							U
Cobalt	U	0.50	"							U
Copper	U	1.0	"							U
Iron	U	10	"							U
Magnesium	U	25	"							U
Manganese	U	0.50	"							U
Molybdenum	U	1.0	"							U
Nickel	U	1.0	"							U
Potassium	U	100	"							U
Silver	U	0.50	"							U
Sodium	U	100	"							U
Strontium	U	0.50	"							U
Tin	U	1.5	"							U
Titanium	U	0.50	"							U
Vanadium	U	0.50	"							U
Yttrium	U	0.30	"							U
Zinc	U	1.0	"							U

Blank (1603068-BLK2)

Prepared: 03/14/16 Analyzed: 03/15/16

EPA 6010

Aluminum	U	10	mg/kg dry							U
Barium	U	0.50	"							U
Beryllium	U	0.30	"							U
Calcium	U	25	"							U
Chromium	U	0.50	"							U
Cobalt	U	0.50	"							U
Copper	U	1.0	"							U
Iron	U	10	"							U
Magnesium	U	25	"							U
Manganese	U	0.50	"							U
Molybdenum	U	1.0	"							U
Nickel	U	1.0	"							U
Potassium	U	100	"							U
Silver	U	0.50	"							U
Sodium	U	100	"							U
Strontium	U	0.50	"							U
Tin	U	1.5	"							U



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Total Metals (TMTL) - Quality Control

US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603068 - M 200.2 Metals Soil

Blank (1603068-BLK2)

Prepared: 03/14/16 Analyzed: 03/15/16

Titanium	U	0.50	mg/kg dry							U
Vanadium	U	0.50	"							U
Yttrium	U	0.30	"							U
Zinc	U	1.0	"							U

LCS (1603068-BS1)

Prepared: 03/14/16 Analyzed: 03/15/16

EPA 6010

Aluminum	449.83	10	mg/kg dry	500.00		90.0	85-115			
Barium	51.586	0.50	"	50.000		103	85-115			
Beryllium	21.509	0.30	"	20.000		108	85-115			
Calcium	499.49	25	"	500.00		99.9	85-115			
Chromium	48.945	0.50	"	50.000		97.9	85-115			
Cobalt	49.012	0.50	"	50.000		98.0	85-115			
Copper	29.931	1.0	"	30.000		99.8	85-115			
Iron	493.65	10	"	500.00		98.7	85-115			
Magnesium	472.64	25	"	500.00		94.5	85-115			
Manganese	497.20	0.50	"	500.00		99.4	85-115			
Molybdenum	31.070	1.0	"	30.000		104	85-115			
Nickel	77.872	1.0	"	80.000		97.3	85-115			
Potassium	912.24	100	"	1000.0		91.2	85-115			
Silver	9.6071	0.50	"	10.000		96.1	85-115			
Sodium	869.90	100	"	1000.0		87.0	85-115			
Strontium	38.185	0.50	"	40.000		95.5	85-115			
Tin	99.264	1.5	"	100.00		99.3	85-115			
Titanium	47.396	0.50	"	50.000		94.8	85-115			
Vanadium	38.995	0.50	"	40.000		97.5	85-115			
Yttrium	29.564	0.30	"	30.000		98.5	85-115			
Zinc	107.46	1.0	"	100.00		107	85-115			



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Total Metals (TMTL) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603068 - M 200.2 Metals Soil

Matrix Spike (1603068-MS1)

Source: E160907-02

Prepared: 03/14/16 Analyzed: 03/15/16

EPA 6010

Aluminum	5188.6	10	mg/kg dry	499.10	4848.1	68.2	75-125			QM-1
Barium	90.173	0.50	"	49.910	40.585	99.4	75-125			
Beryllium	20.169	0.30	"	19.964	0.35528	99.2	75-125			
Calcium	800.21	25	"	499.10	333.21	93.6	75-125			
Chromium	54.162	0.50	"	49.910	9.4085	89.7	75-125			
Cobalt	45.444	0.50	"	49.910	1.0326	89.0	75-125			
Copper	33.270	1.0	"	29.946	3.7205	98.7	75-125			
Iron	9791.0	10	"	499.10	9546.0	49.1	75-125			XM-1
Magnesium	632.16	25	"	499.10	172.80	92.0	75-125			
Manganese	495.66	0.50	"	499.10	22.850	94.7	75-125			
Molybdenum	18.690	1.0	"	29.946	0.085081	62.1	75-125			QM-1
Nickel	71.560	1.0	"	79.856	1.0055	88.4	75-125			
Potassium	989.90	100	"	998.20	139.39	85.2	75-125			
Silver	9.1640	0.50	"	9.9820	U	91.8	75-125			
Sodium	903.94	100	"	998.20	U	90.6	75-125			
Strontium	39.922	0.50	"	39.928	2.1821	94.5	75-125			
Tin	78.560	1.5	"	99.820	0.34339	78.4	75-125			
Titanium	33.917	0.50	"	49.910	9.3829	49.2	75-125			QM-1
Vanadium	56.281	0.50	"	39.928	20.418	89.8	75-125			
Yttrium	32.712	0.30	"	29.946	3.7837	96.6	75-125			
Zinc	102.97	1.0	"	99.820	8.2626	94.9	75-125			

Matrix Spike (1603068-MS2)

Source: E160907-12

Prepared: 03/14/16 Analyzed: 03/15/16

EPA 6010

Aluminum	6343.1	9.9	mg/kg dry	496.82	6265.6	15.6	75-125			XM-1
Barium	79.234	0.50	"	49.682	36.196	86.6	75-125			
Beryllium	19.519	0.30	"	19.873	0.093278	97.8	75-125			
Calcium	1406.9	25	"	496.82	999.97	81.9	75-125			
Chromium	56.558	0.50	"	49.682	14.438	84.8	75-125			
Cobalt	44.307	0.50	"	49.682	0.42982	88.3	75-125			
Copper	34.997	0.99	"	29.809	4.4177	103	75-125			
Iron	7769.1	9.9	"	496.82	8517.1	-151	75-125			XM-1
Magnesium	603.59	25	"	496.82	123.94	96.5	75-125			
Manganese	460.52	0.50	"	496.82	4.8252	91.7	75-125			
Molybdenum	16.885	0.99	"	29.809	0.14051	56.2	75-125			QM-1
Nickel	70.149	0.99	"	79.491	0.61642	87.5	75-125			
Potassium	1009.5	99	"	993.64	91.077	92.4	75-125			
Silver	9.1151	0.50	"	9.9364	U	91.7	75-125			
Sodium	925.69	99	"	993.64	U	93.2	75-125			



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals (TMTL) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603068 - M 200.2 Metals Soil

Matrix Spike (1603068-MS2)

Source: E160907-12

Prepared: 03/14/16 Analyzed: 03/15/16

Strontium	39.504	0.50	mg/kg dry	39.746	2.3201	93.6	75-125			
Tin	78.287	1.5	"	99.364	U	78.8	75-125			
Titanium	36.827	0.50	"	49.682	11.337	51.3	75-125			QM-1
Vanadium	53.624	0.50	"	39.746	20.372	83.7	75-125			
Yttrium	33.967	0.30	"	29.809	5.1887	96.5	75-125			
Zinc	108.20	0.99	"	99.364	18.282	90.5	75-125			

Matrix Spike Dup (1603068-MSD1)

Source: E160907-02

Prepared: 03/14/16 Analyzed: 03/15/16

EPA 6010

Aluminum	5437.7	10	mg/kg dry	499.30	4848.1	118	75-125	4.69	20	
Barium	93.473	0.50	"	49.930	40.585	106	75-125	3.59	20	
Beryllium	20.354	0.30	"	19.972	0.35528	100	75-125	0.914	20	
Calcium	820.02	25	"	499.30	333.21	97.5	75-125	2.45	20	
Chromium	54.425	0.50	"	49.930	9.4085	90.2	75-125	0.485	20	
Cobalt	45.933	0.50	"	49.930	1.0326	89.9	75-125	1.07	20	
Copper	34.381	1.0	"	29.958	3.7205	102	75-125	3.29	20	
Iron	9598.9	10	"	499.30	9546.0	10.6	75-125	1.98	20	XM-1
Magnesium	647.67	25	"	499.30	172.80	95.1	75-125	2.42	20	
Manganese	506.43	0.50	"	499.30	22.850	96.9	75-125	2.15	20	
Molybdenum	20.365	1.0	"	29.958	0.085081	67.7	75-125	8.58	20	QM-1
Nickel	72.308	1.0	"	79.888	1.0055	89.3	75-125	1.04	20	
Potassium	1011.0	100	"	998.60	139.39	87.3	75-125	2.11	20	
Silver	9.3903	0.50	"	9.9860	U	94.0	75-125	2.44	20	
Sodium	916.22	100	"	998.60	U	91.8	75-125	1.35	20	
Strontium	40.812	0.50	"	39.944	2.1821	96.7	75-125	2.20	20	
Tin	85.047	1.5	"	99.860	0.34339	84.8	75-125	7.93	20	
Titanium	35.446	0.50	"	49.930	9.3829	52.2	75-125	4.41	20	QM-1
Vanadium	56.518	0.50	"	39.944	20.418	90.4	75-125	0.420	20	
Yttrium	33.215	0.30	"	29.958	3.7837	98.2	75-125	1.53	20	
Zinc	103.80	1.0	"	99.860	8.2626	95.7	75-125	0.801	20	



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals (TMTL) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603068 - M 200.2 Metals Soil

Matrix Spike Dup (1603068-MSD2)

Source: E160907-12

Prepared: 03/14/16 Analyzed: 03/15/16

EPA 6010

Aluminum	6804.1	10	mg/kg dry	498.31	6265.6	108	75-125	7.01	20	XM-1
Barium	85.696	0.50	"	49.831	36.196	99.3	75-125	7.84	20	
Beryllium	19.697	0.30	"	19.932	0.093278	98.4	75-125	0.908	20	
Calcium	1475.3	25	"	498.31	999.97	95.4	75-125	4.75	20	
Chromium	57.562	0.50	"	49.831	14.438	86.5	75-125	1.76	20	
Cobalt	44.833	0.50	"	49.831	0.42982	89.1	75-125	1.18	20	
Copper	35.600	1.0	"	29.898	4.4177	104	75-125	1.71	20	
Iron	8202.8	10	"	498.31	8517.1	-63.1	75-125	5.43	20	XM-1
Magnesium	618.99	25	"	498.31	123.94	99.3	75-125	2.52	20	
Manganese	466.26	0.50	"	498.31	4.8252	92.6	75-125	1.24	20	
Molybdenum	16.039	1.0	"	29.898	0.14051	53.2	75-125	5.14	20	QM-1
Nickel	70.710	1.0	"	79.729	0.61642	87.9	75-125	0.797	20	
Potassium	1022.8	100	"	996.61	91.077	93.5	75-125	1.31	20	
Silver	9.2717	0.50	"	9.9661	U	93.0	75-125	1.70	20	
Sodium	901.24	100	"	996.61	U	90.4	75-125	2.68	20	
Strontium	40.121	0.50	"	39.864	2.3201	94.8	75-125	1.55	20	
Tin	77.950	1.5	"	99.661	U	78.2	75-125	0.431	20	
Titanium	36.452	0.50	"	49.831	11.337	50.4	75-125	1.03	20	QM-1
Vanadium	54.774	0.50	"	39.864	20.372	86.3	75-125	2.12	20	
Yttrium	34.512	0.30	"	29.898	5.1887	98.1	75-125	1.59	20	
Zinc	109.63	1.0	"	99.661	18.282	91.7	75-125	1.32	20	

MRL Verification (1603068-PS1)

Prepared: 03/14/16 Analyzed: 03/15/16

EPA 6010

Aluminum	9.4491	10	mg/kg dry	10.000		94.5	70-130			MRL-3, U
Barium	0.53398	0.50	"	0.50000		107	70-130			MRL-3
Beryllium	0.31717	0.30	"	0.30000		106	70-130			MRL-3
Calcium	25.905	25	"	25.000		104	70-130			MRL-3
Chromium	0.54211	0.50	"	0.50000		108	70-130			MRL-3
Cobalt	0.49219	0.50	"	0.50000		98.4	70-130			MRL-3, U
Copper	1.3198	1.0	"	1.0000		132	70-130			QR-2, MRL-3
Iron	10.800	10	"	10.000		108	70-130			MRL-3
Magnesium	22.374	25	"	25.000		89.5	70-130			MRL-3, U
Manganese	0.54420	0.50	"	0.50000		109	70-130			MRL-3
Molybdenum	1.0217	1.0	"	1.0000		102	70-130			MRL-3
Nickel	1.0956	1.0	"	1.0000		110	70-130			MRL-3



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals (TMTL) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603068 - M 200.2 Metals Soil

MRL Verification (1603068-PS1)

Prepared: 03/14/16 Analyzed: 03/15/16

Potassium	91.039	100	mg/kg dry	100.00		91.0	70-130			MRL-3, U
Silver	0.53078	0.50	"	0.50000		106	70-130			MRL-3
Sodium	89.824	100	"	100.00		89.8	70-130			MRL-3, U
Strontium	0.53501	0.50	"	0.50000		107	70-130			MRL-3
Tin	1.5581	1.5	"	1.5000		104	70-130			MRL-3
Titanium	0.50384	0.50	"	0.50000		101	70-130			MRL-3
Vanadium	0.54611	0.50	"	0.50000		109	70-130			MRL-3
Yttrium	0.32276	0.30	"	0.30000		108	70-130			MRL-3
Zinc	1.1948	1.0	"	1.0000		119	70-130			MRL-3

Batch 1603069 - M 200.2 Metals Soil

Blank (1603069-BLK1)

Prepared: 03/14/16 Analyzed: 03/16/16

EPA 200.8

Antimony	U	0.10	mg/kg dry							U
Arsenic	U	0.10	"							U
Cadmium	U	0.050	"							U
Lead	U	0.10	"							U
Selenium	U	0.20	"							B-4, U
Silver	U	0.050	"							U
Thallium	U	0.10	"							U

Blank (1603069-BLK2)

Prepared: 03/14/16 Analyzed: 03/16/16

EPA 200.8

Antimony	U	0.10	mg/kg dry							U
Arsenic	U	0.10	"							U
Cadmium	U	0.050	"							U
Lead	U	0.10	"							U
Selenium	U	0.20	"							U
Silver	U	0.050	"							U
Thallium	U	0.10	"							U



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Total Metals (TMTL) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603069 - M 200.2 Metals Soil

LCS (1603069-BS1)

Prepared: 03/14/16 Analyzed: 03/16/16

EPA 200.8

Antimony	93.159	1.2	mg/kg dry	100.00		93.2	85-115			
Arsenic	51.057	1.2	"	50.000		102	85-115			
Cadmium	19.134	0.62	"	20.000		95.7	85-115			
Lead	99.300	1.2	"	100.00		99.3	85-115			
Selenium	108.70	2.5	"	100.00		109	85-115			
Silver	9.5744	0.62	"	10.000		95.7	85-115			
Thallium	19.286	1.2	"	20.000		96.4	85-115			

Matrix Spike (1603069-MS1)

Source: E160907-02

Prepared: 03/14/16 Analyzed: 03/16/16

EPA 200.8

Antimony	31.619	1.2	mg/kg dry	99.820	0.033244	31.7	70-130			QM-1
Arsenic	32.694	1.2	"	49.910	0.69642	65.5	70-130			QM-1
Cadmium	19.177	0.62	"	19.964	0.030737	96.1	70-130			
Lead	110.46	1.2	"	99.820	13.711	96.9	70-130			
Selenium	57.636	2.5	"	99.820	0.19384	57.7	70-130			QM-1
Silver	9.5552	0.62	"	9.9820	0.024081	95.5	70-130			
Thallium	18.550	1.2	"	19.964	0.081860	92.9	70-130			

Matrix Spike (1603069-MS2)

Source: E160907-12

Prepared: 03/14/16 Analyzed: 03/16/16

EPA 200.8

Antimony	33.216	1.2	mg/kg dry	99.364	0.13472	33.3	70-130			QM-1
Arsenic	29.548	1.2	"	49.682	0.50071	59.5	70-130			QM-1
Cadmium	20.584	0.62	"	19.873	0.031559	104	70-130			
Lead	107.50	1.2	"	99.364	7.4255	101	70-130			
Selenium	46.363	2.5	"	99.364	0.092432	46.7	70-130			QM-1
Silver	10.063	0.62	"	9.9364	0.0039988	101	70-130			
Thallium	19.342	1.2	"	19.873	0.047612	97.3	70-130			

Matrix Spike Dup (1603069-MSD1)

Source: E160907-02

Prepared: 03/14/16 Analyzed: 03/16/16

EPA 200.8

Antimony	34.796	1.2	mg/kg dry	99.860	0.033244	34.8	70-130	9.57	20	QM-1
Arsenic	36.612	1.2	"	49.930	0.69642	73.3	70-130	11.3	20	
Cadmium	19.679	0.62	"	19.972	0.030737	98.5	70-130	2.58	20	
Lead	114.34	1.2	"	99.860	13.711	101	70-130	3.46	20	
Selenium	62.505	2.5	"	99.860	0.19384	62.6	70-130	8.11	20	QM-1
Silver	9.8105	0.62	"	9.9860	0.024081	98.0	70-130	2.64	20	
Thallium	19.270	1.2	"	19.972	0.081860	96.5	70-130	3.80	20	



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Total Metals (TMTL) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603069 - M 200.2 Metals Soil

Matrix Spike Dup (1603069-MSD2)

Source: E160907-12

Prepared: 03/14/16 Analyzed: 03/16/16

EPA 200.8

Antimony	31.218	1.2	mg/kg dry	99.661	0.13472	31.2	70-130	6.20	20	QM-1
Arsenic	29.403	1.2	"	49.831	0.50071	59.0	70-130	0.493	20	QM-1
Cadmium	20.603	0.62	"	19.932	0.031559	103	70-130	0.0896	20	
Lead	108.79	1.2	"	99.661	7.4255	102	70-130	1.19	20	
Selenium	47.177	2.5	"	99.661	0.092432	47.3	70-130	1.74	20	QM-1
Silver	10.243	0.62	"	9.9661	0.0039988	103	70-130	1.78	20	
Thallium	19.220	1.2	"	19.932	0.047612	96.4	70-130	0.631	20	

MRL Verification (1603069-PS1)

Prepared: 03/14/16 Analyzed: 03/16/16

EPA 200.8

Antimony	0.048330	0.10	mg/kg dry	0.050000		96.7	65-135			MRL-3, U
Arsenic	0.12405	0.10	"	0.10000		124	65-135			MRL-3
Cadmium	0.045865	0.050	"	0.050000		91.7	65-135			MRL-3, U
Lead	0.10142	0.10	"	0.10000		101	65-135			MRL-3
Selenium	0.38645	0.20	"	0.20000		193	65-135			QR-2, MRL-3
Silver	0.064594	0.050	"	0.050000		129	65-135			MRL-3
Thallium	0.048441	0.10	"	0.050000		96.9	65-135			MRL-3, U

Batch 1603090 - M Hex Chrome in Solids 3060

Blank (1603090-BLK1)

Prepared: 03/17/16 Analyzed: 03/22/16

EPA 218.6

Chromium, Hexavalent	U	5.0	mg/kg wet							U
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Blank (1603090-BLK2)

Prepared: 03/17/16 Analyzed: 03/22/16

EPA 218.6

Chromium, Hexavalent	U	4.8	mg/kg wet							U
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LCS (1603090-BS1)

Prepared: 03/17/16 Analyzed: 03/22/16

EPA 218.6

Chromium, Hexavalent	49.638	5.0	mg/kg wet	50.000		99.3	80-120			
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Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals (TMTL) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1603090 - M Hex Chrome in Solids 3060										
LCS (1603090-BS2)					Prepared: 03/17/16 Analyzed: 03/22/16					
EPA 218.6										
Chromium, Hexavalent	152030	8400	mg/kg wet	160900		94.5	80-120			
Duplicate (1603090-DUP1)					Source: E160907-02 Prepared: 03/17/16 Analyzed: 03/22/16					
EPA 218.6										
Chromium, Hexavalent	1.6485	6.0	mg/kg dry		2.0258			20.5	20	XD-1, U
Duplicate (1603090-DUP2)					Source: E160907-06 Prepared: 03/17/16 Analyzed: 03/22/16					
EPA 218.6										
Chromium, Hexavalent	3.1209	6.3	mg/kg dry		3.3908			8.29	20	U
Matrix Spike (1603090-MS1)					Source: E160907-02 Prepared: 03/17/16 Analyzed: 03/22/16					
EPA 218.6										
Chromium, Hexavalent	94.511	5.7	mg/kg dry	113.36	2.0258	81.6	75-125			
Matrix Spike (1603090-MS2)					Source: E160907-02 Prepared: 03/17/16 Analyzed: 03/22/16					
EPA 218.6										
Chromium, Hexavalent	1872.3	120	mg/kg dry	2062.5	2.0258	90.8	75-125			
Matrix Spike (1603090-MS3)					Source: E160907-02 Prepared: 03/17/16 Analyzed: 03/22/16					
EPA 218.6										
Chromium, Hexavalent	119.73	5.5	mg/kg dry	110.47	2.0258	107	75-125			
Matrix Spike (1603090-MS4)					Source: E160907-06 Prepared: 03/17/16 Analyzed: 03/22/16					
EPA 218.6										
Chromium, Hexavalent	116.93	6.0	mg/kg dry	120.68	3.3908	94.1	75-125			
Matrix Spike (1603090-MS5)					Source: E160907-06 Prepared: 03/17/16 Analyzed: 03/22/16					
EPA 218.6										
Chromium, Hexavalent	2261.2	130	mg/kg dry	2321.1	3.3908	97.4	75-125			
Matrix Spike (1603090-MS6)					Source: E160907-06 Prepared: 03/17/16 Analyzed: 03/22/16					
EPA 218.6										
Chromium, Hexavalent	142.63	6.6	mg/kg dry	132.77	3.3908	105	75-125			
MRL Verification (1603090-PS1)					Prepared: 03/17/16 Analyzed: 03/22/16					



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Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Total Metals (TMTL) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1603090 - M Hex Chrome in Solids 3060										
MRL Verification (1603090-PS1)					Prepared: 03/17/16 Analyzed: 03/22/16					
EPA 218.6										
Chromium, Hexavalent	50.821		ug/L	50.000		102	60-140			MRL-3
Batch 1603100 - M Hex Chrome in Solids 3060										
Blank (1603100-BLK1)					Prepared: 03/18/16 Analyzed: 03/23/16					
EPA 218.6										
Chromium, Hexavalent	U	5.0	mg/kg wet							U
Blank (1603100-BLK2)					Prepared: 03/18/16 Analyzed: 03/23/16					
EPA 218.6										
Chromium, Hexavalent	U	4.8	mg/kg wet							U
LCS (1603100-BS1)					Prepared: 03/18/16 Analyzed: 03/23/16					
EPA 218.6										
Chromium, Hexavalent	48.674	5.0	mg/kg wet	50.000		97.3	80-120			
LCS (1603100-BS2)					Prepared: 03/18/16 Analyzed: 03/23/16					
EPA 218.6										
Chromium, Hexavalent	180350	12000	mg/kg wet	180760		99.8	80-120			
Duplicate (1603100-DUP1)					Source: E160907-08		Prepared: 03/18/16 Analyzed: 03/23/16			
EPA 218.6										
Chromium, Hexavalent	U	6.1	mg/kg dry		U			20		U
Duplicate (1603100-DUP2)					Source: E160907-12		Prepared: 03/18/16 Analyzed: 03/23/16			
EPA 218.6										
Chromium, Hexavalent	5.6701	5.3	mg/kg dry		6.0962			7.24	20	CR
Matrix Spike (1603100-MS1)					Source: E160907-08		Prepared: 03/18/16 Analyzed: 03/23/16			
EPA 218.6										
Chromium, Hexavalent	103.64	6.0	mg/kg dry	119.93	U	86.4	75-125			
Matrix Spike (1603100-MS2)					Source: E160907-08		Prepared: 03/18/16 Analyzed: 03/23/16			
EPA 218.6										
Chromium, Hexavalent	1936.2	110	mg/kg dry	2036.7	U	95.1	75-125			



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Total Metals (TMTL) - Quality Control

US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1603100 - M Hex Chrome in Solids 3060										
Matrix Spike (1603100-MS3)		Source: E160907-08			Prepared: 03/18/16 Analyzed: 03/23/16					
EPA 218.6										
Chromium, Hexavalent	114.02	5.4	mg/kg dry	108.84	U	105	75-125			
Matrix Spike (1603100-MS4)		Source: E160907-12			Prepared: 03/18/16 Analyzed: 03/23/16					
EPA 218.6										
Chromium, Hexavalent	92.897	5.3	mg/kg dry	106.61	6.0962	81.4	75-125			
Matrix Spike (1603100-MS5)		Source: E160907-12			Prepared: 03/18/16 Analyzed: 03/23/16					
EPA 218.6										
Chromium, Hexavalent	1415.3	110	mg/kg dry	1735.2	6.0962	81.6	75-125			
Matrix Spike (1603100-MS6)		Source: E160907-12			Prepared: 03/18/16 Analyzed: 03/23/16					
EPA 218.6										
Chromium, Hexavalent	112.89	5.3	mg/kg dry	105.24	6.0962	101	75-125			
MRL Verification (1603100-PS1)					Prepared: 03/18/16 Analyzed: 03/23/16					
EPA 218.6										
Chromium, Hexavalent	49.063		ug/L	50.000		98.1	60-140			MRL-3



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Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Physical Properties (PHYSP) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603050 - M % Solids

Duplicate (1603050-DUP1)

Source: E160907-05

Prepared: 03/09/16 Analyzed: 03/11/16

EPA 200.2

% Solids	85.481	0.0	%		86.533			1.22	10	
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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Jeffrey Hendel

Notes and Definitions for QC Samples

U	The analyte was not detected at or above the reporting limit.
B-4	Level in blank impacts MRLs.
CR	This was analyzed after the last QC check standard. For reference only.
MRL-3	MRL verification for Soil matrix
QC-5	Calibration check standard less than method control limits.
QM-1	Matrix Spike Recovery less than method control limits
QR-2	MRL verification recovery greater than upper control limits.
XD-1	Duplicate results less than MRL
XM-1	Sample background/spike ratio higher than method evaluation criteria



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

April 8, 2016

4SESD-ASB

MEMORANDUM

SUBJECT: FINAL Analytical Report
 Project: 16-0282, Burlington Ind. Cheraw Former Lagoon
 Superfund Remedial

FROM: Diana Burdette
 OCS Analyst

THRU: Floyd Wellborn, Chief
 ASB Organic Chemistry Section

TO: Jeffery Crowley

Attached are the final results for the analytical groups listed below. These analyses were performed in accordance with the Analytical Support Branch's (ASB) Laboratory Operations and Quality Assurance Manual (ASB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the ASB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Section 5.2 of the ASB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:	Method Used:	Accreditations:
Semi Volatile Organics (SVOA) Semivolatile organic compounds	EPA 8270D (Soil)	ISO



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Sample Disposal Policy

Because of the laboratory's limited space for long term sample storage, our policy is to dispose of samples on a periodic schedule. Please note that within 60 days of this memo, the original samples and all sample extracts and/or sample digestates will be disposed of in accordance with applicable regulations. The 60-day sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time if you have a special project need. If you wish for the laboratory to hold samples beyond the 60-day period, please contact our Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov, and provide a reason for holding samples beyond 60 days

cc: Nardina Turner



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

SAMPLES INCLUDED IN THIS REPORT

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
BIC-001-SF	E160907-02	Surface Soil	2/25/16 11:55	2/26/16 10:13
BIC-002-SF	E160907-03	Surface Soil	2/25/16 11:40	2/26/16 10:13
BIC-003-SF	E160907-04	Surface Soil	2/25/16 11:20	2/26/16 10:13
BIC-004-SF	E160907-05	Surface Soil	2/25/16 11:05	2/26/16 10:13
BIC-005-SB	E160907-06	Subsurface Soil	2/25/16 10:45	2/26/16 10:13
BIC-005-SF	E160907-07	Surface Soil	2/25/16 10:30	2/26/16 10:13
BIC-006-SD	E160907-08	Sediment	2/25/16 12:25	2/26/16 10:13
BIC-007-SD	E160907-09	Sediment	2/25/16 12:38	2/26/16 10:13
BIC-008-SB	E160907-10	Subsurface Soil	2/25/16 11:47	2/26/16 10:13
BIC-009-SB	E160907-11	Subsurface Soil	2/25/16 12:20	2/26/16 10:13
BIC-010-SB	E160907-12	Subsurface Soil	2/25/16 12:55	2/26/16 10:13



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Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

DATA QUALIFIER DEFINITIONS

U	The analyte was not detected at or above the reporting limit.
H-6	Sample originally analyzed within holding time; some QC requirements not met. The reported result is from a second analysis performed for confirmation which occurred after the holding time expired.
J	The identification of the analyte is acceptable; the reported value is an estimate.
N	There is presumptive evidence that the analyte is present; the analyte is reported as a tentative identification.
NJ	Presumptive evidence that analyte is present; reported as a tentative identification with an estimated value.
Q-2	Result greater than MDL but less than MRL.
QL-1	Laboratory Control Spike Recovery less than method control limits
QM-1	Matrix Spike Recovery less than method control limits
OM-3	Matrix Spike Precision outside method control limits
OM-6	Matrix Spike Recovery less than 10%
QR-1	MRL verification recovery less than lower control limits.
R	The presence or absence of the analyte can not be determined from the data due to severe quality control problems. The data are rejected and considered unusable.

ACRONYMS AND ABBREVIATIONS

CAS	Chemical Abstracts Service Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.
MDL	Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.
MRL	Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.
TIC	Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

ISO	The test, if analyzed after June 26, 2012, is accredited under the EPA Region 4 ASB's ISO/IEC 17025 accreditation issued by ANSI-ASQ National Accreditation Board/ACLASS. Refer to certificate and scope of accreditation AT-1691.
NR	The EPA Region 4 Laboratory has not requested accreditation for this test.



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-001-SF**

Lab ID: **E160907-02**

Station ID: **BIC001**

Matrix: Surface Soil

Date Collected: 2/25/16 11:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
92-52-4	1,1-Biphenyl	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
123-91-1	1,4-Dioxane	86	U, J, H-6	ug/kg dry	86	3/16/16 9:49	3/29/16 13:58	EPA 8270D
90-12-0	1-Methylnaphthalene	85	U, J, QL-1	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
120-83-2	2,4-Dichlorophenol	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
105-67-9	2,4-Dimethylphenol	430	U, J, QR-1, QL-1	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
51-28-5	2,4-Dinitrophenol	850	U	ug/kg dry	850	3/02/16 9:49	3/14/16 17:19	EPA 8270D
121-14-2	2,4-Dinitrotoluene	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
606-20-2	2,6-Dinitrotoluene	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
91-58-7	2-Chloronaphthalene	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
95-57-8	2-Chlorophenol	430	U, J, QL-1	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
91-57-6	2-Methylnaphthalene	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
95-48-7	2-Methylphenol	430	U, J, QL-1	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
88-74-4	2-Nitroaniline	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
88-75-5	2-Nitrophenol	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
99-09-2	3-Nitroaniline	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
106-47-8	4-Chloroaniline	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
100-01-6	4-Nitroaniline	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
100-02-7	4-Nitrophenol	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
83-32-9	Acenaphthene	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-001-SF**

Lab ID: **E160907-02**

Station ID: **BIC001**

Matrix: Surface Soil

Date Collected: 2/25/16 11:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	85	U, J, QR-1, QL-1	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
98-86-2	Acetophenone	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
120-12-7	Anthracene	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
1912-24-9	Atrazine	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
100-52-7	Benzaldehyde	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
56-55-3	Benzo(a)anthracene	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
50-32-8	Benzo(a)pyrene	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
205-99-2	Benzo(b)fluoranthene	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
207-08-9	Benzo(k)fluoranthene	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
85-68-7	Benzyl butyl phthalate	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
39638-32-9	Bis(2-chloroisopropyl) ether	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
105-60-2	Caprolactam	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
86-74-8	Carbazole	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
218-01-9	Chrysene	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
132-64-9	Dibenzofuran	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
84-66-2	Diethyl phthalate	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
131-11-3	Dimethyl phthalate	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
84-74-2	Di-n-butylphthalate	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
117-84-0	Di-n-octylphthalate	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
206-44-0	Fluoranthene	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
86-73-7	Fluorene	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	430	U, J, QL-1	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D



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 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-001-SF

Lab ID: E160907-02

Station ID: BIC001

Matrix: Surface Soil

Date Collected: 2/25/16 11:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
67-72-1	Hexachloroethane	430	U, J, QR-1, QL-1	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
193-39-5	Indeno (1,2,3-cd) pyrene	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
78-59-1	Isophorone	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
91-20-3	Naphthalene	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
98-95-3	Nitrobenzene	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
87-86-5	Pentachlorophenol	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
85-01-8	Phenanthrene	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
108-95-2	Phenol	430	U	ug/kg dry	430	3/02/16 9:49	3/14/16 17:19	EPA 8270D
129-00-0	Pyrene	85	U	ug/kg dry	85	3/02/16 9:49	3/14/16 17:19	EPA 8270D
Tentatively Identified Compounds:								
R4-6500	Petroleum Product:		N			3/02/16 9:49	3/14/16 17:19	EPA 8270D



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Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-002-SF**

Lab ID: **E160907-03**

Station ID: **BIC002**

Matrix: Surface Soil

Date Collected: 2/25/16 11:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
92-52-4	1,1-Biphenyl	120	U	ug/kg dry	120	3/02/16 9:49	3/14/16 20:15	EPA 8270D
123-91-1	1,4-Dioxane	120	U, J, H-6	ug/kg dry	120	3/16/16 9:49	3/29/16 20:48	EPA 8270D
90-12-0	1-Methylnaphthalene	120	U, J, QL-1	ug/kg dry	120	3/02/16 9:49	3/14/16 20:15	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
120-83-2	2,4-Dichlorophenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
105-67-9	2,4-Dimethylphenol	590	U, J, QR-1, QL-1	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
51-28-5	2,4-Dinitrophenol	1200	U	ug/kg dry	1200	3/02/16 9:49	3/14/16 20:15	EPA 8270D
121-14-2	2,4-Dinitrotoluene	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
606-20-2	2,6-Dinitrotoluene	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
91-58-7	2-Chloronaphthalene	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
95-57-8	2-Chlorophenol	590	U, J, QL-1	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
91-57-6	2-Methylnaphthalene	120	U	ug/kg dry	120	3/02/16 9:49	3/14/16 20:15	EPA 8270D
95-48-7	2-Methylphenol	590	U, J, QL-1	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
88-74-4	2-Nitroaniline	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
88-75-5	2-Nitrophenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
99-09-2	3-Nitroaniline	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
106-47-8	4-Chloroaniline	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
100-01-6	4-Nitroaniline	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
100-02-7	4-Nitrophenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
83-32-9	Acenaphthene	120	U	ug/kg dry	120	3/02/16 9:49	3/14/16 20:15	EPA 8270D



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-002-SF

Lab ID: E160907-03

Station ID: BIC002

Matrix: Surface Soil

Date Collected: 2/25/16 11:40

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
208-96-8	Acenaphthylene	120	U, J, QR-1, QL-1	ug/kg dry	120	3/02/16 9:49	3/14/16 20:15	EPA 8270D
98-86-2	Acetophenone	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
120-12-7	Anthracene	120	U	ug/kg dry	120	3/02/16 9:49	3/14/16 20:15	EPA 8270D
1912-24-9	Atrazine	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
100-52-7	Benzaldehyde	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
56-55-3	Benzo(a)anthracene	150		ug/kg dry	120	3/02/16 9:49	3/14/16 20:15	EPA 8270D
50-32-8	Benzo(a)pyrene	220	J, Q-2	ug/kg dry	240	3/02/16 9:49	3/17/16 19:56	EPA 8270D
205-99-2	Benzo(b)fluoranthene	260		ug/kg dry	240	3/02/16 9:49	3/17/16 19:56	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	180	J, Q-2	ug/kg dry	240	3/02/16 9:49	3/17/16 19:56	EPA 8270D
207-08-9	Benzo(k)fluoranthene	280		ug/kg dry	240	3/02/16 9:49	3/17/16 19:56	EPA 8270D
85-68-7	Benzyl butyl phthalate	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
39638-32-9	Bis(2-chloroisopropyl) ether	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
105-60-2	Caprolactam	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
86-74-8	Carbazole	120	U	ug/kg dry	120	3/02/16 9:49	3/14/16 20:15	EPA 8270D
218-01-9	Chrysene	270		ug/kg dry	120	3/02/16 9:49	3/14/16 20:15	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	240	U	ug/kg dry	240	3/02/16 9:49	3/17/16 19:56	EPA 8270D
132-64-9	Dibenzofuran	120	U	ug/kg dry	120	3/02/16 9:49	3/14/16 20:15	EPA 8270D
84-66-2	Diethyl phthalate	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
131-11-3	Dimethyl phthalate	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
84-74-2	Di-n-butylphthalate	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
117-84-0	Di-n-octylphthalate	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
206-44-0	Fluoranthene	500		ug/kg dry	120	3/02/16 9:49	3/14/16 20:15	EPA 8270D
86-73-7	Fluorene	120	U	ug/kg dry	120	3/02/16 9:49	3/14/16 20:15	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	590	U, J, QL-1	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-002-SF

Lab ID: E160907-03

Station ID: BIC002

Matrix: Surface Soil

Date Collected: 2/25/16 11:40

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
67-72-1	Hexachloroethane	590	U, J, QR-1, QL-1	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
193-39-5	Indeno (1,2,3-cd) pyrene	180	J, Q-2	ug/kg dry	240	3/02/16 9:49	3/17/16 19:56	EPA 8270D
78-59-1	Isophorone	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
91-20-3	Naphthalene	120	U	ug/kg dry	120	3/02/16 9:49	3/14/16 20:15	EPA 8270D
98-95-3	Nitrobenzene	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
87-86-5	Pentachlorophenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
85-01-8	Phenanthrene	160		ug/kg dry	120	3/02/16 9:49	3/14/16 20:15	EPA 8270D
108-95-2	Phenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 20:15	EPA 8270D
129-00-0	Pyrene	420		ug/kg dry	120	3/02/16 9:49	3/14/16 20:15	EPA 8270D
Tentatively Identified Compounds:								
R4-6500	Petroleum Product:		N			3/02/16 9:49	3/14/16 20:15	EPA 8270D
R4-6521	Sitosterol (TIC)	20000	NJ	ug/kg dry		3/02/16 9:49	3/14/16 20:15	EPA 8270D
R4-6501	Unidentified Compound(s)	900	J	ug/kg dry		3/02/16 9:49	3/14/16 20:15	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-003-SF**

Lab ID: **E160907-04**

Station ID: **BIC003**

Matrix: Surface Soil

Date Collected: 2/25/16 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
92-52-4	1,1-Biphenyl	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
123-91-1	1,4-Dioxane	79	U, J, H-6	ug/kg dry	79	3/16/16 9:49	3/29/16 19:51	EPA 8270D
90-12-0	1-Methylnaphthalene	79	U, J, QL-1	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
120-83-2	2,4-Dichlorophenol	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
105-67-9	2,4-Dimethylphenol	400	U, J, QR-1, QL-1	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
51-28-5	2,4-Dinitrophenol	790	U	ug/kg dry	790	3/02/16 9:49	3/14/16 18:47	EPA 8270D
121-14-2	2,4-Dinitrotoluene	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
606-20-2	2,6-Dinitrotoluene	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
91-58-7	2-Chloronaphthalene	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
95-57-8	2-Chlorophenol	400	U, J, QL-1	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
91-57-6	2-Methylnaphthalene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
95-48-7	2-Methylphenol	400	U, J, QL-1	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
88-74-4	2-Nitroaniline	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
88-75-5	2-Nitrophenol	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
99-09-2	3-Nitroaniline	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
106-47-8	4-Chloroaniline	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
100-01-6	4-Nitroaniline	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
100-02-7	4-Nitrophenol	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
83-32-9	Acenaphthene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-003-SF**

Lab ID: **E160907-04**

Station ID: **BIC003**

Matrix: Surface Soil

Date Collected: 2/25/16 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	79	U, J, QR-1, QL-1	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
98-86-2	Acetophenone	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
120-12-7	Anthracene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
1912-24-9	Atrazine	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
100-52-7	Benzaldehyde	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
56-55-3	Benzo(a)anthracene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
50-32-8	Benzo(a)pyrene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
205-99-2	Benzo(b)fluoranthene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
207-08-9	Benzo(k)fluoranthene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
85-68-7	Benzyl butyl phthalate	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
39638-32-9	Bis(2-chloroisopropyl) ether	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	7200		ug/kg dry	4000	3/02/16 9:49	3/16/16 18:20	EPA 8270D
105-60-2	Caprolactam	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
86-74-8	Carbazole	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
218-01-9	Chrysene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
132-64-9	Dibenzofuran	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
84-66-2	Diethyl phthalate	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
131-11-3	Dimethyl phthalate	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
84-74-2	Di-n-butylphthalate	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
117-84-0	Di-n-octylphthalate	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
206-44-0	Fluoranthene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
86-73-7	Fluorene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	400	U, J, QL-1	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-003-SF

Lab ID: E160907-04

Station ID: BIC003

Matrix: Surface Soil

Date Collected: 2/25/16 11:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
67-72-1	Hexachloroethane	400	U, J, QR-1, QL-1	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
193-39-5	Indeno (1,2,3-cd) pyrene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
78-59-1	Isophorone	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
91-20-3	Naphthalene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
98-95-3	Nitrobenzene	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
87-86-5	Pentachlorophenol	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
85-01-8	Phenanthrene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
108-95-2	Phenol	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 18:47	EPA 8270D
129-00-0	Pyrene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 18:47	EPA 8270D
Tentatively Identified Compounds:								
R4-8000339	Pentachlorobiphenyl (TIC)	600	NJ	ug/kg dry		3/02/16 9:49	3/14/16 18:47	EPA 8270D
R4-8000340	Tetrachlorobiphenyl (TIC)	4000	NJ	ug/kg dry		3/02/16 9:49	3/14/16 18:47	EPA 8270D
R4-8000190	Trichlorobiphenyl (TIC)	1000	NJ	ug/kg dry		3/02/16 9:49	3/14/16 18:47	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-004-SF

Lab ID: E160907-05

Station ID: BIC004

Matrix: Surface Soil

Date Collected: 2/25/16 11:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
92-52-4	1,1-Biphenyl	79	U, J, QM-1, QM-3	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
123-91-1	1,4-Dioxane	79	U, J, H-6	ug/kg dry	79	3/16/16 9:49	3/29/16 14:27	EPA 8270D
90-12-0	1-Methylnaphthalene	79	U, R, QM-3, QL-1, QM-6	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
120-83-2	2,4-Dichlorophenol	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
105-67-9	2,4-Dimethylphenol	390	U, J, QR-1, QL-1	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
51-28-5	2,4-Dinitrophenol	790	U	ug/kg dry	790	3/02/16 9:49	3/14/16 14:23	EPA 8270D
121-14-2	2,4-Dinitrotoluene	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
606-20-2	2,6-Dinitrotoluene	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
91-58-7	2-Chloronaphthalene	390	U, QM-1, QM-3	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
95-57-8	2-Chlorophenol	390	U, J, QL-1	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
91-57-6	2-Methylnaphthalene	79	U, R, QM-3, QM-6	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
95-48-7	2-Methylphenol	390	U, J, QL-1	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
88-74-4	2-Nitroaniline	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
88-75-5	2-Nitrophenol	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	390	U, J, QM-1, QM-3	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
99-09-2	3-Nitroaniline	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
106-47-8	4-Chloroaniline	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-004-SF

Lab ID: E160907-05

Station ID: BIC004

Matrix: Surface Soil

Date Collected: 2/25/16 11:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
100-01-6	4-Nitroaniline	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
100-02-7	4-Nitrophenol	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
83-32-9	Acenaphthene	79	U, J, QM-1, QM-3	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
208-96-8	Acenaphthylene	79	U, J, QM-1, QM-3, QR-1, QL-1	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
98-86-2	Acetophenone	390	U, J, QM-1, QM-3	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
120-12-7	Anthracene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
1912-24-9	Atrazine	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
100-52-7	Benzaldehyde	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
56-55-3	Benzo(a)anthracene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
50-32-8	Benzo(a)pyrene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
205-99-2	Benzo(b)fluoranthene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
207-08-9	Benzo(k)fluoranthene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
85-68-7	Benzyl butyl phthalate	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	390	U, J, QM-1, QM-3	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
39638-32-9	Bis(2-chloroisopropyl) ether	390	U, R, QM-3, QM-6	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
105-60-2	Caprolactam	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
86-74-8	Carbazole	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
218-01-9	Chrysene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
132-64-9	Dibenzofuran	79	U, J, QM-1	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
84-66-2	Diethyl phthalate	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
131-11-3	Dimethyl phthalate	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-004-SF

Lab ID: E160907-05

Station ID: BIC004

Matrix: Surface Soil

Date Collected: 2/25/16 11:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
84-74-2	Di-n-butylphthalate	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
117-84-0	Di-n-octylphthalate	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
206-44-0	Fluoranthene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
86-73-7	Fluorene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	390	U, R, QL-1, QM-6	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
67-72-1	Hexachloroethane	390	U, R, QR-1, QL-1, QM-6	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
193-39-5	Indeno (1,2,3-cd) pyrene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
78-59-1	Isophorone	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
91-20-3	Naphthalene	79	U, J, R, QM-3, QM-6	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
98-95-3	Nitrobenzene	390	U, J, QM-1, QM-3	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	390	U, J, QM-1, QM-3	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
87-86-5	Pentachlorophenol	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
85-01-8	Phenanthrene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
108-95-2	Phenol	390	U	ug/kg dry	390	3/02/16 9:49	3/14/16 14:23	EPA 8270D
129-00-0	Pyrene	79	U	ug/kg dry	79	3/02/16 9:49	3/14/16 14:23	EPA 8270D
Tentatively Identified Compounds:								
R4-6500	Petroleum Product:		N			3/02/16 9:49	3/14/16 14:23	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-005-SB**

Lab ID: **E160907-06**

Station ID: **BIC005**

Matrix: **Subsurface Soil**

Date Collected: **2/25/16 10:45**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
92-52-4	1,1-Biphenyl	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
123-91-1	1,4-Dioxane	90	U, J, H-6	ug/kg dry	90	3/16/16 9:49	3/29/16 14:55	EPA 8270D
90-12-0	1-Methylnaphthalene	89	U, J, QL-1	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
120-83-2	2,4-Dichlorophenol	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
105-67-9	2,4-Dimethylphenol	450	U, J, QR-1, QL-1	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
51-28-5	2,4-Dinitrophenol	890	U	ug/kg dry	890	3/02/16 9:49	3/14/16 14:52	EPA 8270D
121-14-2	2,4-Dinitrotoluene	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
606-20-2	2,6-Dinitrotoluene	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
91-58-7	2-Chloronaphthalene	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
95-57-8	2-Chlorophenol	450	U, J, QL-1	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
91-57-6	2-Methylnaphthalene	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
95-48-7	2-Methylphenol	450	U, J, QL-1	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
88-74-4	2-Nitroaniline	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
88-75-5	2-Nitrophenol	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
99-09-2	3-Nitroaniline	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
106-47-8	4-Chloroaniline	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
100-01-6	4-Nitroaniline	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
100-02-7	4-Nitrophenol	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
83-32-9	Acenaphthene	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-005-SB**

Lab ID: **E160907-06**

Station ID: **BIC005**

Matrix: **Subsurface Soil**

Date Collected: **2/25/16 10:45**

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
208-96-8	Acenaphthylene	89	U, J, QR-1, QL-1	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
98-86-2	Acetophenone	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
120-12-7	Anthracene	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
1912-24-9	Atrazine	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
100-52-7	Benzaldehyde	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
56-55-3	Benzo(a)anthracene	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
50-32-8	Benzo(a)pyrene	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
205-99-2	Benzo(b)fluoranthene	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
207-08-9	Benzo(k)fluoranthene	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
85-68-7	Benzyl butyl phthalate	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
39638-32-9	Bis(2-chloroisopropyl) ether	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
105-60-2	Caprolactam	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
86-74-8	Carbazole	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
218-01-9	Chrysene	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
132-64-9	Dibenzofuran	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
84-66-2	Diethyl phthalate	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
131-11-3	Dimethyl phthalate	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
84-74-2	Di-n-butylphthalate	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
117-84-0	Di-n-octylphthalate	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
206-44-0	Fluoranthene	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
86-73-7	Fluorene	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	450	U, J, QL-1	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-005-SB

Lab ID: E160907-06

Station ID: BIC005

Matrix: Subsurface Soil

Date Collected: 2/25/16 10:45

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
67-72-1	Hexachloroethane	450	U, J, QR-1, QL-1	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
193-39-5	Indeno (1,2,3-cd) pyrene	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
78-59-1	Isophorone	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
91-20-3	Naphthalene	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
98-95-3	Nitrobenzene	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
87-86-5	Pentachlorophenol	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
85-01-8	Phenanthrene	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
108-95-2	Phenol	450	U	ug/kg dry	450	3/02/16 9:49	3/14/16 14:52	EPA 8270D
129-00-0	Pyrene	89	U	ug/kg dry	89	3/02/16 9:49	3/14/16 14:52	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 14:52	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-005-SF**

Lab ID: **E160907-07**

Station ID: **BIC005**

Matrix: Surface Soil

Date Collected: 2/25/16 10:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
1319-77-3	(3-and/or 4-)Methylphenol	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
92-52-4	1,1-Biphenyl	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
123-91-1	1,4-Dioxane	93	U, J, H-6	ug/kg dry	93	3/16/16 9:49	3/29/16 15:24	EPA 8270D
90-12-0	1-Methylnaphthalene	93	U, J, QL-1	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
120-83-2	2,4-Dichlorophenol	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
105-67-9	2,4-Dimethylphenol	460	U, J, QR-1, QL-1	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
51-28-5	2,4-Dinitrophenol	930	U	ug/kg dry	930	3/02/16 9:49	3/14/16 15:22	EPA 8270D
121-14-2	2,4-Dinitrotoluene	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
606-20-2	2,6-Dinitrotoluene	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
91-58-7	2-Chloronaphthalene	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
95-57-8	2-Chlorophenol	460	U, J, QL-1	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
91-57-6	2-Methylnaphthalene	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
95-48-7	2-Methylphenol	460	U, J, QL-1	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
88-74-4	2-Nitroaniline	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
88-75-5	2-Nitrophenol	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
99-09-2	3-Nitroaniline	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
106-47-8	4-Chloroaniline	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
100-01-6	4-Nitroaniline	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
100-02-7	4-Nitrophenol	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
83-32-9	Acenaphthene	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D



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 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-005-SF

Lab ID: E160907-07

Station ID: BIC005

Matrix: Surface Soil

Date Collected: 2/25/16 10:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
208-96-8	Acenaphthylene	93	U, J, QR-1, QL-1	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
98-86-2	Acetophenone	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
120-12-7	Anthracene	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
1912-24-9	Atrazine	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
100-52-7	Benzaldehyde	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
56-55-3	Benzo(a)anthracene	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
50-32-8	Benzo(a)pyrene	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
205-99-2	Benzo(b)fluoranthene	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
207-08-9	Benzo(k)fluoranthene	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
85-68-7	Benzyl butyl phthalate	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
39638-32-9	Bis(2-chloroisopropyl) ether	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
105-60-2	Caprolactam	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
86-74-8	Carbazole	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
218-01-9	Chrysene	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
132-64-9	Dibenzofuran	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
84-66-2	Diethyl phthalate	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
131-11-3	Dimethyl phthalate	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
84-74-2	Di-n-butylphthalate	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
117-84-0	Di-n-octylphthalate	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
206-44-0	Fluoranthene	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
86-73-7	Fluorene	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	460	U, J, QL-1	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-005-SF

Lab ID: E160907-07

Station ID: BIC005

Matrix: Surface Soil

Date Collected: 2/25/16 10:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
67-72-1	Hexachloroethane	460	U, J, QR-1, QL-1	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
193-39-5	Indeno (1,2,3-cd) pyrene	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
78-59-1	Isophorone	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
91-20-3	Naphthalene	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
98-95-3	Nitrobenzene	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
87-86-5	Pentachlorophenol	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
85-01-8	Phenanthrene	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
108-95-2	Phenol	460	U	ug/kg dry	460	3/02/16 9:49	3/14/16 15:22	EPA 8270D
129-00-0	Pyrene	93	U	ug/kg dry	93	3/02/16 9:49	3/14/16 15:22	EPA 8270D
Tentatively Identified Compounds:								
R4-6505	Cinnamylcinnamate (TIC)	2000	NJ	ug/kg dry		3/02/16 9:49	3/14/16 15:22	EPA 8270D
R4-6500	Petroleum Product:		N			3/02/16 9:49	3/14/16 15:22	EPA 8270D



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-006-SD

Lab ID: E160907-08

Station ID: BIC006

Matrix: Sediment

Date Collected: 2/25/16 12:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
92-52-4	1,1-Biphenyl	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
123-91-1	1,4-Dioxane	84	U, J, H-6	ug/kg dry	84	3/16/16 9:49	3/29/16 18:54	EPA 8270D
90-12-0	1-Methylnaphthalene	83	U, J, QL-1	ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
120-83-2	2,4-Dichlorophenol	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
105-67-9	2,4-Dimethylphenol	420	U, J, QR-1, QL-1	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
51-28-5	2,4-Dinitrophenol	830	U	ug/kg dry	830	3/02/16 9:49	3/14/16 16:20	EPA 8270D
121-14-2	2,4-Dinitrotoluene	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
606-20-2	2,6-Dinitrotoluene	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
91-58-7	2-Chloronaphthalene	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
95-57-8	2-Chlorophenol	420	U, J, QL-1	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
91-57-6	2-Methylnaphthalene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
95-48-7	2-Methylphenol	420	U, J, QL-1	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
88-74-4	2-Nitroaniline	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
88-75-5	2-Nitrophenol	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
99-09-2	3-Nitroaniline	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
106-47-8	4-Chloroaniline	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
100-01-6	4-Nitroaniline	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
100-02-7	4-Nitrophenol	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
83-32-9	Acenaphthene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-006-SD**

Lab ID: **E160907-08**

Station ID: **BIC006**

Matrix: Sediment

Date Collected: 2/25/16 12:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
208-96-8	Acenaphthylene	83	U, J, QR-1, QL-1	ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
98-86-2	Acetophenone	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
120-12-7	Anthracene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
1912-24-9	Atrazine	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
100-52-7	Benzaldehyde	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
56-55-3	Benzo(a)anthracene	76	J, Q-2	ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
50-32-8	Benzo(a)pyrene	150		ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
205-99-2	Benzo(b)fluoranthene	220		ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	130		ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
207-08-9	Benzo(k)fluoranthene	190		ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
85-68-7	Benzyl butyl phthalate	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
39638-32-9	Bis(2-chloroisopropyl) ether	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
105-60-2	Caprolactam	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
86-74-8	Carbazole	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
218-01-9	Chrysene	200		ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
132-64-9	Dibenzofuran	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
84-66-2	Diethyl phthalate	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
131-11-3	Dimethyl phthalate	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
84-74-2	Di-n-butylphthalate	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
117-84-0	Di-n-octylphthalate	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
206-44-0	Fluoranthene	320		ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
86-73-7	Fluorene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	420	U, J, QL-1	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-006-SD

Lab ID: E160907-08

Station ID: BIC006

Matrix: Sediment

Date Collected: 2/25/16 12:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
67-72-1	Hexachloroethane	420	U, J, QR-1, QL-1	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
193-39-5	Indeno (1,2,3-cd) pyrene	120		ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
78-59-1	Isophorone	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
91-20-3	Naphthalene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
98-95-3	Nitrobenzene	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
87-86-5	Pentachlorophenol	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
85-01-8	Phenanthrene	90		ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
108-95-2	Phenol	420	U	ug/kg dry	420	3/02/16 9:49	3/14/16 16:20	EPA 8270D
129-00-0	Pyrene	260		ug/kg dry	83	3/02/16 9:49	3/14/16 16:20	EPA 8270D
Tentatively Identified Compounds:								
R4-6500	Petroleum Product:		N			3/02/16 9:49	3/14/16 16:20	EPA 8270D
R4-8000340	Tetrachlorobiphenyl (TIC)	3000	NJ	ug/kg dry		3/02/16 9:49	3/14/16 16:20	EPA 8270D
R4-8000190	Trichlorobiphenyl (TIC)	2000	NJ	ug/kg dry		3/02/16 9:49	3/14/16 16:20	EPA 8270D



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-007-SD**

Lab ID: **E160907-09**

Station ID: **BIC007**

Matrix: Sediment

Date Collected: 2/25/16 12:38

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
1319-77-3	(3-and/or 4-)Methylphenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
92-52-4	1,1-Biphenyl	120	U	ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
123-91-1	1,4-Dioxane	120	U, J, H-6	ug/kg dry	120	3/16/16 9:49	3/29/16 21:17	EPA 8270D
90-12-0	1-Methylnaphthalene	120	U, J, QL-1	ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
120-83-2	2,4-Dichlorophenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
105-67-9	2,4-Dimethylphenol	590	U, J, QL-1, QR-1	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
51-28-5	2,4-Dinitrophenol	1200	U	ug/kg dry	1200	3/02/16 9:49	3/14/16 19:46	EPA 8270D
121-14-2	2,4-Dinitrotoluene	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
606-20-2	2,6-Dinitrotoluene	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
91-58-7	2-Chloronaphthalene	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
95-57-8	2-Chlorophenol	590	U, J, QL-1	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
91-57-6	2-Methylnaphthalene	120	U	ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
95-48-7	2-Methylphenol	590	U, J, QL-1	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
88-74-4	2-Nitroaniline	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
88-75-5	2-Nitrophenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
99-09-2	3-Nitroaniline	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
106-47-8	4-Chloroaniline	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
100-01-6	4-Nitroaniline	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
100-02-7	4-Nitrophenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
83-32-9	Acenaphthene	120	U	ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-007-SD

Lab ID: E160907-09

Station ID: BIC007

Matrix: Sediment

Date Collected: 2/25/16 12:38

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
208-96-8	Acenaphthylene	120	U, J, QL-1, QR-1	ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
98-86-2	Acetophenone	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
120-12-7	Anthracene	95	J, Q-2	ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
1912-24-9	Atrazine	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
100-52-7	Benzaldehyde	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
56-55-3	Benzo(a)anthracene	930		ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
50-32-8	Benzo(a)pyrene	2500		ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
205-99-2	Benzo(b)fluoranthene	4300		ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	2200		ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
207-08-9	Benzo(k)fluoranthene	3700		ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
85-68-7	Benzyl butyl phthalate	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
39638-32-9	Bis(2-chloroisopropyl) ether	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
105-60-2	Caprolactam	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
86-74-8	Carbazole	450		ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
218-01-9	Chrysene	3500		ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	650		ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
132-64-9	Dibenzofuran	120	U	ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
84-66-2	Diethyl phthalate	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
131-11-3	Dimethyl phthalate	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
84-74-2	Di-n-butylphthalate	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
117-84-0	Di-n-octylphthalate	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
206-44-0	Fluoranthene	4600		ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
86-73-7	Fluorene	120	U	ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	590	U, J, QL-1	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-007-SD

Lab ID: E160907-09

Station ID: BIC007

Matrix: Sediment

Date Collected: 2/25/16 12:38

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
67-72-1	Hexachloroethane	590	U, J, QR-1, QL-1	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
193-39-5	Indeno (1,2,3-cd) pyrene	2100		ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
78-59-1	Isophorone	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
91-20-3	Naphthalene	66	J, Q-2	ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
98-95-3	Nitrobenzene	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
87-86-5	Pentachlorophenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
85-01-8	Phenanthrene	1300		ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
108-95-2	Phenol	590	U	ug/kg dry	590	3/02/16 9:49	3/14/16 19:46	EPA 8270D
129-00-0	Pyrene	3900		ug/kg dry	120	3/02/16 9:49	3/14/16 19:46	EPA 8270D
Tentatively Identified Compounds:								
R4-8000339	Pentachlorobiphenyl (TIC)	7000	NJ	ug/kg dry		3/02/16 9:49	3/14/16 19:46	EPA 8270D
R4-6500	Petroleum Product:		N			3/02/16 9:49	3/14/16 19:46	EPA 8270D
R4-6520	Pinene (TIC)	2000	NJ	ug/kg dry		3/02/16 9:49	3/14/16 19:46	EPA 8270D
R4-8000340	Tetrachlorobiphenyl (TIC)	10000	NJ	ug/kg dry		3/02/16 9:49	3/14/16 19:46	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-008-SB**

Lab ID: **E160907-10**

Station ID: **BIC008**

Matrix: **Subsurface Soil**

Date Collected: **2/25/16 11:47**

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
1319-77-3	(3-and/or 4-)Methylphenol	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
92-52-4	1,1-Biphenyl	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
123-91-1	1,4-Dioxane	74	U, J, H-6	ug/kg dry	74	3/16/16 9:49	3/29/16 15:52	EPA 8270D
90-12-0	1-Methylnaphthalene	74	U, J, QL-1	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
120-83-2	2,4-Dichlorophenol	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
105-67-9	2,4-Dimethylphenol	370	U, J, QR-1, QL-1	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
51-28-5	2,4-Dinitrophenol	740	U	ug/kg dry	740	3/02/16 9:49	3/14/16 16:49	EPA 8270D
121-14-2	2,4-Dinitrotoluene	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
606-20-2	2,6-Dinitrotoluene	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
91-58-7	2-Chloronaphthalene	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
95-57-8	2-Chlorophenol	370	U, J, QL-1	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
91-57-6	2-Methylnaphthalene	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
95-48-7	2-Methylphenol	370	U, J, QL-1	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
88-74-4	2-Nitroaniline	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
88-75-5	2-Nitrophenol	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
99-09-2	3-Nitroaniline	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
106-47-8	4-Chloroaniline	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
100-01-6	4-Nitroaniline	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
100-02-7	4-Nitrophenol	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
83-32-9	Acenaphthene	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-008-SB

Lab ID: E160907-10

Station ID: BIC008

Matrix: Subsurface Soil

Date Collected: 2/25/16 11:47

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
208-96-8	Acenaphthylene	74	U, J, QR-1, QL-1	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
98-86-2	Acetophenone	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
120-12-7	Anthracene	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
1912-24-9	Atrazine	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
100-52-7	Benzaldehyde	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
56-55-3	Benzo(a)anthracene	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
50-32-8	Benzo(a)pyrene	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
205-99-2	Benzo(b)fluoranthene	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
207-08-9	Benzo(k)fluoranthene	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
85-68-7	Benzyl butyl phthalate	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
39638-32-9	Bis(2-chloroisopropyl) ether	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	840		ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
105-60-2	Caprolactam	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
86-74-8	Carbazole	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
218-01-9	Chrysene	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
132-64-9	Dibenzofuran	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
84-66-2	Diethyl phthalate	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
131-11-3	Dimethyl phthalate	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
84-74-2	Di-n-butylphthalate	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
117-84-0	Di-n-octylphthalate	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
206-44-0	Fluoranthene	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
86-73-7	Fluorene	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	370	U, J, QL-1	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-008-SB**

Lab ID: **E160907-10**

Station ID: **BIC008**

Matrix: Subsurface Soil

Date Collected: 2/25/16 11:47

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
67-72-1	Hexachloroethane	370	U, J, QR-1, QL-1	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
193-39-5	Indeno (1,2,3-cd) pyrene	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
78-59-1	Isophorone	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
91-20-3	Naphthalene	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
98-95-3	Nitrobenzene	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
87-86-5	Pentachlorophenol	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
85-01-8	Phenanthrene	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
108-95-2	Phenol	370	U	ug/kg dry	370	3/02/16 9:49	3/14/16 16:49	EPA 8270D
129-00-0	Pyrene	74	U	ug/kg dry	74	3/02/16 9:49	3/14/16 16:49	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 16:49	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-009-SB**

Lab ID: **E160907-11**

Station ID: **BIC009**

Matrix: **Subsurface Soil**

Date Collected: **2/25/16 12:20**

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
1319-77-3	(3-and/or 4-)Methylphenol	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
92-52-4	1,1-Biphenyl	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
123-91-1	1,4-Dioxane	77	U, J, H-6	ug/kg dry	77	4/04/16 9:49	4/06/16 15:56	EPA 8270D
90-12-0	1-Methylnaphthalene	76	U, J, QL-1	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
120-83-2	2,4-Dichlorophenol	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
105-67-9	2,4-Dimethylphenol	380	U, J, QR-1, QL-1	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
51-28-5	2,4-Dinitrophenol	760	U	ug/kg dry	760	3/02/16 9:49	3/14/16 15:51	EPA 8270D
121-14-2	2,4-Dinitrotoluene	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
606-20-2	2,6-Dinitrotoluene	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
91-58-7	2-Chloronaphthalene	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
95-57-8	2-Chlorophenol	380	U, J, QL-1	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
91-57-6	2-Methylnaphthalene	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
95-48-7	2-Methylphenol	380	U, J, QL-1	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
88-74-4	2-Nitroaniline	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
88-75-5	2-Nitrophenol	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
99-09-2	3-Nitroaniline	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
106-47-8	4-Chloroaniline	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
100-01-6	4-Nitroaniline	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
100-02-7	4-Nitrophenol	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
83-32-9	Acenaphthene	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-009-SB

Lab ID: E160907-11

Station ID: BIC009

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
208-96-8	Acenaphthylene	76	U, J, QR-1, QL-1	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
98-86-2	Acetophenone	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
120-12-7	Anthracene	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
1912-24-9	Atrazine	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
100-52-7	Benzaldehyde	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
56-55-3	Benzo(a)anthracene	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
50-32-8	Benzo(a)pyrene	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
205-99-2	Benzo(b)fluoranthene	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
207-08-9	Benzo(k)fluoranthene	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
85-68-7	Benzyl butyl phthalate	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
39638-32-9	Bis(2-chloroisopropyl) ether	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
105-60-2	Caprolactam	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
86-74-8	Carbazole	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
218-01-9	Chrysene	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
132-64-9	Dibenzofuran	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
84-66-2	Diethyl phthalate	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
131-11-3	Dimethyl phthalate	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
84-74-2	Di-n-butylphthalate	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
117-84-0	Di-n-octylphthalate	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
206-44-0	Fluoranthene	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
86-73-7	Fluorene	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	380	U, J, QL-1	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-009-SB

Lab ID: E160907-11

Station ID: BIC009

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
67-72-1	Hexachloroethane	380	U, J, QR-1, QL-1	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
193-39-5	Indeno (1,2,3-cd) pyrene	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
78-59-1	Isophorone	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
91-20-3	Naphthalene	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
98-95-3	Nitrobenzene	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
87-86-5	Pentachlorophenol	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
85-01-8	Phenanthrene	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
108-95-2	Phenol	380	U	ug/kg dry	380	3/02/16 9:49	3/14/16 15:51	EPA 8270D
129-00-0	Pyrene	76	U	ug/kg dry	76	3/02/16 9:49	3/14/16 15:51	EPA 8270D
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	400	U	ug/kg dry	400	3/02/16 9:49	3/14/16 15:51	EPA 8270D



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-010-SB**

Lab ID: **E160907-12**

Station ID: **BIC010**

Matrix: **Subsurface Soil**

Date Collected: **2/25/16 12:55**

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
1319-77-3	(3-and/or 4-)Methylphenol	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
92-52-4	1,1-Biphenyl	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
123-91-1	1,4-Dioxane	83	U, J, H-6	ug/kg dry	83	3/16/16 9:49	3/29/16 20:20	EPA 8270D
90-12-0	1-Methylnaphthalene	83	U, J, QL-1	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
58-90-2	2,3,4,6-Tetrachlorophenol	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
95-95-4	2,4,5-Trichlorophenol	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
88-06-2	2,4,6-Trichlorophenol	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
120-83-2	2,4-Dichlorophenol	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
105-67-9	2,4-Dimethylphenol	410	U, J, QR-1, QL-1	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
51-28-5	2,4-Dinitrophenol	830	U	ug/kg dry	830	3/02/16 9:49	3/14/16 19:16	EPA 8270D
121-14-2	2,4-Dinitrotoluene	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
606-20-2	2,6-Dinitrotoluene	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
91-58-7	2-Chloronaphthalene	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
95-57-8	2-Chlorophenol	410	U, J, QL-1	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
534-52-1	2-Methyl-4,6-dinitrophenol	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
91-57-6	2-Methylnaphthalene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
95-48-7	2-Methylphenol	410	U, J, QL-1	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
88-74-4	2-Nitroaniline	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
88-75-5	2-Nitrophenol	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
91-94-1	3,3'-Dichlorobenzidine	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
99-09-2	3-Nitroaniline	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
101-55-3	4-Bromophenyl phenyl ether	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
59-50-7	4-Chloro-3-methylphenol	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
106-47-8	4-Chloroaniline	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
7005-72-3	4-Chlorophenyl phenyl ether	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
100-01-6	4-Nitroaniline	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
100-02-7	4-Nitrophenol	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
83-32-9	Acenaphthene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-010-SB

Lab ID: E160907-12

Station ID: BIC010

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
208-96-8	Acenaphthylene	83	U, J, QR-1, QL-1	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
98-86-2	Acetophenone	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
120-12-7	Anthracene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
1912-24-9	Atrazine	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
100-52-7	Benzaldehyde	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
56-55-3	Benzo(a)anthracene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
50-32-8	Benzo(a)pyrene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
205-99-2	Benzo(b)fluoranthene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
191-24-2	Benzo(g,h,i)perylene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
207-08-9	Benzo(k)fluoranthene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
85-68-7	Benzyl butyl phthalate	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
111-91-1	Bis(2-chloroethoxy)methane	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
111-44-4	bis(2-Chloroethyl) Ether	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
39638-32-9	Bis(2-chloroisopropyl) ether	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
117-81-7	Bis(2-ethylhexyl) phthalate	10000		ug/kg dry	4100	3/02/16 9:49	3/16/16 18:49	EPA 8270D
105-60-2	Caprolactam	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
86-74-8	Carbazole	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
218-01-9	Chrysene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
53-70-3	Dibenz(a,h)anthracene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
132-64-9	Dibenzofuran	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
84-66-2	Diethyl phthalate	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
131-11-3	Dimethyl phthalate	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
84-74-2	Di-n-butylphthalate	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
117-84-0	Di-n-octylphthalate	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
206-44-0	Fluoranthene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
86-73-7	Fluorene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
118-74-1	Hexachlorobenzene (HCB)	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
77-47-4	Hexachlorocyclopentadiene (HCCP)	410	U, J, QL-1	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-010-SB

Lab ID: E160907-12

Station ID: BIC010

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
67-72-1	Hexachloroethane	410	U, J, QR-1, QL-1	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
193-39-5	Indeno (1,2,3-cd) pyrene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
78-59-1	Isophorone	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
91-20-3	Naphthalene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
98-95-3	Nitrobenzene	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
621-64-7	n-Nitroso di-n-Propylamine	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
122-39-4	n-Nitrosodiphenylamine/Diphenylamine	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
87-86-5	Pentachlorophenol	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
85-01-8	Phenanthrene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
108-95-2	Phenol	410	U	ug/kg dry	410	3/02/16 9:49	3/14/16 19:16	EPA 8270D
129-00-0	Pyrene	83	U	ug/kg dry	83	3/02/16 9:49	3/14/16 19:16	EPA 8270D
Tentatively Identified Compounds:								
R4-8000339	Pentachlorobiphenyl (TIC)	1000	NJ	ug/kg dry		3/02/16 9:49	3/14/16 19:16	EPA 8270D
R4-6500	Petroleum Product:		N			3/02/16 9:49	3/14/16 19:16	EPA 8270D
R4-8000340	Tetrachlorobiphenyl (TIC)	2000	NJ	ug/kg dry		3/02/16 9:49	3/14/16 19:16	EPA 8270D



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D.A.R.T. Id: 16-0282

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Semi Volatile Organics (SVOA) - Quality Control

US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603014 - E 3545A Modified

Blank (1603014-BLK1)

Prepared: 03/02/16 Analyzed: 03/14/16

EPA 8270D

(3-and/or 4-)Methylphenol	U	330	ug/kg dry							U
1,1-Biphenyl	U	66	"							U
1-Methylnaphthalene	U	66	"							U
2,3,4,6-Tetrachlorophenol	U	330	"							U
2,4,5-Trichlorophenol	U	330	"							U
2,4,6-Trichlorophenol	U	330	"							U
2,4-Dichlorophenol	U	330	"							U
2,4-Dimethylphenol	U	330	"							U
2,4-Dinitrophenol	U	660	"							U
2,4-Dinitrotoluene	U	330	"							U
2,6-Dinitrotoluene	U	330	"							U
2-Chloronaphthalene	U	330	"							U
2-Chlorophenol	U	330	"							U
2-Methyl-4,6-dinitrophenol	U	330	"							U
2-Methylnaphthalene	U	66	"							U
2-Methylphenol	U	330	"							U
2-Nitroaniline	U	330	"							U
2-Nitrophenol	U	330	"							U
3,3'-Dichlorobenzidine	U	330	"							U
3-Nitroaniline	U	330	"							U
4-Bromophenyl phenyl ether	U	330	"							U
4-Chloro-3-methylphenol	U	330	"							U
4-Chloroaniline	U	330	"							U
4-Chlorophenyl phenyl ether	U	330	"							U
4-Nitroaniline	U	330	"							U
4-Nitrophenol	U	330	"							U
Acenaphthene	U	66	"							U
Acenaphthylene	U	66	"							U
Acetophenone	U	330	"							U
Anthracene	U	66	"							U
Atrazine	U	330	"							U
Benzaldehyde	52.700	330	"							B-3, Q-2, J
Benzo(a)anthracene	U	66	"							U
Benzo(a)pyrene	U	66	"							U
Benzo(b)fluoranthene	U	66	"							U
Benzo(g,h,i)perylene	U	66	"							U
Benzo(k)fluoranthene	U	66	"							U
Benzyl butyl phthalate	U	330	"							U



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603014 - E 3545A Modified

Blank (1603014-BLK1)

Prepared: 03/02/16 Analyzed: 03/14/16

Bis(2-chloroethoxy)methane	U	330	ug/kg dry							U
bis(2-Chloroethyl) Ether	U	330	"							U
Bis(2-chloroisopropyl) ether	U	330	"							U
Bis(2-ethylhexyl) phthalate	U	330	"							U
Caprolactam	U	330	"							U
Carbazole	U	66	"							U
Chrysene	U	66	"							U
Dibenz(a,h)anthracene	U	66	"							U
Dibenzofuran	U	66	"							U
Diethyl phthalate	U	330	"							U
Dimethyl phthalate	U	330	"							U
Di-n-butylphthalate	U	330	"							U
Di-n-octylphthalate	U	330	"							U
Fluoranthene	U	66	"							U
Fluorene	U	66	"							U
Hexachlorobenzene (HCB)	U	330	"							U
Hexachlorocyclopentadiene (HCCP)	U	330	"							U
Hexachloroethane	U	330	"							U
Indeno (1,2,3-cd) pyrene	U	66	"							U
Isophorone	U	330	"							U
Naphthalene	U	66	"							U
Nitrobenzene	U	330	"							U
n-Nitroso di-n-Propylamine	U	330	"							U
n-Nitrosodiphenylamine/Diphenylamine	U	330	"							U
Pentachlorophenol	U	330	"							U
Phenanthrene	U	66	"							U
Phenol	U	330	"							U
Pyrene	U	66	"							U
Tentatively Identified Compounds	U	300	"							U



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Semi Volatile Organics (SVOA) - Quality Control

US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603014 - E 3545A Modified

LCS (1603014-BS1)

Prepared: 03/02/16 Analyzed: 03/16/16

EPA 8270D

(3-and/or 4-)Methylphenol	1141.6	330	ug/kg dry	2000.0		57.1	56-94			
1,1-Biphenyl	1293.5	66	"	2000.0		64.7	60-95			
1-Methylnaphthalene	1164.6	66	"	2000.0		58.2	59-87			QL-1
2,3,4,6-Tetrachlorophenol	1632.6	330	"	2000.0		81.6	42-128			
2,4,5-Trichlorophenol	1588.7	330	"	2000.0		79.4	66-105			
2,4,6-Trichlorophenol	1472.1	330	"	2000.0		73.6	63-98			
2,4-Dichlorophenol	1318.5	330	"	2000.0		65.9	62-97			
2,4-Dimethylphenol	397.80	330	"	2000.0		19.9	24-87			QL-1
2,4-Dinitrophenol	2897.1	660	"	4000.0		72.4	17-71			QL-2
2,4-Dinitrotoluene	1794.6	330	"	2000.0		89.7	65-110			
2,6-Dinitrotoluene	1624.0	330	"	2000.0		81.2	62-110			
2-Chloronaphthalene	1410.1	330	"	2000.0		70.5	57-96			
2-Chlorophenol	1106.1	330	"	2000.0		55.3	56-90			QL-1
2-Methyl-4,6-dinitrophenol	1716.9	330	"	2000.0		85.8	51-99			
2-Methylnaphthalene	1384.5	66	"	2000.0		69.2	63-96			
2-Methylphenol	1046.5	330	"	2000.0		52.3	53-92			QL-1
2-Nitroaniline	1590.7	330	"	2000.0		79.5	61-116			
2-Nitrophenol	1213.8	330	"	2000.0		60.7	60-92			
3,3'-Dichlorobenzidine	748.53	330	"	2000.0		37.4	31-104			QC-2
3-Nitroaniline	1281.2	330	"	2000.0		64.1	56-101			
4-Bromophenyl phenyl ether	1686.6	330	"	2000.0		84.3	55-109			
4-Chloro-3-methylphenol	1526.5	330	"	2000.0		76.3	63-102			
4-Chloroaniline	494.17	330	"	2000.0		24.7	10-96			
4-Chlorophenyl phenyl ether	1670.0	330	"	2000.0		83.5	55-109			
4-Nitroaniline	2207.3	330	"	2000.0		110	56-135			QC-2
4-Nitrophenol	1930.5	330	"	2000.0		96.5	58-117			
Acenaphthene	1558.4	66	"	2000.0		77.9	60-102			
Acenaphthylene	898.47	66	"	2000.0		44.9	59-100			QL-1
Acetophenone	1218.8	330	"	2000.0		60.9	49-96			
Anthracene	1851.8	66	"	2000.0		92.6	61-102			
Atrazine	946.80	330	"	2000.0		47.3	10-123			
Benzaldehyde	998.47	330	"	2000.0		49.9	41-125			QC-2
Benzo(a)anthracene	1918.1	66	"	2000.0		95.9	65-105			
Benzo(a)pyrene	1920.6	66	"	2000.0		96.0	60-113			
Benzo(b)fluoranthene	1894.4	66	"	2000.0		94.7	61-116			
Benzo(g,h,i)perylene	1896.2	66	"	2000.0		94.8	45-114			
Benzo(k)fluoranthene	2086.5	66	"	2000.0		104	57-115			
Benzyl butyl phthalate	1880.6	330	"	2000.0		94.0	56-112			
Bis(2-chloroethoxy)methane	1280.9	330	"	2000.0		64.0	51-102			



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603014 - E 3545A Modified

LCS (1603014-BS1)

Prepared: 03/02/16 Analyzed: 03/16/16

bis(2-Chloroethyl) Ether	1040.8	330	ug/kg dry	2000.0		52.0	43-100			
Bis(2-chloroisopropyl) ether	985.27	330	"	2000.0		49.3	40-105			
Bis(2-ethylhexyl) phthalate	1848.1	330	"	2000.0		92.4	55-109			
Caprolactam	1710.8	330	"	2000.0		85.5	66-101			
Carbazole	2208.7	66	"	2000.0		110	62-112			
Chrysene	1963.9	66	"	2000.0		98.2	60-106			
Dibenz(a,h)anthracene	2129.2	66	"	2000.0		106	46-117			
Dibenzofuran	1600.2	66	"	2000.0		80.0	57-100			
Diethyl phthalate	1785.9	330	"	2000.0		89.3	57-99			
Dimethyl phthalate	1718.4	330	"	2000.0		85.9	55-97			
Di-n-butylphthalate	1907.8	330	"	2000.0		95.4	54-101			
Di-n-octylphthalate	1901.1	330	"	2000.0		95.1	48-127			
Fluoranthene	2005.9	66	"	2000.0		100	64-105			
Fluorene	1795.9	66	"	2000.0		89.8	62-108			
Hexachlorobenzene (HCB)	1658.7	330	"	2000.0		82.9	36-91			
Hexachlorocyclopentadiene (HCCP)	213.17	330	"	2000.0		10.7	25-99			
Hexachloroethane	377.90	330	"	2000.0		18.9	50-86			Q-2, QL-1, J QL-1
Indeno (1,2,3-cd) pyrene	1937.8	66	"	2000.0		96.9	48-116			
Isophorone	1238.5	330	"	2000.0		61.9	55-100			
Naphthalene	1260.5	66	"	2000.0		63.0	58-89			
Nitrobenzene	1162.5	330	"	2000.0		58.1	52-102			
n-Nitroso di-n-Propylamine	1263.0	330	"	2000.0		63.1	50-98			
n-Nitrosodiphenylamine/Diphenylamine	1350.1	330	"	2000.0		67.5	59-104			
Pentachlorophenol	1757.3	330	"	2000.0		87.9	50-105			
Phenanthrene	1890.5	66	"	2000.0		94.5	62-103			
Phenol	1223.3	330	"	2000.0		61.2	56-94			
Pyrene	1940.4	66	"	2000.0		97.0	58-119			



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Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603014 - E 3545A Modified

Matrix Spike (1603014-MS1)

Source: E160907-05

Prepared: 03/02/16 Analyzed: 03/16/16

EPA 8270D

(3-and/or 4-)Methylphenol	1944.0	390	ug/kg dry	2387.6	U	81.4	10-119			
1,1-Biphenyl	380.98	79	"	2387.6	U	16.0	56-96			QM-1
1-Methylnaphthalene	228.53	79	"	2387.6	U	9.57	54-88			QM-6
2,3,4,6-Tetrachlorophenol	2105.3	390	"	2387.6	U	88.2	45-115			
2,4,5-Trichlorophenol	2227.4	390	"	2387.6	U	93.3	63-107			
2,4,6-Trichlorophenol	2156.2	390	"	2387.6	U	90.3	47-106			
2,4-Dichlorophenol	1918.2	390	"	2387.6	U	80.3	55-99			
2,4-Dimethylphenol	1544.7	390	"	2387.6	U	64.7	10-117			
2,4-Dinitrophenol	3115.3	790	"	4775.2	U	65.2	10-145			
2,4-Dinitrotoluene	2085.1	390	"	2387.6	U	87.3	64-107			
2,6-Dinitrotoluene	2003.6	390	"	2387.6	U	83.9	63-106			
2-Chloronaphthalene	537.68	390	"	2387.6	U	22.5	55-94			QM-1
2-Chlorophenol	1489.8	390	"	2387.6	U	62.4	44-93			
2-Methyl-4,6-dinitrophenol	2200.4	390	"	2387.6	U	92.2	18-127			
2-Methylnaphthalene	235.97	79	"	2387.6	U	9.88	58-97			QM-6
2-Methylphenol	1896.4	390	"	2387.6	U	79.4	5-115			
2-Nitroaniline	2088.4	390	"	2387.6	U	87.5	52-117			
2-Nitrophenol	1536.4	390	"	2387.6	U	64.3	59-94			
3,3'-Dichlorobenzidine	245.56	390	"	2387.6	U	10.3	10-99			Q-2, QC-2, QM-1, J
3-Nitroaniline	1570.5	390	"	2387.6	U	65.8	10-117			
4-Bromophenyl phenyl ether	1636.0	390	"	2387.6	U	68.5	49-105			
4-Chloro-3-methylphenol	2245.5	390	"	2387.6	U	94.0	54-105			
4-Chloroaniline	513.97	390	"	2387.6	U	21.5	10-73			
4-Chlorophenyl phenyl ether	1296.1	390	"	2387.6	U	54.3	49-105			
4-Nitroaniline	2404.2	390	"	2387.6	U	101	10-151			QC-2
4-Nitrophenol	2461.0	390	"	2387.6	U	103	57-111			
Acenaphthene	895.74	79	"	2387.6	U	37.5	51-106			QM-1
Acenaphthylene	935.30	79	"	2387.6	U	39.2	43-106			QM-1
Acetophenone	1298.3	390	"	2387.6	U	54.4	46-98			
Anthracene	2078.7	79	"	2387.6	U	87.1	45-103			
Atrazine	2066.0	390	"	2387.6	U	86.5	10-115			
Benzaldehyde	814.17	390	"	2387.6	U	34.1	10-139			QC-2
Benzo(a)anthracene	2165.7	79	"	2387.6	U	90.7	10-190			
Benzo(a)pyrene	2382.5	79	"	2387.6	U	99.8	10-172			
Benzo(b)fluoranthene	2281.2	79	"	2387.6	U	95.5	10-190			
Benzo(g,h,i)perylene	2300.1	79	"	2387.6	U	96.3	10-131			
Benzo(k)fluoranthene	2525.1	79	"	2387.6	U	106	10-184			
Benzyl butyl phthalate	1969.0	390	"	2387.6	U	82.5	42-114			



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Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603014 - E 3545A Modified

Matrix Spike (1603014-MS1)

Source: E160907-05

Prepared: 03/02/16 Analyzed: 03/16/16

Bis(2-chloroethoxy)methane	1585.2	390	ug/kg dry	2387.6	U	66.4	52-98			
bis(2-Chloroethyl) Ether	398.33	390	"	2387.6	U	16.7	41-98			QM-1
Bis(2-chloroisopropyl) ether	44.170	390	"	2387.6	U	1.85	44-97			Q-2, QM-6, J
Bis(2-ethylhexyl) phthalate	1776.2	390	"	2387.6	U	74.4	10-174			
Caprolactam	2119.1	390	"	2387.6	U	88.8	63-103			
Carbazole	2776.6	79	"	2387.6	U	116	54-115			QM-2
Chrysene	2257.9	79	"	2387.6	U	94.6	10-190			
Dibenz(a,h)anthracene	2488.3	79	"	2387.6	U	104	22-114			
Dibenzofuran	1216.4	79	"	2387.6	U	50.9	50-103			
Diethyl phthalate	2157.6	390	"	2387.6	U	90.4	54-94			
Dimethyl phthalate	2181.2	390	"	2387.6	U	91.4	56-94			
Di-n-butylphthalate	2083.5	390	"	2387.6	U	87.3	46-92			
Di-n-octylphthalate	1766.1	390	"	2387.6	U	74.0	33-141			
Fluoranthene	2280.7	79	"	2387.6	U	95.5	10-145			
Fluorene	1526.7	79	"	2387.6	U	63.9	53-111			
Hexachlorobenzene (HCB)	1540.0	390	"	2387.6	U	64.5	34-83			
Hexachlorocyclopentadiene (HCCP)	18.623	390	"	2387.6	U	0.780	10-88			Q-2, QM-6, J
Hexachloroethane	30.004	390	"	2387.6	U	1.26	42-83			Q-2, QM-6, J
Indeno (1,2,3-cd) pyrene	2305.1	79	"	2387.6	U	96.5	10-131			
Isophorone	1533.7	390	"	2387.6	U	64.2	58-93			
Naphthalene	137.05	79	"	2387.6	U	5.74	56-88			QM-6
Nitrobenzene	1222.4	390	"	2387.6	U	51.2	43-110			QM-1
n-Nitroso di-n-Propylamine	1310.5	390	"	2387.6	U	54.9	52-92			
n-Nitrosodiphenylamine/Diphenylamine	2128.0	390	"	2387.6	U	89.1	32-115			
Pentachlorophenol	2294.3	390	"	2387.6	U	96.1	43-107			
Phenanthrene	2187.9	79	"	2387.6	U	91.6	10-171			
Phenol	2057.3	390	"	2387.6	U	86.2	46-97			
Pyrene	2223.3	79	"	2387.6	U	93.1	10-180			



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Semi Volatile Organics (SVOA) - Quality Control

US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603014 - E 3545A Modified

Matrix Spike Dup (1603014-MSD1)

Source: E160907-05

Prepared: 03/02/16 Analyzed: 03/16/16

EPA 8270D

(3-and/or 4-)Methylphenol	1915.2	400	ug/kg dry	2398.1	U	79.9	10-119	1.49	99	
1,1-Biphenyl	268.15	79	"	2398.1	U	11.2	56-96	34.8	16	QM-1, QM-3
1-Methylnaphthalene	164.99	79	"	2398.1	U	6.88	54-88	32.3	18	QM-3, QM-6
2,3,4,6-Tetrachlorophenol	2136.5	400	"	2398.1	U	89.1	45-115	1.47	17	
2,4,5-Trichlorophenol	2258.6	400	"	2398.1	U	94.2	63-107	1.39	14	
2,4,6-Trichlorophenol	2150.8	400	"	2398.1	U	89.7	47-106	0.252	19	
2,4-Dichlorophenol	1934.1	400	"	2398.1	U	80.7	55-99	0.822	17	
2,4-Dimethylphenol	1610.9	400	"	2398.1	U	67.2	10-117	4.19	98	
2,4-Dinitrophenol	3337.8	790	"	4796.2	U	69.6	10-145	6.90	95	
2,4-Dinitrotoluene	2127.8	400	"	2398.1	U	88.7	64-107	2.03	15	
2,6-Dinitrotoluene	2042.0	400	"	2398.1	U	85.2	63-106	1.90	14	
2-Chloronaphthalene	412.07	400	"	2398.1	U	17.2	55-94	26.5	15	QM-1, QM-3
2-Chlorophenol	1259.1	400	"	2398.1	U	52.5	44-93	16.8	21	
2-Methyl-4,6-dinitrophenol	2214.3	400	"	2398.1	U	92.3	18-127	0.632	22	
2-Methylnaphthalene	178.10	79	"	2398.1	U	7.43	58-97	28.0	18	QM-3, QM-6
2-Methylphenol	1880.6	400	"	2398.1	U	78.4	5-115	0.837	62	
2-Nitroaniline	2073.7	400	"	2398.1	U	86.5	52-117	0.705	18	
2-Nitrophenol	1488.2	400	"	2398.1	U	62.1	59-94	3.19	17	
3,3'-Dichlorobenzidine	575.98	400	"	2398.1	U	24.0	10-99	80.4	58	QC-2, QM-3
3-Nitroaniline	1701.0	400	"	2398.1	U	70.9	10-117	7.98	49	
4-Bromophenyl phenyl ether	1625.7	400	"	2398.1	U	67.8	49-105	0.635	17	
4-Chloro-3-methylphenol	2259.2	400	"	2398.1	U	94.2	54-105	0.609	19	
4-Chloroaniline	706.39	400	"	2398.1	U	29.5	10-73	31.5	49	
4-Chlorophenyl phenyl ether	1176.2	400	"	2398.1	U	49.0	49-105	9.69	17	
4-Nitroaniline	2612.9	400	"	2398.1	U	109	10-151	8.32	61	QC-2
4-Nitrophenol	2470.4	400	"	2398.1	U	103	57-111	0.382	22	
Acenaphthene	680.70	79	"	2398.1	U	28.4	51-106	27.3	22	QM-1, QM-3
Acenaphthylene	707.55	79	"	2398.1	U	29.5	43-106	27.7	20	QM-1, QM-3
Acetophenone	1053.0	400	"	2398.1	U	43.9	46-98	20.9	14	QM-1, QM-3
Anthracene	2093.8	79	"	2398.1	U	87.3	45-103	0.724	20	
Atrazine	2096.5	400	"	2398.1	U	87.4	10-115	1.47	13	
Benzaldehyde	599.68	400	"	2398.1	U	25.0	10-139	30.3	70	QC-2
Benzo(a)anthracene	2186.2	79	"	2398.1	U	91.2	10-190	0.941	35	
Benzo(a)pyrene	2383.4	79	"	2398.1	U	99.4	10-172	0.0404	36	



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Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics (SVOA) - Quality Control

US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603014 - E 3545A Modified

Matrix Spike Dup (1603014-MSD1)

Source: E160907-05

Prepared: 03/02/16 Analyzed: 03/16/16

Benzo(b)fluoranthene	2278.1	79	ug/kg dry	2398.1	U	95.0	10-190	0.139	38	
Benzo(g,h,i)perylene	2200.5	79	"	2398.1	U	91.8	10-131	4.43	34	
Benzo(k)fluoranthene	2413.9	79	"	2398.1	U	101	10-184	4.50	32	
Benzyl butyl phthalate	2012.9	400	"	2398.1	U	83.9	42-114	2.21	24	
Bis(2-chloroethoxy)methane	1518.2	400	"	2398.1	U	63.3	52-98	4.32	11	
bis(2-Chloroethyl) Ether	301.68	400	"	2398.1	U	12.6	41-98	27.6	27	Q-2, QM-1, QM-3, J
Bis(2-chloroisopropyl) ether	34.053	400	"	2398.1	U	1.42	44-97	25.9	12	Q-2, QM-3, QM-6, J
Bis(2-ethylhexyl) phthalate	1851.1	400	"	2398.1	U	77.2	10-174	4.13	10	
Caprolactam	2133.1	400	"	2398.1	U	89.0	63-103	0.660	13	
Carbazole	2743.0	79	"	2398.1	U	114	54-115	1.22	19	
Chrysene	2233.9	79	"	2398.1	U	93.2	10-190	1.07	34	
Dibenz(a,h)anthracene	2345.2	79	"	2398.1	U	97.8	22-114	5.92	22	
Dibenzofuran	1044.1	79	"	2398.1	U	43.5	50-103	15.2	22	QM-1
Diethyl phthalate	2184.1	400	"	2398.1	U	91.1	54-94	1.22	15	
Dimethyl phthalate	2180.7	400	"	2398.1	U	90.9	56-94	0.0221	10	
Di-n-butylphthalate	2055.4	400	"	2398.1	U	85.7	46-92	1.36	24	
Di-n-octylphthalate	1804.9	400	"	2398.1	U	75.3	33-141	2.17	20	
Fluoranthene	2290.5	79	"	2398.1	U	95.5	10-145	0.428	60	
Fluorene	1435.4	79	"	2398.1	U	59.9	53-111	6.17	22	
Hexachlorobenzene (HCB)	1537.3	400	"	2398.1	U	64.1	34-83	0.170	15	
Hexachlorocyclopentadiene (HCCP)	15.987	400	"	2398.1	U	0.667	10-88		100	Q-2, QM-6, J
Hexachloroethane	25.340	400	"	2398.1	U	1.06	42-83		19	Q-2, QM-6, J
Indeno (1,2,3-cd) pyrene	2188.0	79	"	2398.1	U	91.2	10-131	5.21	31	
Isophorone	1496.3	400	"	2398.1	U	62.4	58-93	2.46	12	
Naphthalene	105.76	79	"	2398.1	U	4.41	56-88	25.8	18	QM-3, QM-6
Nitrobenzene	1016.3	400	"	2398.1	U	42.4	43-110	18.4	14	QM-1, QM-3
n-Nitroso di-n-Propylamine	1064.2	400	"	2398.1	U	44.4	52-92	20.7	13	QM-1, QM-3
n-Nitrosodiphenylamine/Diphenylamine	2177.2	400	"	2398.1	U	90.8	32-115	2.29	24	
Pentachlorophenol	2281.1	400	"	2398.1	U	95.1	43-107	0.578	21	
Phenanthrene	2203.9	79	"	2398.1	U	91.9	10-171	0.726	52	
Phenol	2013.9	400	"	2398.1	U	84.0	46-97	2.13	38	
Pyrene	2320.1	79	"	2398.1	U	96.7	10-180	4.26	50	



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Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603014 - E 3545A Modified

MRL Verification (1603014-PS1)

Prepared: 03/02/16 Analyzed: 03/14/16

EPA 8270D

(3-and/or 4-)Methylphenol	190.03	330	ug/kg dry	333.33		57.0	36-114			Q-2, MRL-3, J
1,1-Biphenyl	48.967	66	"	66.667		73.4	40-115			Q-2, MRL-3, J
1-Methylnaphthalene	41.533	66	"	66.667		62.3	39-107			Q-2, MRL-3, J
2,3,4,6-Tetrachlorophenol	256.07	330	"	333.33		76.8	22-148			Q-2, MRL-3, J
2,4,5-Trichlorophenol	259.07	330	"	333.33		77.7	46-125			Q-2, MRL-3, J
2,4,6-Trichlorophenol	252.47	330	"	333.33		75.7	43-118			Q-2, MRL-3, J
2,4-Dichlorophenol	260.50	330	"	333.33		78.2	42-117			Q-2, MRL-3, J
2,4-Dimethylphenol	15.567	330	"	333.33		4.67	10-107			QR-1, Q-2, MRL-3, J
2,4-Dinitrophenol	250.70	660	"	666.67		37.6	10-91			Q-2, MRL-3, J
2,4-Dinitrotoluene	278.23	330	"	333.33		83.5	45-130			MRL-3, Q-2, J
2,6-Dinitrotoluene	267.90	330	"	333.33		80.4	42-130			MRL-3, Q-2, J
2-Chloronaphthalene	267.63	330	"	333.33		80.3	37-116			Q-2, MRL-3, J
2-Chlorophenol	240.60	330	"	333.33		72.2	36-110			Q-2, MRL-3, J
2-Methyl-4,6-dinitrophenol	242.20	330	"	333.33		72.7	31-119			Q-2, MRL-3, J
2-Methylnaphthalene	49.133	66	"	66.667		73.7	43-116			Q-2, MRL-3, J
2-Methylphenol	175.73	330	"	333.33		52.7	33-112			Q-2, MRL-3, J
2-Nitroaniline	271.30	330	"	333.33		81.4	41-136			MRL-3, Q-2, J
2-Nitrophenol	208.67	330	"	333.33		62.6	40-112			Q-2, MRL-3, J
3,3'-Dichlorobenzidine	133.93	330	"	333.33		40.2	11-124			Q-2, MRL-3, J
3-Nitroaniline	187.90	330	"	333.33		56.4	36-121			MRL-3, Q-2, J
4-Bromophenyl phenyl ether	289.60	330	"	333.33		86.9	35-129			Q-2, MRL-3, J
4-Chloro-3-methylphenol	263.23	330	"	333.33		79.0	43-122			Q-2, MRL-3, J
4-Chloroaniline	89.033	330	"	333.33		26.7	10-116			Q-2, MRL-3, J



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Semi Volatile Organics (SVOA) - Quality Control
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603014 - E 3545A Modified

MRL Verification (1603014-PS1)

Prepared: 03/02/16 Analyzed: 03/14/16

4-Chlorophenyl phenyl ether	285.30	330	ug/kg dry	333.33		85.6	35-129			MRL-3, Q-2, J
4-Nitroaniline	287.20	330	"	333.33		86.2	36-155			MRL-3, Q-2, J
4-Nitrophenol	266.57	330	"	333.33		80.0	38-137			MRL-3, J Q-2,
Acenaphthene	51.700	66	"	66.667		77.6	40-122			MRL-3, J
Acenaphthylene	12.800	66	"	66.667		19.2	39-120			MRL-3, Q-2, J QR-1,
Acetophenone	245.80	330	"	333.33		73.7	29-116			MRL-3, J Q-2,
Anthracene	57.467	66	"	66.667		86.2	41-122			MRL-3, J Q-2,
Atrazine	207.27	330	"	333.33		62.2	10-143			MRL-3, J Q-2,
Benzaldehyde	220.93	330	"	333.33		66.3	21-145			MRL-3, J Q-2,
Benzo(a)anthracene	63.367	66	"	66.667		95.0	45-125			MRL-3, J Q-2,
Benzo(a)pyrene	59.667	66	"	66.667		89.5	40-133			MRL-3, J Q-2,
Benzo(b)fluoranthene	65.467	66	"	66.667		98.2	41-136			MRL-3, J Q-2,
Benzo(g,h,i)perylene	57.633	66	"	66.667		86.4	25-134			MRL-3, J Q-2,
Benzo(k)fluoranthene	60.033	66	"	66.667		90.0	37-135			MRL-3, J Q-2,
Benzyl butyl phthalate	323.33	330	"	333.33		97.0	36-132			MRL-3, J Q-2,
Bis(2-chloroethoxy)methane	258.70	330	"	333.33		77.6	31-122			MRL-3, J Q-2,
bis(2-Chloroethyl) Ether	178.87	330	"	333.33		53.7	23-120			MRL-3, J Q-2,
Bis(2-chloroisopropyl) ether	158.90	330	"	333.33		47.7	20-125			MRL-3, J Q-2,
Bis(2-ethylhexyl) phthalate	316.90	330	"	333.33		95.1	35-129			MRL-3, J Q-2,
Caprolactam	282.07	330	"	333.33		84.6	46-121			MRL-3, J Q-2,
Carbazole	66.900	66	"	66.667		100	42-132			MRL-3
Chrysene	64.200	66	"	66.667		96.3	40-126			MRL-3, J Q-2,
Dibenz(a,h)anthracene	54.567	66	"	66.667		81.8	26-137			MRL-3, J Q-2,
Dibenzofuran	54.367	66	"	66.667		81.6	37-120			MRL-3, J Q-2,



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Semi Volatile Organics (SVOA) - Quality Control
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Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603014 - E 3545A Modified

MRL Verification (1603014-PS1)

Prepared: 03/02/16 Analyzed: 03/14/16

Diethyl phthalate	302.73	330	ug/kg dry	333.33		90.8	37-119			MRL-3, Q-2, J
Dimethyl phthalate	296.17	330	"	333.33		88.9	35-117			MRL-3, Q-2, J
Di-n-butylphthalate	332.53	330	"	333.33		99.8	34-121			MRL-3
Di-n-octylphthalate	324.57	330	"	333.33		97.4	28-147			Q-2, MRL-3, J
Fluoranthene	64.967	66	"	66.667		97.4	44-125			Q-2, MRL-3, J
Fluorene	55.700	66	"	66.667		83.5	42-128			MRL-3, Q-2, J
Hexachlorobenzene (HCB)	269.20	330	"	333.33		80.8	16-111			Q-2, MRL-3, J
Hexachlorocyclopentadiene (HCCP)	57.033	330	"	333.33		17.1	10-119			Q-2, MRL-3, J
Hexachloroethane	20.733	330	"	333.33		6.22	30-106			Q-2, QR-1, MRL-3, J
Indeno (1,2,3-cd) pyrene	56.733	66	"	66.667		85.1	28-136			Q-2, MRL-3, J
Isophorone	253.73	330	"	333.33		76.1	35-120			Q-2, MRL-3, J
Naphthalene	43.300	66	"	66.667		64.9	38-109			Q-2, MRL-3, J
Nitrobenzene	211.43	330	"	333.33		63.4	32-122			Q-2, MRL-3, J
n-Nitroso di-n-Propylamine	250.33	330	"	333.33		75.1	30-118			Q-2, MRL-3, J
n-Nitrosodiphenylamine/Diphenylamine	131.03	330	"	333.33		39.3	39-124			Q-2, MRL-3, J
Pentachlorophenol	263.40	330	"	333.33		79.0	30-125			Q-2, MRL-3, J
Phenanthrene	62.900	66	"	66.667		94.4	42-123			Q-2, MRL-3, J
Phenol	255.00	330	"	333.33		76.5	36-114			Q-2, MRL-3, J
Pyrene	64.900	66	"	66.667		97.3	38-139			Q-2, MRL-3, J

Batch 1603083 - E 3545A Modified

Blank (1603083-BLK1)

Prepared: 03/16/16 Analyzed: 03/29/16

EPA 8270D

(3-and/or 4-)Methylphenol	U	330	ug/kg dry							U
1,1-Biphenyl	U	66	"							U
1,4-Dioxane	U	66	"							U
1-Methylnaphthalene	U	66	"							U



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Semi Volatile Organics (SVOA) - Quality Control

US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603083 - E 3545A Modified

Blank (1603083-BLK1)

Prepared: 03/16/16 Analyzed: 03/29/16

2,3,4,6-Tetrachlorophenol	U	330	ug/kg dry							U
2,4,5-Trichlorophenol	U	330	"							U
2,4,6-Trichlorophenol	U	330	"							U
2,4-Dichlorophenol	U	330	"							U
2,4-Dimethylphenol	U	330	"							U
2,4-Dinitrophenol	U	660	"							U
2,4-Dinitrotoluene	U	330	"							U
2,6-Dinitrotoluene	U	330	"							U
2-Chloronaphthalene	U	330	"							U
2-Chlorophenol	U	330	"							U
2-Methyl-4,6-dinitrophenol	U	330	"							U
2-Methylnaphthalene	U	66	"							U
2-Methylphenol	U	330	"							U
2-Nitroaniline	U	330	"							U
2-Nitrophenol	U	330	"							U
3,3'-Dichlorobenzidine	U	330	"							U
3-Nitroaniline	U	330	"							U
4-Bromophenyl phenyl ether	U	330	"							U
4-Chloro-3-methylphenol	U	330	"							U
4-Chloroaniline	U	330	"							U
4-Chlorophenyl phenyl ether	U	330	"							U
4-Nitroaniline	U	330	"							U
4-Nitrophenol	U	330	"							U
Acenaphthene	U	66	"							U
Acenaphthylene	U	66	"							U
Acetophenone	U	330	"							U
Anthracene	U	66	"							U
Atrazine	U	330	"							U
Benzaldehyde	U	330	"							U
Benzo(a)anthracene	U	66	"							U
Benzo(a)pyrene	U	66	"							U
Benzo(b)fluoranthene	U	66	"							U
Benzo(g,h,i)perylene	U	66	"							U
Benzo(k)fluoranthene	U	66	"							U
Benzyl butyl phthalate	U	330	"							U
Bis(2-chloroethoxy)methane	U	330	"							U
bis(2-Chloroethyl) Ether	U	330	"							U
Bis(2-chloroisopropyl) ether	U	330	"							U
Bis(2-ethylhexyl) phthalate	U	330	"							U
Caprolactam	U	330	"							U



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Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603083 - E 3545A Modified

Blank (1603083-BLK1)

Prepared: 03/16/16 Analyzed: 03/29/16

Carbazole	U	66	ug/kg dry							U
Chrysene	U	66	"							U
Dibenz(a,h)anthracene	U	66	"							U
Dibenzofuran	U	66	"							U
Diethyl phthalate	U	330	"							U
Dimethyl phthalate	U	330	"							U
Di-n-butylphthalate	U	330	"							U
Di-n-octylphthalate	U	330	"							U
Fluoranthene	U	66	"							U
Fluorene	U	66	"							U
Hexachlorobenzene (HCB)	U	330	"							U
Hexachlorocyclopentadiene (HCCP)	U	330	"							U
Hexachloroethane	U	330	"							U
Indeno (1,2,3-cd) pyrene	U	66	"							U
Isophorone	U	330	"							U
Naphthalene	U	66	"							U
Nitrobenzene	U	330	"							U
n-Nitroso di-n-Propylamine	U	330	"							U
n-Nitrosodiphenylamine/Diphenylamine	U	330	"							U
Pentachlorophenol	U	330	"							U
Phenanthrene	U	66	"							U
Phenol	U	330	"							U
Pyrene	U	66	"							U

LCS (1603083-BS1)

Prepared: 03/16/16 Analyzed: 03/29/16

EPA 8270D

(3-and/or 4-)Methylphenol	1535.3	330	ug/kg dry	2000.0	76.8	56-94
1,1-Biphenyl	1621.7	66	"	2000.0	81.1	60-95
1,4-Dioxane	916.93	66	"	2000.0	45.8	20-76
1-Methylnaphthalene	1640.2	66	"	2000.0	82.0	59-87
2,3,4,6-Tetrachlorophenol	1824.4	330	"	2000.0	91.2	42-128
2,4,5-Trichlorophenol	1663.2	330	"	2000.0	83.2	66-105
2,4,6-Trichlorophenol	1598.2	330	"	2000.0	79.9	63-98
2,4-Dichlorophenol	1606.8	330	"	2000.0	80.3	62-97
2,4-Dimethylphenol	1195.9	330	"	2000.0	59.8	24-87
2,4-Dinitrophenol	1792.4	660	"	4000.0	44.8	17-71
2,4-Dinitrotoluene	1908.3	330	"	2000.0	95.4	65-110
2,6-Dinitrotoluene	1767.1	330	"	2000.0	88.4	62-110
2-Chloronaphthalene	1605.1	330	"	2000.0	80.3	57-96
2-Chlorophenol	1483.5	330	"	2000.0	74.2	56-90



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Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603083 - E 3545A Modified

LCS (1603083-BS1)

Prepared: 03/16/16 Analyzed: 03/29/16

2-Methyl-4,6-dinitrophenol	1374.2	330	ug/kg dry	2000.0		68.7	51-99			
2-Methylnaphthalene	1530.9	66	"	2000.0		76.5	63-96			
2-Methylphenol	1481.7	330	"	2000.0		74.1	53-92			
2-Nitroaniline	1670.0	330	"	2000.0		83.5	61-116			
2-Nitrophenol	1457.0	330	"	2000.0		72.8	60-92			
3,3'-Dichlorobenzidine	1052.2	330	"	2000.0		52.6	31-104			
3-Nitroaniline	1449.3	330	"	2000.0		72.5	56-101			
4-Bromophenyl phenyl ether	1753.1	330	"	2000.0		87.7	55-109			
4-Chloro-3-methylphenol	1670.6	330	"	2000.0		83.5	63-102			
4-Chloroaniline	1253.9	330	"	2000.0		62.7	10-96			
4-Chlorophenyl phenyl ether	1609.7	330	"	2000.0		80.5	55-109			
4-Nitroaniline	1773.3	330	"	2000.0		88.7	56-135			
4-Nitrophenol	1788.5	330	"	2000.0		89.4	58-117			
Acenaphthene	1647.2	66	"	2000.0		82.4	60-102			
Acenaphthylene	1628.1	66	"	2000.0		81.4	59-100			
Acetophenone	1481.4	330	"	2000.0		74.1	49-96			
Anthracene	1740.6	66	"	2000.0		87.0	61-102			
Atrazine	1788.5	330	"	2000.0		89.4	10-123			
Benzaldehyde	1387.3	330	"	2000.0		69.4	41-125			QC-2
Benzo(a)anthracene	1809.8	66	"	2000.0		90.5	65-105			
Benzo(a)pyrene	1788.4	66	"	2000.0		89.4	60-113			
Benzo(b)fluoranthene	1730.4	66	"	2000.0		86.5	61-116			
Benzo(g,h,i)perylene	1420.6	66	"	2000.0		71.0	45-114			
Benzo(k)fluoranthene	1925.0	66	"	2000.0		96.2	57-115			
Benzyl butyl phthalate	1673.0	330	"	2000.0		83.6	56-112			
Bis(2-chloroethoxy)methane	1555.6	330	"	2000.0		77.8	51-102			
bis(2-Chloroethyl) Ether	1454.6	330	"	2000.0		72.7	43-100			
Bis(2-chloroisopropyl) ether	1465.5	330	"	2000.0		73.3	40-105			
Bis(2-ethylhexyl) phthalate	1656.4	330	"	2000.0		82.8	55-109			
Caprolactam	1526.6	330	"	2000.0		76.3	66-101			
Carbazole	2027.9	66	"	2000.0		101	62-112			
Chrysene	1850.4	66	"	2000.0		92.5	60-106			
Dibenz(a,h)anthracene	1569.4	66	"	2000.0		78.5	46-117			
Dibenzofuran	1679.0	66	"	2000.0		83.9	57-100			
Diethyl phthalate	1803.1	330	"	2000.0		90.2	57-99			
Dimethyl phthalate	1987.5	330	"	2000.0		99.4	55-97			QL-2
Di-n-butylphthalate	1826.7	330	"	2000.0		91.3	54-101			
Di-n-octylphthalate	1698.8	330	"	2000.0		84.9	48-127			
Fluoranthene	1794.3	66	"	2000.0		89.7	64-105			
Fluorene	1728.7	66	"	2000.0		86.4	62-108			



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Diana Burdette

Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603083 - E 3545A Modified

LCS (1603083-BS1)

Prepared: 03/16/16 Analyzed: 03/29/16

Hexachlorobenzene (HCB)	1729.0	330	ug/kg dry	2000.0		86.5	36-91			
Hexachlorocyclopentadiene (HCCP)	1528.5	330	"	2000.0		76.4	25-99			
Hexachloroethane	1440.1	330	"	2000.0		72.0	50-86			
Indeno (1,2,3-cd) pyrene	1528.1	66	"	2000.0		76.4	48-116			
Isophorone	1669.2	330	"	2000.0		83.5	55-100			
Naphthalene	1489.0	66	"	2000.0		74.4	58-89			
Nitrobenzene	1446.7	330	"	2000.0		72.3	52-102			
n-Nitroso di-n-Propylamine	1530.2	330	"	2000.0		76.5	50-98			
n-Nitrosodiphenylamine/Diphenylamine	1798.4	330	"	2000.0		89.9	59-104			
Pentachlorophenol	1770.1	330	"	2000.0		88.5	50-105			
Phenanthrene	1690.2	66	"	2000.0		84.5	62-103			
Phenol	1531.5	330	"	2000.0		76.6	56-94			
Pyrene	1612.0	66	"	2000.0		80.6	58-119			

MRL Verification (1603083-PS1)

Prepared: 03/16/16 Analyzed: 03/29/16

EPA 8270D

(3-and/or 4-)Methylphenol	245.87	330	ug/kg dry	333.33		73.8	36-114			MRL-3, Q-2, J
1,1-Biphenyl	55.900	66	"	66.667		83.8	40-115			Q-2, MRL-3, J
1,4-Dioxane	33.767	66	"	66.667		50.6	10-96			Q-2, MRL-3, J
1-Methylnaphthalene	54.933	66	"	66.667		82.4	39-107			Q-2, MRL-3, J
2,3,4,6-Tetrachlorophenol	270.83	330	"	333.33		81.2	22-148			Q-2, MRL-3, J
2,4,5-Trichlorophenol	254.33	330	"	333.33		76.3	46-125			Q-2, MRL-3, J
2,4,6-Trichlorophenol	259.63	330	"	333.33		77.9	43-118			Q-2, MRL-3, J
2,4-Dichlorophenol	264.97	330	"	333.33		79.5	42-117			Q-2, MRL-3, J
2,4-Dimethylphenol	159.73	330	"	333.33		47.9	10-107			Q-2, MRL-3, J
2,4-Dinitrophenol	108.10	660	"	666.67		16.2	10-91			Q-2, MRL-3, J
2,4-Dinitrotoluene	285.97	330	"	333.33		85.8	45-130			Q-2, MRL-3, J
2,6-Dinitrotoluene	281.87	330	"	333.33		84.6	42-130			Q-2, MRL-3, J
2-Chloronaphthalene	270.60	330	"	333.33		81.2	37-116			Q-2, MRL-3, J
2-Chlorophenol	253.33	330	"	333.33		76.0	36-110			MRL-3, J Q-2, J



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Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603083 - E 3545A Modified

MRL Verification (1603083-PS1)

Prepared: 03/16/16 Analyzed: 03/29/16

2-Methyl-4,6-dinitrophenol	169.30	330	ug/kg dry	333.33		50.8	31-119			Q-2, MRL-3, J
2-Methylnaphthalene	51.733	66	"	66.667		77.6	43-116			Q-2, MRL-3, J
2-Methylphenol	241.90	330	"	333.33		72.6	33-112			MRL-3, Q-2, J
2-Nitroaniline	260.10	330	"	333.33		78.0	41-136			Q-2, MRL-3, J
2-Nitrophenol	243.50	330	"	333.33		73.0	40-112			Q-2, MRL-3, J
3,3'-Dichlorobenzidine	216.40	330	"	333.33		64.9	11-124			Q-2, MRL-3, J
3-Nitroaniline	191.17	330	"	333.33		57.4	36-121			Q-2, MRL-3, J
4-Bromophenyl phenyl ether	287.17	330	"	333.33		86.2	35-129			Q-2, MRL-3, J
4-Chloro-3-methylphenol	263.20	330	"	333.33		79.0	43-122			Q-2, MRL-3, J
4-Chloroaniline	193.13	330	"	333.33		57.9	10-116			Q-2, MRL-3, J
4-Chlorophenyl phenyl ether	260.60	330	"	333.33		78.2	35-129			Q-2, MRL-3, J
4-Nitroaniline	236.80	330	"	333.33		71.0	36-155			Q-2, MRL-3, J
4-Nitrophenol	268.10	330	"	333.33		80.4	38-137			Q-2, MRL-3, J
Acenaphthene	54.733	66	"	66.667		82.1	40-122			Q-2, MRL-3, J
Acenaphthylene	53.867	66	"	66.667		80.8	39-120			Q-2, MRL-3, J
Acetophenone	250.47	330	"	333.33		75.1	29-116			Q-2, MRL-3, J
Anthracene	57.233	66	"	66.667		85.8	41-122			Q-2, MRL-3, J
Atrazine	303.17	330	"	333.33		91.0	10-143			Q-2, MRL-3, J
Benzaldehyde	245.07	330	"	333.33		73.5	21-145			Q-2, QC-2, MRL-3, J
Benzo(a)anthracene	61.600	66	"	66.667		92.4	45-125			Q-2, MRL-3, J
Benzo(a)pyrene	56.300	66	"	66.667		84.4	40-133			MRL-3, Q-2, J
Benzo(b)fluoranthene	60.433	66	"	66.667		90.6	41-136			Q-2, MRL-3, J
Benzo(g,h,i)perylene	68.400	66	"	66.667		103	25-134			MRL-3
Benzo(k)fluoranthene	60.233	66	"	66.667		90.3	37-135			Q-2, MRL-3, J



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Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603083 - E 3545A Modified

MRL Verification (1603083-PS1)

Prepared: 03/16/16 Analyzed: 03/29/16

Benzyl butyl phthalate	292.53	330	ug/kg dry	333.33		87.8	36-132			Q-2, MRL-3, J
Bis(2-chloroethoxy)methane	260.00	330	"	333.33		78.0	31-122			Q-2, MRL-3, J
bis(2-Chloroethyl) Ether	254.50	330	"	333.33		76.4	23-120			Q-2, MRL-3, J
Bis(2-chloroisopropyl) ether	251.63	330	"	333.33		75.5	20-125			Q-2, MRL-3, J
Bis(2-ethylhexyl) phthalate	299.93	330	"	333.33		90.0	35-129			Q-2, MRL-3, J
Caprolactam	245.43	330	"	333.33		73.6	46-121			Q-2, MRL-3, J
Carbazole	66.833	66	"	66.667		100	42-132			MRL-3
Chrysene	61.500	66	"	66.667		92.2	40-126			Q-2, MRL-3, J
Dibenz(a,h)anthracene	51.533	66	"	66.667		77.3	26-137			MRL-3, Q-2, J
Dibenzofuran	56.567	66	"	66.667		84.8	37-120			Q-2, MRL-3, J
Diethyl phthalate	298.13	330	"	333.33		89.4	37-119			Q-2, MRL-3, J
Dimethyl phthalate	495.77	330	"	333.33		149	35-117			QR-2, MRL-3
Di-n-butylphthalate	332.70	330	"	333.33		99.8	34-121			MRL-3
Di-n-octylphthalate	304.50	330	"	333.33		91.4	28-147			Q-2, MRL-3, J
Fluoranthene	58.000	66	"	66.667		87.0	44-125			Q-2, MRL-3, J
Fluorene	54.400	66	"	66.667		81.6	42-128			Q-2, MRL-3, J
Hexachlorobenzene (HCB)	289.80	330	"	333.33		86.9	16-111			Q-2, MRL-3, J
Hexachlorocyclopentadiene (HCCP)	239.70	330	"	333.33		71.9	10-119			Q-2, MRL-3, J
Hexachloroethane	240.10	330	"	333.33		72.0	30-106			Q-2, MRL-3, J
Indeno (1,2,3-cd) pyrene	53.900	66	"	66.667		80.8	28-136			MRL-3, Q-2, J
Isophorone	281.40	330	"	333.33		84.4	35-120			Q-2, MRL-3, J
Naphthalene	53.133	66	"	66.667		79.7	38-109			Q-2, MRL-3, J
Nitrobenzene	249.67	330	"	333.33		74.9	32-122			Q-2, MRL-3, J
n-Nitroso di-n-Propylamine	249.27	330	"	333.33		74.8	30-118			Q-2, MRL-3, J
n-Nitrosodiphenylamine/Diphenylamine	286.27	330	"	333.33		85.9	39-124			Q-2, MRL-3, J



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Semi Volatile Organics (SVOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603083 - E 3545A Modified

MRL Verification (1603083-PS1)

Prepared: 03/16/16 Analyzed: 03/29/16

Pentachlorophenol	226.70	330	ug/kg dry	333.33		68.0	30-125			Q-2, MRL-3, J
Phenanthrene	56.167	66	"	66.667		84.2	42-123			Q-2, MRL-3, J
Phenol	265.73	330	"	333.33		79.7	36-114			Q-2, MRL-3, J
Pyrene	55.100	66	"	66.667		82.6	38-139			Q-2, MRL-3, J

Batch 1604016 - E 3545A Modified

Blank (1604016-BLK1)

Prepared: 04/04/16 Analyzed: 04/06/16

EPA 8270D

1,4-Dioxane	U	66	ug/kg dry							U
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LCS (1604016-BS1)

Prepared: 04/04/16 Analyzed: 04/06/16

EPA 8270D

1,4-Dioxane	915.70	66	ug/kg dry	2000.0		45.8	20-76			
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LCS Dup (1604016-BSD1)

Prepared: 04/04/16 Analyzed: 04/06/16

EPA 8270D

1,4-Dioxane	906.77	66	ug/kg dry	2000.0		45.3	20-76	0.980	14	
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Duplicate (1604016-DUP1)

Source: E160907-11RE1

Prepared: 04/04/16 Analyzed: 04/06/16

EPA 8270D

1,4-Dioxane	U	77	ug/kg dry		U				200	J, H-6, U
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MRL Verification (1604016-PS1)

Prepared: 04/04/16 Analyzed: 04/06/16

EPA 8270D

1,4-Dioxane	32.467	66	ug/kg dry	66.667		48.7	10-96			MRL-3, Q-2, J
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Notes and Definitions for QC Samples

- U The analyte was not detected at or above the reporting limit.
- B-3 Level in blank does not impact data quality
- H-6 Sample originally analyzed within holding time; some QC requirements not met. The reported result is from a second analysis performed for confir
- J The identification of the analyte is acceptable; the reported value is an estimate.
- MRL-3 MRL verification for Soil matrix
- Q-2 Result greater than MDL but less than MRL.
- QC-2 Analyte concentration high in continuing calibration verification standard
- QL-1 Laboratory Control Spike Recovery less than method control limits
- QL-2 Laboratory Control Spike Recovery greater than method control limits
- QM-1 Matrix Spike Recovery less than method control limits
- QM-2 Matrix Spike Recovery greater than method control limits
- QM-3 Matrix Spike Precision outside method control limits
- QM-6 Matrix Spike Recovery less than 10%
- QR-1 MRL verification recovery less than lower control limits.
- QR-2 MRL verification recovery greater than upper control limits.



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

March 21, 2016

4SESD-ASB

MEMORANDUM

SUBJECT: FINAL Analytical Report
Project: 16-0282, Burlington Ind. Cheraw Former Lagoon
Superfund Remedial

FROM: Sallie Hale
OCS Analyst

THRU: Floyd Wellborn, Chief
ASB Organic Chemistry Section

TO: Jeffery Crowley

Attached are the final results for the analytical groups listed below. These analyses were performed in accordance with the Analytical Support Branch's (ASB) Laboratory Operations and Quality Assurance Manual (ASB LOQAM) found at www.epa.gov/region4/sesd/asbsop. Any unique project data quality objectives specified in writing by the data requestor have also been incorporated into the data unless otherwise noted in the Report Narrative. Chemistry data have been verified based on the ASB LOQAM specifications and have been qualified by this laboratory if the applicable quality control criteria were not met. Verification is defined in Section 5.2 of the ASB LOQAM. For a listing of specific data qualifiers and explanations, please refer to the Data Qualifier Definitions included in this report. The reported results are accurate within the limits of the method(s) and are representative only of the samples as received by the laboratory.

Analyses Included in this report:	Method Used:	Accreditations:
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Volatile Organics (VOA)

Volatile organic compounds	EPA 8260C (Soil)	ISO
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Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Sample Disposal Policy

Because of the laboratory's limited space for long term sample storage, our policy is to dispose of samples on a periodic schedule. Please note that within 60 days of this memo, the original samples and all sample extracts and/or sample digestates will be disposed of in accordance with applicable regulations. The 60-day sample disposal policy does not apply to criminal samples which are held until the laboratory is notified by the criminal investigators that case development and litigation are complete.

These samples may be held in the laboratory's custody for a longer period of time if you have a special project need. If you wish for the laboratory to hold samples beyond the 60-day period, please contact our Sample Control Coordinator by e-mail at R4SampleCustody@epa.gov, and provide a reason for holding samples beyond 60 days

cc: Nardina Turner



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SAMPLES INCLUDED IN THIS REPORT

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
BIC-011-TS	E160907-01	Trip Blank - Soil	2/25/16 10:30	2/26/16 10:13
BIC-001-SF	E160907-02	Surface Soil	2/25/16 11:55	2/26/16 10:13
BIC-002-SF	E160907-03	Surface Soil	2/25/16 11:40	2/26/16 10:13
BIC-003-SF	E160907-04	Surface Soil	2/25/16 11:20	2/26/16 10:13
BIC-004-SF	E160907-05	Surface Soil	2/25/16 11:05	2/26/16 10:13
BIC-005-SB	E160907-06	Subsurface Soil	2/25/16 10:45	2/26/16 10:13
BIC-005-SF	E160907-07	Surface Soil	2/25/16 10:30	2/26/16 10:13
BIC-006-SD	E160907-08	Sediment	2/25/16 12:25	2/26/16 10:13
BIC-007-SD	E160907-09	Sediment	2/25/16 12:38	2/26/16 10:13
BIC-008-SB	E160907-10	Subsurface Soil	2/25/16 11:47	2/26/16 10:13
BIC-009-SB	E160907-11	Subsurface Soil	2/25/16 12:20	2/26/16 10:13
BIC-010-SB	E160907-12	Subsurface Soil	2/25/16 12:55	2/26/16 10:13



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DATA QUALIFIER DEFINITIONS

- U The analyte was not detected at or above the reporting limit.
- B-2 Reporting level elevated due to trace amounts of analyte present in the method blank.
- D-4 MRL elevated due to interferences.
- J The identification of the analyte is acceptable; the reported value is an estimate.
- NJ Presumptive evidence that analyte is present; reported as a tentative identification with an estimated value.
- QC-2 Analyte concentration high in continuing calibration verification standard
- OI-1 Internal standard was outside of method control limits.

ACRONYMS AND ABBREVIATIONS

- CAS Chemical Abstracts Service
Note: Analytes with no known CAS identifiers have been assigned codes beginning with "E", the EPA ID as assigned by the EPA Substance Registry System (www.epa.gov/srs), or beginning with "R4-", a unique identifier assigned by the EPA Region 4 laboratory.
- MDL Method Detection Limit - The minimum concentration of a substance (an analyte) that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero.
- MRL Minimum Reporting Limit - Analyte concentration that corresponds to the lowest demonstrated level of acceptable quantitation. The MRL is sample-specific and accounts for preparation weights and volumes, dilutions, and moisture content of soil/sediments.
- TIC Tentatively Identified Compound - An analyte identified based on a match with the instrument software's mass spectral library. A calibration standard has not been analyzed to confirm the compound's identification or the estimated concentration reported.

ACCREDITATIONS:

- ISO The test, if analyzed after June 26, 2012, is accredited under the EPA Region 4 ASB's ISO/IEC 17025 accreditation issued by ANSI-ASQ National Accreditation Board/ACLASS. Refer to certificate and scope of accreditation AT-1691.
- NR The EPA Region 4 Laboratory has not requested accreditation for this test.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-011-TS

Lab ID: E160907-01

Station ID:

Matrix: Trip Blank - Soil

Date Collected: 2/25/16 10:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	2.1	U	ug/kg dry	2.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
71-55-6	1,1,1-Trichloroethane	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
79-00-5	1,1,2-Trichloroethane	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
75-34-3	1,1-Dichloroethane	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
563-58-6	1,1-Dichloropropene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
96-18-4	1,2,3-Trichloropropane	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	2.1	U	ug/kg dry	2.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
95-50-1	1,2-Dichlorobenzene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
107-06-2	1,2-Dichloroethane	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
78-87-5	1,2-Dichloropropane	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
541-73-1	1,3-Dichlorobenzene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
142-28-9	1,3-Dichloropropane	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
106-46-7	1,4-Dichlorobenzene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
594-20-7	2,2-Dichloropropane	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
67-64-1	Acetone	11	U	ug/kg dry	11	2/26/16 14:48	3/03/16 11:59	EPA 8260C
71-43-2	Benzene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
108-86-1	Bromobenzene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
74-97-5	Bromochloromethane	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-011-TS

Lab ID: E160907-01

Station ID:

Matrix: Trip Blank - Soil

Date Collected: 2/25/16 10:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
75-25-2	Bromoform	2.1	U	ug/kg dry	2.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
74-83-9	Bromomethane	2.1	U	ug/kg dry	2.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
75-15-0	Carbon disulfide	2.1	U	ug/kg dry	2.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
56-23-5	Carbon Tetrachloride	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
108-90-7	Chlorobenzene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
75-00-3	Chloroethane	2.1	U	ug/kg dry	2.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
67-66-3	Chloroform	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
74-87-3	Chloromethane	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
110-82-7	Cyclohexane	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
124-48-1	Dibromochloromethane	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
74-95-3	Dibromomethane	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
100-41-4	Ethyl Benzene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
87-68-3	Hexachlorobutadiene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
98-82-8	Isopropylbenzene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
79-20-9	Methyl Acetate	2.1	U	ug/kg dry	2.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
591-78-6	Methyl Butyl Ketone	5.3	U	ug/kg dry	5.3	2/26/16 14:48	3/03/16 11:59	EPA 8260C
78-93-3	Methyl Ethyl Ketone	5.3	U	ug/kg dry	5.3	2/26/16 14:48	3/03/16 11:59	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	5.3	U	ug/kg dry	5.3	2/26/16 14:48	3/03/16 11:59	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
108-87-2	Methylcyclohexane	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
75-09-2	Methylene Chloride	11	U	ug/kg dry	11	2/26/16 14:48	3/03/16 11:59	EPA 8260C
104-51-8	n-Butylbenzene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
103-65-1	n-Propylbenzene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
95-49-8	o-Chlorotoluene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
95-47-6	o-Xylene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-011-TS

Lab ID: E160907-01

Station ID:

Matrix: Trip Blank - Soil

Date Collected: 2/25/16 10:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
106-43-4	p-Chlorotoluene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
99-87-6	p-Isopropyltoluene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
135-98-8	sec-Butylbenzene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
100-42-5	Styrene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
98-06-6	tert-Butylbenzene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
108-88-3	Toluene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
75-01-4	Vinyl chloride	1.1	U	ug/kg dry	1.1	2/26/16 14:48	3/03/16 11:59	EPA 8260C
Tentatively Identified Compounds:								
R4-7521	Ethyl acetate (TIC)	20	NJ	ug/kg dry		2/26/16 14:48	3/03/16 11:59	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-001-SF**

Lab ID: **E160907-02**

Station ID: **BIC001**

Matrix: Surface Soil

Date Collected: 2/25/16 11:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	2.7	U	ug/kg dry	2.7	2/26/16 14:55	3/03/16 12:26	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
71-55-6	1,1,1-Trichloroethane	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
79-00-5	1,1,2-Trichloroethane	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
75-34-3	1,1-Dichloroethane	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
563-58-6	1,1-Dichloropropene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
96-18-4	1,2,3-Trichloropropane	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	2.7	U	ug/kg dry	2.7	2/26/16 14:55	3/03/16 12:26	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
95-50-1	1,2-Dichlorobenzene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
107-06-2	1,2-Dichloroethane	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
78-87-5	1,2-Dichloropropane	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
541-73-1	1,3-Dichlorobenzene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
142-28-9	1,3-Dichloropropane	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
106-46-7	1,4-Dichlorobenzene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
594-20-7	2,2-Dichloropropane	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
67-64-1	Acetone	14	U	ug/kg dry	14	2/26/16 14:55	3/03/16 12:26	EPA 8260C
71-43-2	Benzene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
108-86-1	Bromobenzene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
74-97-5	Bromochloromethane	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-001-SF

Lab ID: E160907-02

Station ID: BIC001

Matrix: Surface Soil

Date Collected: 2/25/16 11:55

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
75-27-4	Bromodichloromethane	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
75-25-2	Bromoform	2.7	U	ug/kg dry	2.7	2/26/16 14:55	3/03/16 12:26	EPA 8260C
74-83-9	Bromomethane	2.7	U	ug/kg dry	2.7	2/26/16 14:55	3/03/16 12:26	EPA 8260C
75-15-0	Carbon disulfide	2.7	U	ug/kg dry	2.7	2/26/16 14:55	3/03/16 12:26	EPA 8260C
56-23-5	Carbon Tetrachloride	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
108-90-7	Chlorobenzene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
75-00-3	Chloroethane	2.7	U	ug/kg dry	2.7	2/26/16 14:55	3/03/16 12:26	EPA 8260C
67-66-3	Chloroform	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
74-87-3	Chloromethane	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
110-82-7	Cyclohexane	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
124-48-1	Dibromochloromethane	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
74-95-3	Dibromomethane	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
100-41-4	Ethyl Benzene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
87-68-3	Hexachlorobutadiene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
98-82-8	Isopropylbenzene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
79-20-9	Methyl Acetate	2.7	U	ug/kg dry	2.7	2/26/16 14:55	3/03/16 12:26	EPA 8260C
591-78-6	Methyl Butyl Ketone	6.8	U	ug/kg dry	6.8	2/26/16 14:55	3/03/16 12:26	EPA 8260C
78-93-3	Methyl Ethyl Ketone	6.8	U	ug/kg dry	6.8	2/26/16 14:55	3/03/16 12:26	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	6.8	U	ug/kg dry	6.8	2/26/16 14:55	3/03/16 12:26	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
108-87-2	Methylcyclohexane	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
75-09-2	Methylene Chloride	14	U	ug/kg dry	14	2/26/16 14:55	3/03/16 12:26	EPA 8260C
104-51-8	n-Butylbenzene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
103-65-1	n-Propylbenzene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
95-49-8	o-Chlorotoluene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
95-47-6	o-Xylene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-001-SF**

Lab ID: **E160907-02**

Station ID: **BIC001**

Matrix: Surface Soil

Date Collected: 2/25/16 11:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
106-43-4	p-Chlorotoluene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
99-87-6	p-Isopropyltoluene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
135-98-8	sec-Butylbenzene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
100-42-5	Styrene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
98-06-6	tert-Butylbenzene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
108-88-3	Toluene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
75-01-4	Vinyl chloride	1.4	U	ug/kg dry	1.4	2/26/16 14:55	3/03/16 12:26	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/kg dry	10	2/26/16 14:55	3/03/16 12:26	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-002-SF**

Lab ID: **E160907-03**

Station ID: **BIC002**

Matrix: Surface Soil

Date Collected: 2/25/16 11:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	3.8	U, J, QI-1	ug/kg dry	3.8	2/26/16 14:57	3/03/16 12:53	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
71-55-6	1,1,1-Trichloroethane	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
79-00-5	1,1,2-Trichloroethane	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
75-34-3	1,1-Dichloroethane	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
563-58-6	1,1-Dichloropropene	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
96-18-4	1,2,3-Trichloropropane	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	3.8	U, J, QI-1	ug/kg dry	3.8	2/26/16 14:57	3/03/16 12:53	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
95-50-1	1,2-Dichlorobenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
107-06-2	1,2-Dichloroethane	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
78-87-5	1,2-Dichloropropane	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
541-73-1	1,3-Dichlorobenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
142-28-9	1,3-Dichloropropane	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
106-46-7	1,4-Dichlorobenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
594-20-7	2,2-Dichloropropane	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
67-64-1	Acetone	97		ug/kg dry	19	2/26/16 14:57	3/03/16 12:53	EPA 8260C
71-43-2	Benzene	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
108-86-1	Bromobenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
74-97-5	Bromochloromethane	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-002-SF**

Lab ID: **E160907-03**

Station ID: **BIC002**

Matrix: Surface Soil

Date Collected: 2/25/16 11:40

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
75-25-2	Bromoform	3.8	U, J, QI-1	ug/kg dry	3.8	2/26/16 14:57	3/03/16 12:53	EPA 8260C
74-83-9	Bromomethane	3.8	U	ug/kg dry	3.8	2/26/16 14:57	3/03/16 12:53	EPA 8260C
75-15-0	Carbon disulfide	3.8	U	ug/kg dry	3.8	2/26/16 14:57	3/03/16 12:53	EPA 8260C
56-23-5	Carbon Tetrachloride	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
108-90-7	Chlorobenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
75-00-3	Chloroethane	3.8	U	ug/kg dry	3.8	2/26/16 14:57	3/03/16 12:53	EPA 8260C
67-66-3	Chloroform	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
74-87-3	Chloromethane	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
110-82-7	Cyclohexane	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
124-48-1	Dibromochloromethane	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
74-95-3	Dibromomethane	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
100-41-4	Ethyl Benzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
87-68-3	Hexachlorobutadiene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
98-82-8	Isopropylbenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
79-20-9	Methyl Acetate	3.8	U	ug/kg dry	3.8	2/26/16 14:57	3/03/16 12:53	EPA 8260C
591-78-6	Methyl Butyl Ketone	9.5	U, J, QI-1	ug/kg dry	9.5	2/26/16 14:57	3/03/16 12:53	EPA 8260C
78-93-3	Methyl Ethyl Ketone	9.5	U	ug/kg dry	9.5	2/26/16 14:57	3/03/16 12:53	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	9.5	U, J, QI-1	ug/kg dry	9.5	2/26/16 14:57	3/03/16 12:53	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
108-87-2	Methylcyclohexane	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
75-09-2	Methylene Chloride	19	U	ug/kg dry	19	2/26/16 14:57	3/03/16 12:53	EPA 8260C
104-51-8	n-Butylbenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
103-65-1	n-Propylbenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
95-49-8	o-Chlorotoluene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
95-47-6	o-Xylene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-002-SF

Lab ID: E160907-03

Station ID: BIC002

Matrix: Surface Soil

Date Collected: 2/25/16 11:40

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
106-43-4	p-Chlorotoluene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
99-87-6	p-Isopropyltoluene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
135-98-8	sec-Butylbenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
100-42-5	Styrene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
98-06-6	tert-Butylbenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
108-88-3	Toluene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
75-01-4	Vinyl chloride	1.9	U	ug/kg dry	1.9	2/26/16 14:57	3/03/16 12:53	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	20	U	ug/kg dry	20	2/26/16 14:57	3/03/16 12:53	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-003-SF**

Lab ID: **E160907-04**

Station ID: **BIC003**

Matrix: Surface Soil

Date Collected: 2/25/16 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.9	U	ug/kg dry	1.9	2/26/16 14:59	3/03/16 13:20	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
75-34-3	1,1-Dichloroethane	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
563-58-6	1,1-Dichloropropene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.9	U	ug/kg dry	1.9	2/26/16 14:59	3/03/16 13:20	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
107-06-2	1,2-Dichloroethane	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
78-87-5	1,2-Dichloropropane	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
142-28-9	1,3-Dichloropropane	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
594-20-7	2,2-Dichloropropane	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
67-64-1	Acetone	18	U, B-2	ug/kg dry	18	2/26/16 14:59	3/03/16 13:20	EPA 8260C
71-43-2	Benzene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
108-86-1	Bromobenzene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
74-97-5	Bromochloromethane	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-003-SF**

Lab ID: **E160907-04**

Station ID: **BIC003**

Matrix: Surface Soil

Date Collected: 2/25/16 11:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
75-25-2	Bromoform	1.9	U	ug/kg dry	1.9	2/26/16 14:59	3/03/16 13:20	EPA 8260C
74-83-9	Bromomethane	1.9	U	ug/kg dry	1.9	2/26/16 14:59	3/03/16 13:20	EPA 8260C
75-15-0	Carbon disulfide	1.9	U	ug/kg dry	1.9	2/26/16 14:59	3/03/16 13:20	EPA 8260C
56-23-5	Carbon Tetrachloride	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
108-90-7	Chlorobenzene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
75-00-3	Chloroethane	1.9	U	ug/kg dry	1.9	2/26/16 14:59	3/03/16 13:20	EPA 8260C
67-66-3	Chloroform	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
74-87-3	Chloromethane	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
110-82-7	Cyclohexane	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
124-48-1	Dibromochloromethane	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
74-95-3	Dibromomethane	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
100-41-4	Ethyl Benzene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
87-68-3	Hexachlorobutadiene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
98-82-8	Isopropylbenzene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
79-20-9	Methyl Acetate	1.9	U	ug/kg dry	1.9	2/26/16 14:59	3/03/16 13:20	EPA 8260C
591-78-6	Methyl Butyl Ketone	4.7	U	ug/kg dry	4.7	2/26/16 14:59	3/03/16 13:20	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.7	U	ug/kg dry	4.7	2/26/16 14:59	3/03/16 13:20	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	4.7	U	ug/kg dry	4.7	2/26/16 14:59	3/03/16 13:20	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
108-87-2	Methylcyclohexane	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
75-09-2	Methylene Chloride	9.3	U	ug/kg dry	9.3	2/26/16 14:59	3/03/16 13:20	EPA 8260C
104-51-8	n-Butylbenzene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
103-65-1	n-Propylbenzene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
95-49-8	o-Chlorotoluene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
95-47-6	o-Xylene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-003-SF

Lab ID: E160907-04

Station ID: BIC003

Matrix: Surface Soil

Date Collected: 2/25/16 11:20

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
106-43-4	p-Chlorotoluene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
99-87-6	p-Isopropyltoluene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
135-98-8	sec-Butylbenzene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
100-42-5	Styrene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
98-06-6	tert-Butylbenzene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
108-88-3	Toluene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
75-01-4	Vinyl chloride	0.93	U	ug/kg dry	0.93	2/26/16 14:59	3/03/16 13:20	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	9	U	ug/kg dry	9	2/26/16 14:59	3/03/16 13:20	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-004-SF**

Lab ID: **E160907-05**

Station ID: **BIC004**

Matrix: Surface Soil

Date Collected: 2/25/16 11:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	2.2	U	ug/kg dry	2.2	2/26/16 15:01	3/03/16 13:47	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
71-55-6	1,1,1-Trichloroethane	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
79-00-5	1,1,2-Trichloroethane	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
75-34-3	1,1-Dichloroethane	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
563-58-6	1,1-Dichloropropene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
96-18-4	1,2,3-Trichloropropane	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	2.2	U	ug/kg dry	2.2	2/26/16 15:01	3/03/16 13:47	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
95-50-1	1,2-Dichlorobenzene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
107-06-2	1,2-Dichloroethane	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
78-87-5	1,2-Dichloropropane	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
541-73-1	1,3-Dichlorobenzene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
142-28-9	1,3-Dichloropropane	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
106-46-7	1,4-Dichlorobenzene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
594-20-7	2,2-Dichloropropane	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
67-64-1	Acetone	11	U	ug/kg dry	11	2/26/16 15:01	3/03/16 13:47	EPA 8260C
71-43-2	Benzene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
108-86-1	Bromobenzene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
74-97-5	Bromochloromethane	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-004-SF**

Lab ID: **E160907-05**

Station ID: **BIC004**

Matrix: Surface Soil

Date Collected: 2/25/16 11:05

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
75-25-2	Bromoform	2.2	U	ug/kg dry	2.2	2/26/16 15:01	3/03/16 13:47	EPA 8260C
74-83-9	Bromomethane	2.2	U	ug/kg dry	2.2	2/26/16 15:01	3/03/16 13:47	EPA 8260C
75-15-0	Carbon disulfide	2.2	U	ug/kg dry	2.2	2/26/16 15:01	3/03/16 13:47	EPA 8260C
56-23-5	Carbon Tetrachloride	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
108-90-7	Chlorobenzene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
75-00-3	Chloroethane	2.2	U	ug/kg dry	2.2	2/26/16 15:01	3/03/16 13:47	EPA 8260C
67-66-3	Chloroform	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
74-87-3	Chloromethane	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
110-82-7	Cyclohexane	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
124-48-1	Dibromochloromethane	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
74-95-3	Dibromomethane	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
100-41-4	Ethyl Benzene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
87-68-3	Hexachlorobutadiene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
98-82-8	Isopropylbenzene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
79-20-9	Methyl Acetate	2.2	U	ug/kg dry	2.2	2/26/16 15:01	3/03/16 13:47	EPA 8260C
591-78-6	Methyl Butyl Ketone	5.4	U	ug/kg dry	5.4	2/26/16 15:01	3/03/16 13:47	EPA 8260C
78-93-3	Methyl Ethyl Ketone	5.4	U	ug/kg dry	5.4	2/26/16 15:01	3/03/16 13:47	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	5.4	U	ug/kg dry	5.4	2/26/16 15:01	3/03/16 13:47	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
108-87-2	Methylcyclohexane	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
75-09-2	Methylene Chloride	11	U	ug/kg dry	11	2/26/16 15:01	3/03/16 13:47	EPA 8260C
104-51-8	n-Butylbenzene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
103-65-1	n-Propylbenzene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
95-49-8	o-Chlorotoluene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
95-47-6	o-Xylene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-004-SF

Lab ID: E160907-05

Station ID: BIC004

Matrix: Surface Soil

Date Collected: 2/25/16 11:05

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
106-43-4	p-Chlorotoluene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
99-87-6	p-Isopropyltoluene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
135-98-8	sec-Butylbenzene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
100-42-5	Styrene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
98-06-6	tert-Butylbenzene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
108-88-3	Toluene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
75-01-4	Vinyl chloride	1.1	U	ug/kg dry	1.1	2/26/16 15:01	3/03/16 13:47	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/kg dry	10	2/26/16 15:01	3/03/16 13:47	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-005-SB**

Lab ID: **E160907-06**

Station ID: **BIC005**

Matrix: **Subsurface Soil**

Date Collected: **2/25/16 10:45**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.4	U	ug/kg dry	1.4	2/26/16 15:32	3/03/16 14:14	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
75-34-3	1,1-Dichloroethane	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
563-58-6	1,1-Dichloropropene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.4	U	ug/kg dry	1.4	2/26/16 15:32	3/03/16 14:14	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
107-06-2	1,2-Dichloroethane	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
78-87-5	1,2-Dichloropropane	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
142-28-9	1,3-Dichloropropane	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
594-20-7	2,2-Dichloropropane	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
67-64-1	Acetone	26		ug/kg dry	7.1	2/26/16 15:32	3/03/16 14:14	EPA 8260C
71-43-2	Benzene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
108-86-1	Bromobenzene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
74-97-5	Bromochloromethane	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-005-SB**

Lab ID: **E160907-06**

Station ID: **BIC005**

Matrix: **Subsurface Soil**

Date Collected: **2/25/16 10:45**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
75-25-2	Bromoform	1.4	U	ug/kg dry	1.4	2/26/16 15:32	3/03/16 14:14	EPA 8260C
74-83-9	Bromomethane	1.4	U	ug/kg dry	1.4	2/26/16 15:32	3/03/16 14:14	EPA 8260C
75-15-0	Carbon disulfide	1.4	U	ug/kg dry	1.4	2/26/16 15:32	3/03/16 14:14	EPA 8260C
56-23-5	Carbon Tetrachloride	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
108-90-7	Chlorobenzene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
75-00-3	Chloroethane	1.4	U	ug/kg dry	1.4	2/26/16 15:32	3/03/16 14:14	EPA 8260C
67-66-3	Chloroform	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
74-87-3	Chloromethane	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
110-82-7	Cyclohexane	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
124-48-1	Dibromochloromethane	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
74-95-3	Dibromomethane	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
100-41-4	Ethyl Benzene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
87-68-3	Hexachlorobutadiene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
98-82-8	Isopropylbenzene	12	U, D-4	ug/kg dry	12	2/26/16 15:32	3/03/16 14:14	EPA 8260C
79-20-9	Methyl Acetate	1.4	U	ug/kg dry	1.4	2/26/16 15:32	3/03/16 14:14	EPA 8260C
591-78-6	Methyl Butyl Ketone	3.5	U	ug/kg dry	3.5	2/26/16 15:32	3/03/16 14:14	EPA 8260C
78-93-3	Methyl Ethyl Ketone	3.5	U	ug/kg dry	3.5	2/26/16 15:32	3/03/16 14:14	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	3.5	U	ug/kg dry	3.5	2/26/16 15:32	3/03/16 14:14	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
108-87-2	Methylcyclohexane	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
75-09-2	Methylene Chloride	7.1	U	ug/kg dry	7.1	2/26/16 15:32	3/03/16 14:14	EPA 8260C
104-51-8	n-Butylbenzene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
103-65-1	n-Propylbenzene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
95-49-8	o-Chlorotoluene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
95-47-6	o-Xylene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-005-SB

Lab ID: E160907-06

Station ID: BIC005

Matrix: Subsurface Soil

Date Collected: 2/25/16 10:45

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
106-43-4	p-Chlorotoluene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
99-87-6	p-Isopropyltoluene	3.0	J, QC-2	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
135-98-8	sec-Butylbenzene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
100-42-5	Styrene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
98-06-6	tert-Butylbenzene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
108-88-3	Toluene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
75-01-4	Vinyl chloride	0.71	U	ug/kg dry	0.71	2/26/16 15:32	3/03/16 14:14	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	7	U	ug/kg dry	7	2/26/16 15:32	3/03/16 14:14	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-005-SF**

Lab ID: **E160907-07**

Station ID: **BIC005**

Matrix: Surface Soil

Date Collected: 2/25/16 10:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.2	U	ug/kg dry	1.2	2/26/16 15:36	3/04/16 15:39	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
75-34-3	1,1-Dichloroethane	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
563-58-6	1,1-Dichloropropene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.2	U	ug/kg dry	1.2	2/26/16 15:36	3/04/16 15:39	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
107-06-2	1,2-Dichloroethane	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
78-87-5	1,2-Dichloropropane	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
142-28-9	1,3-Dichloropropane	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
594-20-7	2,2-Dichloropropane	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
67-64-1	Acetone	68		ug/kg dry	5.9	2/26/16 15:36	3/04/16 15:39	EPA 8260C
71-43-2	Benzene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
108-86-1	Bromobenzene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
74-97-5	Bromochloromethane	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-005-SF

Lab ID: E160907-07

Station ID: BIC005

Matrix: Surface Soil

Date Collected: 2/25/16 10:30

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
75-25-2	Bromoform	1.2	U	ug/kg dry	1.2	2/26/16 15:36	3/04/16 15:39	EPA 8260C
74-83-9	Bromomethane	1.2	U	ug/kg dry	1.2	2/26/16 15:36	3/04/16 15:39	EPA 8260C
75-15-0	Carbon disulfide	1.2	U	ug/kg dry	1.2	2/26/16 15:36	3/04/16 15:39	EPA 8260C
56-23-5	Carbon Tetrachloride	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
108-90-7	Chlorobenzene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
75-00-3	Chloroethane	1.2	U	ug/kg dry	1.2	2/26/16 15:36	3/04/16 15:39	EPA 8260C
67-66-3	Chloroform	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
74-87-3	Chloromethane	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
110-82-7	Cyclohexane	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
124-48-1	Dibromochloromethane	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
74-95-3	Dibromomethane	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
100-41-4	Ethyl Benzene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
87-68-3	Hexachlorobutadiene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
98-82-8	Isopropylbenzene	160	U, D-4	ug/kg dry	160	2/26/16 15:36	3/04/16 15:39	EPA 8260C
79-20-9	Methyl Acetate	1.2	U	ug/kg dry	1.2	2/26/16 15:36	3/04/16 15:39	EPA 8260C
591-78-6	Methyl Butyl Ketone	2.9	U	ug/kg dry	2.9	2/26/16 15:36	3/04/16 15:39	EPA 8260C
78-93-3	Methyl Ethyl Ketone	2.9	U	ug/kg dry	2.9	2/26/16 15:36	3/04/16 15:39	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	2.9	U	ug/kg dry	2.9	2/26/16 15:36	3/04/16 15:39	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
108-87-2	Methylcyclohexane	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
75-09-2	Methylene Chloride	5.9	U	ug/kg dry	5.9	2/26/16 15:36	3/04/16 15:39	EPA 8260C
104-51-8	n-Butylbenzene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
103-65-1	n-Propylbenzene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
95-49-8	o-Chlorotoluene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
95-47-6	o-Xylene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-005-SF

Lab ID: E160907-07

Station ID: BIC005

Matrix: Surface Soil

Date Collected: 2/25/16 10:30

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
106-43-4	p-Chlorotoluene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
99-87-6	p-Isopropyltoluene	16		ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
135-98-8	sec-Butylbenzene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
100-42-5	Styrene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
98-06-6	tert-Butylbenzene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
108-88-3	Toluene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
75-01-4	Vinyl chloride	0.59	U	ug/kg dry	0.59	2/26/16 15:36	3/04/16 15:39	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	6	U	ug/kg dry	6	2/26/16 15:36	3/04/16 15:39	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-006-SD**

Lab ID: **E160907-08**

Station ID: **BIC006**

Matrix: Sediment

Date Collected: 2/25/16 12:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.4	U, J, QI-1	ug/kg dry	1.4	2/26/16 15:19	3/03/16 15:11	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
75-34-3	1,1-Dichloroethane	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
563-58-6	1,1-Dichloropropene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.4	U, J, QI-1	ug/kg dry	1.4	2/26/16 15:19	3/03/16 15:11	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
107-06-2	1,2-Dichloroethane	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
78-87-5	1,2-Dichloropropane	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
142-28-9	1,3-Dichloropropane	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
594-20-7	2,2-Dichloropropane	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
67-64-1	Acetone	32	J, QI-1	ug/kg dry	6.8	2/26/16 15:19	3/03/16 15:11	EPA 8260C
71-43-2	Benzene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
108-86-1	Bromobenzene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
74-97-5	Bromochloromethane	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-006-SD

Lab ID: E160907-08

Station ID: BIC006

Matrix: Sediment

Date Collected: 2/25/16 12:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
75-25-2	Bromoform	1.4	U, J, QI-1	ug/kg dry	1.4	2/26/16 15:19	3/03/16 15:11	EPA 8260C
74-83-9	Bromomethane	1.4	U, J, QI-1	ug/kg dry	1.4	2/26/16 15:19	3/03/16 15:11	EPA 8260C
75-15-0	Carbon disulfide	1.4	U, J, QI-1	ug/kg dry	1.4	2/26/16 15:19	3/03/16 15:11	EPA 8260C
56-23-5	Carbon Tetrachloride	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
108-90-7	Chlorobenzene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
75-00-3	Chloroethane	1.4	U, J, QI-1	ug/kg dry	1.4	2/26/16 15:19	3/03/16 15:11	EPA 8260C
67-66-3	Chloroform	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
74-87-3	Chloromethane	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
110-82-7	Cyclohexane	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
124-48-1	Dibromochloromethane	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
74-95-3	Dibromomethane	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
100-41-4	Ethyl Benzene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
87-68-3	Hexachlorobutadiene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
98-82-8	Isopropylbenzene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
79-20-9	Methyl Acetate	1.4	U, J, QI-1	ug/kg dry	1.4	2/26/16 15:19	3/03/16 15:11	EPA 8260C
591-78-6	Methyl Butyl Ketone	3.4	U, J, QI-1	ug/kg dry	3.4	2/26/16 15:19	3/03/16 15:11	EPA 8260C
78-93-3	Methyl Ethyl Ketone	3.4	U, J, QI-1	ug/kg dry	3.4	2/26/16 15:19	3/03/16 15:11	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	3.4	U, J, QI-1	ug/kg dry	3.4	2/26/16 15:19	3/03/16 15:11	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
108-87-2	Methylcyclohexane	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
75-09-2	Methylene Chloride	6.8	U, J, QI-1	ug/kg dry	6.8	2/26/16 15:19	3/03/16 15:11	EPA 8260C
104-51-8	n-Butylbenzene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
103-65-1	n-Propylbenzene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
95-49-8	o-Chlorotoluene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
95-47-6	o-Xylene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-006-SD

Lab ID: E160907-08

Station ID: BIC006

Matrix: Sediment

Date Collected: 2/25/16 12:25

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
106-43-4	p-Chlorotoluene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
99-87-6	p-Isopropyltoluene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
135-98-8	sec-Butylbenzene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
100-42-5	Styrene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
98-06-6	tert-Butylbenzene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
108-88-3	Toluene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
75-01-4	Vinyl chloride	0.68	U, J, QI-1	ug/kg dry	0.68	2/26/16 15:19	3/03/16 15:11	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	7	U	ug/kg dry	7	2/26/16 15:19	3/03/16 15:11	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-007-SD**

Lab ID: **E160907-09**

Station ID: **BIC007**

Matrix: Sediment

Date Collected: 2/25/16 12:38

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	3.8	U	ug/kg dry	3.8	2/26/16 15:23	3/03/16 15:38	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
71-55-6	1,1,1-Trichloroethane	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
79-00-5	1,1,2-Trichloroethane	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
75-34-3	1,1-Dichloroethane	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
563-58-6	1,1-Dichloropropene	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
96-18-4	1,2,3-Trichloropropane	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	3.8	U, J, QI-1	ug/kg dry	3.8	2/26/16 15:23	3/03/16 15:38	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
95-50-1	1,2-Dichlorobenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
107-06-2	1,2-Dichloroethane	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
78-87-5	1,2-Dichloropropane	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
541-73-1	1,3-Dichlorobenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
142-28-9	1,3-Dichloropropane	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
106-46-7	1,4-Dichlorobenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
594-20-7	2,2-Dichloropropane	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
67-64-1	Acetone	35	U, B-2	ug/kg dry	35	2/26/16 15:23	3/03/16 15:38	EPA 8260C
71-43-2	Benzene	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
108-86-1	Bromobenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
74-97-5	Bromochloromethane	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-007-SD

Lab ID: E160907-09

Station ID: BIC007

Matrix: Sediment

Date Collected: 2/25/16 12:38

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
75-25-2	Bromoform	3.8	U, J, QI-1	ug/kg dry	3.8	2/26/16 15:23	3/03/16 15:38	EPA 8260C
74-83-9	Bromomethane	3.8	U	ug/kg dry	3.8	2/26/16 15:23	3/03/16 15:38	EPA 8260C
75-15-0	Carbon disulfide	3.8	U	ug/kg dry	3.8	2/26/16 15:23	3/03/16 15:38	EPA 8260C
56-23-5	Carbon Tetrachloride	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
108-90-7	Chlorobenzene	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
75-00-3	Chloroethane	3.8	U	ug/kg dry	3.8	2/26/16 15:23	3/03/16 15:38	EPA 8260C
67-66-3	Chloroform	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
74-87-3	Chloromethane	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
110-82-7	Cyclohexane	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
124-48-1	Dibromochloromethane	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
74-95-3	Dibromomethane	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
100-41-4	Ethyl Benzene	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
87-68-3	Hexachlorobutadiene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
98-82-8	Isopropylbenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
79-20-9	Methyl Acetate	3.8	U	ug/kg dry	3.8	2/26/16 15:23	3/03/16 15:38	EPA 8260C
591-78-6	Methyl Butyl Ketone	9.6	U	ug/kg dry	9.6	2/26/16 15:23	3/03/16 15:38	EPA 8260C
78-93-3	Methyl Ethyl Ketone	9.6	U	ug/kg dry	9.6	2/26/16 15:23	3/03/16 15:38	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	9.6	U	ug/kg dry	9.6	2/26/16 15:23	3/03/16 15:38	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
108-87-2	Methylcyclohexane	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
75-09-2	Methylene Chloride	19	U	ug/kg dry	19	2/26/16 15:23	3/03/16 15:38	EPA 8260C
104-51-8	n-Butylbenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
103-65-1	n-Propylbenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
95-49-8	o-Chlorotoluene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
95-47-6	o-Xylene	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-007-SD

Lab ID: E160907-09

Station ID: BIC007

Matrix: Sediment

Date Collected: 2/25/16 12:38

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
106-43-4	p-Chlorotoluene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
99-87-6	p-Isopropyltoluene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
135-98-8	sec-Butylbenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
100-42-5	Styrene	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
98-06-6	tert-Butylbenzene	1.9	U, J, QI-1	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
108-88-3	Toluene	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
75-01-4	Vinyl chloride	1.9	U	ug/kg dry	1.9	2/26/16 15:23	3/03/16 15:38	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	20	U	ug/kg dry	20	2/26/16 15:23	3/03/16 15:38	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-008-SB

Lab ID: E160907-10

Station ID: BIC008

Matrix: Subsurface Soil

Date Collected: 2/25/16 11:47

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
R4-7156	(m- and/or p-)Xylene	2.0	U	ug/kg dry	2.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
71-55-6	1,1,1-Trichloroethane	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
79-00-5	1,1,2-Trichloroethane	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
75-34-3	1,1-Dichloroethane	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
563-58-6	1,1-Dichloropropene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
96-18-4	1,2,3-Trichloropropane	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	2.0	U	ug/kg dry	2.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
95-50-1	1,2-Dichlorobenzene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
107-06-2	1,2-Dichloroethane	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
78-87-5	1,2-Dichloropropane	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
541-73-1	1,3-Dichlorobenzene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
142-28-9	1,3-Dichloropropane	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
106-46-7	1,4-Dichlorobenzene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
594-20-7	2,2-Dichloropropane	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
67-64-1	Acetone	10	U	ug/kg dry	10	2/26/16 15:25	3/03/16 16:05	EPA 8260C
71-43-2	Benzene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
108-86-1	Bromobenzene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
74-97-5	Bromochloromethane	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-008-SB**

Lab ID: **E160907-10**

Station ID: **BIC008**

Matrix: **Subsurface Soil**

Date Collected: **2/25/16 11:47**

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
75-27-4	Bromodichloromethane	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
75-25-2	Bromoform	2.0	U	ug/kg dry	2.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
74-83-9	Bromomethane	2.0	U	ug/kg dry	2.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
75-15-0	Carbon disulfide	2.0	U	ug/kg dry	2.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
56-23-5	Carbon Tetrachloride	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
108-90-7	Chlorobenzene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
75-00-3	Chloroethane	2.0	U	ug/kg dry	2.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
67-66-3	Chloroform	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
74-87-3	Chloromethane	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
110-82-7	Cyclohexane	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
124-48-1	Dibromochloromethane	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
74-95-3	Dibromomethane	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
100-41-4	Ethyl Benzene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
87-68-3	Hexachlorobutadiene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
98-82-8	Isopropylbenzene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
79-20-9	Methyl Acetate	2.0	U	ug/kg dry	2.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
591-78-6	Methyl Butyl Ketone	5.0	U	ug/kg dry	5.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
78-93-3	Methyl Ethyl Ketone	5.0	U	ug/kg dry	5.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	5.0	U	ug/kg dry	5.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
108-87-2	Methylcyclohexane	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
75-09-2	Methylene Chloride	10	U	ug/kg dry	10	2/26/16 15:25	3/03/16 16:05	EPA 8260C
104-51-8	n-Butylbenzene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
103-65-1	n-Propylbenzene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
95-49-8	o-Chlorotoluene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
95-47-6	o-Xylene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-008-SB

Lab ID: E160907-10

Station ID: BIC008

Matrix: Subsurface Soil

Date Collected: 2/25/16 11:47

<i>CAS Number</i>	<i>Analyte</i>	<i>Results</i>	<i>Qualifiers</i>	<i>Units</i>	<i>MRL</i>	<i>Prepared</i>	<i>Analyzed</i>	<i>Method</i>
106-43-4	p-Chlorotoluene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
99-87-6	p-Isopropyltoluene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
135-98-8	sec-Butylbenzene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
100-42-5	Styrene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
98-06-6	tert-Butylbenzene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
108-88-3	Toluene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
75-01-4	Vinyl chloride	1.0	U	ug/kg dry	1.0	2/26/16 15:25	3/03/16 16:05	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	10	U	ug/kg dry	10	2/26/16 15:25	3/03/16 16:05	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-009-SB**

Lab ID: **E160907-11**

Station ID: **BIC009**

Matrix: **Subsurface Soil**

Date Collected: **2/25/16 12:20**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.8	U	ug/kg dry	1.8	2/26/16 15:27	3/03/16 16:32	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
75-34-3	1,1-Dichloroethane	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
563-58-6	1,1-Dichloropropene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.8	U	ug/kg dry	1.8	2/26/16 15:27	3/03/16 16:32	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
107-06-2	1,2-Dichloroethane	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
78-87-5	1,2-Dichloropropane	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
142-28-9	1,3-Dichloropropane	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
594-20-7	2,2-Dichloropropane	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
67-64-1	Acetone	9.1	U	ug/kg dry	9.1	2/26/16 15:27	3/03/16 16:32	EPA 8260C
71-43-2	Benzene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
108-86-1	Bromobenzene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
74-97-5	Bromochloromethane	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-009-SB**

Lab ID: **E160907-11**

Station ID: **BIC009**

Matrix: **Subsurface Soil**

Date Collected: **2/25/16 12:20**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
75-25-2	Bromoform	1.8	U	ug/kg dry	1.8	2/26/16 15:27	3/03/16 16:32	EPA 8260C
74-83-9	Bromomethane	1.8	U	ug/kg dry	1.8	2/26/16 15:27	3/03/16 16:32	EPA 8260C
75-15-0	Carbon disulfide	1.8	U	ug/kg dry	1.8	2/26/16 15:27	3/03/16 16:32	EPA 8260C
56-23-5	Carbon Tetrachloride	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
108-90-7	Chlorobenzene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
75-00-3	Chloroethane	1.8	U	ug/kg dry	1.8	2/26/16 15:27	3/03/16 16:32	EPA 8260C
67-66-3	Chloroform	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
74-87-3	Chloromethane	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
110-82-7	Cyclohexane	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
124-48-1	Dibromochloromethane	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
74-95-3	Dibromomethane	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
100-41-4	Ethyl Benzene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
87-68-3	Hexachlorobutadiene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
98-82-8	Isopropylbenzene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
79-20-9	Methyl Acetate	1.8	U	ug/kg dry	1.8	2/26/16 15:27	3/03/16 16:32	EPA 8260C
591-78-6	Methyl Butyl Ketone	4.5	U	ug/kg dry	4.5	2/26/16 15:27	3/03/16 16:32	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.5	U	ug/kg dry	4.5	2/26/16 15:27	3/03/16 16:32	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	4.5	U	ug/kg dry	4.5	2/26/16 15:27	3/03/16 16:32	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
108-87-2	Methylcyclohexane	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
75-09-2	Methylene Chloride	9.1	U	ug/kg dry	9.1	2/26/16 15:27	3/03/16 16:32	EPA 8260C
104-51-8	n-Butylbenzene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
103-65-1	n-Propylbenzene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
95-49-8	o-Chlorotoluene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
95-47-6	o-Xylene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: BIC-009-SB

Lab ID: E160907-11

Station ID: BIC009

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:20

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
106-43-4	p-Chlorotoluene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
99-87-6	p-Isopropyltoluene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
135-98-8	sec-Butylbenzene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
100-42-5	Styrene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
98-06-6	tert-Butylbenzene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
108-88-3	Toluene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
75-01-4	Vinyl chloride	0.91	U	ug/kg dry	0.91	2/26/16 15:27	3/03/16 16:32	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	9	U	ug/kg dry	9	2/26/16 15:27	3/03/16 16:32	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-010-SB**

Lab ID: **E160907-12**

Station ID: **BIC010**

Matrix: **Subsurface Soil**

Date Collected: **2/25/16 12:55**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
R4-7156	(m- and/or p-)Xylene	1.9	U	ug/kg dry	1.9	2/26/16 15:29	3/03/16 16:59	EPA 8260C
630-20-6	1,1,1,2-Tetrachloroethane	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
71-55-6	1,1,1-Trichloroethane	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
79-34-5	1,1,2,2-Tetrachloroethane	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
76-13-1	1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
79-00-5	1,1,2-Trichloroethane	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
75-34-3	1,1-Dichloroethane	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
75-35-4	1,1-Dichloroethene (1,1-Dichloroethylene)	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
563-58-6	1,1-Dichloropropene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
87-61-6	1,2,3-Trichlorobenzene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
96-18-4	1,2,3-Trichloropropane	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
120-82-1	1,2,4-Trichlorobenzene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
95-63-6	1,2,4-Trimethylbenzene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
96-12-8	1,2-Dibromo-3-Chloropropane (DBCP)	1.9	U	ug/kg dry	1.9	2/26/16 15:29	3/03/16 16:59	EPA 8260C
106-93-4	1,2-Dibromoethane (EDB)	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
95-50-1	1,2-Dichlorobenzene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
107-06-2	1,2-Dichloroethane	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
78-87-5	1,2-Dichloropropane	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
108-67-8	1,3,5-Trimethylbenzene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
541-73-1	1,3-Dichlorobenzene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
142-28-9	1,3-Dichloropropane	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
106-46-7	1,4-Dichlorobenzene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
594-20-7	2,2-Dichloropropane	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
67-64-1	Acetone	9.3	U	ug/kg dry	9.3	2/26/16 15:29	3/03/16 16:59	EPA 8260C
71-43-2	Benzene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
108-86-1	Bromobenzene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
74-97-5	Bromochloromethane	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-010-SB**

Lab ID: **E160907-12**

Station ID: **BIC010**

Matrix: Subsurface Soil

Date Collected: 2/25/16 12:55

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
75-27-4	Bromodichloromethane	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
75-25-2	Bromoform	1.9	U	ug/kg dry	1.9	2/26/16 15:29	3/03/16 16:59	EPA 8260C
74-83-9	Bromomethane	1.9	U	ug/kg dry	1.9	2/26/16 15:29	3/03/16 16:59	EPA 8260C
75-15-0	Carbon disulfide	1.9	U	ug/kg dry	1.9	2/26/16 15:29	3/03/16 16:59	EPA 8260C
56-23-5	Carbon Tetrachloride	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
108-90-7	Chlorobenzene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
75-00-3	Chloroethane	1.9	U	ug/kg dry	1.9	2/26/16 15:29	3/03/16 16:59	EPA 8260C
67-66-3	Chloroform	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
74-87-3	Chloromethane	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
156-59-2	cis-1,2-Dichloroethene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
10061-01-5	cis-1,3-Dichloropropene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
110-82-7	Cyclohexane	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
124-48-1	Dibromochloromethane	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
74-95-3	Dibromomethane	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
75-71-8	Dichlorodifluoromethane (Freon 12)	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
100-41-4	Ethyl Benzene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
87-68-3	Hexachlorobutadiene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
98-82-8	Isopropylbenzene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
79-20-9	Methyl Acetate	1.9	U	ug/kg dry	1.9	2/26/16 15:29	3/03/16 16:59	EPA 8260C
591-78-6	Methyl Butyl Ketone	4.7	U	ug/kg dry	4.7	2/26/16 15:29	3/03/16 16:59	EPA 8260C
78-93-3	Methyl Ethyl Ketone	4.7	U	ug/kg dry	4.7	2/26/16 15:29	3/03/16 16:59	EPA 8260C
108-10-1	Methyl Isobutyl Ketone	4.7	U	ug/kg dry	4.7	2/26/16 15:29	3/03/16 16:59	EPA 8260C
1634-04-4	Methyl T-Butyl Ether (MTBE)	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
108-87-2	Methylcyclohexane	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
75-09-2	Methylene Chloride	9.3	U	ug/kg dry	9.3	2/26/16 15:29	3/03/16 16:59	EPA 8260C
104-51-8	n-Butylbenzene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
103-65-1	n-Propylbenzene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
95-49-8	o-Chlorotoluene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
95-47-6	o-Xylene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon

Sample ID: **BIC-010-SB**

Lab ID: **E160907-12**

Station ID: **BIC010**

Matrix: **Subsurface Soil**

Date Collected: **2/25/16 12:55**

CAS Number	Analyte	Results	Qualifiers	Units	MRL	Prepared	Analyzed	Method
106-43-4	p-Chlorotoluene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
99-87-6	p-Isopropyltoluene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
135-98-8	sec-Butylbenzene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
100-42-5	Styrene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
98-06-6	tert-Butylbenzene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
127-18-4	Tetrachloroethene (Tetrachloroethylene)	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
108-88-3	Toluene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
156-60-5	trans-1,2-Dichloroethene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
10061-02-6	trans-1,3-Dichloropropene	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
79-01-6	Trichloroethene (Trichloroethylene)	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
75-69-4	Trichlorofluoromethane (Freon 11)	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
75-01-4	Vinyl chloride	0.93	U	ug/kg dry	0.93	2/26/16 15:29	3/03/16 16:59	EPA 8260C
Tentatively Identified Compounds:								
R4-0000	Tentatively Identified Compounds	9	U	ug/kg dry	9	2/26/16 15:29	3/03/16 16:59	EPA 8260C



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603015 - V 5035 VOA Soil and Waste Prep

Blank (1603015-BLK1)

Prepared & Analyzed: 03/03/16

EPA 8260C

(m- and/or p-)Xylene	U	2.0	ug/kg wet							U
1,1,1,2-Tetrachloroethane	U	1.0	"							U
1,1,1-Trichloroethane	U	1.0	"							U
1,1,2,2-Tetrachloroethane	U	1.0	"							U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	U	1.0	"							U
1,1,2-Trichloroethane	U	1.0	"							U
1,1-Dichloroethane	U	1.0	"							U
1,1-Dichloroethene (1,1-Dichloroethylene)	U	1.0	"							U
1,1-Dichloropropene	U	1.0	"							U
1,2,3-Trichlorobenzene	0.15000	1.0	"							B-3, Q-2, J
1,2,3-Trichloropropane	U	1.0	"							U
1,2,4-Trichlorobenzene	U	1.0	"							U
1,2,4-Trimethylbenzene	U	1.0	"							U
1,2-Dibromo-3-Chloropropane (DBCP)	U	2.0	"							U
1,2-Dibromoethane (EDB)	U	1.0	"							U
1,2-Dichlorobenzene	U	1.0	"							U
1,2-Dichloroethane	U	1.0	"							U
1,2-Dichloropropane	U	1.0	"							U
1,3,5-Trimethylbenzene	U	1.0	"							U
1,3-Dichlorobenzene	U	1.0	"							U
1,3-Dichloropropane	U	1.0	"							U
1,4-Dichlorobenzene	U	1.0	"							U
2,2-Dichloropropane	U	1.0	"							U
Acetone	2.4000	10	"							B-4, B-5, J
Benzene	U	1.0	"							U
Bromobenzene	U	1.0	"							U
Bromochloromethane	U	1.0	"							U
Bromodichloromethane	U	1.0	"							U
Bromoform	U	2.0	"							U
Bromomethane	U	2.0	"							U
Carbon disulfide	U	2.0	"							U
Carbon Tetrachloride	U	1.0	"							U
Chlorobenzene	U	1.0	"							U
Chloroethane	U	2.0	"							U
Chloroform	U	1.0	"							U
Chloromethane	U	1.0	"							U
cis-1,2-Dichloroethene	U	1.0	"							U



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603015 - V 5035 VOA Soil and Waste Prep

Blank (1603015-BLK1)

Prepared & Analyzed: 03/03/16

cis-1,3-Dichloropropene	U	1.0	ug/kg wet							U
Cyclohexane	U	1.0	"							U
Dibromochloromethane	U	1.0	"							U
Dibromomethane	U	1.0	"							U
Dichlorodifluoromethane (Freon 12)	U	1.0	"							U
Ethyl Benzene	U	1.0	"							U
Hexachlorobutadiene	U	1.0	"							U
Isopropylbenzene	U	1.0	"							U
Methyl Acetate	U	2.0	"							U
Methyl Butyl Ketone	U	5.0	"							U
Methyl Ethyl Ketone	U	5.0	"							U
Methyl Isobutyl Ketone	U	5.0	"							U
Methyl T-Butyl Ether (MTBE)	U	1.0	"							U
Methylcyclohexane	U	1.0	"							U
Methylene Chloride	U	10	"							U
n-Butylbenzene	U	1.0	"							U
n-Propylbenzene	U	1.0	"							U
o-Chlorotoluene	U	1.0	"							U
o-Xylene	U	1.0	"							U
p-Chlorotoluene	U	1.0	"							U
p-Isopropyltoluene	U	1.0	"							U
sec-Butylbenzene	U	1.0	"							U
Styrene	U	1.0	"							U
tert-Butylbenzene	U	1.0	"							U
Tetrachloroethene (Tetrachloroethylene)	U	1.0	"							U
Toluene	U	1.0	"							U
trans-1,2-Dichloroethene	U	1.0	"							U
trans-1,3-Dichloropropene	U	1.0	"							U
Trichloroethene (Trichloroethylene)	U	1.0	"							U
Trichlorofluoromethane (Freon 11)	U	1.0	"							U
Vinyl chloride	U	1.0	"							U
Tentatively Identified Compounds	U	10	"							U



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603015 - V 5035 VOA Soil and Waste Prep

Blank (1603015-BLK2)

Prepared: 02/26/16 Analyzed: 03/03/16

EPA 8260C

(m- and/or p-)Xylene	U	2.0	ug/kg wet							U
1,1,1,2-Tetrachloroethane	U	1.0	"							U
1,1,1-Trichloroethane	U	1.0	"							U
1,1,2,2-Tetrachloroethane	U	1.0	"							U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	U	1.0	"							U
1,1,2-Trichloroethane	U	1.0	"							U
1,1-Dichloroethane	U	1.0	"							U
1,1-Dichloroethene (1,1-Dichloroethylene)	U	1.0	"							U
1,1-Dichloropropene	U	1.0	"							U
1,2,3-Trichlorobenzene	0.15000	1.0	"							B-3, Q-2, J
1,2,3-Trichloropropane	U	1.0	"							U
1,2,4-Trichlorobenzene	U	1.0	"							U
1,2,4-Trimethylbenzene	U	1.0	"							U
1,2-Dibromo-3-Chloropropane (DBCP)	U	2.0	"							U
1,2-Dibromoethane (EDB)	U	1.0	"							U
1,2-Dichlorobenzene	U	1.0	"							U
1,2-Dichloroethane	U	1.0	"							U
1,2-Dichloropropane	U	1.0	"							U
1,3,5-Trimethylbenzene	U	1.0	"							U
1,3-Dichlorobenzene	U	1.0	"							U
1,3-Dichloropropane	U	1.0	"							U
1,4-Dichlorobenzene	U	1.0	"							U
2,2-Dichloropropane	U	1.0	"							U
Acetone	2.0600	10	"							B-4, B-5, J
Benzene	U	1.0	"							U
Bromobenzene	U	1.0	"							U
Bromochloromethane	U	1.0	"							U
Bromodichloromethane	U	1.0	"							U
Bromoform	U	2.0	"							U
Bromomethane	U	2.0	"							U
Carbon disulfide	U	2.0	"							U
Carbon Tetrachloride	U	1.0	"							U
Chlorobenzene	U	1.0	"							U
Chloroethane	U	2.0	"							U
Chloroform	U	1.0	"							U
Chloromethane	U	1.0	"							U
cis-1,2-Dichloroethene	U	1.0	"							U



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603015 - V 5035 VOA Soil and Waste Prep

Blank (1603015-BLK2)

Prepared: 02/26/16 Analyzed: 03/03/16

cis-1,3-Dichloropropene	U	1.0	ug/kg wet							U
Cyclohexane	U	1.0	"							U
Dibromochloromethane	U	1.0	"							U
Dibromomethane	U	1.0	"							U
Dichlorodifluoromethane (Freon 12)	U	1.0	"							U
Ethyl Benzene	U	1.0	"							U
Hexachlorobutadiene	U	1.0	"							U
Isopropylbenzene	U	1.0	"							U
Methyl Acetate	U	2.0	"							U
Methyl Butyl Ketone	U	5.0	"							U
Methyl Ethyl Ketone	U	5.0	"							U
Methyl Isobutyl Ketone	U	5.0	"							U
Methyl T-Butyl Ether (MTBE)	U	1.0	"							U
Methylcyclohexane	U	1.0	"							U
Methylene Chloride	U	10	"							U
n-Butylbenzene	U	1.0	"							U
n-Propylbenzene	U	1.0	"							U
o-Chlorotoluene	U	1.0	"							U
o-Xylene	U	1.0	"							U
p-Chlorotoluene	U	1.0	"							U
p-Isopropyltoluene	U	1.0	"							U
sec-Butylbenzene	U	1.0	"							U
Styrene	U	1.0	"							U
tert-Butylbenzene	U	1.0	"							U
Tetrachloroethene (Tetrachloroethylene)	U	1.0	"							U
Toluene	U	1.0	"							U
trans-1,2-Dichloroethene	U	1.0	"							U
trans-1,3-Dichloropropene	U	1.0	"							U
Trichloroethene (Trichloroethylene)	U	1.0	"							U
Trichlorofluoromethane (Freon 11)	U	1.0	"							U
Vinyl chloride	U	1.0	"							U
Tentatively Identified Compounds	U	10	"							U



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603015 - V 5035 VOA Soil and Waste Prep

LCS (1603015-BS1)

Prepared & Analyzed: 03/03/16

EPA 8260C

(m- and/or p-)Xylene	44.170	2.0	ug/kg wet	40.000		110	86.2-127			
1,1,1,2-Tetrachloroethane	20.960	1.0	"	20.000		105	89.2-124			
1,1,1-Trichloroethane	20.350	1.0	"	20.000		102	82.3-129			
1,1,2,2-Tetrachloroethane	19.500	1.0	"	20.000		97.5	69.2-124			
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	20.430	1.0	"	20.000		102	66.2-137			
1,1,2-Trichloroethane	19.680	1.0	"	20.000		98.4	87.7-116			
1,1-Dichloroethane	20.500	1.0	"	20.000		102	84.2-120			
1,1-Dichloroethene (1,1-Dichloroethylene)	19.680	1.0	"	20.000		98.4	78.3-131			
1,1-Dichloropropene	21.310	1.0	"	20.000		107	84.7-121			
1,2,3-Trichlorobenzene	21.090	1.0	"	20.000		105	57.1-125			
1,2,3-Trichloropropane	19.710	1.0	"	20.000		98.6	86.3-118			
1,2,4-Trichlorobenzene	21.290	1.0	"	20.000		106	65.8-127			
1,2,4-Trimethylbenzene	21.960	1.0	"	20.000		110	71.8-135			
1,2-Dibromo-3-Chloropropane (DBCP)	39.700	2.0	"	40.000		99.2	68.5-114			
1,2-Dibromoethane (EDB)	20.700	1.0	"	20.000		104	86-121			
1,2-Dichlorobenzene	19.970	1.0	"	20.000		99.8	83-118			
1,2-Dichloroethane	20.390	1.0	"	20.000		102	75.4-133			
1,2-Dichloropropane	19.890	1.0	"	20.000		99.4	77.2-128			
1,3,5-Trimethylbenzene	22.240	1.0	"	20.000		111	80.5-124			
1,3-Dichlorobenzene	20.270	1.0	"	20.000		101	82.1-121			
1,3-Dichloropropane	21.000	1.0	"	20.000		105	85.2-119			
1,4-Dichlorobenzene	20.210	1.0	"	20.000		101	81-120			
2,2-Dichloropropane	21.100	1.0	"	20.000		106	82.5-129			
Acetone	39.210	10	"	40.000		98.0	67.1-127			
Benzene	20.510	1.0	"	20.000		103	82.4-122			
Bromobenzene	20.350	1.0	"	20.000		102	84.3-118			
Bromochloromethane	19.410	1.0	"	20.000		97.0	83.4-125			
Bromodichloromethane	19.600	1.0	"	20.000		98.0	78.1-133			
Bromoform	41.500	2.0	"	40.000		104	79-115			
Bromomethane	20.370	2.0	"	20.000		102	70.4-159			QC-2
Carbon disulfide	19.690	2.0	"	20.000		98.4	68.5-135			
Carbon Tetrachloride	20.530	1.0	"	20.000		103	83.2-130			
Chlorobenzene	20.820	1.0	"	20.000		104	84-120			
Chloroethane	21.180	2.0	"	20.000		106	68.3-147			
Chloroform	20.160	1.0	"	20.000		101	78.4-131			
Chloromethane	20.480	1.0	"	20.000		102	51.9-146			
cis-1,2-Dichloroethene	19.990	1.0	"	20.000		100	84.2-122			
cis-1,3-Dichloropropene	21.320	1.0	"	20.000		107	86.1-122			



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603015 - V 5035 VOA Soil and Waste Prep

LCS (1603015-BS1)

Prepared & Analyzed: 03/03/16

Cyclohexane	21.170	1.0	ug/kg wet	20.000		106	79.8-132			
Dibromochloromethane	20.360	1.0	"	20.000		102	87-117			
Dibromomethane	19.290	1.0	"	20.000		96.4	82.3-129			
Dichlorodifluoromethane (Freon 12)	21.220	1.0	"	20.000		106	22.4-184			
Ethyl Benzene	21.980	1.0	"	20.000		110	83.3-124			
Hexachlorobutadiene	20.980	1.0	"	20.000		105	60.9-119			
Isopropylbenzene	22.330	1.0	"	20.000		112	81.8-125			
Methyl Acetate	41.370	2.0	"	40.000		103	65.1-140			
Methyl Butyl Ketone	41.740	5.0	"	40.000		104	83.6-128			
Methyl Ethyl Ketone	39.380	5.0	"	40.000		98.4	64.6-136			
Methyl Isobutyl Ketone	41.860	5.0	"	40.000		105	84.4-130			
Methyl T-Butyl Ether (MTBE)	20.670	1.0	"	20.000		103	72.3-142			
Methylcyclohexane	21.480	1.0	"	20.000		107	80.5-129			
Methylene Chloride	19.780	10	"	20.000		98.9	73.3-119			
n-Butylbenzene	22.850	1.0	"	20.000		114	78.4-123			QC-2
n-Propylbenzene	22.360	1.0	"	20.000		112	82.1-123			
o-Chlorotoluene	21.300	1.0	"	20.000		106	82.8-121			
o-Xylene	21.350	1.0	"	20.000		107	81.2-126			
p-Chlorotoluene	21.240	1.0	"	20.000		106	83.4-123			
p-Isopropyltoluene	22.290	1.0	"	20.000		111	76-123			QC-2
sec-Butylbenzene	22.650	1.0	"	20.000		113	75.4-123			QC-2
Styrene	22.370	1.0	"	20.000		112	84.4-131			
tert-Butylbenzene	21.550	1.0	"	20.000		108	74.2-126			
Tetrachloroethene (Tetrachloroethylene)	21.280	1.0	"	20.000		106	80.8-125			
Toluene	20.870	1.0	"	20.000		104	85-118			
trans-1,2-Dichloroethene	20.370	1.0	"	20.000		102	83.4-123			
trans-1,3-Dichloropropene	21.150	1.0	"	20.000		106	89.9-125			
Trichloroethene (Trichloroethylene)	19.330	1.0	"	20.000		96.6	82.6-128			
Trichlorofluoromethane (Freon 11)	20.620	1.0	"	20.000		103	75.8-142			
Vinyl chloride	19.480	1.0	"	20.000		97.4	62.8-145			



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Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603015 - V 5035 VOA Soil and Waste Prep

Matrix Spike (1603015-MS1)

Source: E160907-05

Prepared: 02/26/16 Analyzed: 03/03/16

EPA 8260C

(m- and/or p-)Xylene	44.530		ug/kg	40.000	U	111	37.3-120			
1,1,1,2-Tetrachloroethane	20.140		"	20.000	U	101	46.5-125			
1,1,1-Trichloroethane	20.510		"	20.000	U	103	38.6-137			
1,1,2,2-Tetrachloroethane	19.960		"	20.000	U	99.8	32.4-121			
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	21.120		"	20.000	U	106	35.9-149			
1,1,2-Trichloroethane	20.360		"	20.000	U	102	47.6-123			
1,1-Dichloroethane	20.860		"	20.000	U	104	46.6-127			
1,1-Dichloroethene (1,1-Dichloroethylene)	20.570		"	20.000	U	103	33.1-141			
1,1-Dichloropropene	21.210		"	20.000	U	106	31.1-128			
1,2,3-Trichlorobenzene	19.010		"	20.000	U	95.0	10-95			
1,2,3-Trichloropropane	20.070		"	20.000	U	100	42-155			
1,2,4-Trichlorobenzene	19.220		"	20.000	U	96.1	10-94.4			QM-2
1,2,4-Trimethylbenzene	22.400		"	20.000	U	112	26.1-129			
1,2-Dibromo-3-Chloropropane (DBCP)	36.210		"	40.000	U	90.5	25.9-111			
1,2-Dibromoethane (EDB)	20.910		"	20.000	U	105	17.7-127			
1,2-Dichlorobenzene	20.420		"	20.000	U	102	16.4-115			
1,2-Dichloroethane	20.250		"	20.000	U	101	40-127			
1,2-Dichloropropane	20.610		"	20.000	U	103	43.4-123			
1,3,5-Trimethylbenzene	22.590		"	20.000	U	113	31-127			
1,3-Dichlorobenzene	20.950		"	20.000	U	105	20.9-114			
1,3-Dichloropropane	20.870		"	20.000	U	104	50.9-118			
1,4-Dichlorobenzene	20.390		"	20.000	U	102	17.9-114			
2,2-Dichloropropane	21.330		"	20.000	U	107	38.3-137			
Acetone	33.830		"	40.000	U	84.6	10-137			
Benzene	21.880		"	20.000	U	109	38-124			
Bromobenzene	21.050		"	20.000	U	105	31.9-128			
Bromochloromethane	20.340		"	20.000	U	102	45.7-125			
Bromodichloromethane	20.320		"	20.000	U	102	35.8-129			
Bromoform	39.820		"	40.000	U	99.6	23.8-110			
Bromomethane	23.740		"	20.000	U	119	10-164			QC-2
Carbon disulfide	20.830		"	20.000	U	104	13.9-130			
Carbon Tetrachloride	20.730		"	20.000	U	104	31.6-141			
Chlorobenzene	21.200		"	20.000	U	106	32.9-115			
Chloroethane	23.960		"	20.000	U	120	35.3-147			
Chloroform	20.820		"	20.000	U	104	43.5-129			
Chloromethane	21.100		"	20.000	U	106	16.7-141			
cis-1,2-Dichloroethene	21.210		"	20.000	U	106	36.8-126			
cis-1,3-Dichloropropene	21.270		"	20.000	U	106	10-137			



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603015 - V 5035 VOA Soil and Waste Prep

Matrix Spike (1603015-MS1)

Source: E160907-05

Prepared: 02/26/16 Analyzed: 03/03/16

Cyclohexane	20.960		ug/kg	20.000	U	105	22.9-144			
Dibromochloromethane	19.500		"	20.000	U	97.5	42.5-116			
Dibromomethane	20.770		"	20.000	U	104	39-132			
Dichlorodifluoromethane (Freon 12)	21.860		"	20.000	U	109	10-200			
Ethyl Benzene	22.070		"	20.000	U	110	36.5-118			
Hexachlorobutadiene	17.730		"	20.000	U	88.6	10-95.9			
Isopropylbenzene	22.610		"	20.000	U	113	12.9-163			
Methyl Acetate	35.260		"	40.000	U	88.2	10-144			
Methyl Butyl Ketone	36.780		"	40.000	U	92.0	10-149			
Methyl Ethyl Ketone	35.540		"	40.000	U	88.8	10-134			
Methyl Isobutyl Ketone	37.350		"	40.000	U	93.4	10-153			
Methyl T-Butyl Ether (MTBE)	20.660		"	20.000	U	103	54.2-129			
Methylcyclohexane	20.180		"	20.000	U	101	11.1-140			
Methylene Chloride	20.940		"	20.000	U	105	35.4-132			
n-Butylbenzene	22.130		"	20.000	U	111	16.8-98.9			QC-2, QM-2
n-Propylbenzene	23.020		"	20.000	U	115	24.2-142			
o-Chlorotoluene	21.600		"	20.000	U	108	26.6-139			
o-Xylene	21.400		"	20.000	U	107	35.4-119			
p-Chlorotoluene	21.460		"	20.000	U	107	28.9-127			
p-Isopropyltoluene	22.380		"	20.000	U	112	24.4-110			QC-2, QM-2
sec-Butylbenzene	22.200		"	20.000	U	111	24.3-117			QC-2
Styrene	22.310		"	20.000	U	112	14.7-118			
tert-Butylbenzene	21.640		"	20.000	U	108	13-153			
Tetrachloroethene (Tetrachloroethylene)	21.570		"	20.000	U	108	41-116			
Toluene	21.650		"	20.000	U	108	43.3-121			
trans-1,2-Dichloroethene	21.370		"	20.000	U	107	31.2-129			
trans-1,3-Dichloropropene	20.480		"	20.000	U	102	10-139			
Trichloroethene (Trichloroethylene)	20.610		"	20.000	U	103	23-125			
Trichlorofluoromethane (Freon 11)	20.810		"	20.000	U	104	35.8-154			
Vinyl chloride	20.710		"	20.000	U	104	25.4-146			



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Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603015 - V 5035 VOA Soil and Waste Prep

Matrix Spike Dup (1603015-MSD1)

Source: E160907-05

Prepared: 02/26/16 Analyzed: 03/03/16

EPA 8260C

(m- and/or p-)Xylene	43.440		ug/kg	40.000	U	109	37.3-120	2.48	62.4	
1,1,1,2-Tetrachloroethane	20.330		"	20.000	U	102	46.5-125	0.939	62.1	
1,1,1-Trichloroethane	19.960		"	20.000	U	99.8	38.6-137	2.72	49.2	
1,1,2,2-Tetrachloroethane	20.790		"	20.000	U	104	32.4-121	4.07	42.9	
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	20.300		"	20.000	U	102	35.9-149	3.96	44.2	
1,1,2-Trichloroethane	20.130		"	20.000	U	101	47.6-123	1.14	25.9	
1,1-Dichloroethane	20.810		"	20.000	U	104	46.6-127	0.240	52.6	
1,1-Dichloroethene (1,1-Dichloroethylene)	19.620		"	20.000	U	98.1	33.1-141	4.73	42.2	
1,1-Dichloropropene	20.700		"	20.000	U	104	31.1-128	2.43	52.7	
1,2,3-Trichlorobenzene	17.730		"	20.000	U	88.6	10-95	6.97	64.4	
1,2,3-Trichloropropane	20.020		"	20.000	U	100	42-155	0.249	55.5	
1,2,4-Trichlorobenzene	18.950		"	20.000	U	94.8	10-94.4	1.41	60.3	QM-2
1,2,4-Trimethylbenzene	21.940		"	20.000	U	110	26.1-129	2.07	57.4	
1,2-Dibromo-3-Chloropropane (DBCP)	38.300		"	40.000	U	95.8	25.9-111	5.61	53	
1,2-Dibromoethane (EDB)	20.130		"	20.000	U	101	17.7-127	3.80	40	
1,2-Dichlorobenzene	20.300		"	20.000	U	102	16.4-115	0.589	56.1	
1,2-Dichloroethane	20.260		"	20.000	U	101	40-127	0.0494	24.4	
1,2-Dichloropropane	20.640		"	20.000	U	103	43.4-123	0.145	34.4	
1,3,5-Trimethylbenzene	22.690		"	20.000	U	113	31-127	0.442	74.9	
1,3-Dichlorobenzene	20.770		"	20.000	U	104	20.9-114	0.863	56.4	
1,3-Dichloropropane	20.460		"	20.000	U	102	50.9-118	1.98	26.1	
1,4-Dichlorobenzene	20.130		"	20.000	U	101	17.9-114	1.28	55.8	
2,2-Dichloropropane	21.540		"	20.000	U	108	38.3-137	0.980	46.1	
Acetone	33.180		"	40.000	U	83.0	10-137	1.94	27.2	
Benzene	21.140		"	20.000	U	106	38-124	3.44	52.6	
Bromobenzene	20.990		"	20.000	U	105	31.9-128	0.285	52.8	
Bromochloromethane	20.270		"	20.000	U	101	45.7-125	0.345	25.7	
Bromodichloromethane	20.000		"	20.000	U	100	35.8-129	1.59	33.6	
Bromoform	41.360		"	40.000	U	103	23.8-110	3.79	41.5	
Bromomethane	23.580		"	20.000	U	118	10-164	0.676	53	QC-2
Carbon disulfide	20.400		"	20.000	U	102	13.9-130	2.09	42.9	
Carbon Tetrachloride	20.140		"	20.000	U	101	31.6-141	2.89	57	
Chlorobenzene	20.680		"	20.000	U	103	32.9-115	2.48	46.5	
Chloroethane	23.210		"	20.000	U	116	35.3-147	3.18	33.5	
Chloroform	20.480		"	20.000	U	102	43.5-129	1.65	47.2	
Chloromethane	20.750		"	20.000	U	104	16.7-141	1.67	32.2	
cis-1,2-Dichloroethene	20.450		"	20.000	U	102	36.8-126	3.65	49	
cis-1,3-Dichloropropene	20.720		"	20.000	U	104	10-137	2.62	54.2	



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Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603015 - V 5035 VOA Soil and Waste Prep

Matrix Spike Dup (1603015-MSD1)

Source: E160907-05

Prepared: 02/26/16 Analyzed: 03/03/16

Cyclohexane	20.160		ug/kg	20.000	U	101	22.9-144	3.89	53.7	
Dibromochloromethane	19.370		"	20.000	U	96.8	42.5-116	0.669	33.6	
Dibromomethane	20.220		"	20.000	U	101	39-132	2.68	26.6	
Dichlorodifluoromethane (Freon 12)	20.980		"	20.000	U	105	10-200	4.11	34.3	
Ethyl Benzene	21.580		"	20.000	U	108	36.5-118	2.25	60.9	
Hexachlorobutadiene	17.270		"	20.000	U	86.4	10-95.9	2.63	78.8	
Isopropylbenzene	22.650		"	20.000	U	113	12.9-163	0.177	74.5	
Methyl Acetate	33.860		"	40.000	U	84.6	10-144	4.05	46.6	
Methyl Butyl Ketone	36.380		"	40.000	U	91.0	10-149	1.09	72	
Methyl Ethyl Ketone	36.720		"	40.000	U	91.8	10-134	3.27	41.2	
Methyl Isobutyl Ketone	38.360		"	40.000	U	95.9	10-153	2.67	54.8	
Methyl T-Butyl Ether (MTBE)	20.860		"	20.000	U	104	54.2-129	0.963	22	
Methylcyclohexane	20.050		"	20.000	U	100	11.1-140	0.646	56	
Methylene Chloride	20.620		"	20.000	U	103	35.4-132	1.54	44.8	
n-Butylbenzene	21.270		"	20.000	U	106	16.8-98.9	3.96	69.5	QC-2, QM-2
n-Propylbenzene	22.800		"	20.000	U	114	24.2-142	0.960	71.4	
o-Chlorotoluene	21.980		"	20.000	U	110	26.6-139	1.74	79.3	
o-Xylene	21.130		"	20.000	U	106	35.4-119	1.27	65.4	
p-Chlorotoluene	21.740		"	20.000	U	109	28.9-127	1.30	55.4	
p-Isopropyltoluene	21.620		"	20.000	U	108	24.4-110	3.45	72.5	QC-2
sec-Butylbenzene	22.220		"	20.000	U	111	24.3-117	0.0900	71.9	QC-2
Styrene	21.580		"	20.000	U	108	14.7-118	3.33	60.7	
tert-Butylbenzene	21.660		"	20.000	U	108	13-153	0.0924	70.8	
Tetrachloroethene (Tetrachloroethylene)	20.670		"	20.000	U	103	41-116	4.26	51.7	
Toluene	21.100		"	20.000	U	106	43.3-121	2.57	54.6	
trans-1,2-Dichloroethene	20.700		"	20.000	U	104	31.2-129	3.19	47.3	
trans-1,3-Dichloropropene	20.080		"	20.000	U	100	10-139	1.97	41.4	
Trichloroethene (Trichloroethylene)	20.210		"	20.000	U	101	23-125	1.96	47.1	
Trichlorofluoromethane (Freon 11)	20.090		"	20.000	U	100	35.8-154	3.52	35.4	
Vinyl chloride	20.100		"	20.000	U	100	25.4-146	2.99	33.1	



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603015 - V 5035 VOA Soil and Waste Prep

MRL Verification (1603015-PS1)

Prepared & Analyzed: 03/03/16

EPA 8260C

(m- and/or p-)Xylene	1.9300		ug/kg	2.0000		96.5	66.2-147			MRL-3
1,1,1,2-Tetrachloroethane	0.89000		"	1.0000		89.0	69.2-144			MRL-3
1,1,1-Trichloroethane	1.0000		"	1.0000		100	62.3-149			MRL-3
1,1,2,2-Tetrachloroethane	0.90000		"	1.0000		90.0	49.2-144			MRL-3
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	0.98000		"	1.0000		98.0	46.2-157			MRL-3
1,1,2-Trichloroethane	0.91000		"	1.0000		91.0	67.7-136			MRL-3
1,1-Dichloroethane	1.0000		"	1.0000		100	64.2-140			MRL-3
1,1-Dichloroethene (1,1-Dichloroethylene)	0.93000		"	1.0000		93.0	58.3-151			MRL-3
1,1-Dichloropropene	0.92000		"	1.0000		92.0	64.7-141			MRL-3
1,2,3-Trichlorobenzene	1.1200		"	1.0000		112	37.1-145			MRL-3
1,2,3-Trichloropropane	0.97000		"	1.0000		97.0	66.3-138			MRL-3
1,2,4-Trichlorobenzene	1.1800		"	1.0000		118	45.8-147			MRL-3
1,2,4-Trimethylbenzene	1.0100		"	1.0000		101	51.8-155			MRL-3
1,2-Dibromo-3-Chloropropane (DBCP)	1.8000		"	2.0000		90.0	48.5-134			MRL-3
1,2-Dibromoethane (EDB)	0.89000		"	1.0000		89.0	66-141			MRL-3
1,2-Dichlorobenzene	1.0700		"	1.0000		107	63-138			MRL-3
1,2-Dichloroethane	1.0300		"	1.0000		103	55.4-153			MRL-3
1,2-Dichloropropane	0.85000		"	1.0000		85.0	57.2-148			MRL-3
1,3,5-Trimethylbenzene	0.99000		"	1.0000		99.0	60.5-144			MRL-3
1,3-Dichlorobenzene	1.0900		"	1.0000		109	62.1-141			MRL-3
1,3-Dichloropropane	0.95000		"	1.0000		95.0	65.2-139			MRL-3
1,4-Dichlorobenzene	1.2000		"	1.0000		120	61-140			MRL-3
2,2-Dichloropropane	0.99000		"	1.0000		99.0	62.5-149			MRL-3
Acetone	3.3500		"	2.0000		168	47.1-147			
Benzene	1.0700		"	1.0000		107	62.4-142			MRL-3
Bromobenzene	1.0700		"	1.0000		107	64.3-138			MRL-3
Bromochloromethane	1.0100		"	1.0000		101	63.4-145			MRL-3
Bromodichloromethane	0.92000		"	1.0000		92.0	58.1-153			MRL-3
Bromoform	1.7400		"	2.0000		87.0	59-135			MRL-3
Bromomethane	1.4400		"	1.0000		144	50.4-179			QC-2
Carbon disulfide	0.98000		"	1.0000		98.0	48.5-155			
Carbon Tetrachloride	0.98000		"	1.0000		98.0	63.2-150			MRL-3
Chlorobenzene	1.0500		"	1.0000		105	64-140			MRL-3
Chloroethane	0.98000		"	1.0000		98.0	48.3-167			
Chloroform	1.0500		"	1.0000		105	58.4-151			MRL-3
Chloromethane	1.1100		"	1.0000		111	31.9-166			MRL-3
cis-1,2-Dichloroethene	0.89000		"	1.0000		89.0	64.2-142			MRL-3
cis-1,3-Dichloropropene	0.91000		"	1.0000		91.0	66.1-142			MRL-3



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603015 - V 5035 VOA Soil and Waste Prep

MRL Verification (1603015-PS1)

Prepared & Analyzed: 03/03/16

Cyclohexane	0.91000		ug/kg	1.0000		91.0	59.8-152			MRL-3
Dibromochloromethane	0.92000		"	1.0000		92.0	67-137			MRL-3
Dibromomethane	1.0200		"	1.0000		102	62.3-149			MRL-3
Dichlorodifluoromethane (Freon 12)	1.0300		"	1.0000		103	10-204			MRL-3
Ethyl Benzene	1.0400		"	1.0000		104	63.3-144			MRL-3
Hexachlorobutadiene	1.0900		"	1.0000		109	40.9-139			MRL-3
Isopropylbenzene	0.94000		"	1.0000		94.0	61.8-145			MRL-3
Methyl Acetate	2.3100		"	2.0000		116	45.1-160			MRL-3
Methyl Butyl Ketone	1.7800		"	2.0000		89.0	63.6-148			
Methyl Ethyl Ketone	2.2400		"	2.0000		112	44.6-156			
Methyl Isobutyl Ketone	1.6700		"	2.0000		83.5	64.4-150			
Methyl T-Butyl Ether (MTBE)	0.93000		"	1.0000		93.0	52.3-162			MRL-3
Methylcyclohexane	0.86000		"	1.0000		86.0	60.5-149			MRL-3
Methylene Chloride	1.0400		"	1.0000		104	53.3-139			
n-Butylbenzene	1.0400		"	1.0000		104	58.4-143			MRL-3, QC-2
n-Propylbenzene	1.0200		"	1.0000		102	62.1-143			MRL-3
o-Chlorotoluene	1.0300		"	1.0000		103	62.8-141			MRL-3
o-Xylene	0.90000		"	1.0000		90.0	61.2-146			MRL-3
p-Chlorotoluene	1.0800		"	1.0000		108	63.4-143			MRL-3
p-Isopropyltoluene	1.1000		"	1.0000		110	56-143			MRL-3, QC-2
sec-Butylbenzene	1.0300		"	1.0000		103	55.4-143			MRL-3, QC-2
Styrene	0.89000		"	1.0000		89.0	64.4-151			MRL-3
tert-Butylbenzene	0.98000		"	1.0000		98.0	84.2-146			MRL-3
Tetrachloroethene (Tetrachloroethylene)	1.0700		"	1.0000		107	60.8-145			MRL-3
Toluene	0.99000		"	1.0000		99.0	65-138			MRL-3
trans-1,2-Dichloroethene	0.98000		"	1.0000		98.0	63.4-143			MRL-3
trans-1,3-Dichloropropene	0.85000		"	1.0000		85.0	69.9-145			MRL-3
Trichloroethene (Trichloroethylene)	0.97000		"	1.0000		97.0	62.6-148			MRL-3
Trichlorofluoromethane (Freon 11)	0.97000		"	1.0000		97.0	55.8-162			MRL-3
Vinyl chloride	0.84000		"	1.0000		84.0	42.8-165			MRL-3



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control

US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603018 - V 5035 VOA Soil and Waste Prep

Blank (1603018-BLK1)

Prepared & Analyzed: 03/04/16

EPA 8260C

(m- and/or p-)Xylene	U	2.0	ug/kg wet							U
1,1,1,2-Tetrachloroethane	U	1.0	"							U
1,1,1-Trichloroethane	U	1.0	"							U
1,1,1,2,2-Tetrachloroethane	U	1.0	"							U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	U	1.0	"							U
1,1,2-Trichloroethane	U	1.0	"							U
1,1-Dichloroethane	U	1.0	"							U
1,1-Dichloroethene (1,1-Dichloroethylene)	U	1.0	"							U
1,1-Dichloropropene	U	1.0	"							U
1,2,3-Trichlorobenzene	U	1.0	"							U
1,2,3-Trichloropropane	U	1.0	"							U
1,2,4-Trichlorobenzene	U	1.0	"							U
1,2,4-Trimethylbenzene	U	1.0	"							U
1,2-Dibromo-3-Chloropropane (DBCP)	U	2.0	"							U
1,2-Dibromoethane (EDB)	U	1.0	"							U
1,2-Dichlorobenzene	U	1.0	"							U
1,2-Dichloroethane	U	1.0	"							U
1,2-Dichloropropane	U	1.0	"							U
1,3,5-Trimethylbenzene	U	1.0	"							U
1,3-Dichlorobenzene	U	1.0	"							U
1,3-Dichloropropane	U	1.0	"							U
1,4-Dichlorobenzene	U	1.0	"							U
2,2-Dichloropropane	U	1.0	"							U
Acetone	U	10	"							U
Benzene	U	1.0	"							U
Bromobenzene	U	1.0	"							U
Bromochloromethane	U	1.0	"							U
Bromodichloromethane	U	1.0	"							U
Bromoform	U	2.0	"							U
Bromomethane	U	2.0	"							U
Carbon disulfide	U	2.0	"							U
Carbon Tetrachloride	U	1.0	"							U
Chlorobenzene	U	1.0	"							U
Chloroethane	U	2.0	"							U
Chloroform	U	1.0	"							U
Chloromethane	U	1.0	"							U
cis-1,2-Dichloroethene	U	1.0	"							U
cis-1,3-Dichloropropene	U	1.0	"							U



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Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603018 - V 5035 VOA Soil and Waste Prep

Blank (1603018-BLK1)

Prepared & Analyzed: 03/04/16

Cyclohexane	U	1.0	ug/kg wet							U
Dibromochloromethane	U	1.0	"							U
Dibromomethane	U	1.0	"							U
Dichlorodifluoromethane (Freon 12)	U	1.0	"							U
Ethyl Benzene	U	1.0	"							U
Hexachlorobutadiene	U	1.0	"							U
Isopropylbenzene	U	1.0	"							U
Methyl Acetate	U	2.0	"							U
Methyl Butyl Ketone	U	5.0	"							U
Methyl Ethyl Ketone	U	5.0	"							U
Methyl Isobutyl Ketone	U	5.0	"							U
Methyl T-Butyl Ether (MTBE)	U	1.0	"							U
Methylcyclohexane	U	1.0	"							U
Methylene Chloride	U	10	"							U
n-Butylbenzene	U	1.0	"							U
n-Propylbenzene	U	1.0	"							U
o-Chlorotoluene	U	1.0	"							U
o-Xylene	U	1.0	"							U
p-Chlorotoluene	U	1.0	"							U
p-Isopropyltoluene	U	1.0	"							U
sec-Butylbenzene	U	1.0	"							U
Styrene	U	1.0	"							U
tert-Butylbenzene	U	1.0	"							U
Tetrachloroethene (Tetrachloroethylene)	U	1.0	"							U
Toluene	U	1.0	"							U
trans-1,2-Dichloroethene	U	1.0	"							U
trans-1,3-Dichloropropene	U	1.0	"							U
Trichloroethene (Trichloroethylene)	U	1.0	"							U
Trichlorofluoromethane (Freon 11)	U	1.0	"							U
Vinyl chloride	U	1.0	"							U
Tentatively Identified Compounds	U	10	"							U



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Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603018 - V 5035 VOA Soil and Waste Prep

Blank (1603018-BLK2)

Prepared: 02/26/16 Analyzed: 03/04/16

EPA 8260C

(m- and/or p-)Xylene	U	2.0	ug/kg wet							U
1,1,1,2-Tetrachloroethane	U	1.0	"							U
1,1,1-Trichloroethane	U	1.0	"							U
1,1,2,2-Tetrachloroethane	U	1.0	"							U
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	U	1.0	"							U
1,1,2-Trichloroethane	U	1.0	"							U
1,1-Dichloroethane	U	1.0	"							U
1,1-Dichloroethene (1,1-Dichloroethylene)	U	1.0	"							U
1,1-Dichloropropene	U	1.0	"							U
1,2,3-Trichlorobenzene	U	1.0	"							U
1,2,3-Trichloropropane	U	1.0	"							U
1,2,4-Trichlorobenzene	U	1.0	"							U
1,2,4-Trimethylbenzene	U	1.0	"							U
1,2-Dibromo-3-Chloropropane (DBCP)	U	2.0	"							U
1,2-Dibromoethane (EDB)	U	1.0	"							U
1,2-Dichlorobenzene	U	1.0	"							U
1,2-Dichloroethane	U	1.0	"							U
1,2-Dichloropropane	U	1.0	"							U
1,3,5-Trimethylbenzene	U	1.0	"							U
1,3-Dichlorobenzene	U	1.0	"							U
1,3-Dichloropropane	U	1.0	"							U
1,4-Dichlorobenzene	U	1.0	"							U
2,2-Dichloropropane	U	1.0	"							U
Acetone	U	10	"							U
Benzene	U	1.0	"							U
Bromobenzene	U	1.0	"							U
Bromochloromethane	U	1.0	"							U
Bromodichloromethane	U	1.0	"							U
Bromoform	U	2.0	"							U
Bromomethane	U	2.0	"							U
Carbon disulfide	U	2.0	"							U
Carbon Tetrachloride	U	1.0	"							U
Chlorobenzene	U	1.0	"							U
Chloroethane	U	2.0	"							U
Chloroform	U	1.0	"							U
Chloromethane	U	1.0	"							U
cis-1,2-Dichloroethene	U	1.0	"							U
cis-1,3-Dichloropropene	U	1.0	"							U



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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603018 - V 5035 VOA Soil and Waste Prep

Blank (1603018-BLK2)

Prepared: 02/26/16 Analyzed: 03/04/16

Cyclohexane	U	1.0	ug/kg wet							U
Dibromochloromethane	U	1.0	"							U
Dibromomethane	U	1.0	"							U
Dichlorodifluoromethane (Freon 12)	U	1.0	"							U
Ethyl Benzene	U	1.0	"							U
Hexachlorobutadiene	U	1.0	"							U
Isopropylbenzene	U	1.0	"							U
Methyl Acetate	U	2.0	"							U
Methyl Butyl Ketone	U	5.0	"							U
Methyl Ethyl Ketone	U	5.0	"							U
Methyl Isobutyl Ketone	U	5.0	"							U
Methyl T-Butyl Ether (MTBE)	U	1.0	"							U
Methylcyclohexane	U	1.0	"							U
Methylene Chloride	U	10	"							U
n-Butylbenzene	U	1.0	"							U
n-Propylbenzene	U	1.0	"							U
o-Chlorotoluene	U	1.0	"							U
o-Xylene	U	1.0	"							U
p-Chlorotoluene	U	1.0	"							U
p-Isopropyltoluene	U	1.0	"							U
sec-Butylbenzene	U	1.0	"							U
Styrene	U	1.0	"							U
tert-Butylbenzene	U	1.0	"							U
Tetrachloroethene (Tetrachloroethylene)	U	1.0	"							U
Toluene	U	1.0	"							U
trans-1,2-Dichloroethene	U	1.0	"							U
trans-1,3-Dichloropropene	U	1.0	"							U
Trichloroethene (Trichloroethylene)	U	1.0	"							U
Trichlorofluoromethane (Freon 11)	U	1.0	"							U
Vinyl chloride	U	1.0	"							U
Tentatively Identified Compounds	U	10	"							U



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Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603018 - V 5035 VOA Soil and Waste Prep

LCS (1603018-BS1)

Prepared & Analyzed: 03/04/16

EPA 8260C

(m- and/or p-)Xylene	44.020	2.0	ug/kg wet	40.000		110	86.2-127			
1,1,1,2-Tetrachloroethane	20.140	1.0	"	20.000		101	89.2-124			
1,1,1-Trichloroethane	19.770	1.0	"	20.000		98.8	82.3-129			
1,1,2,2-Tetrachloroethane	19.750	1.0	"	20.000		98.8	69.2-124			
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	19.170	1.0	"	20.000		95.8	66.2-137			
1,1,2-Trichloroethane	19.870	1.0	"	20.000		99.4	87.7-116			
1,1-Dichloroethane	19.850	1.0	"	20.000		99.2	84.2-120			
1,1-Dichloroethene (1,1-Dichloroethylene)	18.410	1.0	"	20.000		92.0	78.3-131			
1,1-Dichloropropene	20.520	1.0	"	20.000		103	84.7-121			
1,2,3-Trichlorobenzene	21.390	1.0	"	20.000		107	57.1-125			
1,2,3-Trichloropropane	19.390	1.0	"	20.000		97.0	86.3-118			
1,2,4-Trichlorobenzene	22.230	1.0	"	20.000		111	65.8-127			
1,2,4-Trimethylbenzene	21.840	1.0	"	20.000		109	71.8-135			
1,2-Dibromo-3-Chloropropane (DBCP)	39.110	2.0	"	40.000		97.8	68.5-114			
1,2-Dibromoethane (EDB)	19.810	1.0	"	20.000		99.0	86-121			
1,2-Dichlorobenzene	20.970	1.0	"	20.000		105	83-118			
1,2-Dichloroethane	19.360	1.0	"	20.000		96.8	75.4-133			
1,2-Dichloropropane	19.510	1.0	"	20.000		97.6	77.2-128			
1,3,5-Trimethylbenzene	22.270	1.0	"	20.000		111	80.5-124			
1,3-Dichlorobenzene	20.910	1.0	"	20.000		105	82.1-121			
1,3-Dichloropropane	20.230	1.0	"	20.000		101	85.2-119			
1,4-Dichlorobenzene	20.780	1.0	"	20.000		104	81-120			
2,2-Dichloropropane	20.680	1.0	"	20.000		103	82.5-129			
Acetone	34.910	10	"	40.000		87.3	67.1-127			
Benzene	20.370	1.0	"	20.000		102	82.4-122			
Bromobenzene	20.320	1.0	"	20.000		102	84.3-118			
Bromochloromethane	19.140	1.0	"	20.000		95.7	83.4-125			
Bromodichloromethane	19.080	1.0	"	20.000		95.4	78.1-133			
Bromoform	39.470	2.0	"	40.000		98.7	79-115			
Bromomethane	20.300	2.0	"	20.000		102	70.4-159			
Carbon disulfide	18.560	2.0	"	20.000		92.8	68.5-135			
Carbon Tetrachloride	19.400	1.0	"	20.000		97.0	83.2-130			
Chlorobenzene	20.700	1.0	"	20.000		104	84-120			
Chloroethane	20.020	2.0	"	20.000		100	68.3-147			
Chloroform	19.560	1.0	"	20.000		97.8	78.4-131			
Chloromethane	18.190	1.0	"	20.000		91.0	51.9-146			
cis-1,2-Dichloroethene	19.990	1.0	"	20.000		100	84.2-122			
cis-1,3-Dichloropropene	21.130	1.0	"	20.000		106	86.1-122			



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
 Region 4 Science and Ecosystem Support Division
 980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603018 - V 5035 VOA Soil and Waste Prep

LCS (1603018-BS1)

Prepared & Analyzed: 03/04/16

Cyclohexane	20.150	1.0	ug/kg wet	20.000		101	79.8-132			
Dibromochloromethane	19.580	1.0	"	20.000		97.9	87-117			
Dibromomethane	19.130	1.0	"	20.000		95.6	82.3-129			
Dichlorodifluoromethane (Freon 12)	18.390	1.0	"	20.000		92.0	22.4-184			
Ethyl Benzene	21.990	1.0	"	20.000		110	83.3-124			
Hexachlorobutadiene	20.810	1.0	"	20.000		104	60.9-119			
Isopropylbenzene	22.240	1.0	"	20.000		111	81.8-125			
Methyl Acetate	39.230	2.0	"	40.000		98.1	65.1-140			
Methyl Butyl Ketone	38.500	5.0	"	40.000		96.2	83.6-128			
Methyl Ethyl Ketone	37.320	5.0	"	40.000		93.3	64.6-136			
Methyl Isobutyl Ketone	39.280	5.0	"	40.000		98.2	84.4-130			
Methyl T-Butyl Ether (MTBE)	19.910	1.0	"	20.000		99.6	72.3-142			
Methylcyclohexane	20.370	1.0	"	20.000		102	80.5-129			
Methylene Chloride	19.080	10	"	20.000		95.4	73.3-119			
n-Butylbenzene	23.180	1.0	"	20.000		116	78.4-123			
n-Propylbenzene	22.740	1.0	"	20.000		114	82.1-123			
o-Chlorotoluene	21.630	1.0	"	20.000		108	82.8-121			
o-Xylene	21.510	1.0	"	20.000		108	81.2-126			
p-Chlorotoluene	21.320	1.0	"	20.000		107	83.4-123			
p-Isopropyltoluene	22.660	1.0	"	20.000		113	76-123			
sec-Butylbenzene	22.710	1.0	"	20.000		114	75.4-123			
Styrene	21.970	1.0	"	20.000		110	84.4-131			
tert-Butylbenzene	22.000	1.0	"	20.000		110	74.2-126			
Tetrachloroethene (Tetrachloroethylene)	20.620	1.0	"	20.000		103	80.8-125			
Toluene	20.700	1.0	"	20.000		104	85-118			
trans-1,2-Dichloroethene	19.550	1.0	"	20.000		97.8	83.4-123			
trans-1,3-Dichloropropene	20.200	1.0	"	20.000		101	89.9-125			
Trichloroethene (Trichloroethylene)	19.330	1.0	"	20.000		96.6	82.6-128			
Trichlorofluoromethane (Freon 11)	18.200	1.0	"	20.000		91.0	75.8-142			
Vinyl chloride	18.320	1.0	"	20.000		91.6	62.8-145			



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Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603018 - V 5035 VOA Soil and Waste Prep

LCS Dup (1603018-BSD1)

Prepared & Analyzed: 03/04/16

EPA 8260C

(m- and/or p-)Xylene	46.570	2.0	ug/kg wet	40.000		116	86.2-127	5.63	22	
1,1,1,2-Tetrachloroethane	21.260	1.0	"	20.000		106	89.2-124	5.41	24	
1,1,1-Trichloroethane	21.020	1.0	"	20.000		105	82.3-129	6.13	15.2	
1,1,2,2-Tetrachloroethane	21.030	1.0	"	20.000		105	69.2-124	6.28	30	
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	20.600	1.0	"	20.000		103	66.2-137	7.19	19	
1,1,2-Trichloroethane	20.580	1.0	"	20.000		103	87.7-116	3.51	20	
1,1-Dichloroethane	21.390	1.0	"	20.000		107	84.2-120	7.47	16	
1,1-Dichloroethene (1,1-Dichloroethylene)	20.320	1.0	"	20.000		102	78.3-131	9.86	18	
1,1-Dichloropropene	21.440	1.0	"	20.000		107	84.7-121	4.39	17	
1,2,3-Trichlorobenzene	23.170	1.0	"	20.000		116	57.1-125	7.99	24	
1,2,3-Trichloropropane	20.990	1.0	"	20.000		105	86.3-118	7.92	30	
1,2,4-Trichlorobenzene	23.780	1.0	"	20.000		119	65.8-127	6.74	25	
1,2,4-Trimethylbenzene	23.530	1.0	"	20.000		118	71.8-135	7.45	24	
1,2-Dibromo-3-Chloropropane (DBCP)	41.400	2.0	"	40.000		104	68.5-114	5.69	36	
1,2-Dibromoethane (EDB)	20.820	1.0	"	20.000		104	86-121	4.97	25	
1,2-Dichlorobenzene	22.080	1.0	"	20.000		110	83-118	5.16	17	
1,2-Dichloroethane	20.890	1.0	"	20.000		104	75.4-133	7.60	16	
1,2-Dichloropropane	20.840	1.0	"	20.000		104	77.2-128	6.59	21	
1,3,5-Trimethylbenzene	23.610	1.0	"	20.000		118	80.5-124	5.84	24	
1,3-Dichlorobenzene	22.480	1.0	"	20.000		112	82.1-121	7.24	17	
1,3-Dichloropropane	21.200	1.0	"	20.000		106	85.2-119	4.68	24	
1,4-Dichlorobenzene	22.340	1.0	"	20.000		112	81-120	7.24	27	
2,2-Dichloropropane	22.410	1.0	"	20.000		112	82.5-129	8.03	16	
Acetone	37.580	10	"	40.000		94.0	67.1-127	7.37	34	
Benzene	21.890	1.0	"	20.000		109	82.4-122	7.19	17	
Bromobenzene	21.350	1.0	"	20.000		107	84.3-118	4.94	23	
Bromochloromethane	20.640	1.0	"	20.000		103	83.4-125	7.54	26	
Bromodichloromethane	20.860	1.0	"	20.000		104	78.1-133	8.91	19	
Bromoform	43.090	2.0	"	40.000		108	79-115	8.77	32	
Bromomethane	22.610	2.0	"	20.000		113	70.4-159	10.8	15	
Carbon disulfide	20.290	2.0	"	20.000		101	68.5-135	8.91	20	
Carbon Tetrachloride	21.320	1.0	"	20.000		107	83.2-130	9.43	18	
Chlorobenzene	21.620	1.0	"	20.000		108	84-120	4.35	21	
Chloroethane	22.190	2.0	"	20.000		111	68.3-147	10.3	20	
Chloroform	21.210	1.0	"	20.000		106	78.4-131	8.09	17	
Chloromethane	20.350	1.0	"	20.000		102	51.9-146	11.2	18	
cis-1,2-Dichloroethene	20.940	1.0	"	20.000		105	84.2-122	4.64	26	
cis-1,3-Dichloropropene	22.240	1.0	"	20.000		111	86.1-122	5.12	23	



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603018 - V 5035 VOA Soil and Waste Prep

LCS Dup (1603018-BSD1)

Prepared & Analyzed: 03/04/16

Cyclohexane	21.740	1.0	ug/kg wet	20.000		109	79.8-132	7.59	17	
Dibromochloromethane	21.010	1.0	"	20.000		105	87-117	7.05	27	
Dibromomethane	21.340	1.0	"	20.000		107	82.3-129	10.9	22	
Dichlorodifluoromethane (Freon 12)	20.720	1.0	"	20.000		104	22.4-184	11.9	16	
Ethyl Benzene	23.160	1.0	"	20.000		116	83.3-124	5.18	22	
Hexachlorobutadiene	22.630	1.0	"	20.000		113	60.9-119	8.38	21	
Isopropylbenzene	23.820	1.0	"	20.000		119	81.8-125	6.86	21	
Methyl Acetate	41.480	2.0	"	40.000		104	65.1-140	5.58	22	
Methyl Butyl Ketone	41.800	5.0	"	40.000		104	83.6-128	8.22	29	
Methyl Ethyl Ketone	38.790	5.0	"	40.000		97.0	64.6-136	3.86	31	
Methyl Isobutyl Ketone	42.000	5.0	"	40.000		105	84.4-130	6.69	25	
Methyl T-Butyl Ether (MTBE)	21.540	1.0	"	20.000		108	72.3-142	7.86	18	
Methylcyclohexane	22.360	1.0	"	20.000		112	80.5-129	9.31	19	
Methylene Chloride	20.370	10	"	20.000		102	73.3-119	6.54	17	
n-Butylbenzene	24.860	1.0	"	20.000		124	78.4-123	6.99	24	QL-2
n-Propylbenzene	24.190	1.0	"	20.000		121	82.1-123	6.18	22	
o-Chlorotoluene	22.830	1.0	"	20.000		114	82.8-121	5.40	23	
o-Xylene	22.930	1.0	"	20.000		115	81.2-126	6.39	22	
p-Chlorotoluene	22.770	1.0	"	20.000		114	83.4-123	6.58	28	
p-Isopropyltoluene	24.090	1.0	"	20.000		120	76-123	6.12	24	
sec-Butylbenzene	24.160	1.0	"	20.000		121	75.4-123	6.19	24	
Styrene	23.320	1.0	"	20.000		117	84.4-131	5.96	23	
tert-Butylbenzene	23.370	1.0	"	20.000		117	74.2-126	6.04	24	
Tetrachloroethene (Tetrachloroethylene)	21.500	1.0	"	20.000		108	80.8-125	4.18	19	
Toluene	21.880	1.0	"	20.000		109	85-118	5.54	22	
trans-1,2-Dichloroethene	21.700	1.0	"	20.000		108	83.4-123	10.4	24	
trans-1,3-Dichloropropene	21.700	1.0	"	20.000		108	89.9-125	7.16	25	
Trichloroethene (Trichloroethylene)	21.050	1.0	"	20.000		105	82.6-128	8.52	21	
Trichlorofluoromethane (Freon 11)	20.360	1.0	"	20.000		102	75.8-142	11.2	17	
Vinyl chloride	20.070	1.0	"	20.000		100	62.8-145	9.12	16	



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603018 - V 5035 VOA Soil and Waste Prep

MRL Verification (1603018-PS1)

Prepared & Analyzed: 03/04/16

EPA 8260C

(m- and/or p-)Xylene	4.4411	2.0	ug/kg wet	3.9920		111	66.2-147			
1,1,1,2-Tetrachloroethane	1.8762	1.0	"	1.9960		94.0	69.2-144			
1,1,1-Trichloroethane	1.9062	1.0	"	1.9960		95.5	62.3-149			
1,1,2,2-Tetrachloroethane	2.0060	1.0	"	1.9960		100	49.2-144			
1,1,2-Trichloro-1,2,2-Trifluoroethane (Freon 113)	2.1457	1.0	"	1.9960		108	46.2-157			
1,1,2-Trichloroethane	2.0958	1.0	"	1.9960		105	67.7-136			
1,1-Dichloroethane	2.1756	1.0	"	1.9960		109	64.2-140			
1,1-Dichloroethene (1,1-Dichloroethylene)	2.0559	1.0	"	1.9960		103	58.3-151			
1,1-Dichloropropene	2.0858	1.0	"	1.9960		104	64.7-141			
1,2,3-Trichlorobenzene	2.3553	1.0	"	1.9960		118	37.1-145			
1,2,3-Trichloropropane	1.9860	1.0	"	1.9960		99.5	66.3-138			
1,2,4-Trichlorobenzene	2.3353	1.0	"	1.9960		117	45.8-147			
1,2,4-Trimethylbenzene	2.1756	1.0	"	1.9960		109	51.8-155			
1,2-Dibromo-3-Chloropropane (DBCP)	3.6028	2.0	"	3.9920		90.2	48.5-134			
1,2-Dibromoethane (EDB)	1.8862	1.0	"	1.9960		94.5	66-141			
1,2-Dichlorobenzene	2.1257	1.0	"	1.9960		106	63-138			
1,2-Dichloroethane	1.9860	1.0	"	1.9960		99.5	55.4-153			
1,2-Dichloropropane	1.8962	1.0	"	1.9960		95.0	57.2-148			
1,3,5-Trimethylbenzene	2.1756	1.0	"	1.9960		109	60.5-144			
1,3-Dichlorobenzene	2.2156	1.0	"	1.9960		111	62.1-141			
1,3-Dichloropropane	2.0659	1.0	"	1.9960		104	65.2-139			
1,4-Dichlorobenzene	2.2056	1.0	"	1.9960		110	61-140			
2,2-Dichloropropane	1.9561	1.0	"	1.9960		98.0	62.5-149			
Acetone	4.4611	10	"	3.9920		112	47.1-147			Q-2, J
Benzene	2.3253	1.0	"	1.9960		116	62.4-142			
Bromobenzene	2.1257	1.0	"	1.9960		106	64.3-138			
Bromochloromethane	2.0758	1.0	"	1.9960		104	63.4-145			
Bromodichloromethane	1.8363	1.0	"	1.9960		92.0	58.1-153			
Bromoform	3.3533	2.0	"	3.9920		84.0	59-135			
Bromomethane	2.3154	2.0	"	1.9960		116	50.4-179			MRL-3
Carbon disulfide	2.1257	2.0	"	1.9960		106	48.5-155			MRL-3
Carbon Tetrachloride	2.0958	1.0	"	1.9960		105	63.2-150			
Chlorobenzene	2.2455	1.0	"	1.9960		112	64-140			
Chloroethane	2.3752	2.0	"	1.9960		119	48.3-167			MRL-3
Chloroform	2.1357	1.0	"	1.9960		107	58.4-151			
Chloromethane	2.0559	1.0	"	1.9960		103	31.9-166			
cis-1,2-Dichloroethene	2.0459	1.0	"	1.9960		102	64.2-142			
cis-1,3-Dichloropropene	1.8663	1.0	"	1.9960		93.5	66.1-142			



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Volatile Organics (VOA) - Quality Control
US-EPA, Region 4, SESD

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch 1603018 - V 5035 VOA Soil and Waste Prep

MRL Verification (1603018-PS1)

Prepared & Analyzed: 03/04/16

Cyclohexane	2.1357	1.0	ug/kg wet	1.9960		107	59.8-152			
Dibromochloromethane	1.7565	1.0	"	1.9960		88.0	67-137			
Dibromomethane	2.0359	1.0	"	1.9960		102	62.3-149			
Dichlorodifluoromethane (Freon 12)	2.1956	1.0	"	1.9960		110	10-204			
Ethyl Benzene	2.1457	1.0	"	1.9960		108	63.3-144			
Hexachlorobutadiene	2.1557	1.0	"	1.9960		108	40.9-139			
Isopropylbenzene	2.1457	1.0	"	1.9960		108	61.8-145			
Methyl Acetate	3.3533	2.0	"	3.9920		84.0	45.1-160			
Methyl Butyl Ketone	3.5629	5.0	"	3.9920		89.2	63.6-148			MRL-3, Q-2, J
Methyl Ethyl Ketone	3.5928	5.0	"	3.9920		90.0	44.6-156			MRL-3, Q-2, J
Methyl Isobutyl Ketone	3.6128	5.0	"	3.9920		90.5	64.4-150			MRL-3, Q-2, J
Methyl T-Butyl Ether (MTBE)	1.9760	1.0	"	1.9960		99.0	52.3-162			
Methylcyclohexane	1.9261	1.0	"	1.9960		96.5	60.5-149			
Methylene Chloride	2.0758	10	"	1.9960		104	53.3-139			Q-2, J
n-Butylbenzene	2.2555	1.0	"	1.9960		113	58.4-143			
n-Propylbenzene	2.2455	1.0	"	1.9960		112	62.1-143			
o-Chlorotoluene	2.2255	1.0	"	1.9960		112	62.8-141			
o-Xylene	2.0659	1.0	"	1.9960		104	61.2-146			
p-Chlorotoluene	2.2455	1.0	"	1.9960		112	63.4-143			
p-Isopropyltoluene	2.2655	1.0	"	1.9960		114	56-143			
sec-Butylbenzene	2.2655	1.0	"	1.9960		114	55.4-143			
Styrene	2.1158	1.0	"	1.9960		106	64.4-151			
tert-Butylbenzene	2.0359	1.0	"	1.9960		102	84.2-146			
Tetrachloroethene (Tetrachloroethylene)	2.1158	1.0	"	1.9960		106	60.8-145			
Toluene	2.2056	1.0	"	1.9960		110	65-138			
trans-1,2-Dichloroethene	2.1856	1.0	"	1.9960		110	63.4-143			
trans-1,3-Dichloropropene	1.7864	1.0	"	1.9960		89.5	69.9-145			
Trichloroethene (Trichloroethylene)	1.9361	1.0	"	1.9960		97.0	62.6-148			
Trichlorofluoromethane (Freon 11)	2.0259	1.0	"	1.9960		102	55.8-162			
Vinyl chloride	2.1257	1.0	"	1.9960		106	42.8-165			



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

Region 4 Science and Ecosystem Support Division
980 College Station Road, Athens, Georgia 30605-2700

D.A.R.T. Id: 16-0282

Project: 16-0282, Burlington Ind. Cheraw Former Lagoon - Reported by Sallie Hale

Notes and Definitions for QC Samples

U	The analyte was not detected at or above the reporting limit.
B-3	Level in blank does not impact data quality
B-4	Level in blank impacts MRLs.
B-5	Qualitative evidence of contamination in the blank at a concentration less than the MDL.
J	The identification of the analyte is acceptable; the reported value is an estimate.
MRL-3	MRL verification for Soil matrix
Q-2	Result greater than MDL but less than MRL.
QC-2	Analyte concentration high in continuing calibration verification standard
QL-2	Laboratory Control Spike Recovery greater than method control limits
QM-2	Matrix Spike Recovery greater than method control limits

Burlington Industries Cheraw former Lagoon
Expanded PreCERCLIS Screening Assessment (XPSA)
Sampling Trip Report
February 26, 2016

On February 25, 2016 the South Carolina Department of Health and Environmental Control (SCDHEC) initiated a XPSA event of the Burlington Industries Cheraw former Lagoon site in Cheraw, South Carolina. Personnel present were:

Jonathan McInnis, Project Manager
Karen Seaber, Site Assessment
Jason Williams, Site Assessment
Josh Maschmeyer, Site Assessment

Dana Cook, Waste Assessment
Ben Bair, Site Assessment
Robert Cole, Site Assessment
Tim Kadar, Site Assessment

The SCDHEC sampling team arrived on site at approximately 10:30 am. Weather conditions consisted of sunny/partly cloudy skies with temperatures around 50 degrees F.

A dark green/gray rubbery sludge-like material is present throughout both lots on-site. Small, granular pieces (max: pea-sized) are present on the grassed portions of the lots. Larger chunks (up to ~one foot-sized) are present along the western (wooded) border near the drainage ditch.

No private drinking water wells were noted within ¼-mile of the site.

Samples were collected generally as specified in the QAPP. The GeoProbe unit was unable to drive around the site due to wet conditions; therefore, subsurface soil samples were collected via hand auger. Numerous borings were placed throughout the site, looking for evidence of buried sludge. No significant pockets of sludge were found at depth.

Sample collection information table and logbooks attached below.

SAMPLE ID	SAMPLE MEDIA	MS / MSD	ROUTINE SOILS / WATER							Field Observations from Sampling Event			
			VOA	SVOA	Pesticides	PCBs	Metals	Mercury	Cr+6 (hexavalent Chrome)	SAMPLE DATE / TIME	SAMPLER	LONGITUDE decimal degrees	LATITUDE decimal degrees
BIC-001-SF	Surface Soil									2/25/16 11:55	Tim Kadar	-79.91239	34.69855
BIC-002-SF	Surface Soil									2/25/16 11:40	Tim Kadar	-79.9121	34.6983
BIC-003-SF	Surface Soil									2/25/16 11:20	Tim Kadar	-79.913	34.69846
BIC-004-SF	Surface Soil									2/25/16 10:45	Tim Kadar	-79.91246	34.69907
BIC-005-SB	Subsurface Soil									2/25/16 10:45	Tim Kadar	-79.91203	34.70284
BIC-005-SF	Surface Soil									2/25/16 10:30	Tim Kadar	-79.91203	34.70284
BIC-006-SD	Sediment									2/25/16 12:25	Tim Kadar	-79.91267	34.69834
BIC-007-SD	Sediment									2/25/16 12:38	Jason Williams	-79.9126663	34.6995316
BIC-008-SB	Subsurface Soil									2/25/16 11:47	Ben Bair	-79.912192	34.698626
BIC-009-SB	Subsurface Soil									2/25/16 12:20	Josh Maschmeyer	-79.911667	34.699444
BIC-010-SB	Subsurface Soil									2/25/16 12:55	Josh Maschmeyer	-79.911989	34.698947

SAMPLE ADDRESS LOCATION:

SAMPLE NUMBER:

BIC-05-SB

DATE:

2-25-16

TIME:

1045

SAMPLER:

Kadar

LATITUDE: N

34.70284

LONGITUDE: W

-79.91203

SAMPLE TYPE:

(Check all to be collected at this sample location.)

- Surface Soil
- Sub-surface Soil
- Sediment
- Other _____
- Surface Water
- Ground Water
- Waste
- Other _____

SAMPLE COLLECTION DEPTH:

2-3' _____

_____ _____

_____ _____

_____ _____

_____ _____

SAMPLE DESCRIPTION:

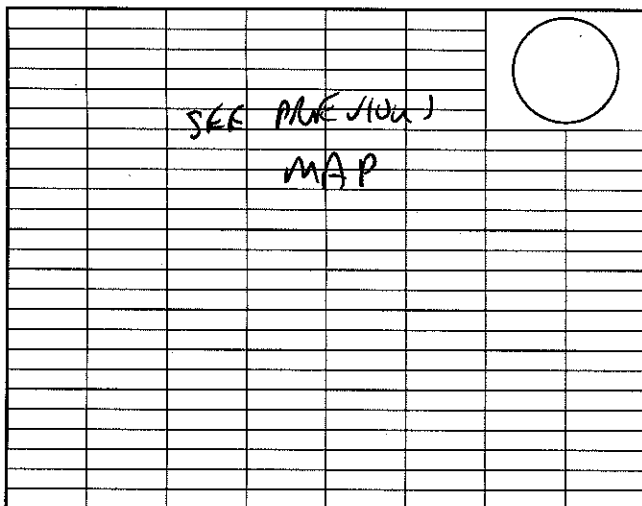
Some moisture; tan-orange silt clay.

Same location as BIC-05-SB

ANALYSIS REQUEST:

- VOCs
- Metals
- SVOCS
- TPH/DRO/GRO
- BTEX
- PCBS/Furans
- DIOXIN
- ASBESTOS
- RCRA METALS
- TAL METALS
- _____
- _____
- _____
- _____
- Auger #: _____
- Spoon #: _____
- Dish #: _____

SITE SKETCH: (Include NORTH arrow in the circle.)



NOTES TAKEN BY:

Cde

PICTURES: Yes No Photo #: _____

ODOR: Yes No _____

Handwritten signature

SAMPLE ADDRESS LOCATION:

SAMPLE NUMBER:

BIC-04-SB

DATE:

2/25/16

TIME: 1105

SAMPLER:

Kadar

LATITUDE: N

34.69907

LONGITUDE: W

-79.91246

SAMPLE TYPE:

(Check all to be collected at this sample location.)

- Surface Soil
- Sub-surface Soil
- Sediment
- Other _____
- Surface Water
- Ground Water
- Waste
- Other _____

SAMPLE COLLECTION DEPTH:

0-3" _____

_____ _____

_____ _____

_____ _____

_____ _____

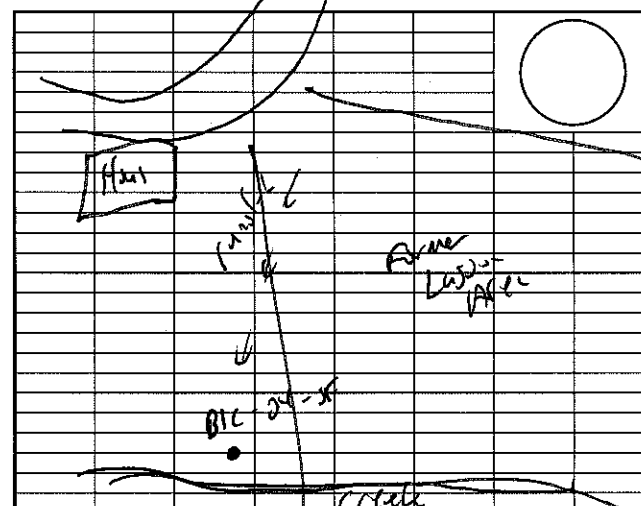
SAMPLE DESCRIPTION:

Sandy tan sand in runoff location from small cut ditch.

ANALYSIS REQUEST:

- VOCs
- Metals
- SVOCS
- TPH/DRO/GRO
- BTEX
- PCBS/Furans
- DIOXIN
- ASBESTOS
- RCRA METALS
- TAL METALS
- _____
- _____
- _____
- _____
- Auger #: _____
- Spoon #: _____
- Dish #: _____

SITE SKETCH: (Include NORTH arrow in the circle.)



NOTES TAKEN BY:

Cde

PICTURES: Yes No Photo #: _____

ODOR: Yes No _____

Handwritten signature

SAMPLE ADDRESS LOCATION:

SAMPLE NUMBER:

BIC-03-SF

DATE: 2-25-16 TIME: 1120

SAMPLER: Kadar

LATITUDE: N 34.69846 LONGITUDE: W -79.91300

SAMPLE TYPE:

(Check all to be collected at this sample location.)

- Surface Soil
- Sub-surface Soil
- Sediment
- Other _____
- Surface Water
- Ground Water
- Waste
- Other _____

SAMPLE COLLECTION DEPTH:

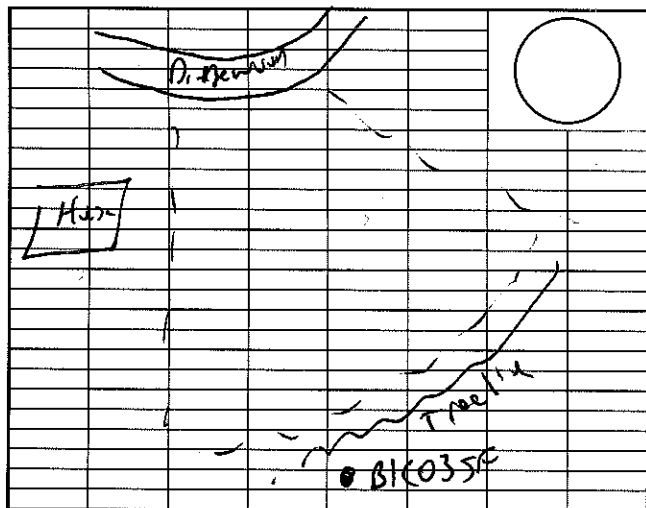
- 0-6" _____
- _____ _____
- _____ _____
- _____ _____
- _____ _____

SAMPLE DESCRIPTION: SW of former lagoon area ~ 10yds into treeline; chunks of greenish/grey sludge

ANALYSIS REQUEST:

- VOCS
- Metals
- SVOCS
- TPH/DRO/GRO
- BTEX
- PCBS/Furans
- DIOXIN
- ASBESTOS
- RCRA METALS
- TAL METALS
- _____
- _____
- _____
- _____
- Auger #: _____
- Spoon #: _____
- Dish #: _____

SITE SKETCH: (Include NORTH arrow in the circle.)



NOTES TAKEN BY: Cole PICTURES: Yes No Photo #: _____

ODOR: Yes No

SAMPLE ADDRESS LOCATION:

SAMPLE NUMBER:

BIC-02-SF

DATE: 2-25-16 TIME: 1140

SAMPLER: Kadar

LATITUDE: N 34.69830 LONGITUDE: W -79.91210

SAMPLE TYPE:

(Check all to be collected at this sample location.)

- Surface Soil
- Sub-surface Soil
- Sediment
- Other _____
- Surface Water
- Ground Water
- Waste
- Other _____

SAMPLE COLLECTION DEPTH:

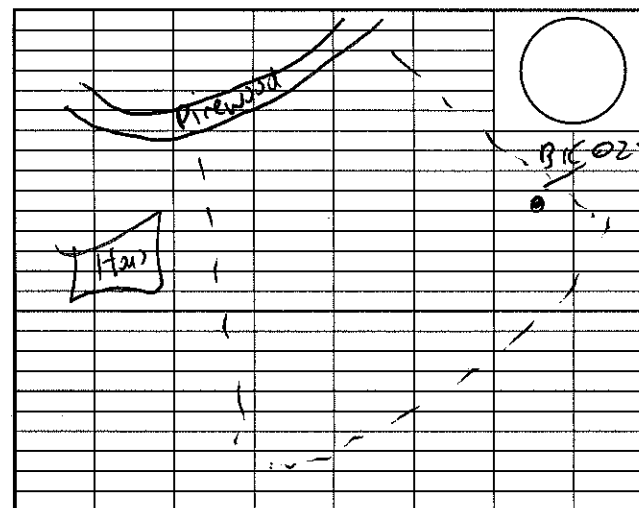
- 0-3" _____
- _____ _____
- _____ _____
- _____ _____
- _____ _____

SAMPLE DESCRIPTION: Dark grey clay soil; some small roots; southern edge of former lagoon area

ANALYSIS REQUEST:

- VOCS
- Metals
- SVOCS
- TPH/DRO/GRO
- BTEX
- PCBS/Furans
- DIOXIN
- ASBESTOS
- RCRA METALS
- TAL METALS
- _____
- _____
- _____
- _____
- Auger #: _____
- Spoon #: _____
- Dish #: _____

SITE SKETCH: (Include NORTH arrow in the circle.)



NOTES TAKEN BY: Cole PICTURES: Yes No Photo #: _____

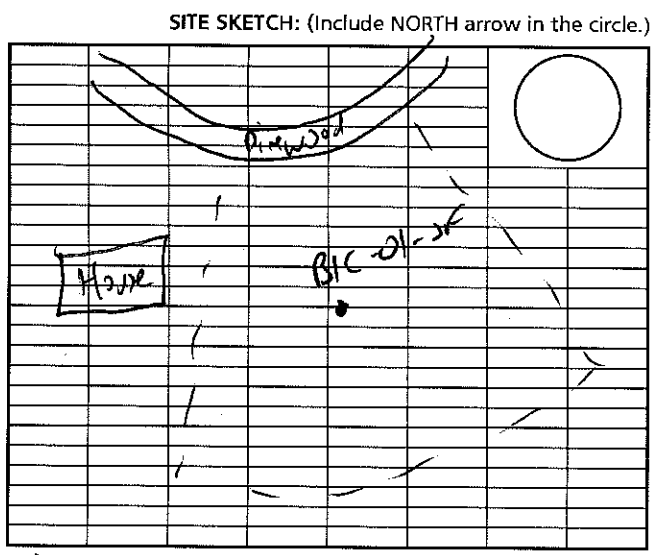
ODOR: Yes No

SAMPLE ADDRESS LOCATION: _____ SAMPLE NUMBER: BIC-01-8F
 DATE: 2-25-16 TIME: 1155
 SAMPLER: Kadar
 LATITUDE: N 34.69855 LONGITUDE: W -79.91239

SAMPLE TYPE: _____ SAMPLE COLLECTION DEPTH: _____
 (Check all to be collected at this sample location.)
 Surface Soil Surface Water _____
 Sub-surface Soil Ground Water _____
 Sediment Waste _____
 Other _____ Other _____

SAMPLE DESCRIPTION: From center of the lot where former
lagoon was located; tan/orange clay under 1" of
sandy loam; small pieces of coal

- ANALYSIS REQUEST:
- VOCS
 - Metals
 - SVOCS
 - TPH/DRO/GRO
 - BTEX
 - PCBS/Furans
 - DIOXIN
 - ASBESTOS
 - RCRA METALS
 - TAL METALS
 - _____
 - _____
 - _____
 - _____
- Auger #: _____
 Spoon #: _____
 Dish #: _____



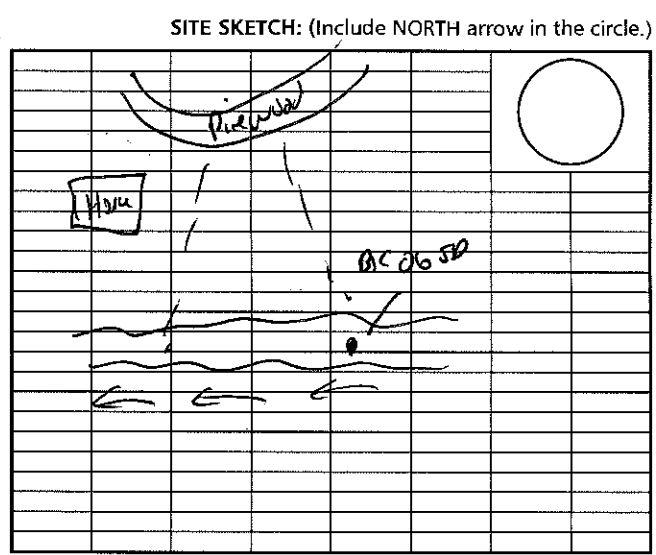
NOTES TAKEN BY: Cole PICTURES: Yes No Photo #: _____
 ODOR: Yes No _____

SAMPLE ADDRESS LOCATION: _____ SAMPLE NUMBER: BK-06-SD
 DATE: 2-25-16 TIME: 1225
 SAMPLER: Kadar
 LATITUDE: N 34.69834 LONGITUDE: W -79.91267

SAMPLE TYPE: _____ SAMPLE COLLECTION DEPTH: _____
 (Check all to be collected at this sample location.)
 Surface Soil Surface Water _____
 Sub-surface Soil Ground Water _____
 Sediment Waste _____
 Other _____ Other _____

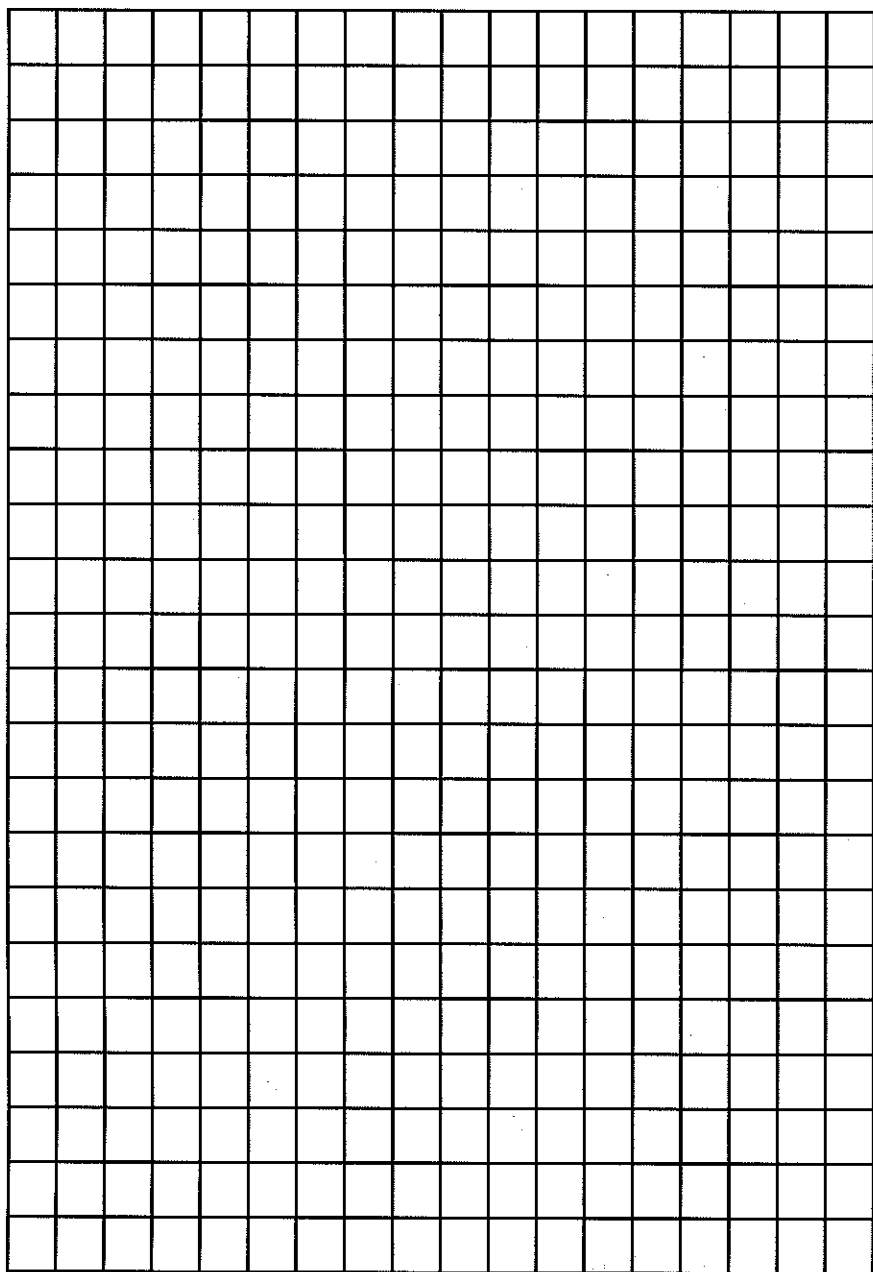
SAMPLE DESCRIPTION: upstream/ditch under ~ 1.5' of water;
water not moving; oily sheen popped up on auger entry to
sediment; grey sand clay

- ANALYSIS REQUEST:
- VOCS
 - Metals
 - SVOCS
 - TPH/DRO/GRO
 - BTEX
 - PCBS/Furans
 - DIOXIN
 - ASBESTOS
 - RCRA METALS
 - TAL METALS
 - _____
 - _____
 - _____
 - _____
- Auger #: _____
 Spoon #: _____
 Dish #: _____



NOTES TAKEN BY: Cole PICTURES: Yes No Photo #: _____
 ODOR: Yes No _____

General Site Sketch



SAMPLE ADDRESS LOCATION:

SAMPLE NUMBER: A1

DATE: 2-25 TIME: 10:45

SAMPLER: J. Mesch

LATITUDE: N 34.698675 LONGITUDE: W -79.912339

SAMPLE TYPE:

(Check all to be collected at this sample location.)

- Surface Soil
- Sub-surface Soil
- Sediment
- Other _____
- Surface Water
- Ground Water
- Waste
- Other _____

SAMPLE COLLECTION DEPTH:

- _____
- _____
- _____
- _____
- _____
- _____

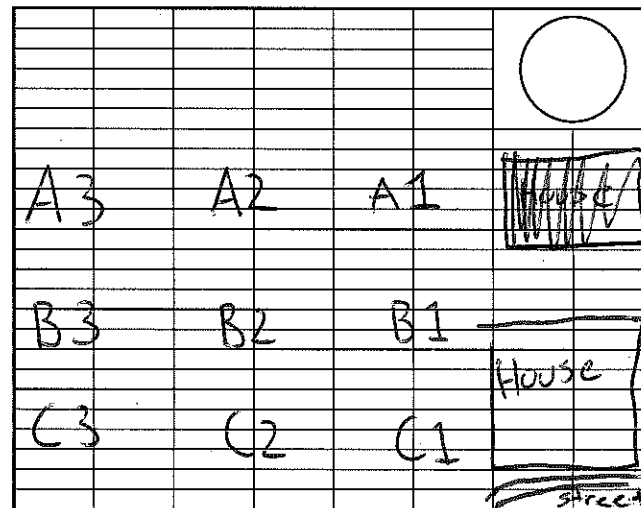
SAMPLE DESCRIPTION:

ANALYSIS REQUEST:

- VOCs
- Metals
- SVOCs
- TPH/DRO/GRO
- BTEX
- PCBS/Furans
- DIOXIN
- ASBESTOS
- RCRA METALS
- TAL METALS
- _____
- _____
- _____

Auger #: _____
 Spoon #: _____
 Dish #: _____

SITE SKETCH: (Include NORTH arrow in the circle.)



NOTES TAKEN BY: _____ PICTURES: Yes No Photo #: _____

ODOR: Yes No _____

SAMPLE ADDRESS LOCATION:

SAMPLE NUMBER: 007-SD

DATE: 2/25/16 TIME: 1238

SAMPLER: J. Williams

LATITUDE: N 34.6995316 LONGITUDE: W -79.9126663

SAMPLE TYPE:

(Check all to be collected at this sample location.)

- Surface Soil
- Sub-surface Soil
- Sediment
- Other _____
- Surface Water
- Ground Water
- Waste
- Other _____

SAMPLE COLLECTION DEPTH:

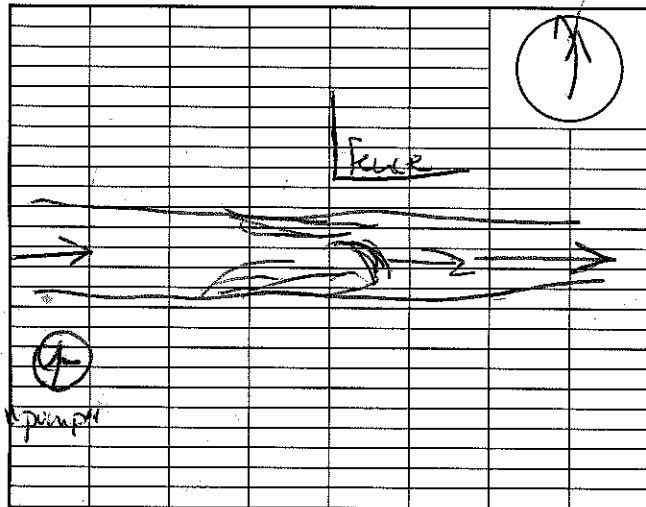
0'-4"

SAMPLE DESCRIPTION: organic matter, roots, trash, narrowed part of creek, "Pitcher pump" near creek. Brown, sandy silt with organic matter mixed in.

ANALYSIS REQUEST:

- VOCs
- Metals
- SVOCs
- TPH/DRO/GRO
- BTEX
- PCBS/Furans
- DIOXIN
- ASBESTOS
- RCRA METALS
- TAL METALS
- _____
- _____
- _____
- Auger #: _____
- Spoon #: _____
- Dish #: _____

SITE SKETCH: (Include NORTH arrow in the circle.)



NOTES TAKEN BY: D Cook PICTURES: Yes No Photo #: _____

ODOR: Yes No _____

Rubber car mats, carpeting, plastic.

SAMPLE ADDRESS LOCATION:

SAMPLE NUMBER: BIC-010-SB

DATE: 2-25-16 TIME: 12:55

SAMPLER: J. Maschmeyer

LATITUDE: N 34.698947 LONGITUDE: W -79.911989

SAMPLE TYPE:

(Check all to be collected at this sample location.)

- Surface Soil
- Sub-surface Soil
- Sediment
- Other _____
- Surface Water
- Ground Water
- Waste
- Other _____

SAMPLE COLLECTION DEPTH:

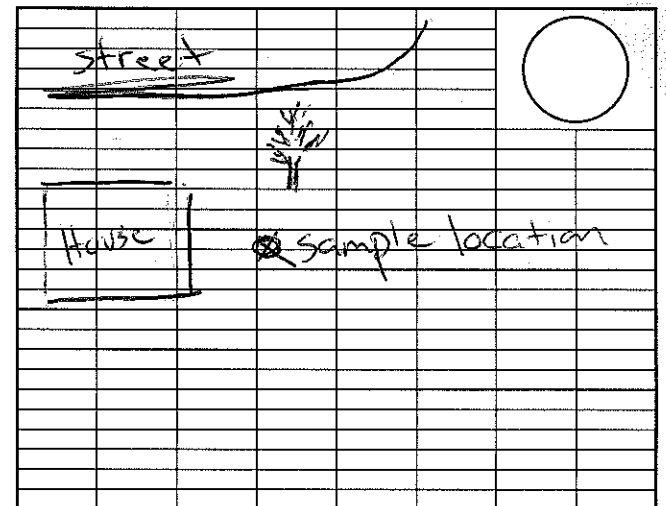
0-2'

SAMPLE DESCRIPTION: 0-2', brown-eggish clay

ANALYSIS REQUEST:

- VOCs
- Metals
- SVOCs
- TPH/DRO/GRO
- BTEX
- PCBS/Furans
- DIOXIN
- ASBESTOS
- RCRA METALS
- TAL METALS
- _____
- _____
- _____
- Auger #: _____
- Spoon #: _____
- Dish #: _____

SITE SKETCH: (Include NORTH arrow in the circle.)



NOTES TAKEN BY: B Bair PICTURES: Yes No Photo #: _____

ODOR: Yes No _____



South Carolina Department of Health and Environmental Control

E. Kenneth Aycock, M.D., M.P.H.
Commissioner

2600 Bull Street
Columbia, S.C. 29201

March 11, 1974

Burlington Industries
Pee Dee Plant
P.O. Box 845
Cheraw, S.C.

Re: Pee Dee Plant
Chesterfield County

Dear Sir:

Enclosed is a State Construction Permit for the referenced wastewater treatment facility. The conditions of the permit are explicitly stated; construction is to be performed in accordance with this permit and the supporting engineering report, plans, and specifications approved by this office.

Your District Environmental Engineer from this Department is Francis L. Greene (address below). He along with the Industrial & Agricultural Division of the Department of Health and Environmental Control should be notified when construction is begun and when the facility is ready for operation. As general policy, a final inspection must be made before the treatment facility is placed in operation.

In accordance with State Law, your facility will be required to have an operator-in-charge who has been certified by the State Board of Certification of Environmental Systems Operators. Your facility has been classified in Group III, necessitating an operator holding a Grade B or higher certificate. You will not be given permission to operate your facility until a properly qualified operator(s) has been obtained. Questions in this matter should be directed to Henry E. Gibson of the State Board of Certification of Environmental Systems Operators (address below).

Yours very truly,

Charles R. Jeter, P.E.
Director, Industrial & Agricultural Division
Bureau of Wastewater & Stream Quality Control

Address of District Engineer:

Francis L. Greene, III, District
Environmental Quality Control Office
Pee Dee District
900 West Lucas Street
Florence, S.C. 29501

Mr. Henry E. Gibson, Secretary - Treasure
State Board of Certification of Environ-
mental Systems Operators
401 J. Marion Sims Building
2600 Bull Street, Columbia, S.C. 29201



South Carolina Department of Health
and
Environmental Control

J. Powell

E. Kenneth Aycock, M.D., M.P.H.
Commissioner

2600 Bull Street
Columbia, S.C. 29201

CONSTRUCTION PERMIT

Burlington Industries

Permit No. 2852-C Project No. _____ Date of Issue March 7 19 74

Permission is hereby granted to
Burlington Industries
Pee-Dee Plant, P.O. Box 845, Cheraw, S.C.
for construction of the waste treatment system covered by plans, specifications,
engineering report and Construction Permit Application No. _____ dated Nov. 15, 1973,
signed by J.S. Ameen Registered Professional Engineer, S.C. Registration No. 2876
County Chesterfield Type of Facility A chemical pretreatment system having
recycling capabilities comprising units for neutralization, chemical precipitation, dissolved
air floatation and sludge handling.

Receiving Stream Cheraw Sewer System Tributary to _____

Basin Pee Dee Volume 300,000 gpd

Effluent BOD₅ see below Chlorination No
(mg/l)

Other Effluent Requirements: Effluent limitations for this permit are those detailed in the
Sewer Use Ordinance for the Town of Cheraw, South Carolina.

Special Conditions: *This permit is not issued in conformance with the National Pollutant Dis-
charge Elimination System pursuant to Section 402 of the Federal Water Pollution Control
Act Amendments of 1972 (PL 92-500).

This permit covers construction of the facility only, and is not to be considered an
Operating or Discharge Permit, temporary or otherwise.

EXPIRATION DATE: Unless construction is initiated prior to March 6, 1975,
it will be necessary to reapply since this permit will no longer be
valid.

E. K. Aycock M.D.

E. Kenneth Aycock, M.D.

Charles P. Vinton

Bureau of Waste Water and
Stream Quality Control

Facility Classified Group III. The Code of Laws of S.C. require the applicant to provide a
certified operator to manage the facility. Further details may be obtained from the S.C.
Board of Operator Certification.



Burlington Industries, Inc.

Executive Offices
P. O. Box 21207
Greensboro, North Carolina 27420

November 20, 1989

Mr. Harold Seabrook
Bureau of Solid and Hazardous Waste
S. C. DEHEC
2600 Bull Street
Columbia, SC 29201

Subject: Authorization for Disposal of Sludge Residues
Located on Cheraw Property
Behind the James Fabrics Plant
Burlington Industries, Inc.

Dear Mr. Seabrook:

Burlington Industries would like your office to provide us with a waste determination for dried sewer pretreatment sludge residues placed on drying beds behind the James Fabrics Plant at 350 Chesterfield Road prior to 1980. These sludges have been analyzed and are non-hazardous. Also, I have talked to the plant chemist and plant manager who were at the plant at the time these sludges were applied and they have provided me with the following history:

In the early to mid-1970's, the plant was applying latex and acrylic finishes along with pigment dyes and delusterants to fiberglass fabrics and some of this material was falling out in the sewer lines causing blockage problems for the city. At their request, the plant installed a settling tank and the sludges from this tank were pumped onto drying beds behind the plant. These beds had sludges on them in 1980 when the hazardous waste rules came into being and we tested the sludges at that time to determine whether or not they were hazardous (see attached analysis dated August 8, 1980). The sludges were not removed at that time; however, no new sludge was placed on the beds since 1980. Now we would like to either bury these sludges or remove them to the local landfill. We have again tested the sludges to reconfirm that this material is non-hazardous (see attached report dated August 1, 1989).

The area has now grown up, but the sludge residues are still visible and should be removed or covered to make the property usable or salable (see attached photos). Also attached are earlier communications with the county landfill describing the volume of material on the beds along with a map showing the location of the beds.

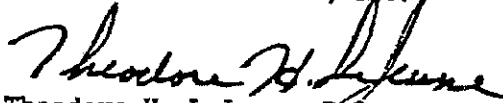


Mr. Harold Seabrook
Page -2-

Please advise if this material meets with your approval for on-site burial and/or if it can be hauled to the Chesterfield County Landfill for disposal.

Very truly yours,

BURLINGTON INDUSTRIES, INC.



Theodore H. LeJeune, P.E.
Senior Environmental Engineer
Corporate Engineering Dept.

THL/jw

Attachments

cc: J. Chappell Hurst, Jr. - Chesterfield County
J. Kelley - Environmental Quality Control
H. Lomas - Highland Industries
M. Baugh - 3330
File

South Carolina Department of Health and Environmental Control

2600 Bull Street
Columbia, S.C. 29201

Commissioner
Michael D. Jarrett



Board
Henry S. Jordan, M.D., Chairman
John B. Pate, M.D., Vice-Chairman
William E. Applegate, III, Secretary
Tony Graham, Jr., M.D.
John H. Burriss
Richard E. Jabbour, D.D.S.
Currie B. Spivey, Jr.

November 30, 1989

Expiration Date: November 30, 1990

Mr. Theodore H. LeJeune
Burlington Industries, Inc.
P.O. Box 21207
Greensboro, N.C. 27420

RE: Burlington Industries, Inc.
James Fabric Plant
Cheraw Property
Chesterfield County Landfill DWP-128
Chesterfield County



Dear Mr. LeJeune,

This office has determined that the Burlington Industries waste is suitable for disposal at the sanitary landfill. The materials for disposal are as outlined: approximately 300 cubic yards of dried sludge on old drying beds that have been closed since 1980. This material is to be disposed at the Chesterfield County Landfill. All disposals are subject to the following conditions:

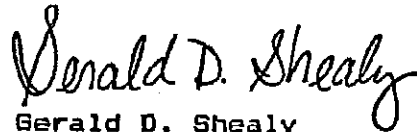
1. Violation of any of the conditions in this approval will result in immediate termination of this approval by the District Solid Waste Consultant or other appropriate EOC personnel.
2. All disposals must have prior approval from the appropriate landfill official.
3. The District Solid Waste consultant must be notified prior to actual disposal at a landfill.
4. Disposals must not have any adverse effect upon the landfill proper, nor upon the safe and efficient operation of the landfill.
5. Precautions must be taken to prevent spillage or leakage during transport.
6. No appreciable amount of free liquids shall be landfilled.
7. All containers deemed empty and landfilled will conform to the Department's definition of empty.

Page 2

8. Any soil contaminated with any petroleum product should be used in top finish portion the landfill.
9. Weekend or holiday disposals are prohibited without prior notification of the landfill official and District consultant.
10. This approval is for one time only.

If you have any questions concerning this matter, please let us know.

Sincerely,



Gerald D. Shealy
Sampling and Analysis
Unit
Bureau of Solid and Hazardous
Waste Management

GDS:lbc

cc: Jim Kelley — 662 3522 — DISTRICT
Chappell Hurst, Jr. MIN