

**Lake Kittamaqundi Sediment Survey
Columbia, Maryland 21044**

1.0 BACKGROUND

Froehling & Robertson, Inc. (F&R) performed a sediment survey of Lake Kittamaqundi in accordance with the Subconsultant Agreement that was executed on July 24, 2006. The scope of services of this Agreement entailed the collection and analysis of sediment samples along transects of Lake Kittamaqundi designated by HDR Engineering, Inc. (HDR), in general accordance with the Subconsultant Agreement Attachment B.

Lake Kittamaqundi is a man-made lake in Columbia Town Center. The lake has a surface area of approximately 27 acres and a maximum depth of seven feet. Lake Kittamaqundi is sourced from Wilde Lake, also located in Columbia Town Center. Appendix A contains a Site Location Map.

2.0 SAMPLING METHODS

F&R designed and implemented a sediment sampling plan in accordance with industry standards.

2.1 Transects

HDR provided F&R with a map of Lake Kittamaqundi displaying approximate transect locations. Using this map, F&R established geographic reference points for each transect. F&R personnel visited Lake Kittamaqundi and used a Garmin GPSMAP 60Cx GPS receiver to stake out the sampling transects, based on the established reference points. During this site visit, pre-existing survey markers were located and the GPS receiver was used to record their respective coordinates for geo-referencing. Appendix B contains a CADD drawing that details the sample collection locations.

2.2 Sediment Sampling

A petite PONAR dredge was used to collect sediment from each sampling location. After each sediment sample was collected, the PONAR dredge was emptied into a stainless steel mixing bowl. When all the collection sites along a particular transect had been sampled, the sediment was thoroughly homogenized with a stainless steel spoon and a composite sediment sample was collected for that particular transect. All the sediment sampling equipment was

cleaned and rinsed between transects. A fourteen foot outboard motor boat was used to access most of the sampling sites. A rowboat was used to access sites in areas that were inaccessible to the outboard boat. GPS coordinates for each sampling site were recorded. Sediment samples were collected on July 31, 2006. Appendix C contains a table of sample location coordinates.

2.3 Sediment Thickness

A graduated stainless steel rod was used to determine sediment thickness at each sampling location. The rod was advanced by hand into the sediment until it reached the point of refusal. Sediment thickness data are found in Appendix D.

3.0 ANALYTICAL RESULTS

F&R has performed all the associated analytical procedures in accordance with industry standards.

3.1 Toxicity Characteristic Leaching Procedures (TCLP)

Complete TCLP analyses were performed for each of the composite sediment samples. The following table outlines the analytical results where detectable concentrations of contaminants were reported.

Table 1 – Lake Kittamaqundi TCLP Analytical Results

Sample ID	Barium (ppm)	Lead (ppm)
KA	0.86	0.03
KB	0.76	0.02
KC	0.84	0.02
KD	0.74	0.01
KE	0.68	0.02

Notes: ppm = parts per million

No other contaminants were detected in any of the samples at concentrations greater than the quantitation limit. The complete TCLP analytical results are found in Appendix E.

3.2 Sediment Physical Characteristics

The sediments from Lake Kittamaqundi were comprised predominantly of fine grained silts and sands. The following table outlines the physical characteristics of the sampled sediments.

Table 2 – Lake Kittamaqundi Sediment Physical Characteristics

Sample ID	LL	PL	PI	Moisture (%)	Gravel (%)	Sand (%)	Fines (%)	USCS Class.	AASHTO Class.
KA	58	36	22	217.6	0.0	25.4	74.6	MH	A-7-5
KB	62	52	10	205.1	0.0	17.9	82.1	MH	A-5
KC	56	37	19	188.2	0.0	18.0	82.0	MH	A-7-5
KD	48	40	8	134.9	0.0	28.7	71.3	ML	A-5
KE	64	58	6	215.3	0.0	22.5	77.5	MH	A-5

The complete sediment physical characteristics data set is found in Appendix F.

4.0 CONCLUSIONS

The results of the physical and chemical analyses performed on the five composite sediment samples from Lake Kittamaqundi suggest the sediments in the lake are relatively uniform in terms of sediment composition and contamination.

Barium and lead were the only contaminants detected in concentrations equal to or greater than the analytical limits of quantitation. These metals were detected in all five composite samples. The magnitude of barium and lead contamination is below the threshold of environmental concern and no adverse effects are anticipated at the levels found in Lake Kittamaqundi.

The physical characteristics of the composite sediment samples suggest the sediments of Lake Kittamaqundi are relatively homogenous in nature and composed primarily of silts with relatively high liquid limits. Sample KD is classified as silt (ML) having low plasticity and low plastic index.



FROEHLING & ROBERTSON, INC
GEOTECHNICAL • ENVIRONMENTAL • MATERIALS
ENGINEERS • LABORATORIES
"OVER ONE HUNDRED YEARS OF SERVICE"

CERTIFICATE OF ANALYSIS

August 16, 2006

LAB#: 0608046
CLIENT: F&R Baltimore
7798 Waterloo Rd
Jessup MD, 20794
Joe Steinbacher
PROJECT: Columbia Lake Sediment Sampling
PROJECT NO.: H68-054E
SAMPLED BY: Joe Steinbacher
RECEIVED: 08/02/06

Results to follow.

Audrey N. Brubeck
Manager Analytical Laboratory Services

HEADQUARTERS: 3015 DUMBARTON ROAD • BOX 27524 • RICHMOND, VA 23261-7524
TELEPHONE (804) 264-2701 • FAX (804) 264-1202 • www.FandR.com

BRANCHES: ASHEVILLE, NC • BALTIMORE, MD • CHARLOTTE, NC • CHESAPEAKE, VA
CROZET, VA • FAYETTEVILLE, NC • FREDERICKSBURG, VA
GREENVILLE, SC • HICKORY, NC • RALEIGH, NC • ROANOKE, VA • STERLING, VA

CERTIFICATIONS:

VIRGINIA DRINKING WATER - 00160
NORTH CAROLINA DENR - 432
SOUTH CAROLINA DHEC- 93010001 & 93010
MARYLAND DRINKING WATER - 279



Lab ID: 0608046-01 (Soil)
 Client ID: KA
 Sampled Date/Time: 7/31/06 0:00

Analyte	Result	Quant Limit	Units	Prepared	Analyzed	Method	Analyst	Notes
---------	--------	-------------	-------	----------	----------	--------	---------	-------

TCLP Extraction

TCLP ExtNV	Extracted		[blank]	8/2/06 15:00	8/2/06 15:08	SW846/1311	DSK	
TCLP ExtV	Extracted		"	8/2/06 15:14	8/3/06 9:11	"	SS	

TCLP Metals

Arsenic	BQL	0.01	mg/L	8/4/06 8:30	8/7/06 13:00	SW846/6010	JLW	
Barium	0.86	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Cadmium	BQL	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Chromium	BQL	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Lead	0.03	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Selenium	BQL	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Silver	BQL	0.02	"	8/4/06 8:30	8/7/06 16:20	"	JLW	
Mercury	BQL	0.001	"	8/9/06 9:45	8/10/06 10:07	SW846/7470 A	JCM	

TCLP Herbicides

2,4-D	BQL	0.02	mg/L	8/7/06 9:00	8/8/06 16:01	SW846/8151A	DSK	
2,4,5-TP (Silvex)	BQL	0.02	"	8/7/06 9:00	8/8/06 16:01	"	DSK	

TCLP Pesticides

Endrin	BQL	0.001	mg/L	8/4/06 15:30	8/9/06 16:33	SW846/8081A	DSK	
Heptachlor	BQL	0.001	"	8/4/06 15:30	8/9/06 16:33	"	DSK	
Heptachlor epoxide	BQL	0.001	"	8/4/06 15:30	8/9/06 16:33	"	DSK	
Lindane	BQL	0.001	"	8/4/06 15:30	8/9/06 16:33	"	DSK	
Methoxychlor	BQL	0.001	"	8/4/06 15:30	8/9/06 16:33	"	DSK	
Chlordane	BQL	0.01	"	8/4/06 15:30	8/9/06 4:00	"	DSK	
Toxaphene	BQL	0.01	"	8/4/06 15:30	8/9/06 4:00	"	DSK	

TCLP Semivolatile Organics

m,p-Cresol	BQL	0.20	mg/L	8/9/06 15:15	8/11/06 13:25	SW846/8270C	JHV	
o-Cresol	BQL	0.10	"	8/9/06 15:15	8/11/06 13:25	"	JHV	
1,4-Dichlorobenzene	BQL	0.10	"	8/9/06 15:15	8/11/06 13:25	"	JHV	
2,4-Dinitrotoluene	BQL	0.10	"	8/9/06 15:15	8/11/06 13:25	"	JHV	
Hexachlorobenzene	BQL	0.10	"	8/9/06 15:15	8/11/06 13:25	"	JHV	
Hexachlorobutadiene	BQL	0.10	"	8/9/06 15:15	8/11/06 13:25	"	JHV	
Hexachloroethane	BQL	0.10	"	8/9/06 15:15	8/11/06 13:25	"	JHV	



Lab ID: 0608046-01 (Soil)
Client ID: KA
Sampled Date/Time: 7/31/06 0:00

Analyte	Result	Quant		Prepared	Analyzed	Method	Analyst	Notes
		Limit	Units					
TCLP Semivolatile Organics								
Nitrobenzene	BQL	0.10	mg/L	8/9/06 15:15	8/11/06 13:25	SW846/8270C	JHV	
Pentachlorophenol	BQL	0.10	"	8/9/06 15:15	8/11/06 13:25	"	JHV	
Pyridine	BQL	0.10	"	8/9/06 15:15	8/11/06 13:25	"	JHV	
2,4,5-Trichlorophenol	BQL	0.10	"	8/9/06 15:15	8/11/06 13:25	"	JHV	
2,4,6-Trichlorophenol	BQL	0.10	"	8/9/06 15:15	8/11/06 13:25	"	JHV	
TCLP Volatile Organics								
Benzene	BQL	0.1	mg/L	8/4/06 13:49	8/5/06 1:18	SW846/8260B	SS	
Carbon tetrachloride	BQL	0.1	"	8/4/06 13:49	8/5/06 1:18	"	SS	
Chlorobenzene	BQL	0.1	"	8/4/06 13:49	8/5/06 1:18	"	SS	
Chloroform	BQL	0.1	"	8/4/06 13:49	8/5/06 1:18	"	SS	
1,1-Dichloroethene	BQL	0.1	"	8/4/06 13:49	8/5/06 1:18	"	SS	
1,2-Dichloroethane	BQL	0.1	"	8/4/06 13:49	8/5/06 1:18	"	SS	
Methyl ethyl ketone	BQL	0.1	"	8/4/06 13:49	8/5/06 1:18	"	SS	
Tetrachloroethene	BQL	0.1	"	8/4/06 13:49	8/5/06 1:18	"	SS	
Trichloroethene	BQL	0.1	"	8/4/06 13:49	8/5/06 1:18	"	SS	
Vinyl chloride	BQL	0.1	"	8/4/06 13:49	8/5/06 1:18	"	SS	



Lab ID: 0608046-02 (Soil)
 Client ID: KB
 Sampled Date/Time: 7/31/06 0:00

Analyte	Result	Quant Limit	Units	Prepared	Analyzed	Method	Analyst	Notes
TCLP Extraction								
TCLP ExtNV	Extracted		[blank]	8/2/06 15:00	8/2/06 15:08	SW846/1311	DSK	
TCLP ExtV	Extracted		"	8/2/06 15:14	8/3/06 9:11	"	SS	
TCLP Metals								
Arsenic	BQL	0.01	mg/L	8/4/06 8:30	8/7/06 13:00	SW846/6010	JLW	
Barium	0.76	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Cadmium	BQL	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Chromium	BQL	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Lead	0.02	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Selenium	BQL	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Silver	BQL	0.02	"	8/4/06 8:30	8/7/06 16:20	"	JLW	
Mercury	BQL	0.001	"	8/9/06 9:45	8/10/06 10:09	SW846/7470 A	JCM	
TCLP Herbicides								
2,4-D	BQL	0.02	mg/L	8/7/06 9:00	8/8/06 16:42	SW846/8151A	DSK	
2,4,5-TP (Silvex)	BQL	0.02	"	8/7/06 9:00	8/8/06 16:42	"	DSK	
TCLP Pesticides								
Endrin	BQL	0.001	mg/L	8/4/06 15:30	8/9/06 16:56	SW846/8081A	DSK	
Heptachlor	BQL	0.001	"	8/4/06 15:30	8/9/06 16:56	"	DSK	
Heptachlor epoxide	BQL	0.001	"	8/4/06 15:30	8/9/06 16:56	"	DSK	
Lindane	BQL	0.001	"	8/4/06 15:30	8/9/06 16:56	"	DSK	
Methoxychlor	BQL	0.001	"	8/4/06 15:30	8/9/06 16:56	"	DSK	
Chlordane	BQL	0.01	"	8/4/06 15:30	8/9/06 4:23	"	DSK	
Toxaphene	BQL	0.01	"	8/4/06 15:30	8/9/06 4:23	"	DSK	
TCLP Semivolatile Organics								
m,p-Cresol	BQL	0.20	mg/L	8/9/06 15:15	8/11/06 14:01	SW846/8270C	JHV	
o-Cresol	BQL	0.10	"	8/9/06 15:15	8/11/06 14:01	"	JHV	
1,4-Dichlorobenzene	BQL	0.10	"	8/9/06 15:15	8/11/06 14:01	"	JHV	
2,4-Dinitrotoluene	BQL	0.10	"	8/9/06 15:15	8/11/06 14:01	"	JHV	
Hexachlorobenzene	BQL	0.10	"	8/9/06 15:15	8/11/06 14:01	"	JHV	
Hexachlorobutadiene	BQL	0.10	"	8/9/06 15:15	8/11/06 14:01	"	JHV	
Hexachloroethane	BQL	0.10	"	8/9/06 15:15	8/11/06 14:01	"	JHV	



Lab ID: 0608046-02 (Soil)
 Client ID: KB
 Sampled Date/Time: 7/31/06 0:00

Analyte	Result	Quant		Prepared	Analyzed	Method	Analyst	Notes
		Limit	Units					
TCLP Semivolatile Organics								
Nitrobenzene	BQL	0.10	mg/L	8/9/06 15:15	8/11/06 14:01	SW846/8270C	JHV	
Pentachlorophenol	BQL	0.10	"	8/9/06 15:15	8/11/06 14:01	"	JHV	
Pyridine	BQL	0.10	"	8/9/06 15:15	8/11/06 14:01	"	JHV	
2,4,5-Trichlorophenol	BQL	0.10	"	8/9/06 15:15	8/11/06 14:01	"	JHV	
2,4,6-Trichlorophenol	BQL	0.10	"	8/9/06 15:15	8/11/06 14:01	"	JHV	
TCLP Volatile Organics								
Benzene	BQL	0.1	mg/L	8/4/06 13:49	8/5/06 1:52	SW846/8260B	SS	
Carbon tetrachloride	BQL	0.1	"	8/4/06 13:49	8/5/06 1:52	"	SS	
Chlorobenzene	BQL	0.1	"	8/4/06 13:49	8/5/06 1:52	"	SS	
Chloroform	BQL	0.1	"	8/4/06 13:49	8/5/06 1:52	"	SS	
1,1-Dichloroethene	BQL	0.1	"	8/4/06 13:49	8/5/06 1:52	"	SS	
1,2-Dichloroethane	BQL	0.1	"	8/4/06 13:49	8/5/06 1:52	"	SS	
Methyl ethyl ketone	BQL	0.1	"	8/4/06 13:49	8/5/06 1:52	"	SS	
Tetrachloroethene	BQL	0.1	"	8/4/06 13:49	8/5/06 1:52	"	SS	
Trichloroethene	BQL	0.1	"	8/4/06 13:49	8/5/06 1:52	"	SS	
Vinyl chloride	BQL	0.1	"	8/4/06 13:49	8/5/06 1:52	"	SS	



Lab ID: 0608046-03 (Soil)
 Client ID: KC
 Sampled Date/Time: 7/31/06 0:00

Analyte	Result	Quant Limit	Units	Prepared	Analyzed	Method	Analyst	Notes
TCLP Extraction								
TCLP ExtNV	Extracted		[blank]	8/2/06 15:00	8/2/06 15:08	SW846/1311	DSK	
TCLP ExtV	Extracted		"	8/2/06 15:14	8/3/06 9:11	"	SS	
TCLP Metals								
Arsenic	BQL	0.01	mg/L	8/4/06 8:30	8/7/06 13:00	SW846/6010	JLW	
Barium	0.84	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Cadmium	BQL	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Chromium	BQL	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Lead	0.02	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Selenium	BQL	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Silver	BQL	0.02	"	8/4/06 8:30	8/7/06 16:20	"	JLW	
Mercury	BQL	0.001	"	8/9/06 9:45	8/10/06 10:10	SW846/7470 A	JCM	
TCLP Herbicides								
2,4-D	BQL	0.02	mg/L	8/7/06 9:00	8/8/06 17:22	SW846/8151A	DSK	
2,4,5-TP (Silvex)	BQL	0.02	"	8/7/06 9:00	8/8/06 17:22	"	DSK	
TCLP Pesticides								
Endrin	BQL	0.001	mg/L	8/4/06 15:30	8/9/06 17:20	SW846/8081A	DSK	
Heptachlor	BQL	0.001	"	8/4/06 15:30	8/9/06 17:20	"	DSK	
Heptachlor epoxide	BQL	0.001	"	8/4/06 15:30	8/9/06 17:20	"	DSK	
Lindane	BQL	0.001	"	8/4/06 15:30	8/9/06 17:20	"	DSK	
Methoxychlor	BQL	0.001	"	8/4/06 15:30	8/9/06 17:20	"	DSK	
Chlordane	BQL	0.01	"	8/4/06 15:30	8/9/06 4:46	"	DSK	
Toxaphene	BQL	0.01	"	8/4/06 15:30	8/9/06 4:46	"	DSK	
TCLP Semivolatile Organics								
m,p-Cresol	BQL	0.20	mg/L	8/9/06 15:15	8/11/06 14:37	SW846/8270C	JHV	
o-Cresol	BQL	0.10	"	8/9/06 15:15	8/11/06 14:37	"	JHV	
1,4-Dichlorobenzene	BQL	0.10	"	8/9/06 15:15	8/11/06 14:37	"	JHV	
2,4-Dinitrotoluene	BQL	0.10	"	8/9/06 15:15	8/11/06 14:37	"	JHV	
Hexachlorobenzene	BQL	0.10	"	8/9/06 15:15	8/11/06 14:37	"	JHV	
Hexachlorobutadiene	BQL	0.10	"	8/9/06 15:15	8/11/06 14:37	"	JHV	
Hexachloroethane	BQL	0.10	"	8/9/06 15:15	8/11/06 14:37	"	JHV	



Lab ID: 0608046-03 (Soil)
Client ID: KC
Sampled Date/Time: 7/31/06 0:00

Analyte	Result	Quant		Prepared	Analyzed	Method	Analyst	Notes
		Limit	Units					
TCLP Semivolatile Organics								
Nitrobenzene	BQL	0.10	mg/L	8/9/06 15:15	8/11/06 14:37	SW846/8270C	JHV	
Pentachlorophenol	BQL	0.10	"	8/9/06 15:15	8/11/06 14:37	"	JHV	
Pyridine	BQL	0.10	"	8/9/06 15:15	8/11/06 14:37	"	JHV	
2,4,5-Trichlorophenol	BQL	0.10	"	8/9/06 15:15	8/11/06 14:37	"	JHV	
2,4,6-Trichlorophenol	BQL	0.10	"	8/9/06 15:15	8/11/06 14:37	"	JHV	
TCLP Volatile Organics								
Benzene	BQL	0.1	mg/L	8/7/06 8:49	8/7/06 14:01	SW846/8260B	SS	
Carbon tetrachloride	BQL	0.1	"	8/7/06 8:49	8/7/06 14:01	"	SS	
Chlorobenzene	BQL	0.1	"	8/7/06 8:49	8/7/06 14:01	"	SS	
Chloroform	BQL	0.1	"	8/7/06 8:49	8/7/06 14:01	"	SS	
1,1-Dichloroethene	BQL	0.1	"	8/7/06 8:49	8/7/06 14:01	"	SS	
1,2-Dichloroethane	BQL	0.1	"	8/7/06 8:49	8/7/06 14:01	"	SS	
Methyl ethyl ketone	BQL	0.1	"	8/7/06 8:49	8/7/06 14:01	"	SS	
Tetrachloroethene	BQL	0.1	"	8/7/06 8:49	8/7/06 14:01	"	SS	
Trichloroethene	BQL	0.1	"	8/7/06 8:49	8/7/06 14:01	"	SS	
Vinyl chloride	BQL	0.1	"	8/7/06 8:49	8/7/06 14:01	"	SS	



Lab ID: 0608046-04 (Soil)
 Client ID: KD
 Sampled Date/Time: 7/31/06 0:00

Analyte	Result	Quant Limit	Units	Prepared	Analyzed	Method	Analyst	Notes
TCLP Extraction								
TCLP ExtNV	Extracted		[blank]	8/2/06 15:00	8/2/06 15:08	SW846/1311	DSK	
TCLP ExtV	Extracted		"	8/3/06 15:00	8/4/06 10:11	"	SS	
TCLP Metals								
Arsenic	BQL	0.01	mg/L	8/4/06 8:30	8/7/06 13:00	SW846/6010	JLW	
Barium	0.74	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Cadmium	BQL	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Chromium	BQL	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Lead	0.01	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Selenium	BQL	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Silver	BQL	0.02	"	8/4/06 8:30	8/7/06 16:20	"	JLW	
Mercury	BQL	0.001	"	8/9/06 9:45	8/10/06 10:12	SW846/7470 A	JCM	
TCLP Herbicides								
2,4-D	BQL	0.02	mg/L	8/7/06 9:00	8/8/06 18:03	SW846/8151A	DSK	
2,4,5-TP (Silvex)	BQL	0.02	"	8/7/06 9:00	8/8/06 18:03	"	DSK	
TCLP Pesticides								
Endrin	BQL	0.001	mg/L	8/4/06 15:30	8/9/06 17:43	SW846/8081A	DSK	
Heptachlor	BQL	0.001	"	8/4/06 15:30	8/9/06 17:43	"	DSK	
Heptachlor epoxide	BQL	0.001	"	8/4/06 15:30	8/9/06 17:43	"	DSK	
Lindane	BQL	0.001	"	8/4/06 15:30	8/9/06 17:43	"	DSK	
Methoxychlor	BQL	0.001	"	8/4/06 15:30	8/9/06 17:43	"	DSK	
Chlordane	BQL	0.01	"	8/4/06 15:30	8/9/06 5:10	"	DSK	
Toxaphene	BQL	0.01	"	8/4/06 15:30	8/9/06 5:10	"	DSK	
TCLP Semivolatile Organics								
m,p-Cresol	BQL	0.20	mg/L	8/9/06 15:15	8/11/06 15:13	SW846/8270C	JHV	
o-Cresol	BQL	0.10	"	8/9/06 15:15	8/11/06 15:13	"	JHV	
1,4-Dichlorobenzene	BQL	0.10	"	8/9/06 15:15	8/11/06 15:13	"	JHV	
2,4-Dinitrotoluene	BQL	0.10	"	8/9/06 15:15	8/11/06 15:13	"	JHV	
Hexachlorobenzene	BQL	0.10	"	8/9/06 15:15	8/11/06 15:13	"	JHV	
Hexachlorobutadiene	BQL	0.10	"	8/9/06 15:15	8/11/06 15:13	"	JHV	
Hexachloroethane	BQL	0.10	"	8/9/06 15:15	8/11/06 15:13	"	JHV	



Lab ID: 0608046-04 (Soil)
 Client ID: KD
 Sampled Date/Time: 7/31/06 0:00

Analyte	Result	Quant		Prepared	Analyzed	Method	Analyst	Notes
		Limit	Units					
TCLP Semivolatile Organics								
Nitrobenzene	BQL	0.10	mg/L	8/9/06 15:15	8/11/06 15:13	SW846/8270C	JHV	
Pentachlorophenol	BQL	0.10	"	8/9/06 15:15	8/11/06 15:13	"	JHV	
Pyridine	BQL	0.10	"	8/9/06 15:15	8/11/06 15:13	"	JHV	
2,4,5-Trichlorophenol	BQL	0.10	"	8/9/06 15:15	8/11/06 15:13	"	JHV	
2,4,6-Trichlorophenol	BQL	0.10	"	8/9/06 15:15	8/11/06 15:13	"	JHV	
TCLP Volatile Organics								
Benzene	BQL	0.1	mg/L	8/4/06 13:49	8/5/06 2:25	SW846/8260B	SS	
Carbon tetrachloride	BQL	0.1	"	8/4/06 13:49	8/5/06 2:25	"	SS	
Chlorobenzene	BQL	0.1	"	8/4/06 13:49	8/5/06 2:25	"	SS	
Chloroform	BQL	0.1	"	8/4/06 13:49	8/5/06 2:25	"	SS	
1,1-Dichloroethene	BQL	0.1	"	8/4/06 13:49	8/5/06 2:25	"	SS	
1,2-Dichloroethane	BQL	0.1	"	8/4/06 13:49	8/5/06 2:25	"	SS	
Methyl ethyl ketone	BQL	0.1	"	8/4/06 13:49	8/5/06 2:25	"	SS	
Tetrachloroethene	BQL	0.1	"	8/4/06 13:49	8/5/06 2:25	"	SS	
Trichloroethene	BQL	0.1	"	8/4/06 13:49	8/5/06 2:25	"	SS	
Vinyl chloride	BQL	0.1	"	8/4/06 13:49	8/5/06 2:25	"	SS	



Lab ID: 0608046-05 (Soil)
 Client ID: KE
 Sampled Date/Time: 7/31/06 0:00

Analyte	Result	Quant Limit	Units	Prepared	Analyzed	Method	Analyst	Notes
TCLP Extraction								
TCLP ExtIV	Extracted		[blank]	8/2/06 15:00	8/2/06 15:08	SW846/1311	DSK	
TCLP ExtV	Extracted		"	8/3/06 15:00	8/4/06 10:11	"	SS	
TCLP Metals								
Arsenic	BQL	0.01	mg/L	8/4/06 8:30	8/7/06 13:00	SW846/6010	JLW	
Barium	0.68	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Cadmium	BQL	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Chromium	BQL	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Lead	0.02	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Selenium	BQL	0.01	"	8/4/06 8:30	8/7/06 13:00	"	JLW	
Silver	BQL	0.02	"	8/4/06 8:30	8/7/06 16:20	"	JLW	
Mercury	BQL	0.001	"	8/9/06 9:45	8/10/06 10:18	SW846/7470 A	JCM	
TCLP Herbicides								
2,4-D	BQL	0.02	mg/L	8/7/06 9:00	8/8/06 18:44	SW846/8151A	DSK	
2,4,5-TP (Silvex)	BQL	0.02	"	8/7/06 9:00	8/8/06 18:44	"	DSK	
TCLP Pesticides								
Endrin	BQL	0.001	mg/L	8/4/06 15:30	8/9/06 18:07	SW846/8081A	DSK	
Heptachlor	BQL	0.001	"	8/4/06 15:30	8/9/06 18:07	"	DSK	
Heptachlor epoxide	BQL	0.001	"	8/4/06 15:30	8/9/06 18:07	"	DSK	
Lindane	BQL	0.001	"	8/4/06 15:30	8/9/06 18:07	"	DSK	
Methoxychlor	BQL	0.001	"	8/4/06 15:30	8/9/06 18:07	"	DSK	
Chlordane	BQL	0.01	"	8/4/06 15:30	8/9/06 5:33	"	DSK	
Toxaphene	BQL	0.01	"	8/4/06 15:30	8/9/06 5:33	"	DSK	
TCLP Semivolatile Organics								
m,p-Cresol	BQL	0.20	mg/L	8/9/06 15:15	8/11/06 15:50	SW846/8270C	JHV	
o-Cresol	BQL	0.10	"	8/9/06 15:15	8/11/06 15:50	"	JHV	
1,4-Dichlorobenzene	BQL	0.10	"	8/9/06 15:15	8/11/06 15:50	"	JHV	
2,4-Dinitrotoluene	BQL	0.10	"	8/9/06 15:15	8/11/06 15:50	"	JHV	
Hexachlorobenzene	BQL	0.10	"	8/9/06 15:15	8/11/06 15:50	"	JHV	
Hexachlorobutadiene	BQL	0.10	"	8/9/06 15:15	8/11/06 15:50	"	JHV	
Hexachloroethane	BQL	0.10	"	8/9/06 15:15	8/11/06 15:50	"	JHV	



Lab ID: 0608046-05 (Soil)
 Client ID: KE
 Sampled Date/Time: 7/31/06 0:00

Analyte	Result	Quant		Prepared	Analyzed	Method	Analyst	Notes
		Limit	Units					
TCLP Semivolatile Organics								
Nitrobenzene	BQL	0.10	mg/L	8/9/06 15:15	8/11/06 15:50	SW846/8270C	JHV	
Pentachlorophenol	BQL	0.10	"	8/9/06 15:15	8/11/06 15:50	"	JHV	
Pyridine	BQL	0.10	"	8/9/06 15:15	8/11/06 15:50	"	JHV	
2,4,5-Trichlorophenol	BQL	0.10	"	8/9/06 15:15	8/11/06 15:50	"	JHV	
2,4,6-Trichlorophenol	BQL	0.10	"	8/9/06 15:15	8/11/06 15:50	"	JHV	
TCLP Volatile Organics								
Benzene	BQL	0.1	mg/L	8/7/06 8:49	8/7/06 12:23	SW846/8260B	SS	
Carbon tetrachloride	BQL	0.1	"	8/7/06 8:49	8/7/06 12:23	"	SS	
Chlorobenzene	BQL	0.1	"	8/7/06 8:49	8/7/06 12:23	"	SS	
Chloroform	BQL	0.1	"	8/7/06 8:49	8/7/06 12:23	"	SS	
1,1-Dichloroethene	BQL	0.1	"	8/7/06 8:49	8/7/06 12:23	"	SS	
1,2-Dichloroethane	BQL	0.1	"	8/7/06 8:49	8/7/06 12:23	"	SS	
Methyl ethyl ketone	BQL	0.1	"	8/7/06 8:49	8/7/06 12:23	"	SS	
Tetrachloroethene	BQL	0.1	"	8/7/06 8:49	8/7/06 12:23	"	SS	
Trichloroethene	BQL	0.1	"	8/7/06 8:49	8/7/06 12:23	"	SS	
Vinyl chloride	BQL	0.1	"	8/7/06 8:49	8/7/06 12:23	"	SS	

Notes and Definitions

TCLP	Extracted
#	Does not pass acceptance criteria.
mg/L	milligrams per Liter
µg/L	micrograms per Liter
mg/kg	milligrams per kilogram
µu	standard units
BQL	Below the Quantitation Limit