

**SUMMARY REPORT FOR
SAMPLING RESULTS
FOR JUNE 30, 2005
INVESTIGATION OF
“LOW-LYING AREAS”**

**Coliseum Boulevard
Plume Investigation**



July 6, 2005

Submitted to:

**The Alabama Department of Environmental Management
Montgomery, Alabama**



geotechnical • analytical • materials • environmental

2743-B Gunter Park Drive West
Montgomery, Alabama 36109-1019
Telephone 334.244.0766
Facsimile 334.244.6668
www.TTLINC.com

Decatur • Florence • Montgomery • Tuscaloosa ALABAMA
Albany • Valdosta GEORGIA

July 6, 2005

Mr. Buddy Cox, P. E.
Bureau of Materials and Tests
Alabama Department of Transportation
3700 Fairground Road
Montgomery, Alabama 36109

RE: Analytical Results from
Low-Lying Area Locations N, O, and P
May 5, 2005
Coliseum Boulevard Plume
Montgomery, Alabama

Dear Mr. Cox:

On May 5, 2004, **TTL** collected sediment and surface-water samples from locations N, O, and P in the Low-Lying area as part of the continued investigation and monitoring of the Coliseum Boulevard Plume in accordance with the approved sampling plan for the Low-Lying area. Locations N, O, and P are located in the area south of the Northern Boulevard and north of Russell Corporation. The samples were analyzed for VOC's using Method 5035/8260 (sediment) and 8260 (water) as outlined in Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA, SW-846.

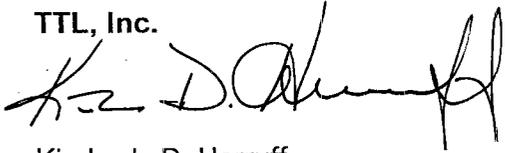
Location O was the only sampling location that had reportable concentrations of constituents of concern from the sediment samples. Location O had reportable concentrations of TCE (16.8J $\mu\text{g}/\text{kg}$), cis-1,2-Dichloroethene (370 $\mu\text{g}/\text{kg}$), vinyl chloride (5.9J $\mu\text{g}/\text{kg}$), methylene chloride (3.1J $\mu\text{g}/\text{kg}$), and trans-1, 2, Dichloroethene (7.8J $\mu\text{g}/\text{kg}$) detected in the sediment samples collected during the May (see Figure 1 and Table 1) sampling event. The J flag associated with the concentration means the concentration is below the calibration curve, but above the method detection limit. At locations O and P, toluene was reported at concentrations of 8.3J $\mu\text{g}/\text{kg}$ and 4.6J $\mu\text{g}/\text{kg}$, respectively. However, toluene is not a constituent of concern for this investigation.

TCE concentrations were reported for all three surface water sample locations (see Figure 2 and Table 2) for the May 2005 sampling event. TCE was reported at concentrations of 16.7J $\mu\text{g}/\text{l}$, 3.1J $\mu\text{g}/\text{l}$, and 20.9 $\mu\text{g}/\text{l}$ at locations N, O, and P, respectively. Additionally, cis-1,2-Dichloroethene was reported at a concentration of 14.7J $\mu\text{g}/\text{l}$ and vinyl chloride at 1.0J $\mu\text{g}/\text{l}$ at location O. Laboratory reports are included as an attachment.

Mr. Cox, P. E.
July 6, 2005
Page 2 of 2

The next surface-water and sediment monitoring of the Low-Lying areas are scheduled for July 2005. During the July event, samples will be collected from the 8 (I, J, K, L, M, N, O, and P) of 16 sampling locations as approved for semi-annual monitoring.

TTL, Inc.



Kimberly D. Harruff
Environmental Biologist



Ashley C. Cousins, P. E., CHMM

Table 1. Concentrations of detected volatile organic compounds (VOCs)¹ in samples of sediment from the "Low-Lying Area"; June 2005 Low-Lying Area Report; Coliseum Boulevard Plume Investigation; Montgomery, Alabama. [Distributions of VOCs in sediment/soil samples are shown on Figure 1.]

Sample Location Identifier	Sample Date	Approximate Sample Depth (inches)	Sediment Lab Results											
			Trichloroethylene	Cis-1,2-Dichloroethene	Vinyl Chloride	Benzene	Cis-1,3-Dichloropropene	M,P,O-Xylenes	Methylene Chloride ²	Toluene	Trichlorofluoromethane	Ethyl Benzene	Trans-1,2-Dichloroethene	
			[Concentrations are in micrograms per kilogram (µg/kg)]											
			3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³
N	11/15/01	3	50.6J ⁴	ND ⁵	ND	ND	ND	ND	ND	6.6J	16.4J	ND	ND	ND
	2/13/02	9	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/22/02	10	ND	ND	ND	ND	ND	ND	3.3J	ND	ND	ND	ND	ND
	9/17/02 ⁶	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-dup ⁷	9/17/02 ⁵	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N	10/31/02	12	ND	ND	ND	ND	ND	ND	ND	ND	3.2J	ND	ND	ND
	1/14/03 ⁸	8	ND (<1.2)	ND (<1.2)	ND (<1.2)	ND (<1.2)	ND (<1.2)	ND (<1.2)	ND (<1.2)	ND (<1.2)	ND (<1.2)	ND (<1.2)	ND (<1.2)	ND (<1.2)
	7/21/03	2	3.6J	ND	3.0J	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1/29/04	8	ND	ND	ND	ND	ND	5.3J	ND	3.2J	ND	ND	ND	ND
	7/26/04	8	ND	ND	ND	ND	ND	7.0J	ND	5.1J	ND	ND	ND	ND
N-dup	10/20/04	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N	1/31/05	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N	5/4/05	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
N-dup	5/4/05	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
O	11/15/01	3	ND	ND	ND	ND	ND	ND	ND	3.1J	3.3J	ND	ND	ND
	2/13/02	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/22/02	8	ND	ND	ND	ND	ND	ND	4.8J	4.0J	5.7J	ND	ND	ND
	9/17/02 ⁶	12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/31/02	12	ND	ND	35.1	ND	ND	ND	ND	7.1J	ND	ND	ND	ND
	1/14/03 ⁸	11	ND (<1.6)	ND (<1.6)	ND (<1.6)	ND (<1.6)	ND (<1.6)	ND (<1.6)	ND (<1.6)	ND (<1.6)	ND (<1.6)	ND (<1.6)	ND (<1.6)	ND (<1.6)
	7/21/03	5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1/29/04	8	750	18.8J	ND	ND	ND	31.2J	ND	15.9J	ND	5.2J	ND	ND
	3/9/04 ⁹	15	104	35.4J	6.3J	ND	ND	ND	ND	5.5J	ND	ND	ND	ND
	4/14/04 ¹⁰	8-12	ND	3.4J	3.9J	ND	ND	ND	ND	6.1J	ND	ND	ND	ND
	7/26/04	12	ND	3.9J	ND	ND	ND	31.4J	ND	12.1J	ND	6.8J	ND	ND
	10/20/04	10	54.4	5.6J	ND	ND	ND	ND	ND	4.5J	ND	ND	ND	ND
	1/31/05	10	ND	3.9J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/4/05	8	16.8J	370	5.9J	ND	ND	ND	3.1J	8.3J	ND	ND	7.8J	ND
O - East	4/14/04 ¹⁰	8-12	ND	6.2J	ND	ND	ND	ND	ND	9.5J	ND	ND	ND	ND
O - North	4/14/04 ¹⁰	8-12	ND	ND	ND	ND	ND	ND	ND	3.4J	ND	ND	ND	ND
O - South	4/14/04 ¹⁰	8-12	ND	3.1J	5.1J	ND	ND	ND	ND	6.1J	ND	ND	ND	ND
O - West 1	4/14/04 ¹⁰	8-12	81.1	486	44.7	ND	ND	ND	ND	6.3J	ND	ND	25.9J	ND
O - West 1 dup	4/14/04 ¹⁰	8-12	ND	22.3J	30.4J	ND	ND	ND	ND	6.7J	ND	ND	3.0J	ND
O - West 2	4/14/04 ¹⁰	8-12	ND	ND	8.0J	ND	ND	ND	ND	11.0J	ND	ND	ND	ND

Table 1. Concentrations of detected volatile organic compounds (VOCs)¹ in samples of sediment from the "Low-Lying Area"; June 2005 Low-Lying Area Report; Coliseum Boulevard Plume Investigation; Montgomery, Alabama. [Distributions of VOCs in sediment/soil samples are shown on Figure 1.]

Sample Location Identifier	Sample Date	Approximate Sample Depth (inches)	Sediment Lab Results											
			Trichloroethylene	Cis-1,2-Dichloroethene	Vinyl Chloride	Benzene	Cis-1,3-Dichloropropene	M,P,O-Xylenes	Methylene Chloride ²	Toluene	Trichlorofluoromethane	Ethyl Benzene	Trans-1,2-Dichloroethene	
			[Concentrations are in micrograms per kilogram (µg/kg)]											
			3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	3.0 µg/kg ³	
P	11/15/01	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	7.1J	ND	ND
	2/13/02	9	10.6	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	5/22/02	11	7.0J	ND	ND	ND	ND	ND	ND	6.7J	ND	ND	ND	ND
	9/17/02 ⁶	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	10/31/02	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1/14/03 ⁸	10	11.0	ND (<1.1)	ND (<1.1)	ND (<1.1)	ND (<1.1)	ND (<1.1)	ND (<1.1)	ND (<1.1)	ND (<1.1)	ND (<1.1)	ND (<1.1)	ND (<1.1)
	7/21/03	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1/29/04	8	12.2J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	7/26/04	12	ND	ND	ND	ND	ND	ND	5.5J	ND	3.9J	ND	ND	ND
	10/20/04	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	1/31/05	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	05/04/05	8	ND	ND	ND	ND	ND	ND	ND	ND	4.6J	ND	ND	ND

Notes:

¹ Samples were analyzed by TTL, Inc. in accordance with Method 8260 outlined in Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA, SW-846.

² Methylene Chloride is considered to have been present in the laboratory during analysis of the samples.

³ MDL - Method Detection Limit of 3.0 micrograms per kilogram (µg/kg) for the soil laboratory analyses

⁴ J - Concentration below the calibration curve, but above the detection limit

⁵ ND - Not Detected

⁶ Results on September 17, 2002, are reported on "wet-weight" basis.

⁷ dup - Duplicate sample collected for quality assurance/quality control purposes.

⁸ Sediment samples collected on 1/14/03 were analyzed by STL Laboratories because TTL's laboratory equipment malfunctioned. STL's method detection limits varied for some samples and are indicated in parentheses ().

⁹ In the sediment sample collected at location O on January 29, 2004, low mass and low percent solids present in the sample possibly resulted in an ambiguous level of TCE; therefore another sample was collected on March 9, 2004.

¹⁰ On April 14, 2004, location O was sampled for verification and delineation of TCE detected in the sediment samples collected on January 29 and March 9, 2004.

Table 2. Concentrations of detected volatile organic compounds (VOCs)¹ in samples of surface water from the "Low-Lying Area"; June 2005 Low-Lying Area Report; Coliseum Boulevard Plume Investigation; Montgomery, Alabama. [Distributions of VOCs in surface-water samples are shown on Figure 2.]

Sample Identifier	Sample Date	Aqueous Lab Results					
		Trichloroethylene	Cis-1,2-Dichloroethene	Vinyl Chloride	Chloromethane	Methylene Chloride ²	Toluene
		[Concentrations are in micrograms per liter (µg/l)]					
		1.0 µg/l ³	1.0 µg/l ³	1.0 µg/l ³	1.0 µg/l ³	1.0 µg/l ³	1.0 µg/l ³
N	11/15/01	7.0J ⁴	ND ⁵	ND	ND	ND	ND
	2/13/02	16.8J	ND	ND	ND	ND	ND
	5/22/02	7.6J	ND	ND	ND	ND	ND
	9/17/02	3.7J	ND	ND	ND	ND	ND
N-dup ⁶	9/17/02	3.7J	ND	ND	ND	ND	ND
N	10/31/02	10.0J	ND	ND	ND	ND	ND
	1/14/03	15.2J	ND	ND	ND	ND	ND
	7/21/03	28.0	ND	ND	ND	ND	ND
	1/29/04	15.2J	ND	ND	3.2J	ND	ND
	7/26/04	11.9J	ND	ND	ND	ND	ND
	10/20/04	10.7J	ND	ND	ND	ND	ND
N-dup	10/20/04	10.4J	ND	ND	ND	ND	ND
N	1/31/05	11.2J	ND	ND	ND	ND	ND
	5/4/05	16.7J	ND	ND	ND	ND	ND
N-dup	5/4/05	16.5J	ND	ND	ND	ND	ND
O	11/15/01	NC ⁷	NC	NC	NC	NC	NC
	2/13/02	ND	ND	ND	ND	ND	ND
	5/22/02	NC	NC	NC	NC	NC	NC
	9/17/02	ND	ND	ND	1.0J	ND	ND
	10/31/02	2.5J	15.3J	4.8J	ND	ND	ND
	1/14/03	4.8J	14.4J	ND	ND	ND	ND
	7/21/03	NS ⁸	NS	NS	NS	NS	NS
	1/29/04	31.8	6.9J	ND	4.5J	ND	ND
	7/26/04	ND	5.4J	1.3J	ND	ND	ND
	10/20/04	ND	10.2J	1.7J	ND	ND	ND
	1/31/05	14.6J	18.2J	1.0J	ND	ND	ND
	5/4/05	3.1J	14.7J	1.0J	ND	ND	ND
P	11/15/01	16.8J	ND	ND	ND	ND	ND
	2/13/02	41.2	ND	ND	ND	ND	ND
	5/22/02	22.4	ND	ND	ND	ND	ND
	9/17/02	10.5J	ND	ND	ND	ND	ND
	10/31/02	25.1	ND	ND	ND	ND	ND
	1/14/03	43.2	ND	ND	ND	ND	ND
	7/21/03	42.2	ND	ND	ND	ND	ND
	1/29/04	25.0	ND	ND	2.3J	ND	ND
	7/26/04	23.4	ND	ND	ND	ND	ND
	10/20/04	22.5	ND	ND	ND	ND	ND
	1/31/05	27.5	ND	ND	ND	ND	ND
	5/4/05	20.9	ND	ND	ND	ND	ND

Notes:

¹ Samples were analyzed by TTL, Inc. in accordance with Method 8260 outlined in Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA, SW-846.

² Methylene Chloride is considered to have been present in the laboratory during analysis of the samples.

³ MDL - Method Detection Limit of 1.0 microgram per liter (µg/l) for the aqueous laboratory analyses

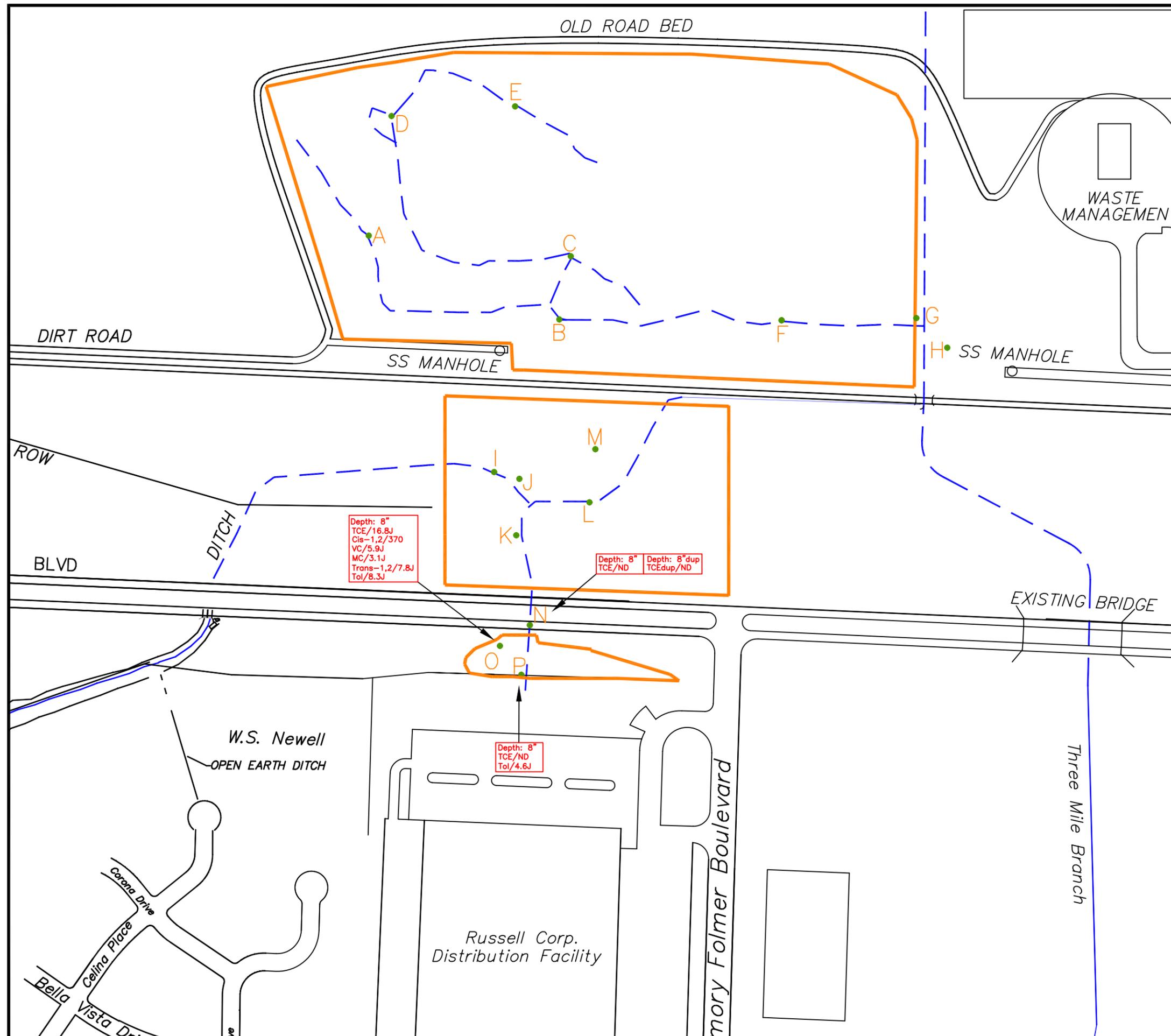
⁴ J - Concentration below the calibration curve, but above the method detection limit

⁵ ND - Not Detected

⁶ dup - Duplicate sample collected for quality assurance/quality control purposes.

⁷ NC - Not Collected; sampling location was not scheduled to be sampled. Quarterly sampling was initiated after the February 2002 sampling event and the only sample locations to be sampled are I through P.

⁸ NS - Not sampled; sample location was not sampled because of insufficient water for analyses



LEGEND:

Depth: 9"
TCE/ND

Depth in inches below land surface
TCE/concentration ug/kg
Method Detection Limit (MDL)=3.0
micrograms per kilogram (ug/kg)

J

Estimated (ie, calculated concentrations
below the calibration curve, but above
the method detection limit)

dup

Duplicate Sample

TCE

Trichloroethylene

Tol

Toluene

Cis-1,2

Cis-1,2-Dichloroethene

ND

Not Detected (below MDL)

VC

Vinyl Chloride

MC

Methylene Chloride

Trans-1,2

Trans-1,2-Dichloroethene

Boundary of Low Lying Area

Sample location and Identifier

Approximate locations of
intermittent streams

ALDOT Coliseum Boulevard Plume Investigation

TTL

2743-B Gunter Park Drive W ■ Montgomery, Alabama 36109
334.244.0766 ■ Fax 334.244.6668

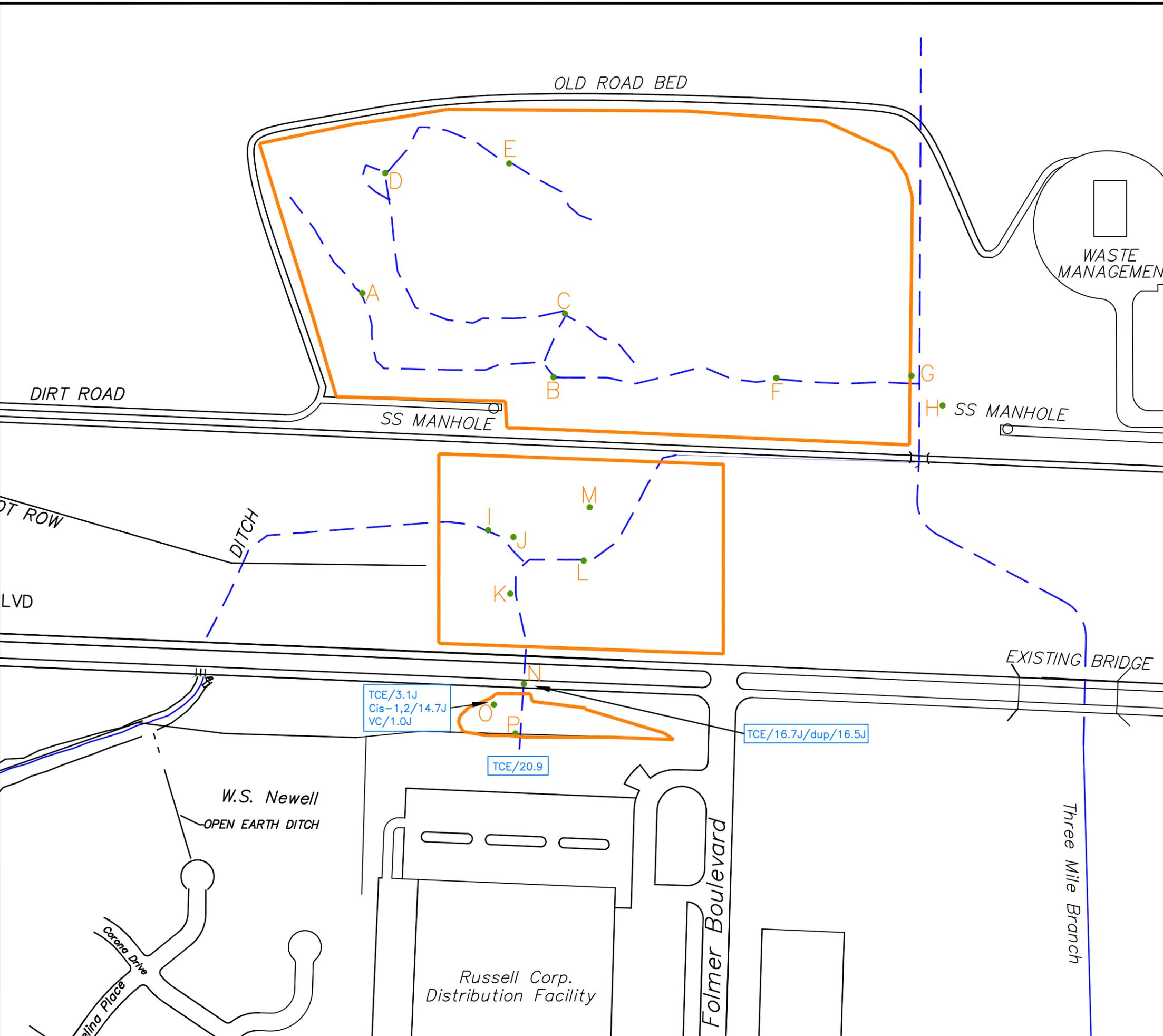
Analytical results of sediment samples
collected on May 4, 2005. Work Plan 04-
Investigation of "Low-Lying Areas"; Coliseum
Boulevard Plume; Montgomery, Alabama.

TTL PROJECT NUMBER:0700-024

Drawing No. 050519

SCALE: 1" = 300'

Figure 1



LEGEND:

TCE/20.9

TCE/ concentration (ug/L)
Method Detection Limit (MDL)=1.0 micro-grams per liter (ug/L)

J

Estimated (ie, calculated concentrations below the calibration curve, but above the method detection limit)

TCE
Cis-1,2
VC
ND
dup

Trichloroethylene
Cis-1,2-Dichloroethene
Vinyl Chloride
Not Detected (below MDL)
Duplicate sample



Boundary of Low Lying Area

M

Sample location and Identifier



Approximate locations of intermittent streams

TCE/3.1J
Cis-1,2/14.7J
VC/1.0J

TCE/16.7J/dup/16.5J

TCE/20.9

ALDOT Coliseum Boulevard Plume Investigation



2743-B Gunter Park Drive W ■ Montgomery, Alabama 36109
334.244.0766 ■ Fax 334.244.6668

Analytical results of surficial water samples collected on May 4, 2005. Work plan 04- Investigation of "Low-Lying Areas"; Coliseum Boulevard Plume; Montgomery, Alabama.

TTL PROJECT NUMBER:0700-024

Drawing No. 050519.1

SCALE: 1" = 300'

Figure 2

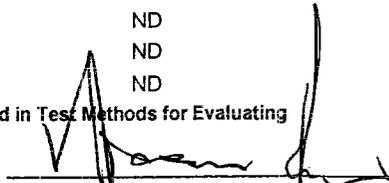


Client: Alabama Department of Transportation
Sample Date: May 4, 2005
Date Analyzed: May 9, 2005
Analyzed By: TTL Personnel (VJB)
Sample Type: Aqueous
Sampled By: TTL Personnel (RR)
Sample Site: Coliseum Boulevard Plume, Montgomery, AL
Sample ID: N
TTL Lab Number: 050505007-001A
TTL Job Number: 0700-024

VOLATILE ORGANIC HYDROCARBONS

COMPOUNDS	RESULTS, µg/L	FLAG*
Chloromethane:	1.0	ND
Vinyl Chloride:	1.0	ND
Chloroethane:	1.0	ND
Trichlorofluoromethane:	1.0	ND
1,1-Dichloroethene:	1.0	ND
Methylene Chloride:	1.0	ND
Trans-1,2-Dichloroethene:	1.0	ND
1,1-Dichloroethane:	1.0	ND
Cis-1,2-Dichloroethene:	1.0	ND
Chloroform:	1.0	ND
1,1,1-Trichloroethane:	1.0	ND
Carbon Tetrachloride:	1.0	ND
Benzene:	1.0	ND
1,2-Dichloroethane:	1.0	ND
Trichloroethylene:	16.7	J
1,2-Dichloropropane:	1.0	ND
Bromodichloromethane:	1.0	ND
CIS-1,3-Dichloropropene:	1.0	ND
Toluene:	1.0	ND
Trans-1,3-Dichloropropene:	1.0	ND
1,1,2-Trichloroethane:	1.0	ND
Tetrachloroethylene:	1.0	ND
Dibromochloromethane:	1.0	ND
Chlorobenzene:	1.0	ND
1,1,1,2-Tetrachloroethane:	1.0	ND
Ethylbenzene:	1.0	ND
M,P-Xylenes:	1.0	ND
O-Xylene:	1.0	ND
Bromoform:	1.0	ND
1,1,2,2-Tetrachloroethane:	1.0	ND
1,3-Dichlorobenzene:	1.0	ND
1,4-Dichlorobenzene:	1.0	ND
1,2-Dichlorobenzene:	1.0	ND

The sample was analyzed in accordance with Method 8260 outlined in Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA, SW-846.



V. Jesse Burns, Chemist

** The sample was reanalyzed out of holding time.
* J = reportable concentration less than the lowest concentration level of the instrument calibration curve but above the detection limit. ND = concentration of the compound cannot be found at or above the detection limit. B = concentration of the compound was found above the detection limit in the laboratory blank sample. Blank = a reportable contaminant present.



Client: Alabama Department of Transportation
 Sample Date: May 4, 2005
 Date Analyzed: May 10, 2005
 Analyzed By: TTL Personnel (VJB)
 Sample Type: Aqueous
 Sampled By: TTL Personnel (RR)
 Sample Site: Coliseum Boulevard Plume, Montgomery, AL
 Sample ID: N-Dup
 TTL Lab Number: 050505007-002A
 TTL Job Number: 0700-024

VOLATILE ORGANIC HYDROCARBONS

COMPOUNDS	RESULTS, µg/L	FLAG*
Chloromethane:	1.0	ND
Vinyl Chloride:	1.0	ND
Chloroethane:	1.0	ND
Trichlorofluoromethane:	1.0	ND
1,1-Dichloroethene:	1.0	ND
Methylene Chloride:	1.0	ND
Trans-1,2-Dichloroethene:	1.0	ND
1,1-Dichloroethane:	1.0	ND
Cis-1,2-Dichloroethene:	1.0	ND
Chloroform:	1.0	ND
1,1,1-Trichloroethane:	1.0	ND
Carbon Tetrachloride:	1.0	ND
Benzene:	1.0	ND
1,2-Dichloroethane:	1.0	ND
Trichloroethylene:	16.5	J
1,2-Dichloropropane:	1.0	ND
Bromodichloromethane:	1.0	ND
CIS-1,3-Dichloropropene:	1.0	ND
Toluene:	1.0	ND
Trans-1,3-Dichloropropene:	1.0	ND
1,1,2-Trichloroethane:	1.0	ND
Tetrachloroethylene:	1.0	ND
Dibromochloromethane:	1.0	ND
Chlorobenzene:	1.0	ND
1,1,1,2-Tetrachloroethane:	1.0	ND
Ethylbenzene:	1.0	ND
M,P-Xylenes:	1.0	ND
O-Xylene:	1.0	ND
Bromoform:	1.0	ND
1,1,2,2-Tetrachloroethane:	1.0	ND
1,3-Dichlorobenzene:	1.0	ND
1,4-Dichlorobenzene:	1.0	ND
1,2-Dichlorobenzene:	1.0	ND

The sample was analyzed in accordance with Method 8260 outlined in Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA, SW-846.

V. Jesse Burns, Chemist

** The sample was reanalyzed out of holding time.
 * J = reportable concentration less than the lowest concentration level of the instrument calibration curve but above the detection limit. ND = concentration of the compound cannot be found at or above the detection limit. B = concentration of the compound was found above the detection limit in the laboratory blank sample. Blank = a reportable contaminant present.



Client: Alabama Department of Transportation
 Sample Date: May 4, 2005
 Date Analyzed: May 10, 2005
 Analyzed By: TTL Personnel (VJB)
 Sample Type: Aqueous
 Sampled By: TTL Personnel (RR)
 Sample Site: Coliseum Boulevard Plume, Montgomery, AL
 Sample ID: O
 TTL Lab Number: 050505007-003A
 TTL Job Number: 0700-024

VOLATILE ORGANIC HYDROCARBONS

COMPOUNDS	RESULTS, µg/L	FLAG*
Chloromethane:	1.0	ND
Vinyl Chloride:	1.0	J
Chloroethane:	1.0	ND
Trichlorofluoromethane:	1.0	ND
1,1-Dichloroethene:	1.0	ND
Methylene Chloride:	1.0	ND
Trans-1,2-Dichloroethene:	1.0	ND
1,1-Dichloroethane:	1.0	ND
Cis-1,2-Dichloroethene:	14.7	J
Chloroform:	1.0	ND
1,1,1-Trichloroethane:	1.0	ND
Carbon Tetrachloride:	1.0	ND
Benzene:	1.0	ND
1,2-Dichloroethane:	1.0	ND
Trichloroethylene:	3.1	J
1,2-Dichloropropane:	1.0	ND
Bromodichloromethane:	1.0	ND
CIS-1,3-Dichloropropene:	1.0	ND
Toluene:	1.0	ND
Trans-1,3-Dichloropropene:	1.0	ND
1,1,2-Trichloroethane:	1.0	ND
Tetrachloroethene:	1.0	ND
Dibromochloromethane:	1.0	ND
Chlorobenzene:	1.0	ND
1,1,1,2-Tetrachloroethane:	1.0	ND
Ethylbenzene:	1.0	ND
M,P-Xylenes:	1.0	ND
O-Xylene:	1.0	ND
Bromoform:	1.0	ND
1,1,2,2-Tetrachloroethane:	1.0	ND
1,3-Dichlorobenzene:	1.0	ND
1,4-Dichlorobenzene:	1.0	ND
1,2-Dichlorobenzene:	1.0	ND

The sample was analyzed in accordance with Method 8260 outlined in Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA, SW-846.

V. Jesse Burns, Chemist

** The sample was reanalyzed out of holding time.

* J = reportable concentration less than the lowest concentration level of the instrument calibration curve but above the detection limit. ND = concentration of the compound cannot be found at or above the detection limit. B = concentration of the compound was found above the detection limit in the laboratory blank sample. Blank = a reportable contaminant present.

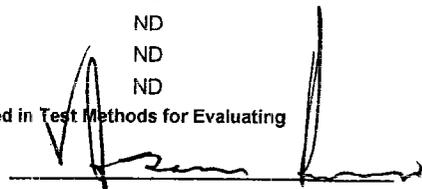


Client: Alabama Department of Transportation
 Sample Date: May 4, 2005
 Date Analyzed: May 10, 2005
 Analyzed By: TTL Personnel (VJB)
 Sample Type: Aqueous
 Sampled By: TTL Personnel (RR)
 Sample Site: Coliseum Boulevard Plume, Montgomery, AL
 Sample ID: P
 TTL Lab Number: 050505007-004A
 TTL Job Number: 0700-024

VOLATILE ORGANIC HYDROCARBONS

COMPOUNDS	RESULTS, µg/L	FLAG*
Chloromethane:	1.0	ND
Vinyl Chloride:	1.0	ND
Chloroethane:	1.0	ND
Trichlorofluoromethane:	1.0	ND
1,1-Dichloroethene:	1.0	ND
Methylene Chloride:	1.0	ND
Trans-1,2-Dichloroethene:	1.0	ND
1,1-Dichloroethane:	1.0	ND
Cis-1,2-Dichloroethene:	1.0	ND
Chloroform:	1.0	ND
1,1,1-Trichloroethane:	1.0	ND
Carbon Tetrachloride:	1.0	ND
Benzene:	1.0	ND
1,2-Dichloroethane:	1.0	ND
Trichloroethylene:	20.9	
1,2-Dichloropropane:	1.0	ND
Bromodichloromethane:	1.0	ND
CIS-1,3-Dichloropropene:	1.0	ND
Toluene:	1.0	ND
Trans-1,3-Dichloropropene:	1.0	ND
1,1,2-Trichloroethane:	1.0	ND
Tetrachloroethylene:	1.0	ND
Dibromochloromethane:	1.0	ND
Chlorobenzene:	1.0	ND
1,1,1,2-Tetrachloroethane:	1.0	ND
Ethylbenzene:	1.0	ND
M,P-Xylenes:	1.0	ND
O-Xylene:	1.0	ND
Bromoform:	1.0	ND
1,1,2,2-Tetrachloroethane:	1.0	ND
1,3-Dichlorobenzene:	1.0	ND
1,4-Dichlorobenzene:	1.0	ND
1,2-Dichlorobenzene:	1.0	ND

The sample was analyzed in accordance with Method 8260 outlined in Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA, SW-846.



V. Jesse Burns, Chemist

** The sample was reanalyzed out of holding time.
 * J = reportable concentration less than the lowest concentration level of the instrument calibration curve but above the detection limit. ND = concentration of the compound cannot be found at or above the detection limit. B = concentration of the compound was found above the detection limit in the laboratory blank sample. Blank = a reportable contaminant present.



TTL WORK
ORDER NUMBER
050505 007

Chain of Custody Form

Sample Security Requirements

Client: ACCT
 Contact: Nicola Dierck
 Mailing Address: 351 Lomac St
 City, State, Zip: Montgomery, AL 36106
 Phone No.: 334-244-6688
 Date: 5/4/05
 Sampled By: Reggie Robinson
 Sample Site: 11th St
 TTL Job No.: 050505 Client P.O. # _____

1. Condition of Contents: good
2. Sealed for Shipping By: RRR
3. Initial Contents Temp.: Ice °C Seal Applied Yes No _____
4. Sampling Status: Complete Expected Completion Date _____
5. Custody Seal Intact Upon Receipt by Laboratory: Yes No _____
6. Condition of Contents: good
7. Comments: low lying AREA Ice
8. Reporting Status: Routine; ASAP By _____ ; Rush By _____

Date	Time	Sample ID/Description	Sample Type	Sample Method		# of Containers	Preservatives	Analysis Parameters
			Solid, Etc.	Grab	Comp			
5/4	11:30	N	Aq	X		3	HCl	VOC
	11:30	N - Dup						
	12:00	O						
	11:45	P						
		Blanks						
<p>was not included, was inadvertently left out. 1EP 5/5/05</p>								

CUSTODY TRANSFERS PRIOR TO SHIPPING

Relinquished by: (signed) Date/Time
 1. [Signature] 5/4/05 ^{16:00hrs} ~~16:00~~
 2. [Signature] 5/5/05 09:10am
 3. _____

Received by: (signed) Date/Time
 1. [Signature] 5/5/05 09:00am
 2. _____
 3. _____

SHIPPING DETAILS

Air Bill #: 3026504349
 Method of Shipment: BUS
 Received By Lab: [Signature]
 Date/Time: 050505 09:15

TTL, Inc. - Tuscaloosa Office/Laboratory: 3516 Greensboro Avenue, Tuscaloosa, Alabama 35401, Telephone (205) 345-0816, FAX (205) 345-0992
 TTL, Inc. - Montgomery Office: 4154 Lomac Street, Montgomery, Alabama 36106, Telephone (334) 244-0766, FAX (334) 244-6668
 TTL, Inc. - Florence Office: 523 South Wood Avenue, Florence, Alabama 35630, Telephone (256) 766-4622, FAX (256) 760-4626
 TTL, Inc. - Decatur Office: 310 Bank Street, Decatur, Alabama 35601, Telephone (256) 353-2910, FAX (256) 353-3944

NOTE: Please read terms and conditions between TTL, Inc. and client on back of form.

THE UNIVERSITY OF CHICAGO

PHYSICS DEPARTMENT

PHYSICS 350

PHYSICS 350



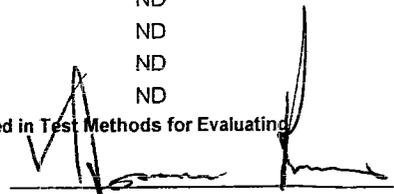
Construction Materials Engineering and Testing ■
 Environmental Engineering and Consulting ■
 Geotechnical Engineering ■
 Analytical Services ■

Client: Alabama Department of Transportation
 Sample Date: May 4, 2005
 Date Analyzed: May 16, 2005
 Analyzed By: TTL Personnel (VJB)
 Sample Type: Soil
 Sampled By: TTL Personnel (RR)
 Sample Site: Coliseum Boulevard Plume, Montgomery, AL
 Sample ID: N 8"
 TTL Lab Number: 050505008-001A
 TTL Job Number: 0700-024

VOLATILE ORGANIC HYDROCARBONS

COMPOUNDS	RESULTS, µg/Kg	FLAG*
Chloromethane:	3.0	ND
Vinyl Chloride:	3.0	ND
Chloroethane:	3.0	ND
Trichlorofluoromethane:	3.0	ND
1,1-Dichloroethene:	3.0	ND
Methylene Chloride:	3.0	ND
Trans-1,2-Dichloroethene:	3.0	ND
1,1-Dichloroethane:	3.0	ND
Cis-1,2-Dichloroethene:	3.0	ND
Chloroform:	3.0	ND
1,1,1-Trichloroethane:	3.0	ND
Carbon Tetrachloride:	3.0	ND
Benzene:	3.0	ND
1,2-Dichloroethane:	3.0	ND
Trichloroethylene:	3.0	ND
1,2-Dichloropropane:	3.0	ND
Bromodichloromethane:	3.0	ND
CIS-1,3-Dichloropropene:	3.0	ND
Toluene:	3.0	ND
Trans-1,3-Dichloropropene:	3.0	ND
1,1,2-Trichloroethane:	3.0	ND
Tetrachloroethylene:	3.0	ND
Dibromochloromethane:	3.0	ND
Chlorobenzene:	3.0	ND
1,1,1,2-Tetrachloroethane:	3.0	ND
Ethylbenzene:	3.0	ND
M,P-Xylenes:	3.0	ND
O-Xylene:	3.0	ND
Bromoform:	3.0	ND
1,1,2,2-Tetrachloroethane:	3.0	ND
1,3-Dichlorobenzene:	3.0	ND
1,4-Dichlorobenzene:	3.0	ND
1,2-Dichlorobenzene:	3.0	ND

The sample was analyzed in accordance with Method 8260 outlined in Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA, SW-846.



V. Jesse Burns, Chemist

** The sample was reanalyzed out of holding time.

* J = reportable concentration less than the lowest concentration level of the instrument calibration curve but above the detection limit. ND = concentration of the compound cannot be found at or above the detection limit. B = concentration of the compound was found above the detection limit in the laboratory blank sample. Blank = a reportable contaminant present.



Construction Materials Engineering and Testing ■
Environmental Engineering and Consulting ■
Geotechnical Engineering ■
Analytical Services ■

Client: Alabama Department of Transportation
Sample Date: May 4, 2005
Date Analyzed: May 16, 2005
Analyzed By: TTL Personnel (VJB)
Sample Type: Soil
Sampled By: TTL Personnel (RR)
Sample Site: Coliseum Boulevard Plume, Montgomery, AL
Sample ID: N Dup 8"
TTL Lab Number: 050505008-002A
TTL Job Number: 0700-024

VOLATILE ORGANIC HYDROCARBONS

COMPOUNDS	RESULTS, µg/Kg	FLAG*
Chloromethane:	3.0	ND
Vinyl Chloride:	3.0	ND
Chloroethane:	3.0	ND
Trichlorofluoromethane:	3.0	ND
1,1-Dichloroethene:	3.0	ND
Methylene Chloride:	3.0	ND
Trans-1,2-Dichloroethene:	3.0	ND
1,1-Dichloroethane:	3.0	ND
Cis-1,2-Dichloroethene:	3.0	ND
Chloroform:	3.0	ND
1,1,1-Trichloroethane:	3.0	ND
Carbon Tetrachloride:	3.0	ND
Benzene:	3.0	ND
1,2-Dichloroethane:	3.0	ND
Trichloroethylene:	3.0	ND
1,2-Dichloropropane:	3.0	ND
Bromodichloromethane:	3.0	ND
CIS-1,3-Dichloropropene:	3.0	ND
Toluene:	3.0	ND
Trans-1,3-Dichloropropene:	3.0	ND
1,1,2-Trichloroethane:	3.0	ND
Tetrachloroethylene:	3.0	ND
Dibromochloromethane:	3.0	ND
Chlorobenzene:	3.0	ND
1,1,1,2-Tetrachloroethane:	3.0	ND
Ethylbenzene:	3.0	ND
M,P-Xylenes:	3.0	ND
O-Xylene:	3.0	ND
Bromoform:	3.0	ND
1,1,2,2-Tetrachloroethane:	3.0	ND
1,3-Dichlorobenzene:	3.0	ND
1,4-Dichlorobenzene:	3.0	ND
1,2-Dichlorobenzene:	3.0	ND

The sample was analyzed in accordance with Method 8260 outlined in Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA, SW-846.

V. Jesse Burns, Chemist

** The sample was reanalyzed out of holding time.
* J = reportable concentration less than the lowest concentration level of the instrument calibration curve but above the detection limit. ND = concentration of the compound cannot be found at or above the detection limit. B = concentration of the compound was found above the detection limit in the laboratory blank sample. Blank = a reportable contaminant present.



Construction Materials Engineering and Testing ■
Environmental Engineering and Consulting ■
Geotechnical Engineering ■
Analytical Services ■

Client: Alabama Department of Transportation
Sample Date: May 4, 2005
Date Analyzed: May 16, 2005
Analyzed By: TTL Personnel (VJB)
Sample Type: Soil
Sampled By: TTL Personnel (RR)
Sample Site: Coliseum Boulevard Plume, Montgomery, AL
Sample ID: O 8"
TTL Lab Number: 050505008-003A
TTL Job Number: 0700-024

VOLATILE ORGANIC HYDROCARBONS

COMPOUNDS	RESULTS, µg/Kg	FLAG*
Chloromethane:	3.0	ND
Vinyl Chloride:	5.9	J
Chloroethane:	3.0	ND
Trichlorofluoromethane:	3.0	ND
1,1-Dichloroethene:	3.0	ND
Methylene Chloride:	3.1	J
Trans-1,2-Dichloroethene:	7.8	J
1,1-Dichloroethane:	3.0	ND
Cis-1,2-Dichloroethene:	370	
Chloroform:	3.0	ND
1,1,1-Trichloroethane:	3.0	ND
Carbon Tetrachloride:	3.0	ND
Benzene:	3.0	ND
1,2-Dichloroethane:	3.0	ND
Trichloroethylene:	16.8	J
1,2-Dichloropropane:	3.0	ND
Bromodichloromethane:	3.0	ND
CIS-1,3-Dichloropropene:	3.0	ND
Toluene:	8.3	J
Trans-1,3-Dichloropropene:	3.0	ND
1,1,2-Trichloroethane:	3.0	ND
Tetrachloroethylene:	3.0	ND
Dibromochloromethane:	3.0	ND
Chlorobenzene:	3.0	ND
1,1,1,2-Tetrachloroethane:	3.0	ND
Ethylbenzene:	3.0	ND
M,P-Xylenes:	3.0	ND
O-Xylene:	3.0	ND
Bromoform:	3.0	ND
1,1,2,2-Tetrachloroethane:	3.0	ND
1,3-Dichlorobenzene:	3.0	ND
1,4-Dichlorobenzene:	3.0	ND
1,2-Dichlorobenzene:	3.0	ND

The sample was analyzed in accordance with Method 8260 outlined in Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA, SW-846.

V. Jesse Burns, Chemist

** The sample was reanalyzed out of holding time.
* J = reportable concentration less than the lowest concentration level of the instrument calibration curve but above the detection limit. ND = concentration of the compound cannot be found at or above the detection limit. B = concentration of the compound was found above the detection limit in the laboratory blank sample. Blank = a reportable contaminant present.

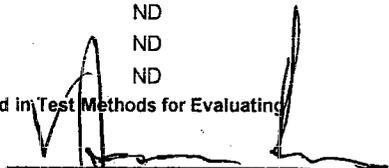


Client: Alabama Department of Transportation
Sample Date: May 4, 2005
Date Analyzed: May 16, 2005
Analyzed By: TTL Personnel (VJB)
Sample Type: Soil
Sampled By: TTL Personnel (RR)
Sample Site: Coliseum Boulevard Plume, Montgomery, AL
Sample ID: P 8"
TTL Lab Number: 050505008-004A
TTL Job Number: 0700-024

VOLATILE ORGANIC HYDROCARBONS

COMPOUNDS	RESULTS, µg/Kg	FLAG*
Chloromethane:	3.0	ND
Vinyl Chloride:	3.0	ND
Chloroethane:	3.0	ND
Trichlorofluoromethane:	3.0	ND
1,1-Dichloroethene:	3.0	ND
Methylene Chloride:	3.0	ND
Trans-1,2-Dichloroethene:	3.0	ND
1,1-Dichloroethane:	3.0	ND
Cis-1,2-Dichloroethene:	3.0	ND
Chloroform:	3.0	ND
1,1,1-Trichloroethane:	3.0	ND
Carbon Tetrachloride:	3.0	ND
Benzene:	3.0	ND
1,2-Dichloroethane:	3.0	ND
Trichloroethylene:	3.0	ND
1,2-Dichloropropane:	3.0	ND
Bromodichloromethane:	3.0	ND
CIS-1,3-Dichloropropene:	3.0	ND
Toluene:	4.6	J
Trans-1,3-Dichloropropene:	3.0	ND
1,1,2-Trichloroethane:	3.0	ND
Tetrachloroethylene:	3.0	ND
Dibromochloromethane:	3.0	ND
Chlorobenzene:	3.0	ND
1,1,1,2-Tetrachloroethane:	3.0	ND
Ethylbenzene:	3.0	ND
M,P-Xylenes:	3.0	ND
O-Xylene:	3.0	ND
Bromoform:	3.0	ND
1,1,2,2-Tetrachloroethane:	3.0	ND
1,3-Dichlorobenzene:	3.0	ND
1,4-Dichlorobenzene:	3.0	ND
1,2-Dichlorobenzene:	3.0	ND

The sample was analyzed in accordance with Method 8260 outlined in Test Methods for Evaluating Solid Waste Physical/Chemical Methods, EPA, SW-846.



V. Jesse Burns, Chemist

** The sample was reanalyzed out of holding time.
* J = reportable concentration less than the lowest concentration level of the instrument calibration curve but above the detection limit. ND = concentration of the compound cannot be found at or above the detection limit. B = concentration of the compound was found above the detection limit in the laboratory blank sample. Blank = a reportable contaminant present.



TTL WORK
ORDER NUMBER
050505 008

Sheet 1 of 1

Chain of Custody Form

Sample Security Requirements

Client: ALDOT
 Contact: Richard Olson
 Mailing Address: 1154 Lomac Street
 City, State, Zip: Montgomery, AL 36106
 Phone No.: 334-244-0766
 Date: 5/4/05
 Sampled By: Reggie Robinson
 Sample Site: Coliseum Roadway Phone Investigation
 TTL Job No.: 0700-024 Client P.O. # _____

1. Condition of Contents: good
2. Sealed for Shipping By: REL
3. Initial Contents Temp.: Ice °C Seal Applied Yes No _____
4. Sampling Status: Complete Expected Completion Date _____
5. Custody Seal Intact Upon Receipt by Laboratory: Yes No _____
6. Condition of Contents: good
7. Comments: Low Lvin AREA Ice
8. Reporting Status: Routine; ASAP By _____ ; Rush By _____

Date	Time	Sample ID/Description	Sample Type	Sample Method		# of Containers	Preservatives	Analysis Parameters
			Solid, Etc.	Grab	Comp			
5/4	11:30	N 8"	Solid	X		4	Ice	VOC
	11:30	N - Duplicate 8"	↓	↓		↓	↓	↓
	12:00	O 8"	↓	↓		↓	↓	↓
	11:45	P 8"	↓	↓		↓	↓	↓

CUSTODY TRANSFERS PRIOR TO SHIPPING

Relinquished by: (signed) Date/Time
 1. [Signature] 5/4/05 10:00 AM
 2. [Signature] 5/5/05 09:10 AM
 3. _____

Received by: (signed) Date/Time
 1. [Signature] 5/5/05 09:00 AM
 2. _____
 3. _____

SHIPPING DETAILS

Air Bill #: 3026504349
 Method of Shipment: BUS
 Received By Lab: Carroll But
 Date/Time: 050505 0910

TTL, Inc. - Tuscaloosa Office/Laboratory: 3516 Greensboro Avenue, Tuscaloosa, Alabama 35401, Telephone (205) 345-0816, FAX (205) 345-0992
 TTL, Inc. - Montgomery Office: 4154 Lomac Street, Montgomery, Alabama 36106, Telephone (334) 244-0766, FAX (334) 244-6668
 TTL, Inc. - Florence Office: 523 South Wood Avenue, Florence, Alabama 35630, Telephone (256) 766-4622, FAX (256) 760-4626
 TTL, Inc. - Decatur Office: 310 Bank Street, Decatur, Alabama 35601, Telephone (256) 353-2910, FAX (256) 353-3944

NOTE: Please read terms and conditions between TTL, Inc. and client on back of form.

ANOMALY FORM

CLIENT:

ADOT

CONTACT:

Kidada Dixon

PHONE #:

334-244-0766

DATE:

5-5-05

SAMPLES ARRIVED AT LAB ON ICE

YES

NO

DESCRIPTION OF ANOMALY:

NO Blanks

CORRECTIVE ACTION TAKEN:

left message with Kidada (on voicemail)

BY:

Car Buta

DATE:

050505