



*Transmitted Electronically*

August 6, 2009

Mr. Rick Jardine  
On-Scene Coordinator  
U.S. Environmental Protection Agency, Region 4  
61 Forsyth Street  
Atlanta, Georgia 30303

**Subject: Incident Response Letter Report  
Waterworks Creosote Spill  
Columbus, Lowndes County, Mississippi  
TDD No.: TNA-05-001-0087  
Contract No. EP-W-05-053**

Dear Mr. Jardine:

The Oneida Total Integrated Enterprises - T N & Associates, Inc. (OTIE-TN&A) Superfund Technical Assessment and Response Team (START) has prepared this Incident Response Letter Report detailing activities conducted in support of the U.S. Environmental Protection Agency (EPA). The scope of this response was to provide technical support to the EPA On-Scene Coordinator (OSC) for possible release of creosote from a defunct wood treatment facility. The possible release was discovered at 716 Waterworks Road in Columbus, Lowndes County, Mississippi. Specifically, START was tasked to document response activities and on-site conditions with written logbook notes and digital photographs, collect soil samples, and prepare an incident response letter report.

This Incident Response Letter Report summarizes the incident, the response, and provides a summary of the sampling and site reconnaissance activities. Figures are provided in Attachment A. Summary analytical data tables are provided as Attachment B, a photographic log of site activities is provided as Attachment C, the logbook notes for the incident are provided as Attachment D, and the complete laboratory data package is provided as Attachment E.

## **Site Background**

The Reverend from Maranatha Faith Center (church) was in the process of removing a concrete culvert from the church property with a backhoe in order to construct a parking lot. During excavation of the culvert, the Reverend noticed the soil was discolored and came to the conclusion, based on previous information, that the soil may be contaminated with creosote. Based on his findings, EPA was called. At 1630 on July 15, 2009, EPA requested that START provide emergency response personnel to the church located at 716 Waterworks Road in Columbus, Mississippi (see Attachment A, Figure 1). START Emergency Response Coordinator collected site details and coordinated mobilization activities with the EPA Phone-Duty Officer. START generated a Health and Safety Plan (HASP) and deployed to the site at 2000 hours on July 15, 2009, as requested by the responding OSC. START mobilized one Senior Scientist and one Junior Scientist from the OTIE-TN&A Marietta, Georgia office to the site.

## **Response Activities**

On Thursday, July 16, 2009, at 0915 hrs, START arrived on site to document site conditions, conduct air monitoring, and collect soil samples. Upon arrival, EPA OSC Rick Jardine conducted a health and safety meeting and tasked START to conduct air monitoring and evaluation of headspace gases in soil, perform soil sampling, and GIS data management. The ERRS contractor was on-site to perform excavation activities.

START began collecting samples (3-point composite samples) for headspace analysis at various locations throughout the site. START collected one background soil sample (WWC-SS-00) south of the site near a baseball field and local park located within 0.5-miles of the site, two soil samples (WWC-SS-01 and WWC-SS-02) from a concrete/soil mixture pile created by the property owner, three sediment/soil samples (WWC-SS-03, WWC-SS-04, and WWC-SS-05) from the unnamed ditch that borders the church property near the southwest border, and three sediment/soil samples (WWC-SS-06, WWC-SS-07, and WWC-SS-08) from between two concrete culverts that lie in the unnamed ditch (see Figure 2 for headspace locations). Each sample was placed in a ziplock bag for headspace analysis utilizing a Minirae Photionization Detector (PID). Results for the headspace analysis can be found on Table 1 located in Attachment B. Air readings on the Minirae PID for the specific soil locations throughout the site ranged from 0 parts per billion (ppb) in the background sample to 1,748 ppb at WWC-SS-02.

START was also instructed to perform headspace analyses, utilizing both a Minirae PID and a Toxic Vapor Analyzer (TVA-1000), on six roll-off boxes containing excavated soil once ERRS has completed the excavation of contaminated soil. Headspace was also collected on the ambient air as a background sample. Results can be found on Table 1 located in Attachment B. The air readings for the roll-off boxes as measured with the TVA-1000 ranged from 5.76 parts per million (ppm) at the background location to 57.12 ppm at roll-off box #3. The Minirae PID recorded 0 ppb for the background location and up to 26,500 ppb at roll-off box #1.

START then collected soil samples from the roll-off boxes on-site in order to profile the contents before disposal. At each on site sampling location, samples were collected as a five-point composite sample, placed in stainless steel bowls, homogenized with stainless steel spoons, and placed into the appropriate containers. All samples were custody sealed and placed on ice in accordance with the EPA Science and Ecosystem Support Division (SESD) *Field Branches Quality System and Technical Procedures* (FBQSTP) dated November 2007.

START collected a total of four environmental soil samples (three from the roll-off boxes and one from a cylinder located in the middle of the property) for submittal to Analytical Environmental Services (AES) in Atlanta, Georgia for semi-volatile organic compounds (SVOC) by SW846-8270, Toxicity Characteristic Leaching Procedure (TCLP) metals by SW846-1311/6010, TCLP SVOCs by SW846-1311/8270, ignitability by SW846-1010, and corrosivity by SW846-9045D.

The photographic log of site activities is presented as Attachment C and a complete copy of the logbook notes is included as Attachment D.

### **Analytical Results**

START collected a total of four soil samples for SVOC, TCLP SVOC, TCLP metals, ignitability, and corrosivity. Analytical results indicate that TCLP parameters did not exceed the TCLP regulated levels for any compounds in the four samples analyzed. Several SVOCs were detected (mostly polycyclic aromatic hydrocarbons [PAH]) in samples CC-RB-01, CC-RB-04, and CC-CS-01. Sample CC-RB-02 was non-detect for all parameters analyzed. For the purposes of evaluating soil contamination at the site, only those compounds exceeding the Region 4 Regional Screening Levels (RSL) for residential soil are discussed. Benzo(a)anthracene, benzo(a)pyrene,

benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene concentrations exceeded the RSLs for residential soil in at least one sample. Benzo(a)anthracene was detected above the RSL of 150 micrograms per kilogram (ug/kg) in samples CC-RB-01, CC-RB-04, and CC-CS-01 at concentrations ranging from 620 ug/kg to 110,000 ug/kg. Benzo(a)pyrene was detected above the RSL of 15 ug/kg in samples CC-RB-01, CC-RB-04, and CC-CS-01 at concentrations ranging from 600 ug/kg to 37,000 ug/kg. Benzo(b)fluoranthene was detected above the RSL of 150 ug/kg in samples CC-RB-01, CC-RB-04, and CC-CS-01 at concentrations ranging from 1,000 ug/kg to 76,000 ug/kg. Benzo(k)fluoranthene (RSL of 1,500 ug/kg), chrysene (RSL of 15,000 ug/kg), and dibenz(a,h)anthracene (RSL of 15 ug/kg) were detected above their respective RSLs in only one sample, CC-CS-01, at concentrations of 22,000 ug/kg, 99,000 ug/kg, and 1,500 ug/kg, respectively. Indeno(1,2,3-cd)pyrene was detected in samples CC-RB-01, CC-RB-04, and CC-CS-01 at concentrations ranging from 450 ug/kg to 21,000 ug/kg. Table 2, provided in Attachment B, presents a summary of the detected analytical results. The complete analytical data package is presented as Attachment E.

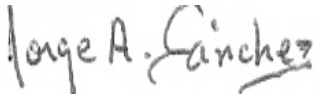
## **Conclusion**

On July 16 and 17, 2009, START performed air monitoring and soil sampling activities at the site as requested by the EPA. Air monitoring for organic vapors was performed both at specific locations throughout the property and on the roll-off boxes containing contaminated soil using a TVA-1000 and/or Minirae. Air readings on the Minirae PID for the specific soil locations throughout the site ranged from 0 parts per billion (ppb) in the background sample to 1,748 ppb. The air readings for the roll-off boxes as measured with the TVA-1000 ranged from 5.76 parts per million (ppm) at the background location to 57.12 ppm at roll-off box #3. The Minirae PID recorded 0 ppb for the background location up to 26,500 ppb at roll-off box #1.

As tasked, START collected four composite soil samples from four locations (three roll-off boxes and one cylinder located in the middle of the property). Samples were submitted to AES for SVOC, TCLP SVOC, TCLP metals, ignitability, and corrosivity. Analytical results indicate that several PAHs, including benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenz(a,h)anthracene, and indeno(1,2,3-cd)pyrene were above the EPA residential screening levels in surface and subsurface soils of this property.

If you have any questions or comments regarding this letter report or require any additional information please feel free to contact myself or Greg Kowalski, START Program Manager, at 678-355-5550.

Sincerely,

A handwritten signature in black ink that reads "Jorge A. Sanchez". The signature is written in a cursive style with a horizontal line under the last name.

Jorge Sanchez  
Project Manager

CC: Katrina Jones, EPA Project Officer  
Darryl Walker, EPA Project Officer  
Greg Kowalski, START Program Manager  
START file

**ATTACHMENT A**

**Figures**

**(2 pages)**

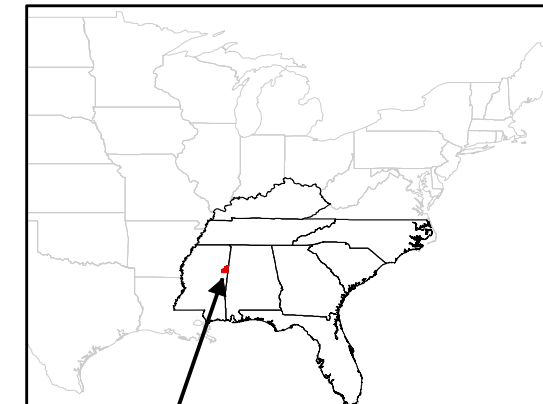




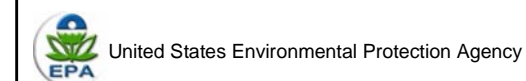
## Legend

 Site Location

Feet  
0 212.5 425 850



Columbus,  
Lowndes County,  
Mississippi



**WATERWORKS CREOSOTE ER  
COLUMBUS, LOWNDES COUNTY,  
MISSISSIPPI**  
TDD No: 05-001-0087

**FIGURE 1  
TOPOGRAPHICAL MAP**

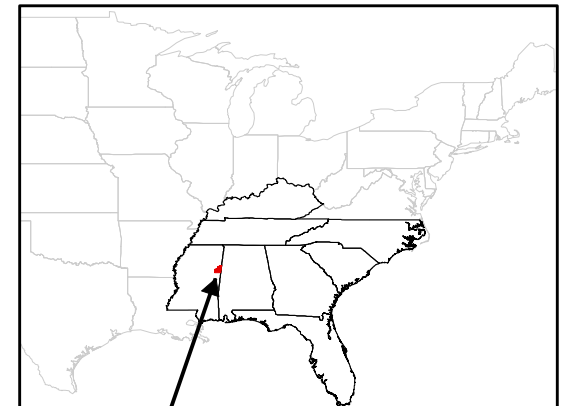
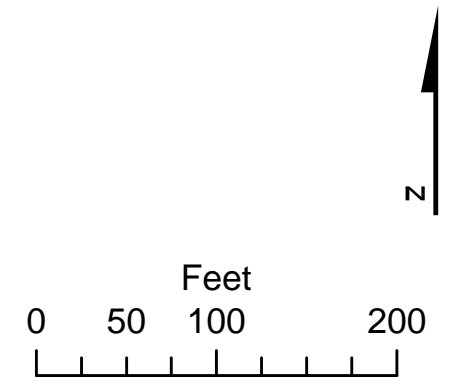






## Legend

● Sample Locations



Columbus,  
Lowndes County,  
Mississippi



United States Environmental Protection Agency

**WATERWORKS CREOSOTE ER  
COLUMBUS, LOWNDES COUNTY,  
MISSISSIPPI  
TDD No: 05-001-0087**

**FIGURE 2  
HEADSPACE SAMPLE LOCATIONS**





**ATTACHMENT B**  
**Analytical Data Tables**  
**(2 pages)**

**TABLE 1**  
**WATERWORKS CREOSOTE RESPONSE**  
**SUMMARY OF AIR MONITORING RESULTS**

**Minirae Results**

Sample ID	Results (ppb)
	Minirae
WWC-SS-00	0
WWC-SS-01	350
WWC-SS-02	1748
WWC-SS-03	0 *
WWC-SS-04	0 *
WWC-SS-05	0 *
WWC-SS-06	0 *
WWC-SS-07	0 *
WWC-SS-08	0 *
roll-off #1	26,500
roll-off #2	12,000
roll-off #3	7,300
roll-off #4	0 *
roll-off #5	0 *
roll-off #6	0 *
background	0

**TVA-1000 Results**

Sample ID	Results (ppm)
	TVA-1000
WWC-SS-00	NA
WWC-SS-01	NA
WWC-SS-02	NA
WWC-SS-03	NA
WWC-SS-04	NA
WWC-SS-05	NA
WWC-SS-06	NA
WWC-SS-07	NA
WWC-SS-08	NA
roll-off #1	54.22
roll-off #2	50.41
roll-off #3	57.12
roll-off #4	28.09
roll-off #5	21.79
roll-off #6	21.10
background	5.76

**Notes:**

- 0 \* - Too much moisture present
- NA - Not analyzed
- ppb - Parts per billion
- SS - Soil sample
- WWC - Waterworks Creosote

**TABLE 2**  
**WATERWORKS CREOSOTE RESPONSE**  
**SUMMARY OF DETECTED SOIL SAMPLE RESULTS**

	RSL/TCLP Limit	CC-RB-01	CC-RB-02	CC-RB-04	CC-CS-01
<b>TCLP Metals (mg/L)</b>					
Barium	100	<b>0.517</b>	0.5 U	0.5 U	0.5 U
<b>Ignitability (°F)</b>					
Flashpoint	< 140	180	180	180	180
<b>Corrosivity</b>					
pH	<2; >12.5	5.97	5.11	6.16	4.89
<b>Total SVOC (ug/kg)</b>					
1,1-Biphenyl	3900000	360 U	400 U	470 U	<b>4600</b>
2-Methylnaphthalene	310000	360 U	400 U	470 U	<b>4100</b>
Acenaphthene	3400000	360 U	400 U	470 U	<b>42000</b>
Acenaphthylene	NL	360 U	400 U	470 U	<b>7400</b>
Anthracene	1700000	360 U	400 U	5400	<b>51000</b>
Benz(a)anthracene	150	<b>620</b>	400 U	<b>1200</b>	<b>110000</b>
Benzo(a)pyrene	15	<b>600</b>	400 U	<b>1400</b>	<b>37000</b>
Benzo(b)fluoranthene	150	<b>1000</b>	400 U	<b>2600</b>	<b>76000</b>
Benzo(g,h,i)perylene	NL	<b>430</b>	400 U	<b>1100</b>	<b>21000</b>
Benzo(k)fluoranthene	1500	<b>410</b>	400 U	<b>940</b>	<b>22000</b>
Carbazole	24000	360 U	400 U	<b>2700</b>	<b>23000</b>
Chrysene	15000	<b>830</b>	400 U	<b>2300</b>	<b>99000</b>
Dibenz(a,h)anthracene	15	360 U	400 U	470 U	<b>1500</b>
Dibenzofuran	NL	360 U	400 U	470 U	<b>59000</b>
Fluoranthene	2300000	<b>770</b>	400 U	<b>1400</b>	<b>600000</b>
Fluorene	2300000	360 U	400 U	<b>1100</b>	<b>90000</b>
Indeno(1,2,3-cd)pyrene	150	<b>450</b>	400 U	<b>1100</b>	<b>21000</b>
Naphthalene	3900	360 U	400 U	470 U	<b>960</b>
Phenanthrene	NL	360 U	400 U	<b>2100</b>	<b>690000</b>
Pyrene	1700000	<b>740</b>	400 U	<b>1500</b>	<b>340000</b>

**Notes:**

bold - Analyte was detected above the SQL

bold and shaded - Analyte concentration exceeds the associated RSL for residential soil

°F - Degrees Fahrenheit

mg/L - Milligrams per liter

NL - Regulatory limit not established

RSL - Region 4 Regional Screening Level for direct contact with residential soil

SVOC - Semivolatile organic compounds

TCLP - Toxicity Characteristic Leaching Procedure

ug/kg - Micrograms per kilogram



**ATTACHMENT C**  
**Photographic Log**  
**(7 Pages)**



**Photograph No.: 1**

**TDD Number:** TNA-05-001-0087

**Date:** July 16, 2009

**Photographer:** Leland Meadows, START

**Site Name:** Waterworks Creosote Spill

**Location:** Columbus, Lowndes County, Mississippi

**Subject:** Center of culvert looking Northwest. General area where screening samples WWC-SS-03 through WWC-SS-05 were collected.



**Photograph No.: 2**

**TDD Number:** TNA-05-001-0087

**Date:** July 16, 2009

**Photographer:** Doug Fraley, START

**Site Name:** Waterworks Creosote Spill

**Location:** Columbus, Lowndes County, Mississippi

**Subject:** Center of culvert facing Southeast. General area where screening samples WWC-SS-06 through WWC-SS-08 were collected.





**Photograph No.: 3**

**TDD Number:** TNA-05-001-0087

**Date:** July 16, 2009

**Photographer:** Doug Fraley, START

**Site Name:** Waterworks Creosote Spill

**Location:** Columbus, Lowndes County, Mississippi

**Subject:** Picture taken facing South; Area where screening sample WWC-SS-01 was collected.



**Photograph No.: 4**

**TDD Number:** TNA-05-001-0087

**Date:** July 16, 2009

**Photographer:** Doug Fraley, START

**Site Name:** Waterworks Creosote Spill

**Location:** Columbus, Lowndes County, Mississippi

**Subject:** Picture taken facing Southwest; Area of mostly concrete where screening sample WWC-SS-02 was collected.





**Photograph No.: 5**

**TDD Number:** TNA-05-001-0087

**Date:** July 16, 2009

**Photographer:** Leland Meadows, START

**Site Name:** Waterworks Creosote Spill

**Location:** Columbus, Lowndes County, Mississippi

**Subject:** Picture taken facing Southeast. Screening samples WWC-SS-03 and WWC-SS-04 collected from left bank of stream and WWC-SS-05 collected from right side of stream.



**Photograph No.: 6**

**TDD Number:** TNA-05-001-0087

**Date:** July 16, 2009

**Photographer:** Leland Meadows, START

**Site Name:** Waterworks Creosote Spill

**Location:** Columbus, Lowndes County, Mississippi

**Subject:** Picture taken facing Southwest. Screening sample WWC-SS-06 was collected from the sediment build up within the bend in the culvert.



**Photograph No.: 7**

**TDD Number:** TNA-05-001-0087

**Date:** July 16, 2009

**Photographer:** Leland Meadows, START

**Site Name:** Waterworks Creosote Spill

**Location:** Columbus, Lowndes County, Mississippi

**Subject:** Picture taken facing South. Screening sample WWC-SS-07 was collected within the bend of the culvert.



**Photograph No.: 8**

**TDD Number:** TNA-05-001-0087

**Date:** July 16, 2009

**Photographer:** Leland Meadows, START

**Site Name:** Waterworks Creosote Spill

**Location:** Columbus, Lowndes County, Mississippi

**Subject:** Picture taken facing Southeast. Screening sample WWC-SS-08 collected in the bend of the culvert.





**Photograph No.: 9**

**TDD Number:** TNA-05-001-0087

**Date:** July 16, 2009

**Photographer:** Doug Fraley, START

**Site Name:** Waterworks Creosote Spill

**Location:** Columbus, Lowndes County, Mississippi

**Subject:** Picture taken facing Southwest. Area shown was the general location for screening samples WWC-SS-01 and WWC-SS-02 after cleanup began.



**Photograph No.: 10**

**TDD Number:** TNA-05-001-0087

**Date:** July 16, 2009

**Photographer:** Doug Fraley, START

**Site Name:** Waterworks Creosote Spill

**Location:** Columbus, Lowndes County, Mississippi

**Subject:** Picture taken facing East showing clean up of area. This area was where screening samples WWC-SS-01 and WWC-SS-02 were collected.





**Photograph No.: 11**

**TDD Number:** TNA-05-001-0087

**Date:** July 16, 2009

**Photographer:** Doug Fraley, START

**Site Name:** Waterworks Creosote Spill

**Location:** Columbus, Lowndes County, Mississippi

**Subject:** Picture taken facing Southwest during clean up activities. Picture depicting the area where screening samples WWC-SS-06 through WWC-SS-08 were collected.



**Photograph No.: 12**

**TDD Number:** TNA-05-001-0087

**Date:** July 17, 2009

**Photographer:** Doug Fraley, START

**Site Name:** Waterworks Creosote Spill

**Location:** Columbus, Lowndes County, Mississippi

**Subject:** Picture taken facing Southeast of cleanup area where screening samples WWC-SS-01 and WWC-SS-02 were collected.





**Photograph No.: 13**

**TDD Number:** TNA-05-001-0087

**Date:** July 17, 2009

**Photographer:** Doug Fraley, START

**Site Name:** Waterworks Creosote Spill

**Location:** Columbus, Lowndes County, Mississippi

**Subject:** Picture taken facing Southeast and shows completed cleanup of culvert bend.



**Photograph No.: 14**

**TDD Number:** TNA-05-001-0087

**Date:** July 17, 2009

**Photographer:** Doug Fraley, START

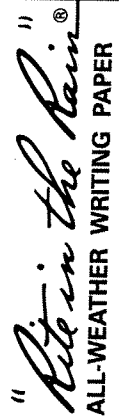
**Site Name:** Waterworks Creosote Spill

**Location:** Columbus, Lowndes County, Mississippi

**Subject:** Picture taken facing North of the interior of cylinder. A sample was collected for analytical parameters from dirt mound located on left side midway back.

**ATTACHMENT D**  
**Field Logbook Notes**  
**(7 pages)**





**ALL-WEATHER WRITING PAPER**

Address 1220 Kennebec Circle, Suite D

Marietta, GA 30066

Phone 678-355-5550

Project Columbus Creosote (2005/48-1724

Osc: Lick Jardine

**Clear Vinyl Protective Slipcovers (Item No. 30)** are available for this style of notebook. Helps protect your notebook from wear & tear. Contact your dealer or the J. L. Darling Corporation.

07/15/09

Columbus Creosote ER Columbus, Lowndes, MS  
 1630; START Meadows (R1) OTIE-TNA  
 received an emergency response call from  
 telephone duty officer Leslie Simms. During  
 this discussion, OSC and START Meadows  
 discussed a residential neighborhood threat  
 was dealing with an issue of creosote  
 contaminated soil at the local church.  
 START would be directed to provide air monitoring,  
 sampling of soils, and documentation. START  
 Meadows began drafting a HASP for the  
 event and procured PPE from G2 warehouse.  
 2000; START Meadows arrived at OTIE-TNA  
 and demobilized to the site located in  
 Columbus, Lowndes, MS.  
 01:00 EST on 07/16/09 START arrived  
 at the hotel.

Scale: 1 square=

y- 07/15/09 07/16/09<sup>3</sup>

Columbus Creosote Columbus, Lowndes Co., MS  
 0800; START Meadows and Fraley arrived  
 on site at the Hampton Inn to meet  
 with OSC Rick Jardine and Matt Huyser.  
 Discussion involved the Maranatha Faith  
 Center (church) located at 716 Waterworks  
 Rd.; Columbus, Lowndes County, MS. The  
 preacher previously utilized a back hoe to  
 remove a concrete culvert in preparation  
 of constructing a parking lot. While excavating  
 the reverend noticed that the soil was discolored  
 and came to the conclusion (based on previous  
 info) that the soil may possibly be contaminated  
 with creosote. Based on his findings, the EPA  
 was called out and an emergency action is in  
 progress.

0845; OSC Jardine, Huyser and START  
 members Meadows/Fraley depart hotel to  
 mobilize to site.

0915; Upon arrival on site, ERCS contractors  
 USES are currently on-site unloading roll off  
 boxes for utilization during cleanup activities.  
 1930; OSC Rick Jardine conducts Health & Safety  
 meeting and scoping of tasks. OSC directs START  
 to perform assessment activities including air monitoring

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and evaluation of head space off gases in soil, perform soil sampling, and GIS data management. ERS contractors are tasked with set up of egress zone into part of contaminant zone. Excavation of visible soil located in and surrounding the concrete (stream diverter) culvert, and general cleanup activities associated with the removal of soil.

Weather: Hi 88°F Low 73°F; isolated rain 1000; ERS began staging equipment, set up of dry decontamination pad, and excavation prep. ERS PM Tim Phillips is currently directing task associated with the cleanup.

1030; ERS begins excavating concrete pad and soil mixture near the concrete culvert

located near the southwest portion of the site. ERS places the soil into 25 cubic yard.

1130; ERS has filled (1) roll-off box and places it in staging area. START collects two

3-point composite soil samples from concrete/soil mixture pile that were placed by property owner. START places soil into plastic ziploc container and will read utilizing pzb RAE Volatile Vapor analyzer.

Scale: 1 square=

1145; ERS begins excavating soil located near the southwest portion of the site. Overcast and light mist of rain covers the site for a short period, and OSE Huyser imposes a stop work for 10 minutes.

1215; START collects sediment/soil samples from the unnamed ditch that borders the property near the southwest border. Previous soil samples (WNC-55-01, WNC-55-02). Sediment/soil sample locations are WNC-55-03, 04, 05. 1245; ERS contractors complete the 2nd - 25 cubic yard roll-off box and place in staging area near the north boundary of the site.

1300; ERS contractor began filling a 3rd - 25 cubic yard roll-off box with concrete padding and soil mixture located on the north side of the concrete culvert located near the southwestern boundary of the site.

1330; OSEs Jardine/Huyser, START contractors Meadows/Friley, and ERS contractors exit the site for lunch.

Scale: 1 square=

1415; OSCs, START contractors, and ERBS crew arrive back on site from lunch. OSC Jordine conducts news interview with local news station CW-WCBI. ERBS completes filling roll-off #3, and begins filling a 4<sup>th</sup> - 25 cubic yard roll-off. 1420; START mobilizes south of the site near baseball field / local park located within 1/2 mile to collect sample WWC-SS-00. Sample WWC-SS-00 will be utilized as a background sample to compare screening results. 1430; OSC Jordine, ERBS contractors and START contractors began assessment of unnamed ditch. OSC Jordine and ERBS crew members utilize shovels to unearth sediment / sand located between two concrete culverts that lie in the unnamed ditch. A ~70 ft stretch of non-concrete or submerged concrete rest in a visible area. That area contains more than for up to 2 feet in grassy, sediment, soil, and/or organic material. Shovel fulls are over turned and investigated for sheen and/or discoloration to assess possible contaminants. 1500; START collects sediment / soil sample from this area as, WWC-SS-06, -07, and -08 for

Scale: 1 square =

volatile organic screening of headspace in a ziploc bag. ERBS is directed to excavate the area between the two culverts. ERBS is currently awaiting additional roll off boxes. While awaiting supplies ERBS contractors began staging material in the culvert until additional roll off boxes arrive. 1600; START analyzes samples WWC-SS-00-08 utilizing ppb RAE (volatile organic analyzer) results are listed below in table as follows;

Sample Location	ppb RAE results
WWC-SS-00 (background)	0 ppb
01	350 ppb
02	1748 ppb
03	0 ppb * (moisture)
04	0 ppb * (moisture)
05	0 ppb * (moisture)
06	0 ppb * (moisture)
07	0 ppb * (moisture)
08	0 ppb * (moisture)

\* Due to high moisture content the ppb RAE flash red and diminished readings to 0 ppb rapidly. START will recalibrate ppb RAE and allow vapor to recollect in samples. START

Scale: 1 square =



Will also attempt to utilize TVA 1000 PID indicator to analyze samples at a later time.

1630: VSES (ERS contractors) arrives on site with two 25 yard roll-off boxes. ERS began filling roll-off boxes with sediment/soil and discolored organic material from the unnamed ditch, rolloff #5.

1650: ERS contractors complete roll-off box #5 and place in staging area. ERS contractor rotate the 6<sup>th</sup> roll-off box into place along the unnamed ditch to continue excavation activities.

1715: ERS contractors began excavation of remaining stained/discolored black organic material and place into 6<sup>th</sup> roll-off box.

1800: ERS contractors complete excavation of potentially contaminated soil located within the unnamed ditch. OSC Jardine discusses closure activities including site security, START sampling of roll-off boxes for disposal profiling, seeding/grading of scraped areas. START also discusses procurement of laboratory services, documentation, and GIS data management support.

1830: OSC Jardine and START exit the site.

Scale: 1 square=

2000: START Meadows/Fraley generated figures for the Creosote, Columbus ER. —

Y  
07/16/09

Scale: 1 square=

Columbus Cressote ER

07/17/09

0700: START Meadows / Friley arrived on site. Conducted Health & Safety tailgate meeting. Calibrated instruments TVA 1000 and ppb RAE to monitor roll-off boxes prior to disposal.

Weather: Hi: 88° Low: 69°, windy  
0800: START utilized a TVA 1000 and a ppb RAE to monitor readings of PID/VOC from roll-offs; results are listed in table below.

Roll off #	TVA 1000	ppb RAE
1	PID 54.22 ppm	26.5 ppm
2	PID 50.41 ppm	12.0 ppm
3	PID 57.12 ppm	7300 ppb
4	PID 28.09 ppm	0 ppb*
5	PID 21.79 ppm	0 ppb*
6	PID 21.1 ppm	0 ppb*

Background PID 5.76 ppm PID ○ ppb  
Ambient air FID 3.89 ppm FID  
0900: START collects samples from roll-off box #1 for analysis.

\* Note: 0730: START collected soil sample from

Scale: 1 square=

a cylinder located in the middle of the property that possibly contains cressote material. 1000: START performs documentation of restoration activities performed by GRS contractors. USES team members placed seed and straw, wheat over the excavated portions of the site.

1100: START demobilized from the site to

Maverick, GA via hotel to check-out.

1630: START Meadows / Friley arrived in ATL with traffic/rain.

1700: START Meadows / Friley arrived in Marietta, GA.

for  
7/17/09

Scale: 1 square=

Columbus Creosote

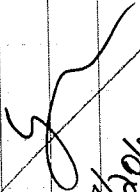
07/20/09

0800; START Meadows / Friley unpackage

supplies and samples from EL.

1530; START returns equipment to G2  
warehouse (ppb LAC) x2.

1700; START receives call from OSC

Jardine regarding analytical analysis for  
disposal. START will proceed to procureTCUP Metals, TCUP SVOC - cresol mpo,  
total cresol, flash, corrosivity for the 4  
waste samples collected.
  
7/20/09

Scale: 1 square=

Columbus Creosote

07/21/09

0900; START Meadows contacted AES

lab to discuss 3 roll off box samples - Roll-off

#1, Roll-off (#2-3) and Roll-off (#4-6) and

a waste sample from the cylinder for analytical

analysis including; SVOC, TCUP Metals -

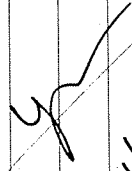
mercury, TCUP SVOC - cresols, flash and

corrosivity.

1030; Discussed procurement with OSC Rick

Jardine.

1500; START delivered samples to lab.

  
7/21/09

Scale: 1 square=



**ATTACHMENT E**  
**Laboratory Data Package**  
**(13 pages)**

CHAIN-OF-CUSTODY RECORD										1 COC NUMBER: <b>0000001</b>					
2 PROJECT NAME:		5 PROJECT NUMBER:			8 LAB NAME AND CONTACT:			11 FAX AND MAIL REPORTS/EDD TO: RECIPIENT 1 (Name and Company)			14 RECIPIENT 1 (Address, Tel No. , and Fax No.):				
Columbus Creosote ER					AES/James Forrest										
3 PROJECT PHASE/SITE/TASK:		6 CTO OR DO NUMBER:			9 LAB PO NUMBER:			12 FAX AND MAIL REPORTS/EDD TO: RECIPIENT 2 (Name and Company)			15 RECIPIENT 2 (Address, Tel No. , and Fax No.):				
2005148-1224															
4 PROJECT CONTACT:		7 PROJECT TEL NO AND FAX NO:			10 LAB TEL NO AND FAX NO:			13 FAX AND MAIL REPORTS/EDD TO: RECIPIENT 3 (Name and Company)			16 RECIPIENT 3 (Address, Tel No. , and Fax No.):				
Jorge Sanchez					770-457-8177										
25 ANALYSES REQUIRED (Include Method Numbers)															
17 ITEM	18 SAMPLE IDENTIFIER	19 SAMPLE DESCRIPTION/LOCATION	20 MATRIX (see codes on SOP)	21 DATE COLLECTED	22 TIME COLLECTED	23 DATA PKG LEVEL (see codes on SOP)	24 TAT (calendar days)	SVOCs 8270C	TCLP- Metals , no mercury	TCLP SCOY - cresol	Flash	Corrosivity	26 SAMPLE TYPE (see codes on SOP)	27 COMMENTS/ SCREENING READINGS	28 LAB ID (for lab's use)
1	CC-RB-01	Roll-off Box # 1	s	07/17/09	0900	II	5	x	x	x	x	x			
2	CC-RB-02	Roll-off Box # 2-3	s	07/16/09	1215	II	5	x	x	x	x	x			
3	CC-RB-04	Roll-off Box # 4-6	s	07/16/09	1500	II	5	x	x	x	x	x			
4	CC-CS-01	Cylinder Sample	s	07/17/09	730	II	5	x	x	x	x	x			
5															
6															
7															
8															
9															
10															
29 SAMPLER(S) AND COMPANY: (please print)															31 SAMPLES TEMPERATURE AND CONDITION UPON RECEIPT (for lab's use)
Leland J. Meadows _ OTIE - START															
32 RELINQUISHED BY				DATE	TIME	33 RECEIVED BY				DATE	TIME				
Printed Name and Signature:						Printed Name and Signature:									
1/0/1900															
0:00															
Printed Name and Signature:						Printed Name and Signature:									
Printed Name and Signature:						Printed Name and Signature:									

# Analytical Environmental Services, Inc.

Date: 28-Jul-09

**CLIENT:** Oneida Total Integrated Enterprises  
**Project:** Columbus Creosote ER  
**Lab ID:** 0907E83-001

**Client Sample ID:** CC-RB-01  
**Collection Date:** 7/17/2009 9:00:00 AM  
**Matrix:** SOIL

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
<b>ICP METALS, TCLP SW1311/6010C</b>					<b>(SW3010A)</b>		Analyst: BB
Arsenic	BRL	0.250		mg/L	115930	1	7/23/2009 5:39 PM
Barium	0.517	0.500		mg/L	115930	1	7/23/2009 5:39 PM
Cadmium	BRL	0.0250		mg/L	115930	1	7/23/2009 5:39 PM
Chromium	BRL	0.0500		mg/L	115930	1	7/23/2009 5:39 PM
Lead	BRL	0.0500		mg/L	115930	1	7/23/2009 5:39 PM
Selenium	BRL	0.100		mg/L	115930	1	7/23/2009 5:39 PM
Silver	BRL	0.0250		mg/L	115930	1	7/23/2009 5:39 PM
<b>SEMIVOLATILES ORGANICS, TCLP SW1311/8270D</b>					<b>(SW3510)</b>		Analyst: YH
1,4-Dichlorobenzene	BRL	0.10		mg/L	116026	1	7/27/2009 6:17 PM
2,4,5-Trichlorophenol	BRL	0.10		mg/L	116026	1	7/27/2009 6:17 PM
2,4,6-Trichlorophenol	BRL	0.10		mg/L	116026	1	7/27/2009 6:17 PM
2,4-Dinitrotoluene	BRL	0.10		mg/L	116026	1	7/27/2009 6:17 PM
Hexachlorobenzene	BRL	0.10		mg/L	116026	1	7/27/2009 6:17 PM
Hexachlorobutadiene	BRL	0.10		mg/L	116026	1	7/27/2009 6:17 PM
Hexachloroethane	BRL	0.10		mg/L	116026	1	7/27/2009 6:17 PM
m,p-Cresol	BRL	0.10		mg/L	116026	1	7/27/2009 6:17 PM
Nitrobenzene	BRL	0.10		mg/L	116026	1	7/27/2009 6:17 PM
o-Cresol	BRL	0.10		mg/L	116026	1	7/27/2009 6:17 PM
Pentachlorophenol	BRL	0.50		mg/L	116026	1	7/27/2009 6:17 PM
Pyridine	BRL	0.10		mg/L	116026	1	7/27/2009 6:17 PM
Cresols, Total	BRL	0.10		mg/L	116026	1	7/27/2009 6:17 PM
Surr: 2,4,6-Tribromophenol	102	56.3-142		%REC	116026	1	7/27/2009 6:17 PM
Surr: 2-Fluorobiphenyl	86.4	54.4-126		%REC	116026	1	7/27/2009 6:17 PM
Surr: 2-Fluorophenol	86.8	39.9-125		%REC	116026	1	7/27/2009 6:17 PM
Surr: 4-Terphenyl-d14	99.3	48.1-137		%REC	116026	1	7/27/2009 6:17 PM
Surr: Nitrobenzene-d5	85.6	48.7-135		%REC	116026	1	7/27/2009 6:17 PM
Surr: Phenol-d5	82.4	35.6-132		%REC	116026	1	7/27/2009 6:17 PM
<b>TCL-SEMIVOLATILE ORGANICS SW8270D</b>					<b>(SW3550C)</b>		Analyst: YH
1,1'-Biphenyl	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
2,4,5-Trichlorophenol	BRL	1900		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
2,4,6-Trichlorophenol	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
2,4-Dichlorophenol	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
2,4-Dimethylphenol	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
2,4-Dinitrophenol	BRL	1900		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
2,4-Dinitrotoluene	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
2,6-Dinitrotoluene	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
2-Chloronaphthalene	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
2-Chlorophenol	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
2-Methylnaphthalene	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- BRL Below Reporting Limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated Method Blank
- > Greater than Result value

- E Estimated (Value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See Case Narrative
- NC Not Confirmed
- < Less than Result value



# Analytical Environmental Services, Inc.

Date: 28-Jul-09

**CLIENT:** Oneida Total Integrated Enterprises  
**Project:** Columbus Creosote ER  
**Lab ID:** 0907E83-001

**Client Sample ID:** CC-RB-01  
**Collection Date:** 7/17/2009 9:00:00 AM  
**Matrix:** SOIL

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
<b>TCL-SEMIVOLATILE ORGANICS</b>	<b>SW8270D</b>				<b>(SW3550C)</b>		Analyst: YH
2-Methylphenol	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
2-Nitroaniline	BRL	1900		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
2-Nitrophenol	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
3,3'-Dichlorobenzidine	BRL	740		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
3-Nitroaniline	BRL	1900		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
4,6-Dinitro-2-methylphenol	BRL	1900		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
4-Bromophenyl phenyl ether	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
4-Chloro-3-methylphenol	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
4-Chloroaniline	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
4-Chlorophenyl phenyl ether	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
4-Methylphenol	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
4-Nitroaniline	BRL	1900		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
4-Nitrophenol	BRL	1900		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Acenaphthene	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Acenaphthylene	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Acetophenone	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Anthracene	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Atrazine	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Benz(a)anthracene	620	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Benzaldehyde	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Benzo(a)pyrene	600	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Benzo(b)fluoranthene	1000	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Benzo(g,h,i)perylene	430	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Benzo(k)fluoranthene	410	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Bis(2-chloroethoxy)methane	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Bis(2-chloroethyl)ether	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Bis(2-chloroisopropyl)ether	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Bis(2-ethylhexyl)phthalate	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Butyl benzyl phthalate	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Caprolactam	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Carbazole	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Chrysene	830	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Dibenz(a,h)anthracene	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Dibenzofuran	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Diethyl phthalate	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Dimethyl phthalate	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Di-n-butyl phthalate	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Di-n-octyl phthalate	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Fluoranthene	770	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Fluorene	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
 BRL Below Reporting Limit  
 H Holding times for preparation or analysis exceeded  
 N Analyte not NELAC certified  
 B Analyte detected in the associated Method Blank  
 > Greater than Result value

E Estimated (Value above quantitation range)  
 S Spike Recovery outside limits due to matrix  
 Narr See Case Narrative  
 NC Not Confirmed  
 < Less than Result value

**Analytical Environmental Services, Inc.****Date:** 28-Jul-09

**CLIENT:** Oneida Total Integrated Enterprises  
**Project:** Columbus Creosote ER  
**Lab ID:** 0907E83-001

**Client Sample ID:** CC-RB-01  
**Collection Date:** 7/17/2009 9:00:00 AM  
**Matrix:** SOIL

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
<b>TCL-SEMIVOLATILE ORGANICS SW8270D</b>					<b>(SW3550C)</b>		Analyst: YH
Hexachlorobenzene	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Hexachlorobutadiene	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Hexachlorocyclopentadiene	BRL	730		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Hexachloroethane	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Indeno(1,2,3-cd)pyrene	450	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Isophorone	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Naphthalene	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Nitrobenzene	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
N-Nitrosodi-n-propylamine	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
N-Nitrosodiphenylamine	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Pentachlorophenol	BRL	1900		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Phenanthrene	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Phenol	BRL	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Pyrene	740	360		ug/Kg-dry	115819	1	7/22/2009 11:46 PM
Surr: 2,4,6-Tribromophenol	101	48.6-120		%REC	115819	1	7/22/2009 11:46 PM
Surr: 2-Fluorobiphenyl	85.1	49.2-120		%REC	115819	1	7/22/2009 11:46 PM
Surr: 2-Fluorophenol	72.6	35.5-120		%REC	115819	1	7/22/2009 11:46 PM
Surr: 4-Terphenyl-d14	96.9	51.8-120		%REC	115819	1	7/22/2009 11:46 PM
Surr: Nitrobenzene-d5	73.8	40.4-120		%REC	115819	1	7/22/2009 11:46 PM
Surr: Phenol-d5	85.2	41.3-120		%REC	115819	1	7/22/2009 11:46 PM
<b>IGNITABILITY SW1010</b>							Analyst: MAS
Ignitability	180	0	>	°F		1	7/27/2009 9:00 AM
<b>LABORATORY HYDROGEN ION (PH) SW9045D</b>					<b>(SW9045D)</b>		Analyst: CG
pH	5.97	0.01		pH Units	115943	1	7/22/2009 6:00 PM
<b>PERCENT MOISTURE D2216</b>							Analyst: MAS
Percent Moisture	9.76	0		wt%		1	7/27/2009 9:00 AM

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
>	Greater than Result value

E	Estimated (Value above quantitation range)
S	Spike Recovery outside limits due to matrix
Narr	See Case Narrative
NC	Not Confirmed
<	Less than Result value

# Analytical Environmental Services, Inc.

Date: 28-Jul-09

**CLIENT:** Oneida Total Integrated Enterprises  
**Project:** Columbus Creosote ER  
**Lab ID:** 0907E83-002

**Client Sample ID:** CC-RB-02  
**Collection Date:** 7/16/2009 12:15:00 PM  
**Matrix:** SOIL

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
<b>ICP METALS, TCLP SW1311/6010C</b>					<b>(SW3010A)</b>		Analyst: BB
Arsenic	BRL	0.250		mg/L	115930	1	7/23/2009 6:05 PM
Barium	BRL	0.500		mg/L	115930	1	7/23/2009 6:05 PM
Cadmium	BRL	0.0250		mg/L	115930	1	7/23/2009 6:05 PM
Chromium	BRL	0.0500		mg/L	115930	1	7/23/2009 6:05 PM
Lead	BRL	0.0500		mg/L	115930	1	7/23/2009 6:05 PM
Selenium	BRL	0.100		mg/L	115930	1	7/23/2009 6:05 PM
Silver	BRL	0.0250		mg/L	115930	1	7/23/2009 6:05 PM
<b>SEMIVOLATILES ORGANICS, TCLP SW1311/8270D</b>					<b>(SW3510)</b>		Analyst: YH
1,4-Dichlorobenzene	BRL	0.10		mg/L	116026	1	7/27/2009 5:48 PM
2,4,5-Trichlorophenol	BRL	0.10		mg/L	116026	1	7/27/2009 5:48 PM
2,4,6-Trichlorophenol	BRL	0.10		mg/L	116026	1	7/27/2009 5:48 PM
2,4-Dinitrotoluene	BRL	0.10		mg/L	116026	1	7/27/2009 5:48 PM
Hexachlorobenzene	BRL	0.10		mg/L	116026	1	7/27/2009 5:48 PM
Hexachlorobutadiene	BRL	0.10		mg/L	116026	1	7/27/2009 5:48 PM
Hexachloroethane	BRL	0.10		mg/L	116026	1	7/27/2009 5:48 PM
m,p-Cresol	BRL	0.10		mg/L	116026	1	7/27/2009 5:48 PM
Nitrobenzene	BRL	0.10		mg/L	116026	1	7/27/2009 5:48 PM
o-Cresol	BRL	0.10		mg/L	116026	1	7/27/2009 5:48 PM
Pentachlorophenol	BRL	0.50		mg/L	116026	1	7/27/2009 5:48 PM
Pyridine	BRL	0.10		mg/L	116026	1	7/27/2009 5:48 PM
Cresols, Total	BRL	0.10		mg/L	116026	1	7/27/2009 5:48 PM
Surr: 2,4,6-Tribromophenol	103	56.3-142		%REC	116026	1	7/27/2009 5:48 PM
Surr: 2-Fluorobiphenyl	87.5	54.4-126		%REC	116026	1	7/27/2009 5:48 PM
Surr: 2-Fluorophenol	84.2	39.9-125		%REC	116026	1	7/27/2009 5:48 PM
Surr: 4-Terphenyl-d14	101	48.1-137		%REC	116026	1	7/27/2009 5:48 PM
Surr: Nitrobenzene-d5	85.7	48.7-135		%REC	116026	1	7/27/2009 5:48 PM
Surr: Phenol-d5	75.1	35.6-132		%REC	116026	1	7/27/2009 5:48 PM
<b>TCL-SEMIVOLATILE ORGANICS SW8270D</b>					<b>(SW3550C)</b>		Analyst: YH
1,1'-Biphenyl	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
2,4,5-Trichlorophenol	BRL	2000		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
2,4,6-Trichlorophenol	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
2,4-Dichlorophenol	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
2,4-Dimethylphenol	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
2,4-Dinitrophenol	BRL	2000		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
2,4-Dinitrotoluene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
2,6-Dinitrotoluene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
2-Chloronaphthalene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
2-Chlorophenol	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
2-Methylnaphthalene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- BRL Below Reporting Limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated Method Blank
- > Greater than Result value

- E Estimated (Value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See Case Narrative
- NC Not Confirmed
- < Less than Result value



# Analytical Environmental Services, Inc.

Date: 28-Jul-09

**CLIENT:** Oneida Total Integrated Enterprises  
**Project:** Columbus Creosote ER  
**Lab ID:** 0907E83-002

**Client Sample ID:** CC-RB-02  
**Collection Date:** 7/16/2009 12:15:00 PM  
**Matrix:** SOIL

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
<b>TCL-SEMIVOLATILE ORGANICS</b>	<b>SW8270D</b>				<b>(SW3550C)</b>		<b>Analyst: YH</b>
2-Methylphenol	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
2-Nitroaniline	BRL	2000		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
2-Nitrophenol	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
3,3'-Dichlorobenzidine	BRL	810		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
3-Nitroaniline	BRL	2000		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
4,6-Dinitro-2-methylphenol	BRL	2000		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
4-Bromophenyl phenyl ether	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
4-Chloro-3-methylphenol	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
4-Chloroaniline	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
4-Chlorophenyl phenyl ether	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
4-Methylphenol	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
4-Nitroaniline	BRL	2000		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
4-Nitrophenol	BRL	2000		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Acenaphthene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Acenaphthylene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Acetophenone	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Anthracene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Atrazine	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Benz(a)anthracene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Benzaldehyde	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Benzo(a)pyrene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Benzo(b)fluoranthene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Benzo(g,h,i)perylene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Benzo(k)fluoranthene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Bis(2-chloroethoxy)methane	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Bis(2-chloroethyl)ether	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Bis(2-chloroisopropyl)ether	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Bis(2-ethylhexyl)phthalate	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Butyl benzyl phthalate	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Caprolactam	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Carbazole	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Chrysene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Dibenz(a,h)anthracene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Dibenzofuran	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Diethyl phthalate	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Dimethyl phthalate	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Di-n-butyl phthalate	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Di-n-octyl phthalate	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Fluoranthene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Fluorene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- BRL Below Reporting Limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated Method Blank
- > Greater than Result value

- E Estimated (Value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See Case Narrative
- NC Not Confirmed
- < Less than Result value

**Analytical Environmental Services, Inc.****Date:** 28-Jul-09

**CLIENT:** Oneida Total Integrated Enterprises  
**Project:** Columbus Creosote ER  
**Lab ID:** 0907E83-002

**Client Sample ID:** CC-RB-02  
**Collection Date:** 7/16/2009 12:15:00 PM  
**Matrix:** SOIL

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
<b>TCL-SEMIVOLATILE ORGANICS SW8270D</b>					<b>(SW3550C)</b>		Analyst: YH
Hexachlorobenzene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Hexachlorobutadiene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Hexachlorocyclopentadiene	BRL	790		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Hexachloroethane	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Indeno(1,2,3-cd)pyrene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Isophorone	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Naphthalene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Nitrobenzene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
N-Nitrosodi-n-propylamine	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
N-Nitrosodiphenylamine	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Pentachlorophenol	BRL	2000		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Phenanthrene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Phenol	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Pyrene	BRL	400		ug/Kg-dry	115819	1	7/23/2009 12:13 AM
Surr: 2,4,6-Tribromophenol	98.3	48.6-120		%REC	115819	1	7/23/2009 12:13 AM
Surr: 2-Fluorobiphenyl	80.5	49.2-120		%REC	115819	1	7/23/2009 12:13 AM
Surr: 2-Fluorophenol	75.4	35.5-120		%REC	115819	1	7/23/2009 12:13 AM
Surr: 4-Terphenyl-d14	94.4	51.8-120		%REC	115819	1	7/23/2009 12:13 AM
Surr: Nitrobenzene-d5	75.6	40.4-120		%REC	115819	1	7/23/2009 12:13 AM
Surr: Phenol-d5	87.0	41.3-120		%REC	115819	1	7/23/2009 12:13 AM
<b>IGNITABILITY SW1010</b>							Analyst: MAS
Ignitability	180	0	>	°F		1	7/27/2009 9:00 AM
<b>LABORATORY HYDROGEN ION (PH) SW9045D</b>					<b>(SW9045D)</b>		Analyst: CG
pH	5.11	0.01		pH Units	115943	1	7/22/2009 6:00 PM
<b>PERCENT MOISTURE D2216</b>							Analyst: MAS
Percent Moisture	17.0	0		wt%		1	7/27/2009 9:00 AM

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
>	Greater than Result value

E	Estimated (Value above quantitation range)
S	Spike Recovery outside limits due to matrix
Narr	See Case Narrative
NC	Not Confirmed
<	Less than Result value

**Analytical Environmental Services, Inc.**

Date: 28-Jul-09

**CLIENT:** Oneida Total Integrated Enterprises  
**Project:** Columbus Creosote ER  
**Lab ID:** 0907E83-003

**Client Sample ID:** CC-RB-04  
**Collection Date:** 7/16/2009 3:00:00 PM  
**Matrix:** SOIL

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
<b>ICP METALS, TCLP SW1311/6010C</b>					<b>(SW3010A)</b>		Analyst: BB
Arsenic	BRL	0.250		mg/L	115930	1	7/23/2009 6:09 PM
Barium	BRL	0.500		mg/L	115930	1	7/23/2009 6:09 PM
Cadmium	BRL	0.0250		mg/L	115930	1	7/23/2009 6:09 PM
Chromium	BRL	0.0500		mg/L	115930	1	7/23/2009 6:09 PM
Lead	BRL	0.0500		mg/L	115930	1	7/23/2009 6:09 PM
Selenium	BRL	0.100		mg/L	115930	1	7/23/2009 6:09 PM
Silver	BRL	0.0250		mg/L	115930	1	7/23/2009 6:09 PM
<b>SEMIVOLATILES ORGANICS, TCLP SW1311/8270D</b>					<b>(SW3510)</b>		Analyst: YH
1,4-Dichlorobenzene	BRL	0.10		mg/L	116026	1	7/27/2009 5:20 PM
2,4,5-Trichlorophenol	BRL	0.10		mg/L	116026	1	7/27/2009 5:20 PM
2,4,6-Trichlorophenol	BRL	0.10		mg/L	116026	1	7/27/2009 5:20 PM
2,4-Dinitrotoluene	BRL	0.10		mg/L	116026	1	7/27/2009 5:20 PM
Hexachlorobenzene	BRL	0.10		mg/L	116026	1	7/27/2009 5:20 PM
Hexachlorobutadiene	BRL	0.10		mg/L	116026	1	7/27/2009 5:20 PM
Hexachloroethane	BRL	0.10		mg/L	116026	1	7/27/2009 5:20 PM
m,p-Cresol	BRL	0.10		mg/L	116026	1	7/27/2009 5:20 PM
Nitrobenzene	BRL	0.10		mg/L	116026	1	7/27/2009 5:20 PM
o-Cresol	BRL	0.10		mg/L	116026	1	7/27/2009 5:20 PM
Pentachlorophenol	BRL	0.50		mg/L	116026	1	7/27/2009 5:20 PM
Pyridine	BRL	0.10		mg/L	116026	1	7/27/2009 5:20 PM
Cresols, Total	BRL	0.10		mg/L	116026	1	7/27/2009 5:20 PM
Surr: 2,4,6-Tribromophenol	104	56.3-142		%REC	116026	1	7/27/2009 5:20 PM
Surr: 2-Fluorobiphenyl	87.4	54.4-126		%REC	116026	1	7/27/2009 5:20 PM
Surr: 2-Fluorophenol	95.1	39.9-125		%REC	116026	1	7/27/2009 5:20 PM
Surr: 4-Terphenyl-d14	102	48.1-137		%REC	116026	1	7/27/2009 5:20 PM
Surr: Nitrobenzene-d5	92.4	48.7-135		%REC	116026	1	7/27/2009 5:20 PM
Surr: Phenol-d5	86.1	35.6-132		%REC	116026	1	7/27/2009 5:20 PM
<b>TCL-SEMIVOLATILE ORGANICS SW8270D</b>					<b>(SW3550C)</b>		Analyst: YH
1,1'-Biphenyl	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
2,4,5-Trichlorophenol	BRL	2400		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
2,4,6-Trichlorophenol	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
2,4-Dichlorophenol	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
2,4-Dimethylphenol	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
2,4-Dinitrophenol	BRL	2400		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
2,4-Dinitrotoluene	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
2,6-Dinitrotoluene	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
2-Chloronaphthalene	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
2-Chlorophenol	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
2-Methylnaphthalene	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
BRL Below Reporting Limit  
H Holding times for preparation or analysis exceeded  
N Analyte not NELAC certified  
B Analyte detected in the associated Method Blank  
> Greater than Result value

E Estimated (Value above quantitation range)  
S Spike Recovery outside limits due to matrix  
Narr See Case Narrative  
NC Not Confirmed  
< Less than Result value

# Analytical Environmental Services, Inc.

Date: 28-Jul-09

**CLIENT:** Oneida Total Integrated Enterprises  
**Project:** Columbus Creosote ER  
**Lab ID:** 0907E83-003

**Client Sample ID:** CC-RB-04  
**Collection Date:** 7/16/2009 3:00:00 PM  
**Matrix:** SOIL

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
<b>TCL-SEMIVOLATILE ORGANICS</b>	<b>SW8270D</b>				<b>(SW3550C)</b>		Analyst: YH
2-Methylphenol	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
2-Nitroaniline	BRL	2400		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
2-Nitrophenol	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
3,3'-Dichlorobenzidine	BRL	950		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
3-Nitroaniline	BRL	2400		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
4,6-Dinitro-2-methylphenol	BRL	2400		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
4-Bromophenyl phenyl ether	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
4-Chloro-3-methylphenol	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
4-Chloroaniline	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
4-Chlorophenyl phenyl ether	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
4-Methylphenol	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
4-Nitroaniline	BRL	2400		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
4-Nitrophenol	BRL	2400		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Acenaphthene	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Acenaphthylene	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Acetophenone	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Anthracene	5400	4700		ug/Kg-dry	115819	10	7/23/2009 8:05 PM
Atrazine	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Benz(a)anthracene	1200	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Benzaldehyde	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Benzo(a)pyrene	1400	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Benzo(b)fluoranthene	2600	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Benzo(g,h,i)perylene	1100	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Benzo(k)fluoranthene	940	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Bis(2-chloroethoxy)methane	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Bis(2-chloroethyl)ether	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Bis(2-chloroisopropyl)ether	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Bis(2-ethylhexyl)phthalate	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Butyl benzyl phthalate	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Caprolactam	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Carbazole	2700	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Chrysene	2300	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Dibenz(a,h)anthracene	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Dibenzofuran	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Diethyl phthalate	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Dimethyl phthalate	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Di-n-butyl phthalate	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Di-n-octyl phthalate	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Fluoranthene	1400	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Fluorene	1100	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
 BRL Below Reporting Limit  
 H Holding times for preparation or analysis exceeded  
 N Analyte not NELAC certified  
 B Analyte detected in the associated Method Blank  
 > Greater than Result value

E Estimated (Value above quantitation range)  
 S Spike Recovery outside limits due to matrix  
 Narr See Case Narrative  
 NC Not Confirmed  
 < Less than Result value



**Analytical Environmental Services, Inc.**

Date: 28-Jul-09

**CLIENT:** Oneida Total Integrated Enterprises  
**Project:** Columbus Creosote ER  
**Lab ID:** 0907E83-003

**Client Sample ID:** CC-RB-04  
**Collection Date:** 7/16/2009 3:00:00 PM  
**Matrix:** SOIL

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
<b>TCL-SEMIVOLATILE ORGANICS SW8270D</b>					<b>(SW3550C)</b>		Analyst: YH
Hexachlorobenzene	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Hexachlorobutadiene	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Hexachlorocyclopentadiene	BRL	940		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Hexachloroethane	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Indeno(1,2,3-cd)pyrene	1100	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Isophorone	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Naphthalene	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Nitrobenzene	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
N-Nitrosodi-n-propylamine	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
N-Nitrosodiphenylamine	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Pentachlorophenol	BRL	2400		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Phenanthrene	2100	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Phenol	BRL	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Pyrene	1500	470		ug/Kg-dry	115819	1	7/23/2009 12:40 AM
Surr: 2,4,6-Tribromophenol	71.4	48.6-120		%REC	115819	1	7/23/2009 12:40 AM
Surr: 2-Fluorobiphenyl	61.0	49.2-120		%REC	115819	1	7/23/2009 12:40 AM
Surr: 2-Fluorophenol	57.3	35.5-120		%REC	115819	1	7/23/2009 12:40 AM
Surr: 4-Terphenyl-d14	65.0	51.8-120		%REC	115819	1	7/23/2009 12:40 AM
Surr: Nitrobenzene-d5	56.9	40.4-120		%REC	115819	1	7/23/2009 12:40 AM
Surr: Phenol-d5	63.1	41.3-120		%REC	115819	1	7/23/2009 12:40 AM
<b>IGNITABILITY SW1010</b>							Analyst: MAS
Ignitability	180	0	>	°F		1	7/27/2009 9:00 AM
<b>LABORATORY HYDROGEN ION (PH) SW9045D</b>					<b>(SW9045D)</b>		Analyst: CG
pH	6.16	0.01		pH Units	115943	1	7/22/2009 6:00 PM
<b>PERCENT MOISTURE D2216</b>							Analyst: MAS
Percent Moisture	29.8	0		wt%		1	7/27/2009 9:00 AM

**Qualifiers:**

- \* Value exceeds Maximum Contaminant Level
- BRL Below Reporting Limit
- H Holding times for preparation or analysis exceeded
- N Analyte not NELAC certified
- B Analyte detected in the associated Method Blank
- > Greater than Result value

- E Estimated (Value above quantitation range)
- S Spike Recovery outside limits due to matrix
- Narr See Case Narrative
- NC Not Confirmed
- < Less than Result value

**Analytical Environmental Services, Inc.**

Date: 28-Jul-09

**CLIENT:** Oneida Total Integrated Enterprises  
**Project:** Columbus Creosote ER  
**Lab ID:** 0907E83-004

**Client Sample ID:** CC-CS-01  
**Collection Date:** 7/17/2009 7:30:00 AM  
**Matrix:** SOIL

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
<b>ICP METALS, TCLP SW1311/6010C</b>					<b>(SW3010A)</b>		Analyst: BB
Arsenic	BRL	0.250		mg/L	115930	1	7/23/2009 6:13 PM
Barium	BRL	0.500		mg/L	115930	1	7/23/2009 6:13 PM
Cadmium	BRL	0.0250		mg/L	115930	1	7/23/2009 6:13 PM
Chromium	BRL	0.0500		mg/L	115930	1	7/23/2009 6:13 PM
Lead	BRL	0.0500		mg/L	115930	1	7/23/2009 6:13 PM
Selenium	BRL	0.100		mg/L	115930	1	7/23/2009 6:13 PM
Silver	BRL	0.0250		mg/L	115930	1	7/23/2009 6:13 PM
<b>SEMIVOLATILES ORGANICS, TCLP SW1311/8270D</b>					<b>(SW3510)</b>		Analyst: YH
1,4-Dichlorobenzene	BRL	0.10		mg/L	116026	1	7/27/2009 4:51 PM
2,4,5-Trichlorophenol	BRL	0.10		mg/L	116026	1	7/27/2009 4:51 PM
2,4,6-Trichlorophenol	BRL	0.10		mg/L	116026	1	7/27/2009 4:51 PM
2,4-Dinitrotoluene	BRL	0.10		mg/L	116026	1	7/27/2009 4:51 PM
Hexachlorobenzene	BRL	0.10		mg/L	116026	1	7/27/2009 4:51 PM
Hexachlorobutadiene	BRL	0.10		mg/L	116026	1	7/27/2009 4:51 PM
Hexachloroethane	BRL	0.10		mg/L	116026	1	7/27/2009 4:51 PM
m,p-Cresol	BRL	0.10		mg/L	116026	1	7/27/2009 4:51 PM
Nitrobenzene	BRL	0.10		mg/L	116026	1	7/27/2009 4:51 PM
o-Cresol	BRL	0.10		mg/L	116026	1	7/27/2009 4:51 PM
Pentachlorophenol	BRL	0.50		mg/L	116026	1	7/27/2009 4:51 PM
Pyridine	BRL	0.10		mg/L	116026	1	7/27/2009 4:51 PM
Cresols, Total	BRL	0.10		mg/L	116026	1	7/27/2009 4:51 PM
Surr: 2,4,6-Tribromophenol	105	56.3-142		%REC	116026	1	7/27/2009 4:51 PM
Surr: 2-Fluorobiphenyl	87.6	54.4-126		%REC	116026	1	7/27/2009 4:51 PM
Surr: 2-Fluorophenol	86.7	39.9-125		%REC	116026	1	7/27/2009 4:51 PM
Surr: 4-Terphenyl-d14	100	48.1-137		%REC	116026	1	7/27/2009 4:51 PM
Surr: Nitrobenzene-d5	89.8	48.7-135		%REC	116026	1	7/27/2009 4:51 PM
Surr: Phenol-d5	84.7	35.6-132		%REC	116026	1	7/27/2009 4:51 PM
<b>TCL-SEMIVOLATILE ORGANICS SW8270D</b>					<b>(SW3550C)</b>		Analyst: YH
1,1'-Biphenyl	4600	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
2,4,5-Trichlorophenol	BRL	1700		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
2,4,6-Trichlorophenol	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
2,4-Dichlorophenol	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
2,4-Dimethylphenol	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
2,4-Dinitrophenol	BRL	1700		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
2,4-Dinitrotoluene	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
2,6-Dinitrotoluene	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
2-Chloronaphthalene	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
2-Chlorophenol	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
2-Methylnaphthalene	4100	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM

**Qualifiers:**

*	Value exceeds Maximum Contaminant Level
BRL	Below Reporting Limit
H	Holding times for preparation or analysis exceeded
N	Analyte not NELAC certified
B	Analyte detected in the associated Method Blank
>	Greater than Result value

E	Estimated (Value above quantitation range)
S	Spike Recovery outside limits due to matrix
Narr	See Case Narrative
NC	Not Confirmed
<	Less than Result value

# Analytical Environmental Services, Inc.

Date: 28-Jul-09

**CLIENT:** Oneida Total Integrated Enterprises  
**Project:** Columbus Creosote ER  
**Lab ID:** 0907E83-004

**Client Sample ID:** CC-CS-01  
**Collection Date:** 7/17/2009 7:30:00 AM  
**Matrix:** SOIL

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
<b>TCL-SEMIVOLATILE ORGANICS</b>	<b>SW8270D</b>				<b>(SW3550C)</b>		Analyst: YH
2-Methylphenol	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
2-Nitroaniline	BRL	1700		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
2-Nitrophenol	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
3,3'-Dichlorobenzidine	BRL	670		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
3-Nitroaniline	BRL	1700		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
4,6-Dinitro-2-methylphenol	BRL	1700		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
4-Bromophenyl phenyl ether	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
4-Chloro-3-methylphenol	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
4-Chloroaniline	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
4-Chlorophenyl phenyl ether	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
4-Methylphenol	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
4-Nitroaniline	BRL	1700		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
4-Nitrophenol	BRL	1700		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Acenaphthene	42000	3300		ug/Kg-dry	115819	10	7/23/2009 6:44 PM
Acenaphthylene	7400	3300		ug/Kg-dry	115819	10	7/23/2009 6:44 PM
Acetophenone	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Anthracene	51000	3300		ug/Kg-dry	115819	10	7/23/2009 6:44 PM
Atrazine	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Benz(a)anthracene	110000	33000		ug/Kg-dry	115819	100	7/23/2009 7:11 PM
Benzaldehyde	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Benzo(a)pyrene	37000	3300		ug/Kg-dry	115819	10	7/23/2009 6:44 PM
Benzo(b)fluoranthene	76000	33000		ug/Kg-dry	115819	100	7/23/2009 7:11 PM
Benzo(g,h,i)perylene	21000	3300		ug/Kg-dry	115819	10	7/23/2009 6:44 PM
Benzo(k)fluoranthene	22000	3300		ug/Kg-dry	115819	10	7/23/2009 6:44 PM
Bis(2-chloroethoxy)methane	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Bis(2-chloroethyl)ether	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Bis(2-chloroisopropyl)ether	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Bis(2-ethylhexyl)phthalate	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Butyl benzyl phthalate	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Caprolactam	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Carbazole	23000	3300		ug/Kg-dry	115819	10	7/23/2009 6:44 PM
Chrysene	99000	33000		ug/Kg-dry	115819	100	7/23/2009 7:11 PM
Dibenz(a,h)anthracene	1500	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Dibenzofuran	59000	33000		ug/Kg-dry	115819	100	7/23/2009 7:11 PM
Diethyl phthalate	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Dimethyl phthalate	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Di-n-butyl phthalate	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Di-n-octyl phthalate	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Fluoranthene	600000	330000		ug/Kg-dry	115819	1000	7/23/2009 7:38 PM
Fluorene	90000	33000		ug/Kg-dry	115819	100	7/23/2009 7:11 PM

**Qualifiers:** \* Value exceeds Maximum Contaminant Level  
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E Estimated (Value above quantitation range)  
 S Spike Recovery outside limits due to matrix  
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**Analytical Environmental Services, Inc.**

Date: 28-Jul-09

**CLIENT:** Oneida Total Integrated Enterprises  
**Project:** Columbus Creosote ER  
**Lab ID:** 0907E83-004

**Client Sample ID:** CC-CS-01  
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**Matrix:** SOIL

Analyses	Result	Reporting Limit	Qual	Units	BatchID	Dilution Factor	Date Analyzed
<b>TCL-SEMIVOLATILE ORGANICS SW8270D</b>					<b>(SW3550C)</b>		Analyst: YH
Hexachlorobenzene	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Hexachlorobutadiene	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Hexachlorocyclopentadiene	BRL	660		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Hexachloroethane	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Indeno(1,2,3-cd)pyrene	21000	3300		ug/Kg-dry	115819	10	7/23/2009 6:44 PM
Isophorone	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Naphthalene	960	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Nitrobenzene	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
N-Nitrosodi-n-propylamine	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
N-Nitrosodiphenylamine	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Pentachlorophenol	BRL	1700		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Phenanthrene	690000	330000		ug/Kg-dry	115819	1000	7/23/2009 7:38 PM
Phenol	BRL	330		ug/Kg-dry	115819	1	7/23/2009 1:07 AM
Pyrene	340000	33000		ug/Kg-dry	115819	100	7/23/2009 7:11 PM
Surr: 2,4,6-Tribromophenol	76.1	48.6-120		%REC	115819	1	7/23/2009 1:07 AM
Surr: 2-Fluorobiphenyl	60.3	49.2-120		%REC	115819	1	7/23/2009 1:07 AM
Surr: 2-Fluorophenol	59.8	35.5-120		%REC	115819	1	7/23/2009 1:07 AM
Surr: 4-Terphenyl-d14	91.0	51.8-120		%REC	115819	1	7/23/2009 1:07 AM
Surr: Nitrobenzene-d5	61.0	40.4-120		%REC	115819	1	7/23/2009 1:07 AM
Surr: Phenol-d5	62.3	41.3-120		%REC	115819	1	7/23/2009 1:07 AM
<b>IGNITABILITY SW1010</b>							Analyst: MAS
Ignitability	180	0	>	°F		1	7/27/2009 9:00 AM
<b>LABORATORY HYDROGEN ION (PH) SW9045D</b>					<b>(SW9045D)</b>		Analyst: CG
pH	4.89	0.01		pH Units	115943	1	7/22/2009 6:00 PM
<b>PERCENT MOISTURE D2216</b>							Analyst: MAS
Percent Moisture	0.676	0		wt%		1	7/27/2009 9:00 AM

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