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Interim Measures Completion Report

Lake Shore Foundry
653 S. Market Street
Waukegan, Lake County, Illinois 60085

January 24, 2008

Submitted to:

US EPA Region V
Land and Chemicals Division
Remediation and Reuse Branch
Corrective Action Section
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1.0 Background & Objectives

The Lake Shore Foundry site is at 653 Market Street in Waukegan, Lake County, Illinois. The dimensions of the property are approximately 270 feet north-south and 135 feet east-west. The 0.77 acre LSF property contains a single corrugated metal building. The Facility is located on the western shoreline of Lake Michigan. The Elgin, Joliet, and Eastern railroad borders the facility on the west and north sides. Lake Michigan borders the facility on the east side. A City ROW is south of the facility. The ground surface is relatively flat with fill soil covering much of the ground throughout the facility property. **Figure 1** shows the location of this property imposed on a 2002 aerial photo.

The foundry was established in 1900 and produces prototype, short run and high production non-ferrous alloys. Products presently produced by Lake Shore Foundry include brass, bronze & aluminum sand & permanent mold castings. The facility previously manufactured red brass and tin bronze, products which may have contained lead.

Reference documents and reports that further describe the site conditions and govern the scope of the work, include:

- USEPA Administrative Order on Consent, Effective November 17, 2006
- April 27, 2007 Interim Measures Work Plan and Quality Assurance Project Plan (QAPP) approved by USEPA in letter dated May 15, 2007.
- April 27, 2007 Site Health & Safety Plan
- August 31, 2007 Interim Measures Report approved by USEPA in letter dated October 26, 2007

2.0 Documentation of Completed Interim Measures Work

The following summary schedule of work was completed to implement the interim measures removal work.

Table 1—Completion Schedule Summary

Task Completed	Completion Schedule
USEPA Plan Approval	October 26, 2007
Waste Profile/Attain Landfill Disposal Permit	September 18, 2007
Procurements, Financing, Contracting	November 20, 2007
Site Survey/Layout	November 27, 2007
Contractor Mobilization/Initial Soil Treatment	December 4, 2007
Treatment Confirmation/Begin Soil Excavation & Load Out to Landfill	December 10, 2007
Confirmation sampling/Continued Load Out/Backfilling	December 14, 2007
Finish Backfill Grading/Site Restoration (site thaw)	January 7, 2008

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2.1 Mobilization

Contractor mobilization began with site survey and layout/delineation of the treatment area on November 27, 2007. Heavy equipment and treatment chemical arrived on-site December 3 and 4, 2007.

2.2 Soil Treatment, Excavation, Off-site Disposal

Soil delineated on **Figure 2** was treated to render lead levels to below TCLP characteristic thresholds, thus enabling the treated soil to be properly disposed as an Illinois Special Waste at the Veolia ES Landfill in Zion, Illinois. A 5000 gallon tanker truck of proprietary product (Mactite) was spray applied in liquid form to the impacted soils, then mixed and homogenized on the ground using traditional excavating equipment. Immediately following the appropriate mixing and cure times, soil samples were collected and sent for rapid turnaround TCLP Lead analysis to confirm that lead levels meet the threshold for disposal as non-hazardous special waste. One sample per 100 cubic yards (CY) of treated soil was analyzed for TCLP Lead to confirm treatment to less than 5 mg/L. (see **Section 3.1** for results)

Treated soil was stockpiled on-site under secure tarping while lab analysis was performed. Once acceptable treatment was confirmed via lab data, the soil was loaded onto licensed special waste transporter trucks, manifest documents were completed, and treated soil was transported to the landfill in Zion, Illinois for final disposal.

An impacted soil quantity of 356.20 tons was sent to the landfill on December 10 and 171.74 tons on December 14, 2007 for a total of 527.94 tons. Copies of manifests and weigh scale summaries are presented in **Appendix B**.

2.3 Backfilling & Restoration

Clean crushed concrete aggregate from Vulcan Materials in Lake Bluff was placed in the excavated area(s) as backfill. Approximately 500 tons of backfill was placed in the excavation area on December 14, 2007. Heavy snows and frozen ground conditions postponed the finish grading and leveling of the backfill until thaw conditions on January 7, 2008.

3.0 Findings of Post-Treatment/Removal Soil Sampling & Analysis

Excavated soil areas were subject to TCLP and total metals analysis to confirm removal of all TCLP hazardous levels and to document remaining levels of total metals for purposes of further risk-based assessment of site conditions. **Figure 2** shows actual excavation bottom and sidewall sample locations. This sampling and analysis followed the previously approved QAPP.

Total lead and TCLP lead results are provided in **Table 2.** Total metals (excluding lead) positively detected in soil are provided in **Table 3**. The laboratory reports containing all total metals and TCLP data are available in **Appendix C.**

3.1 Treatment Confirmation Prior to Disposal

The first set of five (5) treatment confirmation samples was collected on December 4, 2007. Two (2) samples failed TCLP testing and required remixing and resampling. The re-testing of these locations subsequently passed and the treated soil was sent for landfill disposal at Veolia Zion Landfill. The TCLP treatment confirmation sample results are summarized in the **Table 4** below. Lab reports and sample chain of custody documents are presented in **Appendix C**. Lead TCLP results were compared to the TCLP regulatory limit of 5 mg/L set forth in 40 CFR 261.24.

Table 4—Pre-Disposal Confirmation Testing Summary

Sample No.	Sample Date	TCLP Lead Result (mg/L)	Pass/Fail (<5 mg/L)*
TES-1	12/4/07	0.089	Pass
TES-2	12/4/07	8.3	Fail
TES-2R (Re-mixed and Resample)	12/10/07	0.48	Pass
TES-3	12/4/07	6.2	Fail
TES-3R (Re-mixed and Resample)	12/10/07	0.64	Pass
TES-4	12/4/07	0.15	Pass
TES-5	12/4/07	0.055	Pass

** TCLP lead results less than 5 mg/L indicate acceptability for disposal at Veolia ES Zion Landfill as an Illinois Special Waste.*

3.2 Post-Excavation Soil Confirmation Sampling & Analysis

Excavation sidewall and bottom samples were collected following the removal of impacted soils. **Figure 2** shows the sample numbers and locations of the confirmation samples. Samples designated as LSF-1 thru LSF-12 are the designated confirmation sample results.

Lead TCLP results were compared to the TCLP regulatory limit of 5 mg/L set forth in 40 CFR 261.24. **Table 2** compares the TCLP concentrations in the confirmation samples to the regulatory limit. Exceedances were found at four locations: (LSF-3R, LSF-8, TES-2, and TES-3). However, re-samples at these locations except at LSF-3R did not exceed the regulatory threshold.

While discrete samples exceeded the USEPA Region 9 industrial PRG of 800 mg/kg, the arithmetic average concentration of lead in surface soil, defined as 0-2 ft bgs (568 mg/kg) did not exceed the PRG. The dataset used in the averaging included the 16 original

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investigative sample locations not impacted by the removal and the 15 post-excavation locations sampled upon completion of the soil removal. **Table 5** shows the samples and values used to calculate the mean concentration of lead in surface soil.

3.3 Other Appendix IX Total Metals in Soils

Appendix IX list of metals/inorganics was also analyzed at the 15 confirmation sample locations. These results were compared to IEPA's 35 IAC Part 742 TACO Tier 1 risk-based soil remediation objectives for direct contact (ingestion and inhalation) and migration to groundwater exposure routes. Findings are discussed below.

3.3.1 Direct Contact Exposure Route

The analysis of these compounds in soil indicates that copper exceeded IEPA TACO Tier 1 residential ingestion soil remediation objectives at several discrete sample locations. However, based on the land use of the property, the Agreed Administrative Order (Order) specified the use of risk-based cleanup objectives for an Industrial/Commercial property. The copper concentrations do not exceed Tier 1 industrial/commercial soil remediation objectives. The copper concentration did exceed the Tier 1 construction worker ingestion soil remediation objective at LSF-8 (but not in the re-sample LSF-8R), LSF-12 and LSF-13. The average copper concentration in duplicate samples at LSF-11 did not exceed the construction worker objective. As Tier 1 industrial/commercial soil objectives have not been exceeded, there is no unacceptable current human exposure to soil through the direct contact pathway. Worker safety precautions can be used to prohibit or limit direct contact exposure to elevated copper levels.

3.3.2 Migration to Groundwater Exposure Route

Tier 1 soil component of the groundwater ingestion remediation objectives were exceeded for several chemicals at several sample locations, including the following:

Zinc at LSF-5;
Chromium at LSF-8R;
Antimony and silver at LSF-9;
Silver at LSF-11;
Antimony, cadmium, copper, mercury, nickel and silver at LSF-12;
Antimony, cadmium, copper, mercury, nickel, silver, and zinc at LSF-13; and
Antimony, cadmium, chromium, copper, mercury, nickel, silver and zinc at LSF-14.

While the total chromium concentration at LSF-8R (34 mg/kg) slightly exceeded the migration to groundwater SRO (28 mg/kg), this SRO is based on hexavalent chromium. Though the chromium species has not been determined at this Facility, most chromium is present in the trivalent form in the environment. The hexavalent chromium concentration present at the Facility can be estimated from the total concentration by applying a 1:6 ratio of hexavalent Cr : trivalent chromium, as presented in USEPA' s Integrated Risk

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Information System (IRIS) database. The estimated hexavalent chromium concentration at LSF-8R is 5.7 mg/kg, which is below the Tier 1 SRO for migration to groundwater of 28 mg/kg.

Further investigation can be used to address the migration to groundwater pathway. Additional sampling for Synthetic Precipitation Leach Procedure (SPLP) metals analysis can be performed at these locations as another line of evidence for evaluating the potential for site-related contaminants to leach to groundwater. An institutional control such as a City of Waukegan Groundwater Use Restriction Ordinance encompassing the property can also be an effective means of addressing this exposure pathway.

4.0 Conclusions and Recommendations

Under the Consent Order, LSF has completed an Interim Measures Action to address elevated levels of TCLP lead in soil. A total of 527.94 tons of impacted soil was treated and disposed of off-site as special waste. Confirmation samples were collected from the excavation and the area was backfilled and graded. One discrete location (6.1 mg/L TCLP lead at LSF-3R) exceeded the TCLP threshold of 5 mg/L. Additional TCLP step-out sampling and analysis will be conducted around LSF-3R. Active remediation at this discrete location can be implemented to eliminate this exceedance area.

Total lead and Appendix IX metal concentrations were below IEPA Tier 1 industrial/commercial risk-based remediation objectives, and thus, do not pose an unacceptable risk to human health. Copper concentrations at two discrete locations (LSF-12 and LSF-13) exceeded Tier 1 construction worker objectives; worker safety precautions can be implemented when performing excavation activities in these areas to prevent unacceptable risks.

Several metals are present in soil at concentrations that may impact groundwater. Further investigation (e.g., SPLP metals analysis) and/or an institutional control groundwater use restriction can be implemented to eliminate this exposure pathway.

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Tables

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Table 2
Total and TCLP Lead
Confirmation Sample Results
Lake Shore Foundry

Client ID	Date	Parameter	Result	Qualifier	Units	Comparison Level	
LSF-1	12/10/07	Lead	510		mg/Kg	800	
LSF-2	12/10/07	Lead	310		mg/Kg	800	
LSF-3	12/10/07	Lead	740		mg/Kg	800	
LSF-3R	12/14/07	Lead	760		mg/Kg	800	
LSF-4	12/10/07	Lead	34		mg/Kg	800	
LSF-5	12/10/07	Lead	770		mg/Kg	800	
LSF-6	12/10/07	Lead	110		mg/Kg	800	
LSF-7	12/10/07	Lead	1500		mg/Kg	800	>PRG
LSF-8	12/10/07	Lead	1700		mg/Kg	800	>PRG
LSF-8R	12/14/07	Lead	1000		mg/Kg	800	>PRG
LSF-8R DUPLICATE	12/14/07	Lead	1100		mg/Kg	800	>PRG
LSF-8R Average			1050				>PRG
LSF-9	12/10/07	Lead	880		mg/Kg	800	>PRG
LSF-10	12/10/07	Lead	530		mg/Kg	800	
LSF-11	12/14/07	Lead	900		mg/Kg	800	>PRG
LSF-11 DUPLICATE	12/14/07	Lead	590		mg/Kg	800	
LSF-11 Average			745				
LSF-12	12/10/07	Lead	900		mg/Kg	800	>PRG
LSF-13	12/14/07	Lead	1800		mg/Kg	800	>PRG
LSF-14	12/14/07	Lead	1900		mg/Kg	800	>PRG
LSF-15	12/14/07	Lead	1200		mg/Kg	800	>PRG
LSF-1	12/10/07	Lead TCLP	0.12		mg/L	5	
LSF-2	12/10/07	Lead TCLP	0.05		mg/L	5	
LSF-3	12/10/07	Lead TCLP	3.60		mg/L	5	
LSF-3R	12/14/07	Lead TCLP	6.10		mg/L	5	>TCLP
LSF-4	12/10/07	Lead TCLP	0.07		mg/L	5	
LSF-5	12/10/07	Lead TCLP	0.50		mg/L	5	
LSF-6	12/10/07	Lead TCLP	0.01		mg/L	5	
LSF-7	12/10/07	Lead TCLP	2.30		mg/L	5	
LSF-8	12/10/07	Lead TCLP	11.00		mg/L	5	>TCLP
LSF-8R	12/14/07	Lead TCLP	3.60		mg/L	5	
LSF-8R DUPLICATE	12/14/07	Lead TCLP	1.60		mg/L	5	
LSF-9	12/10/07	Lead TCLP	0.24		mg/L	5	
LSF-10	12/10/07	Lead TCLP	0.15		mg/L	5	
LSF-11	12/14/07	Lead TCLP	0.14		mg/L	5	
LSF-11 DUPLICATE	12/14/07	Lead TCLP	0.15		mg/L	5	
LSF-12	12/10/07	Lead TCLP	0.02		mg/L	5	
LSF-13	12/14/07	Lead TCLP	0.11		mg/L	5	
LSF-14	12/14/07	Lead TCLP	0.01		mg/L	5	
LSF-15	12/14/07	Lead TCLP	3.00		mg/L	5	
TES-1	12/04/07	Lead TCLP	0.09		mg/L	5	
TES-2	12/04/07	Lead TCLP	8.30		mg/L	5	>TCLP
TES-2R	12/10/07	Lead TCLP	0.48		mg/L	5	
TES-3	12/04/07	Lead TCLP	6.20		mg/L	5	>TCLP
TES-3R	12/10/07	Lead TCLP	0.64		mg/L	5	
TES-4	12/04/07	Lead TCLP	0.15		mg/L	5	
TES-5	12/04/07	Lead TCLP	0.06		mg/L	5	

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Table 3
Total Metal Comparison to Soil Remediation Objectives
Confirmation Samples
Lake Shore Foundry

				Result					Tier 1 Soil Remediation Objectives															
									Residential						Commercial/Industrial (CI)				Construction Worker (CW)					
Client ID	Date	CASRN	Parameter			Units	Background		Ingestion (ING)		Inhalation (INH)		Class I Migration to Groundwater (MGW)		Ingestion	> CI ING?	Inhalation	>CI INH?	Ingestion	> CW ING?	Inhalation	> CW INH?		
LSF-1	12/10/07	STL00204	pH	8.66		SU																		
LSF-1	12/10/07	7440-36-0	Antimony	1.90	J	mg/Kg	4		31		--		5		820		--		82		--			
LSF-1	12/10/07	7440-38-2	Arsenic	5.60		mg/Kg	13		13		750		32		13		1200		61		25000			
LSF-1	12/10/07	7440-39-3	Barium	53		mg/Kg	110		5500		690000		2100		140000		910000		14000		870000			
LSF-1	12/10/07	7440-41-7	Beryllium	0.60		mg/Kg	0.59	>BKG	160		1300		8000		4100		2100		410		44000			
LSF-1	12/10/07	7440-43-9	Cadmium	2.50		mg/Kg	0.6	>BKG	78		1800		430		2000		2800		200		59000			
LSF-1	12/10/07	7440-47-3	Chromium	11	B	mg/Kg	16.2		230		270		28		6100		420		4100		690			copper
LSF-1	12/10/07	7440-48-4	Cobalt	4.50		mg/Kg	8.9		4700		--		--		120000		--		12000		--			1800
LSF-1	12/10/07	7440-50-8	Copper	1800		mg/Kg	19.6	>BKG	2900		--		330000		82000		--		8200		--			560
LSF-1	12/10/07	7439-97-6	Mercury	0.07		mg/Kg	0.06	>BKG	23		10		8		610		540000		61		52000			5200
LSF-1	12/10/07	7440-02-0	Nickel	22		mg/Kg	18	>BKG	1600		13000		3800		41000		21000		4100		440000			
LSF-1	12/10/07	7782-49-2	Selenium	1.00	U	mg/Kg	0.48		390		--		1.8		10000		--		1000		--			
LSF-1	12/10/07	7440-22-4	Silver	0.67		mg/Kg	0.55	>BKG	390		--		110		10000		--		1000		--			
LSF-1	12/10/07	7440-28-0	Thallium	1.00	U	mg/Kg	0.32		6.3		--		4.4		160		--		160		--			
LSF-1	12/10/07	7440-31-5	Tin	54	B	mg/Kg	--		47000		--		--		1000000		--		120000		--			
LSF-1	12/10/07	7440-62-2	Vanadium	14		mg/Kg	25.2		550		--		980		14000		--		1400		--			
LSF-1	12/10/07	7440-66-6	Zinc	2900	B	mg/Kg	95	>BKG	23000		--		53000		610000		--		61000		--			
LSF-2	12/10/07	STL00204	pH	8.33		SU																		
LSF-2	12/10/07	7440-36-0	Antimony	0.63	J	mg/Kg	4		31		--		5		820		--		82		--			
LSF-2	12/10/07	7440-38-2	Arsenic	6.40		mg/Kg	13		13		750		32		13		1200		61		25000			
LSF-2	12/10/07	7440-39-3	Barium	67		mg/Kg	110		5500		690000		2100		140000		910000		14000		870000			
LSF-2	12/10/07	7440-41-7	Beryllium	1.40		mg/Kg	0.59	>BKG	160		1300		8000		4100		2100		410		44000			
LSF-2	12/10/07	7440-43-9	Cadmium	1.60		mg/Kg	0.6	>BKG	78		1800		430		2000		2800		200		59000			
LSF-2	12/10/07	7440-47-3	Chromium	19.00	B	mg/Kg	16.2	>BKG	230		270		28		6100		420		4100		690			
LSF-2	12/10/07	7440-48-4	Cobalt	6.20		mg/Kg	8.9		4700		--		--		120000		--		12000		--			
LSF-2	12/10/07	7440-50-8	Copper	560		mg/Kg	19.6	>BKG	2900		--		330000		82000		--		8200		--			
LSF-2	12/10/07	7439-97-6	Mercury	0		mg/Kg	0.06	>BKG	23		10		8		610		540000		61		52000			
LSF-2	12/10/07	7440-02-0	Nickel	24		mg/Kg	18	>BKG	1600		13000		3800		41000		21000		4100		440000			
LSF-2	12/10/07	7782-49-2	Selenium	0.42	J	mg/Kg	0.48		390		--		1.8		10000		--		1000		--			
LSF-2	12/10/07	7440-22-4	Silver	5.20		mg/Kg	0.55	>BKG	390		--		110		10000		--		1000		--			
LSF-2	12/10/07	7440-28-0	Thallium	1.10	U	mg/Kg	0.32		6.3		--		4.4		160		--		160		--			
LSF-2	12/10/07	7440-31-5	Tin	25	B	mg/Kg	--		47000		--		--		1000000		--		120000		--			
LSF-2	12/10/07	7440-62-2	Vanadium	17		mg/Kg	25.2		550		--		980		14000		--		1400		--			
LSF-2	12/10/07	7440-66-6	Zinc	1100	B	mg/Kg	95	>BKG	23000		--		53000		610000		--		61000		--			
LSF-3	12/10/07	STL00204	pH	8.41		SU																		
LSF-3	12/10/07	7440-36-0	Antimony	2.60		mg/Kg	4		31		--		5		820		--		82		--			
LSF-3	12/10/07	7440-38-2	Arsenic	4.60		mg/Kg	13		13		750		32		13		1200		61		25000			
LSF-3	12/10/07	7440-39-3	Barium	36		mg/Kg	110		5500		690000		2100		140000		910000		14000		870000			
LSF-3	12/10/07	7440-41-7	Beryllium	0.59		mg/Kg	0.59		160		1300		8000		4100		2100		410		44000			
LSF-3	12/10/07	7440-43-9	Cadmium	1.50		mg/Kg	0.6	>BKG	78		1800		430		2000		2800		200		59000			
LSF-3	12/10/07	7440-47-3	Chromium	9.50	B	mg/Kg	16.2		230		270		28		6100		420		4100		690			
LSF-3	12/10/07	7440-48-4	Cobalt	3.00		mg/Kg	8.9		4700		--		--		120000		--		12000		--			
LSF-3	12/10/07	7440-50-8	Copper	5200		mg/Kg	19.6	>BKG	2900	**>ING**	--		330000		82000		--		8200		--			
LSF-3	12/10/07	7439-97-6	Mercury	0.04		mg/Kg	0.06		23		10		8		610		540000		61		52000			
LSF-3	12/10/07	7440-02-0	Nickel	40		mg/Kg	18	>BKG	1600		13000		3800		41000		21000		4100		440000			
LSF-3	12/10/07	7782-49-2	Selenium	1.00	U	mg/Kg	0.48		390		--		1.8		10000		--		1000		--			
LSF-3	12/10/07	7440-22-4	Silver	1.60		mg/Kg	0.55	>BKG	390		--		110		10000		--		1000		--			
LSF-3	12/10/07	7440-28-0	Thallium	1.00	U	mg/Kg	0.32		6.3		--		4.4		160		--		160		--			
LSF-3	12/10/07	7440-31-5	Tin	170	B	mg/Kg	--		47000		--		--		1000000		--		120000		--			
LSF-3	12/10/07	7440-62-2	Vanadium	8		mg/Kg	25.2		550		--		980		14000		--		1400		--			
LSF-3	12/10/07	7440-66-6	Zinc	3900	B	mg/Kg	95	>BKG	23000		--		53000		610000		--		61000		--			
LSF-3R	12/14/07	STL00204	pH	7.92		SU																		
LSF-3R	12/14/07	7440-36-0	Antimony	2.10		mg/Kg	4		31		--		5		820		--		82		--			
LSF-3R	12/14/07	7440-38-2	Arsenic	2.80		mg/Kg	13		13		750		31		13		1200		61		25000			
LSF-3R	12/14/07	7440-39-3	Barium	37.00		mg/Kg	110		5500		690000		2100		140000		910000		14000		870000			
LSF-3R	12/14/07	7440-41-7	Beryllium	0.18	J	mg/Kg	0.59		160		1300		8000		4100		2100		410		44000			
LSF-3R	12/14/07	7440-43-9	Cadmium	1.90		mg/Kg	0.6	>BKG	78		1800		430		2000		2800		200		59000			
LSF-3R	12/14/07	7440-47-3	Chromium	13	B	mg/Kg	16.2		230		270		28		6100		420		4100		690			
LSF-3R	12/14/07	7440-48-4	Cobalt	2.10		mg/Kg	8.9		4700		--		--		120000		--		12000		--			
LSF-3R	12/14/07	7440-50-8	Copper	4500	B	mg/Kg	19.6	>BKG	2900	**>ING**	--		330000		82000		--		8200		--			
LSF-3R	12/14/07	7439-97-6	Mercury	0.25		mg/Kg	0.06	>BKG	23		10		8		610		540000		61		52000			
LSF-3R	12/14/07	7440-02-0	Nickel	54		mg/Kg	18	>BKG	1600		13000		3800		41000		21000		4100		440000			
LSF-3R	12/14/07	7782-49-2	Selenium	0.47	J	mg/Kg	0.48		390		--		2.4		10000		--		1000		--			
LSF-3R	12/14/07	7440-22-4	Silver	1.40		mg/Kg	0.55	>BKG	390		--		110		10000		--		1000		--			
LSF-3R	12/14/07	7440-28-0	Thallium	1	U	mg/Kg	0.32		6.3		--		3.8		160		--		160		--			

US EPA ARCHIVE DOCUMENT

Table 3
Total Metal Comparison to Soil Remediation Objectives
Confirmation Samples
Lake Shore Foundry

				Result					Tier 1 Soil Remediation Objectives													
									Residential						Commercial/Industrial (CI)				Construction Worker (CW)			
Client ID	Date	CASRN	Parameter			Units	Background		Ingestion (ING)		Inhalation (INH)		Class I Migration to Groundwater (MGW)		Ingestion	> CI ING?	Inhalation	>CI INH?	Ingestion	> CW ING?	Inhalation	> CW INH?
LSF-3R	12/14/07	7440-31-5	Tin	110	B	mg/Kg	--		47000		--		--		1000000		--		120000		--	
LSF-3R	12/14/07	7440-62-2	Vanadium	6		mg/Kg	25.2		550		--		980		14000		--		1400		--	
LSF-3R	12/14/07	7440-66-6	Zinc	3300	B	mg/Kg	95	>BKG	23000		--		53000		610000		--		61000		--	
LSF-4	12/10/07	STL00204	pH	8.46		SU																
LSF-4	12/10/07	7440-36-0	Antimony	2.00	U	mg/Kg	4		31		--		5		820		--		82		--	
LSF-4	12/10/07	7440-38-2	Arsenic	2.90		mg/Kg	13		13		750		32		13		1200		61		25000	
LSF-4	12/10/07	7440-39-3	Barium	25.00		mg/Kg	110		5500		690000		2100		140000		910000		14000		870000	
LSF-4	12/10/07	7440-41-7	Beryllium	0.41		mg/Kg	0.59		160		1300		8000		4100		2100		410		44000	
LSF-4	12/10/07	7440-43-9	Cadmium	0.32		mg/Kg	0.6		78		1800		430		2000		2800		200		59000	
LSF-4	12/10/07	7440-47-3	Chromium	13	B	mg/Kg	16.2		230		270		28		6100		420		4100		690	
LSF-4	12/10/07	7440-48-4	Cobalt	2.60		mg/Kg	8.9		4700		--		--		120000		--		12000		--	
LSF-4	12/10/07	7440-50-8	Copper	130		mg/Kg	19.6	>BKG	2900		--		330000		82000		--		8200		--	
LSF-4	12/10/07	7439-97-6	Mercury	0.026		mg/Kg	0.06		23		10		8		610		540000		61		52000	
LSF-4	12/10/07	7440-02-0	Nickel	7.20		mg/Kg	18		1600		13000		3800		41000		21000		4100		440000	
LSF-4	12/10/07	7782-49-2	Selenium	1.00	U	mg/Kg	0.48		390		--		1.8		10000		--		1000		--	
LSF-4	12/10/07	7440-22-4	Silver	0.15	J	mg/Kg	0.55		390		--		110		10000		--		1000		--	
LSF-4	12/10/07	7440-28-0	Thallium	1	U	mg/Kg	0.32		6.3		--		4.4		160		--		160		--	
LSF-4	12/10/07	7440-31-5	Tin	6	B	mg/Kg	--		47000		--		--		1000000		--		120000		--	
LSF-4	12/10/07	7440-62-2	Vanadium	10		mg/Kg	25.2		550		--		980		14000		--		1400		--	
LSF-4	12/10/07	7440-66-6	Zinc	140	B	mg/Kg	95	>BKG	23000		--		53000		610000		--		61000		--	
LSF-5	12/10/07	STL00204	pH	6.57		SU																
LSF-5	12/10/07	7440-36-0	Antimony	2.90		mg/Kg	4		31		--		5		820		--		82		--	
LSF-5	12/10/07	7440-38-2	Arsenic	4.50		mg/Kg	13		13		750		29		13		1200		61		25000	
LSF-5	12/10/07	7440-39-3	Barium	110		mg/Kg	110		5500		690000		1500		140000		910000		14000		870000	
LSF-5	12/10/07	7440-41-7	Beryllium	5.30		mg/Kg	0.59	>BKG	160		1300		22		4100		2100		410		44000	
LSF-5	12/10/07	7440-43-9	Cadmium	1.50		mg/Kg	0.6	>BKG	78		1800		5.2		2000		2800		200		59000	
LSF-5	12/10/07	7440-47-3	Chromium	17.00	B	mg/Kg	16.2	>BKG	230		270		40		6100		420		4100		690	
LSF-5	12/10/07	7440-48-4	Cobalt	8.40		mg/Kg	8.9		4700		--		--		120000		--		12000		--	
LSF-5	12/10/07	7440-50-8	Copper	4300		mg/Kg	19.6	>BKG	2900	**>ING**	--		59000		82000		--		8200		--	
LSF-5	12/10/07	7439-97-6	Mercury	0.089		mg/Kg	0.06	>BKG	23		10		0.89		610		540000		61		52000	
LSF-5	12/10/07	7440-02-0	Nickel	63		mg/Kg	18	>BKG	1600		13000		100		41000		21000		4100		440000	
LSF-5	12/10/07	7782-49-2	Selenium	0.50	J	mg/Kg	0.48	>BKG	390		--		6.3		10000		--		1000		--	
LSF-5	12/10/07	7440-22-4	Silver	1.50		mg/Kg	0.55	>BKG	390		--		4.4		10000		--		1000		--	
LSF-5	12/10/07	7440-28-0	Thallium	1.00	U	mg/Kg	0.32		6.3		--		2.6		160		--		160		--	
LSF-5	12/10/07	7440-31-5	Tin	370	B	mg/Kg	--		47000		--		--		1000000		--		120000		--	
LSF-5	12/10/07	7440-62-2	Vanadium	14		mg/Kg	25.2		550		--		980		14000		--		1400		--	
LSF-5	12/10/07	7440-66-6	Zinc	8200	B	mg/Kg	95	>BKG	23000		--		5100	**>MGW**	610000		--		61000		--	
LSF-6	12/10/07	STL00204	pH	8.28		SU																
LSF-6	12/10/07	7440-36-0	Antimony	2.00	U	mg/Kg	4		31		--		5		820		--		82		--	
LSF-6	12/10/07	7440-38-2	Arsenic	5.40		mg/Kg	13		13		750		32		13		1200		61		25000	
LSF-6	12/10/07	7440-39-3	Barium	60		mg/Kg	110		5500		690000		2100		140000		910000		14000		870000	
LSF-6	12/10/07	7440-41-7	Beryllium	1		mg/Kg	0.59	>BKG	160		1300		8000		4100		2100		410		44000	
LSF-6	12/10/07	7440-43-9	Cadmium	0.29		mg/Kg	0.6		78		1800		430		2000		2800		200		59000	
LSF-6	12/10/07	7440-47-3	Chromium	9.60	B	mg/Kg	16.2		230		270		28		6100		420		4100		690	
LSF-6	12/10/07	7440-48-4	Cobalt	4.40		mg/Kg	8.9		4700		--		--		120000		--		12000		--	
LSF-6	12/10/07	7440-50-8	Copper	750		mg/Kg	19.6	>BKG	2900		--		330000		82000		--		8200		--	
LSF-6	12/10/07	7439-97-6	Mercury	0.018	J	mg/Kg	0.06		23		10		8		610		540000		61		52000	
LSF-6	12/10/07	7440-02-0	Nickel	16		mg/Kg	18		1600		13000		3800		41000		21000		4100		440000	
LSF-6	12/10/07	7782-49-2	Selenium	1	U	mg/Kg	0.48		390		--		1.8		10000		--		1000		--	
LSF-6	12/10/07	7440-22-4	Silver	0.26	J	mg/Kg	0.55		390		--		110		10000		--		1000		--	
LSF-6	12/10/07	7440-28-0	Thallium	1	U	mg/Kg	0.32		6.3		--		4.4		160		--		160		--	
LSF-6	12/10/07	7440-31-5	Tin	23	B	mg/Kg	--		47000		--		--		1000000		--		120000		--	
LSF-6	12/10/07	7440-62-2	Vanadium	14		mg/Kg	25.2		550		--		980		14000		--		1400		--	
LSF-6	12/10/07	7440-66-6	Zinc	300	B	mg/Kg	95	>BKG	23000		--		53000		610000		--		61000		--	
LSF-7	12/10/07	STL00204	pH	8.35		SU																
LSF-7	12/10/07	7440-36-0	Antimony	3.20		mg/Kg	4		31		--		5		820		--		82		--	
LSF-7	12/10/07	7440-38-2	Arsenic	6.70		mg/Kg	13		13		750		32		13		1200		61		25000	
LSF-7	12/10/07	7440-39-3	Barium	150.00		mg/Kg	110	>BKG	5500		690000		2100		140000		910000		14000		870000	
LSF-7	12/10/07	7440-41-7	Beryllium	1.50		mg/Kg	0.59	>BKG	160		1300		8000		4100		2100		410		44000	
LSF-7	12/10/07	7440-43-9	Cadmium	2.90		mg/Kg	0.6	>BKG	78		1800		430		2000		2800		200		59000	
LSF-7	12/10/07	7440-47-3	Chromium	13	B	mg/Kg	16.2		230		270		28		6100		420		4100		690	
LSF-7	12/10/07	7440-48-4	Cobalt	5.80		mg/Kg	8.9		4700		--		--		120000		--		12000		--	
LSF-7	12/10/07	7440-50-8	Copper	8000		mg/Kg	19.6	>BKG	2900	**>ING**	--		330000		82000		--		8200		--	
LSF-7	12/10/07	7439-97-6	Mercury	0.17		mg/Kg	0.06	>BKG	23		10		8		610		540000		61		52000	
LSF-7	12/10/07	7440-02-0	Nickel	59.00		mg/Kg	18	>BKG	1600		13000		3800		41000		21000		4100		440000	

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Table 3
Total Metal Comparison to Soil Remediation Objectives
Confirmation Samples
Lake Shore Foundry

				Result					Tier 1 Soil Remediation Objectives													
									Residential						Commercial/Industrial (CI)				Construction Worker (CW)			
Client ID	Date	CASRN	Parameter			Units	Background		Ingestion (ING)		Inhalation (INH)		Class I Migration to Groundwater (MGW)		Ingestion	> CI ING?	Inhalation	>CI INH?	Ingestion	> CW ING?	Inhalation	> CW INH?
LSF-7	12/10/07	7782-49-2	Selenium	1.00	J	mg/Kg	0.48	>BKG	390		--		1.8		10000		--		1000		--	
LSF-7	12/10/07	7440-22-4	Silver	5.20		mg/Kg	0.55	>BKG	390		--		110		10000		--		1000		--	
LSF-7	12/10/07	7440-28-0	Thallium	1.10	U	mg/Kg	0.32		6.3		--		4.4		160		--		160		--	
LSF-7	12/10/07	7440-31-5	Tin	290	B	mg/Kg	--		47000		--		--		1000000		--		120000		--	
LSF-7	12/10/07	7440-62-2	Vanadium	16		mg/Kg	25.2		550		--		980		14000		--		1400		--	
LSF-7	12/10/07	7440-66-6	Zinc	6900	B	mg/Kg	95	>BKG	23000		--		53000		610000		--		61000		--	
LSF-8	12/10/07	STL00204	pH	7.75		SU																
LSF-8	12/10/07	7440-36-0	Antimony	8.60		mg/Kg	4	>BKG	31		--		5	**>MGW**	820		--		82		--	
LSF-8	12/10/07	7440-38-2	Arsenic	7.60		mg/Kg	13		13		750		31		13		1200		61		25000	
LSF-8	12/10/07	7440-39-3	Barium	40.00		mg/Kg	110		5500		690000		2100		140000		910000		14000		870000	
LSF-8	12/10/07	7440-41-7	Beryllium	0.68		mg/Kg	0.59	>BKG	160		1300		8000		4100		2100		410		44000	
LSF-8	12/10/07	7440-43-9	Cadmium	2.90		mg/Kg	0.6	>BKG	78		1800		430		2000		2800		200		59000	
LSF-8	12/10/07	7440-47-3	Chromium	16.00	B	mg/Kg	16.2		230		270		28		6100		420		4100		690	
LSF-8	12/10/07	7440-48-4	Cobalt	5.80		mg/Kg	8.9		4700		--		--		120000		--		12000		--	
LSF-8	12/10/07	7440-50-8	Copper	14000		mg/Kg	19.6	>BKG	2900	**>ING**	--		330000		82000		--		8200	**>CW ING**	--	
LSF-8	12/10/07	7439-97-6	Mercury	0.15		mg/Kg	0.06	>BKG	23		10		8		610		540000		61		52000	
LSF-8	12/10/07	7440-02-0	Nickel	110		mg/Kg	18	>BKG	1600		13000		3800		41000		21000		4100		440000	
LSF-8	12/10/07	7782-49-2	Selenium	0.71	J	mg/Kg	0.48	>BKG	390		--		2.4		10000		--		1000		--	
LSF-8	12/10/07	7440-22-4	Silver	5.80		mg/Kg	0.55	>BKG	390		--		110		10000		--		1000		--	
LSF-8	12/10/07	7440-28-0	Thallium	1	U	mg/Kg	0.32		6.3		--		3.8		160		--		160		--	
LSF-8	12/10/07	7440-31-5	Tin	520	B	mg/Kg	--		47000		--		--		1000000		--		120000		--	
LSF-8	12/10/07	7440-62-2	Vanadium	12		mg/Kg	25.2		550		--		980		14000		--		1400		--	
LSF-8	12/10/07	7440-66-6	Zinc	5900	B	mg/Kg	95	>BKG	23000		--		53000		610000		--		61000		--	
LSF-8R	12/14/07	STL00204	pH	8.02		SU																
LSF-8R DUPLICATE	12/14/07	STL00204	pH	7.88		SU																
LSF-8R	12/14/07	7440-36-0	Antimony	4.10		mg/Kg	4	>BKG	31		--		5		820		--		82		--	
LSF-8R DUPLICATE	12/14/07	7440-36-0	Antimony	3.40		mg/Kg	4		31		--		5		820		--		82		--	
LSF-8R	12/14/07	7440-38-2	Arsenic	7.90		mg/Kg	13		13		750		31		13		1200		61		25000	
LSF-8R DUPLICATE	12/14/07	7440-38-2	Arsenic	9.50		mg/Kg	13		13		750		31		13		1200		61		25000	
LSF-8R	12/14/07	7440-39-3	Barium	420		mg/Kg	110	>BKG	5500		690000		2100		140000		910000		14000		870000	
LSF-8R DUPLICATE	12/14/07	7440-39-3	Barium	780		mg/Kg	110	>BKG	5500		690000		2100		140000		910000		14000		870000	
LSF-8R	12/14/07	7440-41-7	Beryllium	0.93		mg/Kg	0.59	>BKG	160		1300		8000		4100		2100		410		44000	
LSF-8R DUPLICATE	12/14/07	7440-41-7	Beryllium	0.51		mg/Kg	0.59		160		1300		8000		4100		2100		410		44000	
LSF-8R	12/14/07	7440-43-9	Cadmium	2.40		mg/Kg	0.6	>BKG	78		1800		430		2000		2800		200		59000	
LSF-8R DUPLICATE	12/14/07	7440-43-9	Cadmium	2.60		mg/Kg	0.6	>BKG	78		1800		430		2000		2800		200		59000	
LSF-8R	12/14/07	7440-47-3	Chromium	28	B	mg/Kg	16.2	>BKG	230		270		28		6100		420		4100		690	
LSF-8R DUPLICATE	12/14/07	7440-47-3	Chromium	39	B	mg/Kg	16.2	>BKG	230		270		28	**>MGW**	6100		420		4100		690	
LSF-8R Average				34										**> MGW**								
LSF-8R	12/14/07	7440-48-4	Cobalt	12		mg/Kg	8.9	>BKG	4700		--		--		120000		--		12000		--	
LSF-8R DUPLICATE	12/14/07	7440-48-4	Cobalt	14		mg/Kg	8.9	>BKG	4700		--		--		120000		--		12000		--	
LSF-8R	12/14/07	7440-50-8	Copper	7000		mg/Kg	19.6	>BKG	2900	**>ING**	--		330000		82000		--		8200		--	
LSF-8R DUPLICATE	12/14/07	7440-50-8	Copper	6800		mg/Kg	19.6	>BKG	2900	**>ING**	--		330000		82000		--		8200		--	
LSF-8R Average				6900						**> ING**												
LSF-8R	12/14/07	7439-97-6	Mercury	0.21		mg/Kg	0.06	>BKG	23		10		8		610		540000		61		52000	
LSF-8R DUPLICATE	12/14/07	7439-97-6	Mercury	0.27		mg/Kg	0.06	>BKG	23		10		8		610		540000		61		52000	
LSF-8R	12/14/07	7440-02-0	Nickel	68		mg/Kg	18	>BKG	1600		13000		3800		41000		21000		4100		440000	
LSF-8R DUPLICATE	12/14/07	7440-02-0	Nickel	67		mg/Kg	18	>BKG	1600		13000		3800		41000		21000		4100		440000	
LSF-8R	12/14/07	7782-49-2	Selenium	0.78	J	mg/Kg	0.48	>BKG	390		--		2.4		10000		--		1000		--	
LSF-8R DUPLICATE	12/14/07	7782-49-2	Selenium	0.52	J	mg/Kg	0.48	>BKG	390		--		2.4		10000		--		1000		--	
LSF-8R	12/14/07	7440-22-4	Silver	3.10		mg/Kg	0.55	>BKG	390		--		110		10000		--		1000		--	
LSF-8R DUPLICATE	12/14/07	7440-22-4	Silver	2.60		mg/Kg	0.55	>BKG	390		--		110		10000		--		1000		--	
LSF-8R	12/14/07	7440-28-0	Thallium	0.96	U	mg/Kg	0.32		6.3		--		3.8		160		--		160		--	
LSF-8R DUPLICATE	12/14/07	7440-28-0	Thallium	0.94	U	mg/Kg	0.32		6.3		--		3.8		160		--		160		--	
LSF-8R	12/14/07	7440-31-5	Tin	260	B	mg/Kg	--		47000		--		--		1000000		--		120000		--	
LSF-8R DUPLICATE	12/14/07	7440-31-5	Tin	200	B	mg/Kg	--		47000		--		--		1000000		--		120000		--	
LSF-8R	12/14/07	7440-62-2	Vanadium	15		mg/Kg	25.2		550		--		980		14000		--		1400		--	
LSF-8R DUPLICATE	12/14/07	7440-62-2	Vanadium	15		mg/Kg	25.2		550		--		980		14000		--		1400		--	
LSF-8R	12/14/07	7440-66-6	Zinc	3700	B	mg/Kg	95	>BKG	23000		--		53000		610000		--		61000		--	
LSF-8R DUPLICATE	12/14/07	7440-66-6	Zinc	3900	B	mg/Kg	95	>BKG	23000		--		53000		610000		--		61000		--	
LSF-9	12/10/07	STL00204	pH	5.85		SU																
LSF-9	12/10/07	7440-36-0	Antimony	5.10		mg/Kg	4	>BKG	31		--		5	**>MGW**	820		--		82		--	
LSF-9	12/10/07	7440-38-2	Arsenic	6		mg/Kg	13		13		750		28		13		1200		61		25000	
LSF-9	12/10/07	7440-39-3	Barium	540		mg/Kg	110	>BKG	5500		690000		1200		140000		910000		14000		870000	
LSF-9	12/10/07	7440-41-7	Beryllium	0.59		mg/Kg	0.59		160		1300		6.6		4100		2100		410		44000	
LSF-9	12/10/07	7440-43-9	Cadmium	1.70		mg/Kg	0.6	>BKG	78		1800		3.7		2000		2800		200		59000	

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Table 3
Total Metal Comparison to Soil Remediation Objectives
Confirmation Samples
Lake Shore Foundry

				Result					Tier 1 Soil Remediation Objectives													
									Residential						Commercial/Industrial (CI)				Construction Worker (CW)			
Client ID	Date	CASRN	Parameter			Units	Background		Ingestion (ING)		Inhalation (INH)		Class I Migration to Groundwater (MGW)		Ingestion	> CI ING?	Inhalation	>CI INH?	Ingestion	> CW ING?	Inhalation	> CW INH?
LSF-9	12/10/07	7440-47-3	Chromium	14.00	B	mg/Kg	16.2		230		270		46		6100		420		4100		690	
LSF-9	12/10/07	7440-48-4	Cobalt	5.70		mg/Kg	8.9		4700		--		--		120000		--		12000		--	
LSF-9	12/10/07	7440-50-8	Copper	7700		mg/Kg	19.6	>BKG	2900	**>ING**	--		11000		82000		--		8200		--	
LSF-9	12/10/07	7439-97-6	Mercury	0.11		mg/Kg	0.06	>BKG	23		10		0.15		610		540000		61		52000	
LSF-9	12/10/07	7440-02-0	Nickel	68.00		mg/Kg	18	>BKG	1600		13000		76		41000		21000		4100		440000	
LSF-9	12/10/07	7782-49-2	Selenium	0.51	J	mg/Kg	0.48	>BKG	390		--		8.8		10000		--		1000		--	
LSF-9	12/10/07	7440-22-4	Silver	3.20		mg/Kg	0.55	>BKG	390		--		1.5	**>MGW**	10000		--		1000		--	
LSF-9	12/10/07	7440-28-0	Thallium	1	U	mg/Kg	0.32		6.3		--		2.4		160		--		160		--	
LSF-9	12/10/07	7440-31-5	Tin	260	B	mg/Kg	--		47000		--		--		1000000		--		120000		--	
LSF-9	12/10/07	7440-62-2	Vanadium	12		mg/Kg	25.2		550		--		980		14000		--		1400		--	
LSF-9	12/10/07	7440-66-6	Zinc	3500	B	mg/Kg	95	>BKG	23000		--		3600		610000		--		61000		--	
LSF-10	12/10/07	STL00204	pH	7.31		SU																
LSF-10	12/10/07	7440-36-0	Antimony	2.10		mg/Kg	4		31		--		5		820		--		82		--	
LSF-10	12/10/07	7440-38-2	Arsenic	4.60		mg/Kg	13		13		750		30		13		1200		61		25000	
LSF-10	12/10/07	7440-39-3	Barium	57.00		mg/Kg	110		5500		690000		1800		140000		910000		14000		870000	
LSF-10	12/10/07	7440-41-7	Beryllium	0.73		mg/Kg	0.59	>BKG	160		1300		1000		4100		2100		410		44000	
LSF-10	12/10/07	7440-43-9	Cadmium	1.20		mg/Kg	0.6	>BKG	78		1800		59		2000		2800		200		59000	
LSF-10	12/10/07	7440-47-3	Chromium	13.00	B	mg/Kg	16.2		230		270		32		6100		420		4100		690	
LSF-10	12/10/07	7440-48-4	Cobalt	6.50		mg/Kg	8.9		4700		--		--		120000		--		12000		--	
LSF-10	12/10/07	7440-50-8	Copper	3200		mg/Kg	19.6	>BKG	2900	**>ING**	--		330000		82000		--		8200		--	
LSF-10	12/10/07	7439-97-6	Mercury	0.063		mg/Kg	0.06	>BKG	23		10		6.4		610		540000		61		52000	
LSF-10	12/10/07	7440-02-0	Nickel	43.00		mg/Kg	18	>BKG	1600		13000		700		41000		21000		4100		440000	
LSF-10	12/10/07	7782-49-2	Selenium	0.50	J	mg/Kg	0.48	>BKG	390		--		3.3		10000		--		1000		--	
LSF-10	12/10/07	7440-22-4	Silver	1.40		mg/Kg	0.55	>BKG	390		--		39		10000		--		1000		--	
LSF-10	12/10/07	7440-28-0	Thallium	1	U	mg/Kg	0.32		6.3		--		3.4		160		--		160		--	
LSF-10	12/10/07	7440-31-5	Tin	120	B	mg/Kg	--		47000		--		--		1000000		--		120000		--	
LSF-10	12/10/07	7440-62-2	Vanadium	13		mg/Kg	25.2		550		--		980		14000		--		1400		--	
LSF-10	12/10/07	7440-66-6	Zinc	2800	B	mg/Kg	95	>BKG	23000		--		16000		610000		--		61000		--	
LSF-11	12/14/07	STL00204	pH	5.84		SU																
LSF-11 DUPLICATE	12/14/07	STL00204	pH	6.07		SU																
LSF-11	12/14/07	7440-36-0	Antimony	7.10		mg/Kg	4	>BKG	31		--		5	**>MGW**	820		--		82		--	
LSF-11 DUPLICATE	12/14/07	7440-36-0	Antimony	2.30		mg/Kg	4		31		--		5		820		--		82		--	
LSF-11 Average				4.70										< MGW								
LSF-11	12/14/07	7440-38-2	Arsenic	6.10		mg/Kg	13		13		750		28		13		1200		61		25000	
LSF-11 DUPLICATE	12/14/07	7440-38-2	Arsenic	5.10		mg/Kg	13		13		750		28		13		1200		61		25000	
LSF-11	12/14/07	7440-39-3	Barium	40.00		mg/Kg	110		5500		690000		1200		140000		910000		14000		870000	
LSF-11 DUPLICATE	12/14/07	7440-39-3	Barium	43.00		mg/Kg	110		5500		690000		1200		140000		910000		14000		870000	
LSF-11	12/14/07	7440-41-7	Beryllium	0.49		mg/Kg	0.59		160		1300		6.6		4100		2100		410		44000	
LSF-11 DUPLICATE	12/14/07	7440-41-7	Beryllium	0.42	J	mg/Kg	0.59		160		1300		6.6		4100		2100		410		44000	
LSF-11	12/14/07	7440-43-9	Cadmium	3.30		mg/Kg	0.6	>BKG	78		1800		3.7		2000		2800		200		59000	
LSF-11 DUPLICATE	12/14/07	7440-43-9	Cadmium	2.70		mg/Kg	0.6	>BKG	78		1800		3.7		2000		2800		200		59000	
LSF-11	12/14/07	7440-47-3	Chromium	28.00	B	mg/Kg	16.2	>BKG	230		270		46		6100		420		4100		690	
LSF-11 DUPLICATE	12/14/07	7440-47-3	Chromium	13.00	B	mg/Kg	16.2		230		270		46		6100		420		4100		690	
LSF-11	12/14/07	7440-48-4	Cobalt	6.50		mg/Kg	8.9		4700		--		--		120000		--		12000		--	
LSF-11 DUPLICATE	12/14/07	7440-48-4	Cobalt	5.60		mg/Kg	8.9		4700		--		--		120000		--		12000		--	
LSF-11	12/14/07	7440-50-8	Copper	9600		mg/Kg	19.6	>BKG	2900	**>ING**	--		11000		82000		--		8200	**>CW ING**	--	
LSF-11 DUPLICATE	12/14/07	7440-50-8	Copper	3500	B	mg/Kg	19.6	>BKG	2900	**>ING**	--		11000		82000		--		8200		--	
LSF-11 Average				6550																< CW ING		
LSF-11	12/14/07	7439-97-6	Mercury	0.072		mg/Kg	0.06	>BKG	23		10		0.15		610		540000		61		52000	
LSF-11 DUPLICATE	12/14/07	7439-97-6	Mercury	0.12		mg/Kg	0.06	>BKG	23		10		0.15		610		540000		61		52000	
LSF-11	12/14/07	7440-02-0	Nickel	70.00		mg/Kg	18	>BKG	1600		13000		76		41000		21000		4100		440000	
LSF-11 DUPLICATE	12/14/07	7440-02-0	Nickel	40.00		mg/Kg	18	>BKG	1600		13000		76		41000		21000		4100		440000	
LSF-11	12/14/07	7782-49-2	Selenium	0.97	U	mg/Kg	0.48		390		--		8.8		10000		--		1000		--	
LSF-11 DUPLICATE	12/14/07	7782-49-2	Selenium	0.44	J	mg/Kg	0.48		390		--		8.8		10000		--		1000		--	
LSF-11	12/14/07	7440-22-4	Silver	3.90		mg/Kg	0.55	>BKG	390		--		1.5	**>MGW**	10000		--		1000		--	
LSF-11 DUPLICATE	12/14/07	7440-22-4	Silver	1.90		mg/Kg	0.55	>BKG	390		--		1.5	**>MGW**	10000		--		1000		--	
LSF-11 Average				2.90										**> MGW**								
LSF-11	12/14/07	7440-28-0	Thallium	0.97	U	mg/Kg	0.32		6.3		--		2.4		160		--		160		--	
LSF-11 DUPLICATE	12/14/07	7440-28-0	Thallium	1.10	U	mg/Kg	0.32		6.3		--		2.4		160		--		160		--	
LSF-11	12/14/07	7440-31-5	Tin	320	B	mg/Kg	--		47000		--		--		1000000		--		120000		--	
LSF-11 DUPLICATE	12/14/07	7440-31-5	Tin	120	B	mg/Kg	--		47000		--		--		1000000		--		120000		--	
LSF-11	12/14/07	7440-62-2	Vanadium	14		mg/Kg	25.2		550		--		980		14000		--		1400		--	
LSF-11 DUPLICATE	12/14/07	7440-62-2	Vanadium	14		mg/Kg	25.2		550		--		980		14000		--		1400		--	
LSF-11	12/14/07	7440-66-6	Zinc	3400	B	mg/Kg	95	>BKG	23000		--		3600		610000		--		61000		--	
LSF-11 DUPLICATE	12/14/07	7440-66-6	Zinc	3600	B	mg/Kg	95	>BKG	23000		--		3600		610000		--		61000		--	

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Table 3
Total Metal Comparison to Soil Remediation Objectives
Confirmation Samples
Lake Shore Foundry

				Result					Tier 1 Soil Remediation Objectives													
									Residential						Commercial/Industrial (CI)				Construction Worker (CW)			
Client ID	Date	CASRN	Parameter			Units	Background		Ingestion (ING)		Inhalation (INH)		Class I Migration to Groundwater (MGW)		Ingestion	> CI ING?	Inhalation	>CI INH?	Ingestion	> CW ING?	Inhalation	> CW INH?
LSF-12	12/10/07	STL00204	pH	5.08		SU																
LSF-12	12/10/07	7440-36-0	Antimony	6.50		mg/Kg	4	>BKG	31		--		5	**>MGW**	820		--		82		--	
LSF-12	12/10/07	7440-38-2	Arsenic	5.70		mg/Kg	13		13		750		26		13		1200		61		25000	
LSF-12	12/10/07	7440-39-3	Barium	110.00		mg/Kg	110		5500		690000		490		140000		910000		14000		870000	
LSF-12	12/10/07	7440-41-7	Beryllium	0.87		mg/Kg	0.59	>BKG	160		1300		2.1		4100		2100		410		44000	
LSF-12	12/10/07	7440-43-9	Cadmium	1.90		mg/Kg	0.6	>BKG	78		1800		1.7	**>MGW**	2000		2800		200		59000	
LSF-12	12/10/07	7440-47-3	Chromium	14	B	mg/Kg	16.2		230		270		62		6100		420		4100		690	
LSF-12	12/10/07	7440-48-4	Cobalt	5		mg/Kg	8.9		4700		--		--		120000		--		12000		--	
LSF-12	12/10/07	7440-50-8	Copper	8900		mg/Kg	19.6	>BKG	2900	**>ING**	--		580	**>MGW**	82000		--		8200	**>CW ING**	--	
LSF-12	12/10/07	7439-97-6	Mercury	0.067		mg/Kg	0.06	>BKG	23		10		0.01	**>MGW**	610		540000		61		52000	
LSF-12	12/10/07	7440-02-0	Nickel	59		mg/Kg	18	>BKG	1600		13000		36	**>MGW**	41000		21000		4100		440000	
LSF-12	12/10/07	7782-49-2	Selenium	0.62	J	mg/Kg	0.48	>BKG	390		--		17		10000		--		1000		--	
LSF-12	12/10/07	7440-22-4	Silver	6.30		mg/Kg	0.55	>BKG	390		--		0.33	**>MGW**	10000		--		1000		--	
LSF-12	12/10/07	7440-28-0	Thallium	1.10	U	mg/Kg	0.32		6.3		--		1.8		160		--		160		--	
LSF-12	12/10/07	7440-31-5	Tin	270	B	mg/Kg	--		47000		--		--		1000000		--		120000		--	
LSF-12	12/10/07	7440-62-2	Vanadium	14		mg/Kg	25.2		550		--		1800		14000		--		1400		--	
LSF-12	12/10/07	7440-66-6	Zinc	2300	B	mg/Kg	95	>BKG	23000		--		3600		610000		--		61000		--	
LSF-13	12/14/07	STL00204	pH	5.01		SU																
LSF-13	12/14/07	7440-36-0	Antimony	6.20		mg/Kg	4	>BKG	31		--		5	**>MGW**	820		--		82		--	
LSF-13	12/14/07	7440-38-2	Arsenic	3.50		mg/Kg	13		13		750		26		13		1200		61		25000	
LSF-13	12/14/07	7440-39-3	Barium	18		mg/Kg	110		5500		690000		490		140000		910000		14000		870000	
LSF-13	12/14/07	7440-41-7	Beryllium	0.31	J	mg/Kg	0.59		160		1300		2.1		4100		2100		410		44000	
LSF-13	12/14/07	7440-43-9	Cadmium	7.00		mg/Kg	0.6	>BKG	78		1800		1.7	**>MGW**	2000		2800		200		59000	
LSF-13	12/14/07	7440-47-3	Chromium	16.00	B	mg/Kg	16.2		230		270		62		6100		420		4100		690	
LSF-13	12/14/07	7440-48-4	Cobalt	3.00		mg/Kg	8.9		4700		--		--		120000		--		12000		--	
LSF-13	12/14/07	7440-50-8	Copper	12000		mg/Kg	19.6	>BKG	2900	**>ING**	--		580	**>MGW**	82000		--		8200	**>CW ING**	--	
LSF-13	12/14/07	7439-97-6	Mercury	0.029		mg/Kg	0.06		23		10		0.01	**>MGW**	610		540000		61		52000	
LSF-13	12/14/07	7440-02-0	Nickel	65.00		mg/Kg	18	>BKG	1600		13000		36	**>MGW**	41000		21000		4100		440000	
LSF-13	12/14/07	7782-49-2	Selenium	0.77	J	mg/Kg	0.48	>BKG	390		--		17		10000		--		1000		--	
LSF-13	12/14/07	7440-22-4	Silver	4.40		mg/Kg	0.55	>BKG	390		--		0.33	**>MGW**	10000		--		1000		--	
LSF-13	12/14/07	7440-28-0	Thallium	1.10	U	mg/Kg	0.32		6.3		--		1.8		160		--		160		--	
LSF-13	12/14/07	7440-31-5	Tin	360	B	mg/Kg	--		47000		--		--		1000000		--		120000		--	
LSF-13	12/14/07	7440-62-2	Vanadium	5.50		mg/Kg	25.2		550		--		1800		14000		--		1400		--	
LSF-13	12/14/07	7440-66-6	Zinc	6500	B	mg/Kg	95	>BKG	23000		--		3600	**>MGW**	610000		--		61000		--	
LSF-14	12/14/07	STL00204	pH	4.52		SU																
LSF-14	12/14/07	7440-36-0	Antimony	5.30		mg/Kg	4	>BKG	31		--		5	**>MGW**	820		--		82		--	
LSF-14	12/14/07	7440-38-2	Arsenic	8.10		mg/Kg	13		13		750		25		13		1200		61		25000	
LSF-14	12/14/07	7440-39-3	Barium	190		mg/Kg	110	>BKG	5500		690000		260		140000		910000		14000		870000	
LSF-14	12/14/07	7440-41-7	Beryllium	0.55		mg/Kg	0.59		160		1300		1.1		4100		2100		410		44000	
LSF-14	12/14/07	7440-43-9	Cadmium	3.60		mg/Kg	0.6	>BKG	78		1800		1	**>MGW**	2000		2800		200		59000	
LSF-14	12/14/07	7440-47-3	Chromium	200	B	mg/Kg	16.2	>BKG	230		270		70	**>MGW**	6100		420		4100		690	
LSF-14	12/14/07	7440-48-4	Cobalt	7.30		mg/Kg	8.9		4700		--		--		120000		--		12000		--	
LSF-14	12/14/07	7440-50-8	Copper	7300		mg/Kg	19.6	>BKG	2900	**>ING**	--		330	**>MGW**	82000		--		8200		--	
LSF-14	12/14/07	7439-97-6	Mercury	0.42		mg/Kg	0.06	>BKG	23		10		0.01	**>MGW**	610		540000		61		52000	
LSF-14	12/14/07	7440-02-0	Nickel	62		mg/Kg	18	>BKG	1600		13000		20	**>MGW**	41000		21000		4100		440000	
LSF-14	12/14/07	7782-49-2	Selenium	0.69	J	mg/Kg	0.48	>BKG	390		--		24		10000		--		1000		--	
LSF-14	12/14/07	7440-22-4	Silver	15.00		mg/Kg	0.55	>BKG	390		--		0.24	**>MGW**	10000		--		1000		--	
LSF-14	12/14/07	7440-28-0	Thallium	1.10	U	mg/Kg	0.32		6.3		--		1.6		160		--		160		--	
LSF-14	12/14/07	7440-31-5	Tin	300	B	mg/Kg	--		47000		--		--		1000000		--		120000		--	
LSF-14	12/14/07	7440-62-2	Vanadium	14		mg/Kg	25.2		550		--		1800		14000		--		1400		--	
LSF-14	12/14/07	7440-66-6	Zinc	4100	B	mg/Kg	95	>BKG	23000		--		1000	**>MGW**	610000		--		61000		--	
LSF-15	12/14/07	STL00204	pH	7.60		SU																
LSF-15	12/14/07	7440-36-0	Antimony	4.00		mg/Kg	4		31		--		5		820		--		82		--	
LSF-15	12/14/07	7440-38-2	Arsenic	4.10		mg/Kg	13		13		750		30		13		1200		61		25000	
LSF-15	12/14/07	7440-39-3	Barium	51		mg/Kg	110		5500		690000		1800		140000		910000		14000		870000	
LSF-15	12/14/07	7440-41-7	Beryllium	3.00		mg/Kg	0.59	>BKG	160		1300		1000		4100		2100		410		44000	
LSF-15	12/14/07	7440-43-9	Cadmium	3.00		mg/Kg	0.6	>BKG	78		1800		59		2000		2800		200		59000	
LSF-15	12/14/07	7440-47-3	Chromium	17	B	mg/Kg	16.2	>BKG	230		270		32		6100		420		4100		690	
LSF-15	12/14/07	7440-48-4	Cobalt	6.70		mg/Kg	8.9		4700		--		--		120000		--		12000		--	
LSF-15	12/14/07	7440-50-8	Copper	7200		mg/Kg	19.6	>BKG	2900	**>ING**	--		330000		82000		--		8200		--	
LSF-15	12/14/07	7439-97-6	Mercury	0.018		mg/Kg	0.06		23		10		6.4		610		540000		61		52000	
LSF-15	12/14/07	7440-02-0	Nickel	84		mg/Kg	18	>BKG	1600		13000		700		41000		21000		4100		440000	
LSF-15	12/14/07	7782-49-2	Selenium	0.99	U	mg/Kg	0.48		390		--		3.3		10000		--		1000		--	
LSF-15	12/14/07	7440-22-4	Silver	2.70		mg/Kg	0.55	>BKG	390		--		39		10000		--		1000		--	
LSF-15	12/14/07	7440-28-0	Thallium	0.99	U	mg/Kg	0.32		6.3		--		3.4		160		--		160		--	

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Table 3
Total Metal Comparison to Soil Remediation Objectives
Confirmation Samples
Lake Shore Foundry

				Result					Tier 1 Soil Remediation Objectives													
									Residential						Commercial/Industrial (CI)				Construction Worker (CW)			
Client ID	Date	CASRN	Parameter			Units	Background		Ingestion (ING)		Inhalation (INH)		Class I Migration to Groundwater (MGW)		Ingestion	> CI ING?	Inhalation	>CI INH?	Ingestion	> CW ING?	Inhalation	> CW INH?
LSF-15	12/14/07	7440-31-5	Tin	350	B	mg/Kg	--		47000		--		--		1000000		--		120000		--	
LSF-15	12/14/07	7440-62-2	Vanadium	7.80		mg/Kg	25.2		550		--		980		14000		--		1400		--	
LSF-15	12/14/07	7440-66-6	Zinc	7200	B	mg/Kg	95	>BKG	23000		--		16000		610000		--		61000		--	

U - Analyte was not detected at or above the stated limit.
J - Result is less than the reporting limit(RL), but greater than or equal to the method detection limit (MDL).
B - Result is less than the CRDL/RL, but greater than or equal to the Instrument Detection Limit (IDL)/MDL.

Table 5
Average Lead Concentration in 0-2 ft bgs Surface Soil and Confirmation Samples
Lake Shore Foundry
Waukegan, IL

Client ID	Total Lead Result (mg/kg)	Qualifier
Investigation Samples		
LSF-GP-01(0-6")	260	^ V B
LSF-GP-02(0-6")	2100	^ B V
LSF-GP-03(0-6")	570	^ B V
LSF-GP-04(1.5-2)	210	^ B V
LSF-GP-05(0-6")	230	^ B V
LSF-GP-05(1.5-2)	320	^ B V
LSF-GP-07(0-6")	640	^ B V
LSF-GP-07(1.5-2)	1100	^ B V
LSF-GP-09(0-6")	35	^ B
LSF-GP-12(0-6")	610	^ B
LSF-GP-12(1.5-2)	200	^ B
LSF-GP-13(0-6")	280	^ B
LSF-GP-14(0-6")	24	
LSF-GP-14(1.5-2)	150	
LSF-GP-15(0-6")	180	
LSF-GP-15(1.5-2)	58	
LSF-GP-16(0-6")	170	
LSF-GP-16(1.5-2)	150	
LSF-GP-17(0-6")	36	
LSF-GP-17(1.5-2)	8.1	
LSF-GP-18(0-6")	290	
LSF-GP-18(1.5-2)	70	
LSF-GP-19(0-6")	79	
LSF-GP-20(0-6")	76	
Confirmation Samples		
LSF-1	510	
LSF-2	310	
LSF-3	740	
LSF-3R	760	
LSF-4	34	
LSF-5	770	
LSF-6	110	
LSF-7	1500	
LSF-8	1700	
LSF-8R (average of duplicates)	1050	
LSF-9	880	
LSF-10	530	
LSF-11 (average of duplicates)	745	
LSF-12	900	
LSF-13	1800	
LSF-14	1900	
LSF-15	1200	
Overall Average	**568**	

Qualifiers Notation Key:

B - Result is less than the CRDL/RL, but greater than or equal to the IDL/MDL.

^ - ICV,CCV,ICB,CCB,ISA,ISB,CRI,CRA,MRL: Instrument related QC exceed the upper or lower control limits.

V - Serial dilution exceeds the control limits.

US EPA ARCHIVE DOCUMENT

Figures

Interim Measures Completion Report
January 2008
Lake Shore Foundry
653 Market Street, Waukegan, Lake County, Illinois

US EPA ARCHIVE DOCUMENT

Figure 1
Site Location Map
Lake Shore Foundry, Inc.
653 Market St., Waukegan, Lake County, IL. 60085

US EPA ARCHIVE DOCUMENT

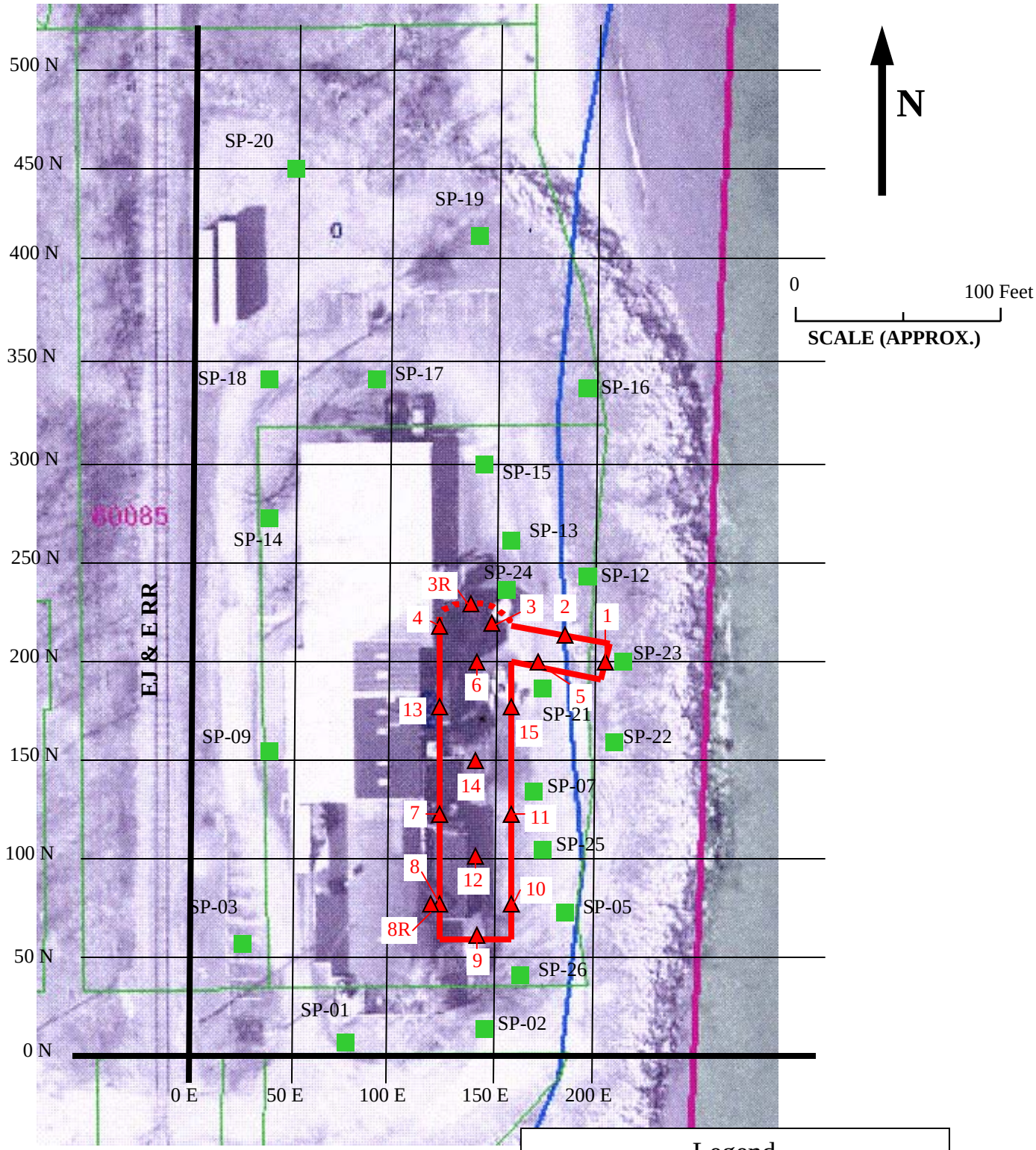

Figure 2 - Post-Removal Confirmation Sample Locations and Excavation Treatment Area
Lake Shore Foundry
Waukegan, IL

Legend

- Location < 5 mg/L for TCLP Lead
- Confirmation Sample Locations
- Approximate Lateral Extent Excavation Treatment Area

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Environmental Consultants

Appendix A—Photographs of Interim Measures Work

Interim Measures Completion Report
January 2008
Lake Shore Foundry
653 Market Street, Waukegan, Lake County, Illinois

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Photo 1 – View of initial soil excavation efforts at north end of remediation area.

Photo 2 – View of excavation at far northeast end of remediation area, looking west.

Photo 3 – View of excavation progress at north end of remediation area.

Photo 4 – View of steel rebar encountered at far south end of remediation area.

Photo 5 – View of excavation progress at north end of remediation area, looking west.

Photo 6 – View of excavation progress, looking south.

Photo 7 – View of excavation progress in center of remediation area, looking south.

Photo 8 – View of excavation progress at north end of remediation area, looking west.

Photo 9 – View of excavation progress in center of remediation area, looking east.

Photo 10 – View of excavation progress at south end of remediation area, looking north.

Photo 11 – View of excavation progress, looking north.

Photo 12 – View of excavation progress, looking southwest.

Photo 13 – View of soil confirmation sample locations (yellow flags), looking east.

Photo 14 – View of excavation limits at end of work day, and caution tape.

Photo 15 – View of soil confirmation sample locations, looking north.

Photo 1 – View of initial backfilling efforts at north end of remediation area.

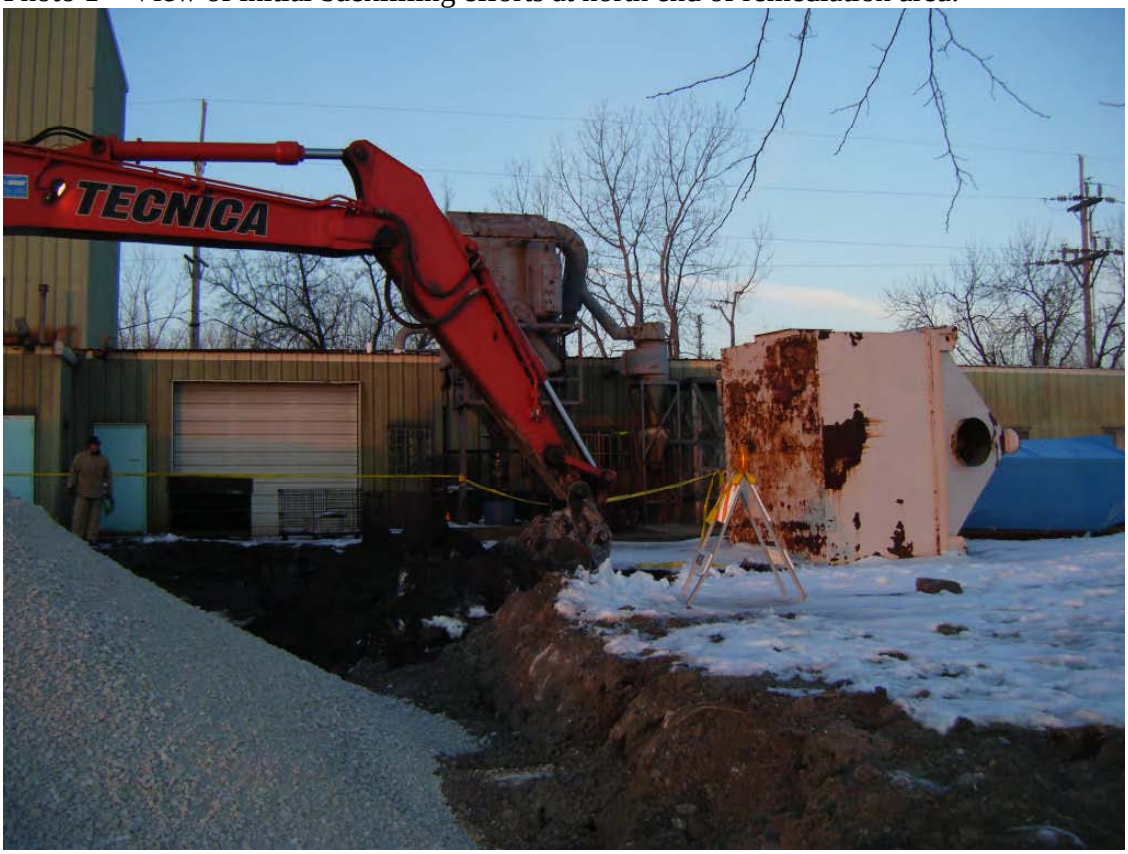

Photo 2 – View of additional soil excavation at far northwest corner at LSF-3 area.

Photo 3 – View of efforts involving removal (saw cutting) of steel rebar.

Photo 4 – View of additional excavation limits at LSF-3 location.

Photo 5 – View of excavation progress at center of remediation area, near LSF-14.

Photo 6 – View of additional excavation at LSF-8 area, looking north.

Photo 7 – View of final soil load-out efforts from area of LSF-13 to 15, looking north.

Photo 8 – View of final excavation limits along building, looking northwest.

Photo 9 – View of final excavation limits along building and LSF-13 location.

Photo 10 – View of backfilling progress at north end of remediation area.

Photo 11 – View of LSF-14 sampling location, looking northwest.

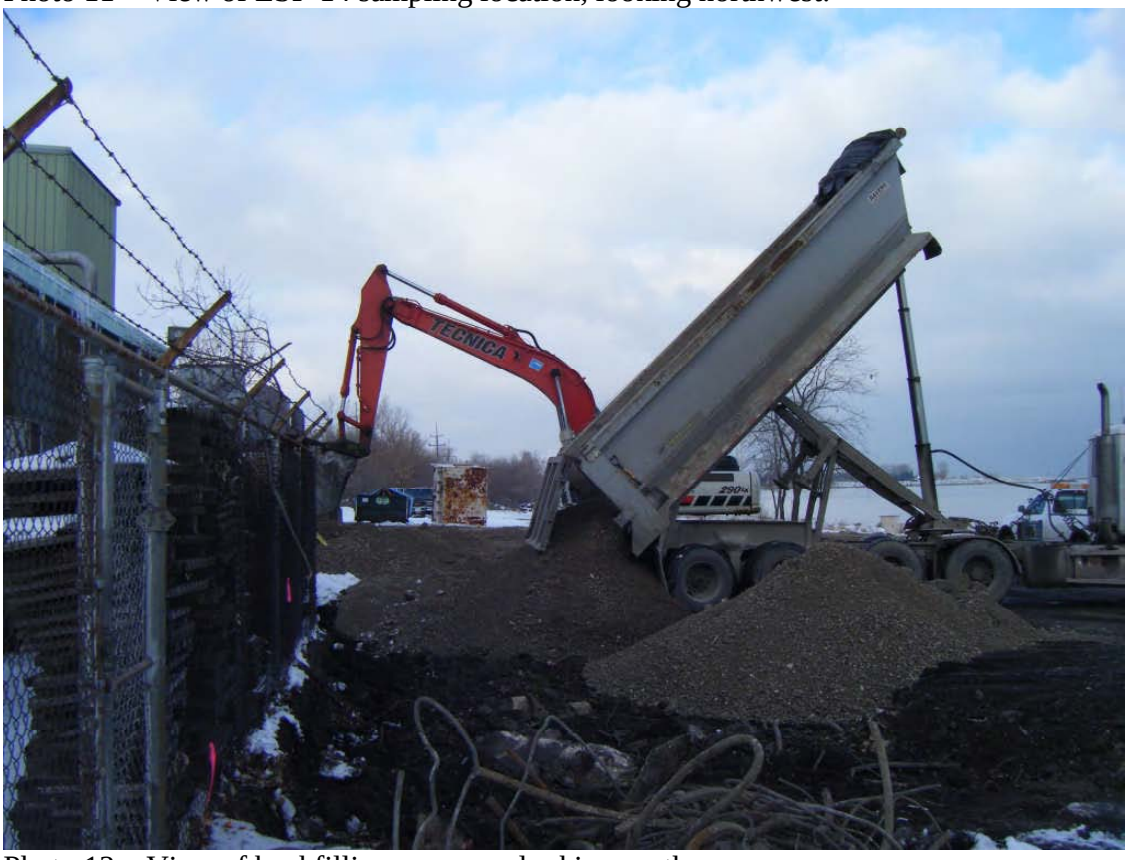

Photo 12 – View of backfilling progress, looking north.

Photo 13 – View of backfilling progress, looking south.

Photo 14 – View of backfilling progress, looking southeast.

Photo 15 – View of backfilling progress, looking south.

Photo 16 – View of backfilling progress along building, looking northwest.

Deigan & Associates, LLC
Environmental Consultants

Appendix B—Waste Manifests and Landfill Tonnage Summary

Interim Measures Completion Report
January 2008
Lake Shore Foundry
653 Market Street, Waukegan, Lake County, Illinois

US EPA ARCHIVE DOCUMENT

TRANSMITTAL

Tecnica Environmental Services, Inc.
1612 West Fulton Street
Chicago, Illinois 60612
Phone: (312) 243-0077
Fax: (312) 243-0046

To: Mr. Gary Deigan
Deigan & Associates, LLC
Environmental Consultants
100 S. Genesee Street
Waukegan, IL 60085

Date: January 18, 2008

From: Ray Calderon

Subject: Manifests
Lake Shore Foundry
653 Market Street
Waukegan, IL 60085

Remarks:

Attached are copies of landfill manifests, as you will note the total tonnage as indicated in the landfill report was 527.94. As of this date we have not received the weight tickets. We will forward them to you upon receipt .

Please contact me if you have any questions.

Lake Shore Foundary

CONTRACT
From: Dec 10, 2007 To: Dec 10, 2007
Specified Contract: 003584

Facility: All Facilities | DETAILED REPORT | Report Contents: Inbound And Outbound

Reference	Date In	Ticket Number	Material Description	Time In	Vehicle	Disposal Vol.	Disposal Qty.	Org.	Weight In
130352	10 Dec 2007	556831	C-Soil EX1	9:17 am	304 KING	15.00	22.73	LC	77,580.00
130352	10 Dec 2007	556895	C-Soil EX1	11:03 am		15.00	23.75	LC	79,620.00
130352	10 Dec 2007	556951	C-Soil EX1	12:35 pm		15.00	20.48	LC	73,080.00
Vehicle Total (3)						45.00	66.96		
130353	10 Dec 2007	556842	C-Soil EX1	9:11 am	305 KING	15.00	21.91	LC	80,080.00
130353	10 Dec 2007	556909	C-Soil EX1	11:26 am		15.00	23.19	LC	82,640.00
130353	10 Dec 2007	556968	C-Soil EX1	1:13 pm		15.00	24.01	LC	84,280.00
Vehicle Total (3)						45.00	69.11		
130354	10 Dec 2007	556817	C-Soil EX1	8:44 am	307 KING	15.00	24.25	LC	81,120.00
130354	10 Dec 2007	556871	C-Soil EX1	10:24 am		15.00	20.85	LC	74,320.00
130354	10 Dec 2007	556924	C-Soil EX1	11:57 am		15.00	19.18	LC	70,980.00
Vehicle Total (3)						45.00	64.28		
130355	10 Dec 2007	556848	C-Soil EX1	9:22 am	322 KING	15.00	25.68	LC	81,340.00
130355	10 Dec 2007	556882	C-Soil EX1	10:48 am		15.00	23.60	LC	77,180.00
130355	10 Dec 2007	556931	C-Soil EX1	12:05 pm		15.00	22.43	LC	74,840.00
Vehicle Total (3)						45.00	71.71		
130356	10 Dec 2007	556859	C-Soil EX1	9:34 am	923 KING	15.00	25.85	LC	83,780.00
130356	10 Dec 2007	556907	C-Soil EX1	11:23 am		15.00	30.02	LC	92,120.00
130356	10 Dec 2007	556958	C-Soil EX1	12:53 pm		15.00	28.27	LC	88,620.00
Vehicle Total (3)						45.00	84.14		
Contract Total (15)						225.00	356.20		
Report Total (15)						225.00	356.20		

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: 0971905260
2. Page 1 of
3. Emergency Response Phone
4. Manifest Tracking Number: 000130352 FLE

5. Generator's Name and Mailing Address
Lake Shore Foundry
653 Market St.
Waukegan, IL 60085
Generator's Phone:

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: TRUCK KING 304
U.S. EPA ID Number: 4587

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
VEOLIA ES ZION LANDFILL
701 GREEN BAY ROAD
Facility's Phone: ZION, IL 60099
U.S. EPA ID Number: 0978020002
847-599-5905

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Not Hazardous by DOT Soils Contaminated with Metals		001	CM	15	Y
	2. Soils Contaminated with Metals		001	CM	15	Y
	3. Soils Contaminated with Metals		001	CM	15	Y
	4.					

14. Special Handling Instructions and Additional Information
PROFILE No. 003584

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Tim Garland
Signature: [signature]
Month | Day | Year

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: JOSE A OCAMPO
Signature: Jose A Ocampo
Month | Day | Year

Transporter 2 Printed/Typed Name
Signature
Month | Day | Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month | Day | Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: [illegible]
Signature: [signature]
Month | Day | Year

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: 0971905260
2. Page 1 of
3. Emergency Response Phone
4. Manifest Tracking Number: 000130353 FLE

5. Generator's Name and Mailing Address
Lake Shore Foundry
653 Market St.
Waukegan, IL 60085
Generator's Phone:

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: Truck King #305
U.S. EPA ID Number: 4587

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
VEOLIA ES ZION LANDFILL
701 GREEN BAY ROAD
ZION, IL 60099
Facility's Phone:
U.S. EPA ID Number: 0978020002
847-599-5905

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) Not Hazardous by DOT	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Soils Contaminated with Metals		001	CM	15	Y
	2. Soils Contaminated with Metals		001	CM	15	Y
	3. Soils Contaminated with Metals		001	CM	15	Y
	4.					

14. Special Handling Instructions and Additional Information
PROFILE No. 003584

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I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Tim Garland
Signature: [signature]
Month: 12 Day: 10 Year: 07

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Anton L. Drane Truck King
Signature: [signature]
Month: 12 Day: 10 Year: 07
Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: [signature]
Signature: [signature]
Month: 12 Day: 10 Year: 07

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: 0971905260
2. Page 1 of
3. Emergency Response Phone
4. Manifest Tracking Number: 000130354 FLE

GENERATOR

5. Generator's Name and Mailing Address
Lake Shore Foundry
653 Market St.
Waukegan, IL 60085
Generator's Site Address (if different than mailing address)
Generator's Phone:

6. Transporter 1 Company Name: TRUCK KING HAULING CONTRACTORS
U.S. EPA ID Number: 4587

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
VEOLIA ES ZION LANDFILL
701 GREEN BAY ROAD
ZION, IL 60099
U.S. EPA ID Number: 0978020002
Facility's Phone: 847-599-5905

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) Not Hazardous by DOT	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Soils Contaminated with Metals		001	CM	15	Y
	2. Soils Contaminated with Metals		001	CM	15	Y
	3. Soils Contaminated with Metals		001	CM	15	Y
	4.					

14. Special Handling Instructions and Additional Information
PROFILE No. 003584

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Tim Garland
Signature
Month 12 Day 10 Year 07

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: ANDY DRNEK
Signature
Month 12 Day 10 Year 07
Transporter 2 Printed/Typed Name
Signature
Month Day Year

DESIGNATED FACILITY

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: C. Lynch
Signature
Month 12 Day 10 Year 07

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: 0971905260
2. Page 1 of
3. Emergency Response Phone
4. Manifest Tracking Number: 000130355 FLE

5. Generator's Name and Mailing Address
Lake Shore Foundry
653 Market St.
Waukegan, IL 60085
Generator's Phone:

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: TRUCK KING #322
U.S. EPA ID Number: 4587

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
VEOLIA ES ZION LANDFILL
701 GREEN BAY ROAD
ZION, IL 60099
Facility's Phone:
U.S. EPA ID Number: 0978020002
847-599-5905

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) Not Hazardous by DOT	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Soils Contaminated with Metals		001	CM	15	Y
	2. Soils Contaminated with Metals		001	CM	15	Y
	3. Soils Contaminated with Metals		001	CM	15	Y
	4.					

14. Special Handling Instructions and Additional Information
PROFILE No. 003584

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I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Tim Garland
Signature: [signature]
Month / Day / Year

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: Karen Monroy
Signature: [signature]
Month / Day / Year

Transporter 2 Printed/Typed Name
Signature
Month / Day / Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month / Day / Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: [signature]
Signature: [signature]
Month / Day / Year: 12 / 10 / 07

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: 0971905260
2. Page 1 of
3. Emergency Response Phone
4. Manifest Tracking Number: 000130356 FLE

5. Generator's Name and Mailing Address
Lake Shore Foundry
653 Market St.
Waukegan, IL 60085
Generator's Phone:

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: x TRUCK KING 923
U.S. EPA ID Number: V4587

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
VEOLIA ES ZION LANDFILL
701 GREEN BAY ROAD
ZION, IL 60099
Facility's Phone:
U.S. EPA ID Number: 0978020002
847-599-5905

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) Not Hazardous by DOT	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Soils Contaminated with Metals		001	CM	15	Y
	2. Soils Contaminated with Metals		001	CM	15	Y
	3. Soils Contaminated with Metals		001	CM	15	Y
	4.					

14. Special Handling Instructions and Additional Information
PROFILE No. 003584

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Tim Garland
Signature: [signature]
Month 12 Day 11 Year 07

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: x GEORGE BOCHIS
Signature: x [signature]
Month 12 Day 11 Year 07
Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: C. Tumann
Signature: [signature]
Month 12 Day 10 Year 07

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Lake Shore Foundry

CONTRACT
From: Dec 14, 2007 To: Dec 14, 2007
Specified Contract: 003584

Facility: All Facilities

DETAILED REPORT

Report Contents: Inbound And Outbound

Reference	Date In	Ticket Number	Material Description	Time In	Vehicle	Disposal Vol.	Disposal Qty.	Org.	Weight In
130357	14 Dec 2007	557736	C-Soil EX1	7:37 am	304 KING	15.00	21.99	LC	76,160.00
130357	14 Dec 2007	557759	C-Soil EX1	8:52 am		15.00	19.29	LC	70,760.00
130357	14 Dec 2007	557793	C-Soil EX1	10:02 am		15.00	21.21	LC	74,600.00
130357	14 Dec 2007	557831	C-Soil EX1	11:22 am		15.00	20.30	LC	72,780.00
130360	14 Dec 2007	557871	C-Soil EX1	12:57 pm		15.00	20.68	LC	73,540.00
Vehicle Total (5)						75.00	103.47		
130358	14 Dec 2007	557748	C-Soil EX1	8:16 am	305 KING	15.00	22.43	LC	77,700.00
130358	14 Dec 2007	557795	C-Soil EX1	10:05 am		15.00	23.79	LC	83,840.00
130358	14 Dec 2007	557845	C-Soil EX1	12:12 pm		15.00	22.05	LC	80,360.00
Vehicle Total (3)						45.00	68.27		
Contract Total (8)						120.00	171.74		
Report Total (8)						120.00	171.74		

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: 0971905260
2. Page 1 of
3. Emergency Response Phone
4. Manifest Tracking Number: 000130357 FLE

5. Generator's Name and Mailing Address
Lake Shore Foundry
653 Market St.
Waukegan, IL 60085

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name: X TRUCKING #304
U.S. EPA ID Number: X 41587

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
VEOLIA ES ZION LANDFILL
701 GREEN BAY ROAD
ZION, IL 60099
U.S. EPA ID Number: 0978020002
Facility's Phone: 847-599-5905

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) Not Hazardous by DOT	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Soils Contaminated with Metals		001	CM	15	Y
	2. Soils Contaminated with Metals		001	CM	15	Y
	3. Soils Contaminated with Metals		001	CM	15	Y
	4.				15	

14. Special Handling Instructions and Additional Information
PROFILE No. 003584

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Tim Garland
Signature: [signature]
Month 12 Day 14 Year 07

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: X Jose D Ocampo
Signature: X Jose D Ocampo
Month 12 Day 14 Year 07
Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: C. Lyman
Signature: [signature]
Month 12 Day 14 Year 07

GENERATOR | INT'L | TRANSPORTER | DESIGNATED FACILITY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: 0971905260
2. Page 1 of
3. Emergency Response Phone
4. Manifest Tracking Number: 000130360 FLE

5. Generator's Name and Mailing Address
Lake Shore Foundry
653 Market St.
Waukegan, IL 60085

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name: Tropic Express #304 — U.S. EPA ID Number: 4587

7. Transporter 2 Company Name — U.S. EPA ID Number

8. Designated Facility Name and Site Address
VEOLIA ES ZION LANDFILL
701 GREEN BAY ROAD
ZION, IL 60099

U.S. EPA ID Number: 0978020002

Facility's Phone: 847-599-5905

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any)) Not Hazardous by DOT	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Soils Contaminated with Metals		001	CM	15	Y
	2. Soils Contaminated with Metals		001	CM		Y
	3. Soils Contaminated with Metals		001	CM		Y
	4.					

14. Special Handling Instructions and Additional Information
PROFILE No. 003584

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: Tim Garland — Signature: [signature] — Month 12 Day 14 Year 17

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: [illegible] — Signature: [signature] — Month 12 Day 14 Year 17
Transporter 2 Printed/Typed Name — Signature — Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:
18b. Alternate Facility (or Generator) — U.S. EPA ID Number
Facility's Phone:
18c. Signature of Alternate Facility (or Generator) — Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)
1. 2. 3. 4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: C. Hymon — Signature: [signature] — Month 12 Day 14 Year 17

GENERATOR — INT'L — TRANSPORTER — DESIGNATED FACILITY

Please print or type. (Form designed for use on elite (12-pitch) typewriter.) Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator ID Number: 0971905260
2. Page 1 of
3. Emergency Response Phone
4. Manifest Tracking Number: 000130358 FLE

5. Generator's Name and Mailing Address
Lake Shore Foundry
653 Market St.
Waukegan, IL 60085
Generator's Phone:

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name: X Truck King 305
U.S. EPA ID Number: X 4587

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
WILLIS ZION LANDFILL
701 GREEN BAY ROAD
ZION, IL 60099
Facility's Phone:
U.S. EPA ID Number: 0978020002
847-599-5905

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
	1. Soils Contaminated with Metals		001	CM	15	Y
	2. Soils Contaminated with Metals		001	CM	15	Y
	3. Soils Contaminated with Metals		001	CM	15	Y
	4.					

14. Special Handling Instructions and Additional Information
PROFILE No 003584

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I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name: T. Garland
Signature: [signature]
Month 12 Day 14 Year 07

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

17. Transporter Acknowledgment of Receipt of Materials
Transporter 1 Printed/Typed Name: X [illegible] Drone
Signature: X [signature]
Month 12 Day 14 Year 07

Transporter 2 Printed/Typed Name
Signature
Month Day Year

18. Discrepancy
18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection
Manifest Reference Number:

18b. Alternate Facility (or Generator)
U.S. EPA ID Number
Facility's Phone:

18c. Signature of Alternate Facility (or Generator)
Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a
Printed/Typed Name: C. [illegible]
Signature: [signature]
Month 12 Day 14 Year 07

GENERATOR / INT'L / TRANSPORTER / DESIGNATED FACILITY

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

DESIGNATED FACILITY TO GENERATOR

Deigan & Associates, LLC
Environmental Consultants

Appendix C—Laboratory Reports and Chain of Custody

Interim Measures Completion Report
January 2008
Lake Shore Foundry
653 Market Street, Waukegan, Lake County, Illinois

US EPA ARCHIVE DOCUMENT

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 500-8132-1

Job Description: Lake Shore Foundry, Waukegan

For:
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Attention: Gary Deigan

Richard C Wright
Project Manager II
richard.wright@testamericainc.com
12/07/2007

These test results meet all the requirements of NELAC for accredited parameters.

The Lab Certification ID# is 100201.

All questions regarding this test report should be directed to the TestAmerica Project Manager whose signature appears on this report. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

US EPA ARCHIVE DOCUMENT

TestAmerica Laboratories, Inc.
TestAmerica Chicago 2417 Bond Street, University Park, IL 60466
Tel (708) 534-5200 Fax (708) 534-5211 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

Metals
No analytical or quality issues were noted.

US EPA ARCHIVE DOCUMENT

METHOD SUMMARY

Client: Deigan & Associates

Job Number: 500-8132-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
TCLP Lead	TAL CHI	SW846 6010B	
Toxicity Characteristic Leaching Procedure	TAL CHI		SW846 1311
Acid Digestion of Aqueous Samples and Extracts for	TAL CHI		SW846 3010A

Lab References:

TAL CHI = TestAmerica Chicago

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

US EPA ARCHIVE DOCUMENT

SAMPLE SUMMARY

Client: Deigan & Associates

Job Number: 500-8132-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
500-8132-1	TES-1	Solid	12/04/2007 1400	12/05/2007 1020
500-8132-2	TES-2	Solid	12/04/2007 1400	12/05/2007 1020
500-8132-3	TES-3	Solid	12/04/2007 1400	12/05/2007 1020
500-8132-4	TES-4	Solid	12/04/2007 1400	12/05/2007 1020
500-8132-5	TES-5	Solid	12/04/2007 1445	12/05/2007 1020

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

SAMPLE RESULTS

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8132-1

Client Sample ID: TES-1
Lab Sample ID: 500-8132-1

Date Sampled: 12/04/2007 1400
Date Received: 12/05/2007 1020
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B			Date Analyzed:	12/06/2007 1647	
Prep Method: 3010A			Date Prepared:	12/06/2007 0850	
Lead	0.089	mg/L	0.0050	0.0075	1.0
Method: PercentMoisture			Date Analyzed:	12/05/2007 1546	
Percent Moisture	14	%	0.10	0.10	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8132-1

Client Sample ID: TES-2
Lab Sample ID: 500-8132-2

Date Sampled: 12/04/2007 1400
Date Received: 12/05/2007 1020
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B			Date Analyzed:	12/06/2007 1721	
Prep Method: 3010A			Date Prepared:	12/06/2007 0850	
Lead	8.3	mg/L	0.0050	0.0075	1.0
Method: PercentMoisture			Date Analyzed:	12/05/2007 1546	
Percent Moisture	13	%	0.10	0.10	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8132-1

Client Sample ID: TES-3
Lab Sample ID: 500-8132-3

Date Sampled: 12/04/2007 1400
Date Received: 12/05/2007 1020
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B			Date Analyzed:	12/06/2007 1728	
Prep Method: 3010A			Date Prepared:	12/06/2007 0850	
Lead	6.2	mg/L	0.0050	0.0075	1.0
Method: PercentMoisture			Date Analyzed:	12/05/2007 1546	
Percent Moisture	12	%	0.10	0.10	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8132-1

Client Sample ID: TES-4
Lab Sample ID: 500-8132-4

Date Sampled: 12/04/2007 1400
Date Received: 12/05/2007 1020
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B			Date Analyzed:	12/06/2007 1734	
Prep Method: 3010A			Date Prepared:	12/06/2007 0850	
Lead	0.15	mg/L	0.0050	0.0075	1.0
Method: PercentMoisture			Date Analyzed:	12/05/2007 1546	
Percent Moisture	13	%	0.10	0.10	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8132-1

Client Sample ID: TES-5
Lab Sample ID: 500-8132-5

Date Sampled: 12/04/2007 1445
Date Received: 12/05/2007 1020
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B		Date Analyzed:	12/06/2007 1740		
Prep Method: 3010A		Date Prepared:	12/06/2007 0850		
Lead	0.055	mg/L	0.0050	0.0075	1.0
Method: PercentMoisture		Date Analyzed:	12/05/2007 1546		
Percent Moisture	11	%	0.10	0.10	1.0

US EPA ARCHIVE DOCUMENT

DATA REPORTING QUALIFIERS

Lab Section	Qualifier	Description

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

QUALITY CONTROL RESULTS

Client: Deigan & Associates

Job Number: 500-8132-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 500-27540					
LB 500-27540/1-B	TCLP SPLPE Leachate Blank	P	Solid	1311	
500-8132-1	TES-1	P	Solid	1311	
500-8132-2	TES-2	P	Solid	1311	
500-8132-3	TES-3	P	Solid	1311	
500-8132-4	TES-4	P	Solid	1311	
500-8132-5	TES-5	P	Solid	1311	
500-8132-5DU	Duplicate	P	Solid	1311	
500-8132-5MS	Matrix Spike	P	Solid	1311	
Prep Batch: 500-27597					
LCS 500-27597/2-A	Lab Control Spike	T	Water	3010A	
LB 500-27540/1-B	TCLP SPLPE Leachate Blank	P	Solid	3010A	500-27540
500-8132-1	TES-1	P	Solid	3010A	500-27540
500-8132-2	TES-2	P	Solid	3010A	500-27540
500-8132-3	TES-3	P	Solid	3010A	500-27540
500-8132-4	TES-4	P	Solid	3010A	500-27540
500-8132-5	TES-5	P	Solid	3010A	500-27540
500-8132-5DU	Duplicate	P	Solid	3010A	500-27540
500-8132-5MS	Matrix Spike	P	Solid	3010A	500-27540
Analysis Batch:500-27658					
LB 500-27540/1-B	TCLP SPLPE Leachate Blank	P	Solid	6010B	500-27597
LCS 500-27597/2-A	Lab Control Spike	T	Water	6010B	500-27597
500-8132-1	TES-1	P	Solid	6010B	500-27597
500-8132-2	TES-2	P	Solid	6010B	500-27597
500-8132-3	TES-3	P	Solid	6010B	500-27597
500-8132-4	TES-4	P	Solid	6010B	500-27597
500-8132-5	TES-5	P	Solid	6010B	500-27597
500-8132-5DU	Duplicate	P	Solid	6010B	500-27597
500-8132-5MS	Matrix Spike	P	Solid	6010B	500-27597

Report Basis
P = TCLP
T = Total

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8132-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:500-27543					
500-8132-1	TES-1	T	Solid	PercentMoisture	
500-8132-1DU	Duplicate		Solid	PercentMoisture	
500-8132-2	TES-2	T	Solid	PercentMoisture	
500-8132-3	TES-3	T	Solid	PercentMoisture	
500-8132-4	TES-4	T	Solid	PercentMoisture	
500-8132-5	TES-5	T	Solid	PercentMoisture	

Report Basis

= Total/NA

T = Total

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8132-1

TCLP SPLPE Leachate Blank - Batch: 500-27597

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID: LB 500-27540/1-B
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/06/2007 1545
Date Prepared: 12/06/2007 0850
Date Leached: 12/05/2007 1300

Analysis Batch: 500-27658
Prep Batch: 500-27597
Units: mg/L
Leachate Batch: 500-27540

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51206A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Lead	<0.0075		0.0050	0.0075

Lab Control Spike - Batch: 500-27597

Method: 6010B
Preparation: 3010A

Lab Sample ID: LCS 500-27597/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/06/2007 1551
Date Prepared: 12/06/2007 0850

Analysis Batch: 500-27658
Prep Batch: 500-27597
Units: mg/L

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51206A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Lead	0.100	0.0990	99	80 - 120	

Matrix Spike - Batch: 500-27597

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID: 500-8132-5
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/06/2007 1759
Date Prepared: 12/06/2007 0850
Date Leached: 12/05/2007 1300

Analysis Batch: 500-27658
Prep Batch: 500-27597
Units: mg/L
Leachate Batch: 500-27540

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51206A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Lead	0.055	5.00	4.74	94	50 - 150	

Calculations are performed before rounding to avoid round-off errors in calculated results.

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8132-1

Duplicate - Batch: 500-27597

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID: 500-8132-5
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/06/2007 1752
Date Prepared: 12/06/2007 0850
Date Leached: 12/05/2007 1300

Analysis Batch: 500-27658
Prep Batch: 500-27597
Units: mg/L

Leachate Batch: 500-27540

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51206A
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Lead	0.055	0.0504	9	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8132-1

Duplicate - Batch: 500-27543

Method: PercentMoisture
Preparation: N/A

Lab Sample ID: 500-8132-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/05/2007 1546
Date Prepared: N/A

Analysis Batch: 500-27543
Prep Batch: N/A
Units: %

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume:

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	14	11.2			
Percent Solids	86	88.8	3	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

US EPA ARCHIVE DOCUMENT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica
2417 Bond Street
University Park, IL 60466
708.534.5200

TAL-4124-500 (1107)

Sampler ID _____

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

RAPID TAT

Chain of Custody Record

500-8132

12/07/2007

Client: LAKE SHORE FOUNDRY	Project Manager: R. WRIGHT	Date	Chain of Custody Number
Address: 653 MARKET ST.	Telephone Number (Area Code)/Fax Number	Lab Number	Page ____ of ____
City: WAUKEGAN; State: IL.; Zip Code: 60085	Site Contact: GARY DEGAN	Lab Contact: WRIGHT	
Project Name and Location (State)	Carrier/Waybill Number		
Contract/Purchase Order/Quote No.			

Analysis (Attach list if more space is needed): TCLP PB

Special Instructions/ Conditions of Receipt: POST-TREAT CONFIRM TCLP PB

	Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	TCLP PB
1	TES-1	12/4/07	2pm				X							X
2	TES-2		2pm				X							X
3	TES-3		2pm				X							X
4	TES-4		2pm				X							X
5	TES-5		2:45				X							X

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☒ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other ____

QC Requirements (Specify)

1. Relinquished By: Gary Degan	Date: 12/4/07	Time: 4:45pm	1. Received By: FED EX Courier	Date: 12/4	Time: 4:50pm
2. Relinquished By	Date	Time	2. Received By: JCA	Date: 12/5/07	Time: 1020
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Check List

Client: Deigan & Associates

Job Number: 500-8132-1

Login Number: 8132
Creator: Lunt, Jeff T
List Number: 1

List Source: TestAmerica Chicago

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	3.1
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 500-8251-1

Job Description: Lake Shore Foundry, Waukegan

For:
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Attention: Gary Deigan

Richard C Wright
Project Manager II
richard.wright@testamericainc.com
12/13/2007

These test results meet all the requirements of NELAC for accredited parameters.

The Lab Certification ID# is 100201.

All questions regarding this test report should be directed to the TestAmerica Project Manager whose signature appears on this report. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

US EPA ARCHIVE DOCUMENT

TestAmerica Laboratories, Inc.
TestAmerica Chicago 2417 Bond Street, University Park, IL 60466
Tel (708) 534-5200 Fax (708) 534-5211 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

Comments
No additional comments.

Receipt
Did not receive sample LSF-11.

All other samples were received in good condition within temperature requirements.

Metals
No analytical or quality issues were noted.

US EPA ARCHIVE DOCUMENT

METHOD SUMMARY

Client: Deigan & Associates

Job Number: 500-8251-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
TCLP Lead	TAL CHI	SW846 6010B	
Toxicity Characteristic Leaching Procedure	TAL CHI		SW846 1311
Acid Digestion of Aqueous Samples and Extracts for	TAL CHI		SW846 3010A

Lab References:

TAL CHI = TestAmerica Chicago

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

US EPA ARCHIVE DOCUMENT

SAMPLE SUMMARY

Client: Deigan & Associates

Job Number: 500-8251-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
500-8251-1	TES-2R	Solid	12/10/2007 0940	12/11/2007 1030
500-8251-2	TES-3R	Solid	12/10/2007 0950	12/11/2007 1030
500-8251-3	LSF-1	Solid	12/10/2007 0940	12/11/2007 1030
500-8251-4	LSF-2	Solid	12/10/2007 0945	12/11/2007 1030
500-8251-5	LSF-3	Solid	12/10/2007 0950	12/11/2007 1030
500-8251-6	LSF-4	Solid	12/10/2007 0955	12/11/2007 1030
500-8251-7	LSF-5	Solid	12/10/2007 1030	12/11/2007 1030
500-8251-8	LSF-6	Solid	12/10/2007 1035	12/11/2007 1030
500-8251-9	LSF-7	Solid	12/10/2007 1250	12/11/2007 1030
500-8251-10	LSF-8	Solid	12/10/2007 1255	12/11/2007 1030
500-8251-11	LSF-9	Solid	12/10/2007 1300	12/11/2007 1030
500-8251-12	LSF-10	Solid	12/10/2007 1305	12/11/2007 1030
500-8251-13	LSF-12	Solid	12/10/2007 1315	12/11/2007 1030

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

SAMPLE RESULTS

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8251-1

Client Sample ID: TES-2R
Lab Sample ID: 500-8251-1

Date Sampled: 12/10/2007 0940
Date Received: 12/11/2007 1030
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B		Date Analyzed:	12/13/2007 0007		
Prep Method: 3010A		Date Prepared:	12/12/2007 0900		
Lead	0.48	mg/L	0.0050	0.0075	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8251-1

Client Sample ID: TES-3R
Lab Sample ID: 500-8251-2

Date Sampled: 12/10/2007 0950
Date Received: 12/11/2007 1030
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B		Date Analyzed:	12/13/2007 0013		
Prep Method: 3010A		Date Prepared:	12/12/2007 0900		
Lead	0.64	mg/L	0.0050	0.0075	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8251-1

Client Sample ID: LSF-1
Lab Sample ID: 500-8251-3

Date Sampled: 12/10/2007 0940
Date Received: 12/11/2007 1030
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B		Date Analyzed:	12/13/2007 0020		
Prep Method: 3010A		Date Prepared:	12/12/2007 0900		
Lead	0.12	mg/L	0.0050	0.0075	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8251-1

Client Sample ID: LSF-2
Lab Sample ID: 500-8251-4

Date Sampled: 12/10/2007 0945
Date Received: 12/11/2007 1030
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B		Date Analyzed:	12/13/2007 0026		
Prep Method: 3010A		Date Prepared:	12/12/2007 0900		
Lead	0.050	mg/L	0.0050	0.0075	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8251-1

Client Sample ID: LSF-3
Lab Sample ID: 500-8251-5

Date Sampled: 12/10/2007 0950
Date Received: 12/11/2007 1030
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B		Date Analyzed:	12/13/2007 0032		
Prep Method: 3010A		Date Prepared:	12/12/2007 0900		
Lead	3.6	mg/L	0.0050	0.0075	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8251-1

Client Sample ID: LSF-4
Lab Sample ID: 500-8251-6

Date Sampled: 12/10/2007 0955
Date Received: 12/11/2007 1030
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B		Date Analyzed:	12/13/2007 0038		
Prep Method: 3010A		Date Prepared:	12/12/2007 0900		
Lead	0.069	mg/L	0.0050	0.0075	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8251-1

Client Sample ID: LSF-5
Lab Sample ID: 500-8251-7

Date Sampled: 12/10/2007 1030
Date Received: 12/11/2007 1030
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B			Date Analyzed:	12/13/2007 0044	
Prep Method: 3010A			Date Prepared:	12/12/2007 0900	
Lead	0.50	mg/L	0.0050	0.0075	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8251-1

Client Sample ID: LSF-6
Lab Sample ID: 500-8251-8

Date Sampled: 12/10/2007 1035
Date Received: 12/11/2007 1030
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B		Date Analyzed:	12/13/2007 0051		
Prep Method: 3010A		Date Prepared:	12/12/2007 0900		
Lead	0.011	mg/L	0.0050	0.0075	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8251-1

Client Sample ID: LSF-7
Lab Sample ID: 500-8251-9

Date Sampled: 12/10/2007 1250
Date Received: 12/11/2007 1030
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B		Date Analyzed:	12/13/2007 0125		
Prep Method: 3010A		Date Prepared:	12/12/2007 0900		
Lead	2.3	mg/L	0.0050	0.0075	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8251-1

Client Sample ID: LSF-8
Lab Sample ID: 500-8251-10

Date Sampled: 12/10/2007 1255
Date Received: 12/11/2007 1030
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B			Date Analyzed:	12/13/2007 0131	
Prep Method: 3010A			Date Prepared:	12/12/2007 0900	
Lead	11	mg/L	0.0050	0.0075	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8251-1

Client Sample ID: LSF-9
Lab Sample ID: 500-8251-11

Date Sampled: 12/10/2007 1300
Date Received: 12/11/2007 1030
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B		Date Analyzed:	12/13/2007 0137		
Prep Method: 3010A		Date Prepared:	12/12/2007 0900		
Lead	0.24	mg/L	0.0050	0.0075	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8251-1

Client Sample ID: LSF-10
Lab Sample ID: 500-8251-12

Date Sampled: 12/10/2007 1305
Date Received: 12/11/2007 1030
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B		Date Analyzed:	12/13/2007 0144		
Prep Method: 3010A		Date Prepared:	12/12/2007 0900		
Lead	0.15	mg/L	0.0050	0.0075	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8251-1

Client Sample ID: LSF-12
Lab Sample ID: 500-8251-13

Date Sampled: 12/10/2007 1315
Date Received: 12/11/2007 1030
Client Matrix: Solid

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: TCLP-6010B			Date Analyzed:	12/13/2007 0150	
Prep Method: 3010A			Date Prepared:	12/12/2007 0900	
Lead	0.022	mg/L	0.0050	0.0075	1.0

US EPA ARCHIVE DOCUMENT

US EPA ARCHIVE DOCUMENT

QUALITY CONTROL RESULTS

Client: Deigan & Associates

Job Number: 500-8251-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 500-27930					
LB 500-27930/1-C	TCLP SPLPE Leachate Blank	P	Solid	1311	
500-8251-1	TES-2R	P	Solid	1311	
500-8251-2	TES-3R	P	Solid	1311	
500-8251-3	LSF-1	P	Solid	1311	
500-8251-4	LSF-2	P	Solid	1311	
500-8251-5	LSF-3	P	Solid	1311	
500-8251-6	LSF-4	P	Solid	1311	
500-8251-7	LSF-5	P	Solid	1311	
500-8251-8	LSF-6	P	Solid	1311	
500-8251-9	LSF-7	P	Solid	1311	
500-8251-10	LSF-8	P	Solid	1311	
500-8251-11	LSF-9	P	Solid	1311	
500-8251-12	LSF-10	P	Solid	1311	
500-8251-13	LSF-12	P	Solid	1311	
Prep Batch: 500-27985					
LCS 500-27985/2-A	Lab Control Spike	T	Water	3010A	
LB 500-27930/1-C	TCLP SPLPE Leachate Blank	P	Solid	3010A	500-27930
500-8251-1	TES-2R	P	Solid	3010A	500-27930
500-8251-2	TES-3R	P	Solid	3010A	500-27930
500-8251-3	LSF-1	P	Solid	3010A	500-27930
500-8251-4	LSF-2	P	Solid	3010A	500-27930
500-8251-5	LSF-3	P	Solid	3010A	500-27930
500-8251-6	LSF-4	P	Solid	3010A	500-27930
500-8251-7	LSF-5	P	Solid	3010A	500-27930
500-8251-8	LSF-6	P	Solid	3010A	500-27930
500-8251-9	LSF-7	P	Solid	3010A	500-27930
500-8251-10	LSF-8	P	Solid	3010A	500-27930
500-8251-11	LSF-9	P	Solid	3010A	500-27930
500-8251-12	LSF-10	P	Solid	3010A	500-27930
500-8251-13	LSF-12	P	Solid	3010A	500-27930

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8251-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:500-28069					
LB 500-27930/1-C	TCLP SPLPE Leachate Blank	P	Solid	6010B	500-27985
LCS 500-27985/2-A	Lab Control Spike	T	Water	6010B	500-27985
500-8251-1	TES-2R	P	Solid	6010B	500-27985
500-8251-2	TES-3R	P	Solid	6010B	500-27985
500-8251-3	LSF-1	P	Solid	6010B	500-27985
500-8251-4	LSF-2	P	Solid	6010B	500-27985
500-8251-5	LSF-3	P	Solid	6010B	500-27985
500-8251-6	LSF-4	P	Solid	6010B	500-27985
500-8251-7	LSF-5	P	Solid	6010B	500-27985
500-8251-8	LSF-6	P	Solid	6010B	500-27985
500-8251-9	LSF-7	P	Solid	6010B	500-27985
500-8251-10	LSF-8	P	Solid	6010B	500-27985
500-8251-11	LSF-9	P	Solid	6010B	500-27985
500-8251-12	LSF-10	P	Solid	6010B	500-27985
500-8251-13	LSF-12	P	Solid	6010B	500-27985

Report Basis
P = TCLP
T = Total

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8251-1

TCLP SPLPE Leachate Blank - Batch: 500-27985

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID: LB 500-27930/1-C
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/12/2007 2355
Date Prepared: 12/12/2007 0900
Date Leached: 12/11/2007 1345

Analysis Batch: 500-28069
Prep Batch: 500-27985
Units: mg/L

Leachate Batch: 500-27930

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51212B
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Lead	<0.0075		0.0050	0.0075

Lab Control Spike - Batch: 500-27985

Method: 6010B
Preparation: 3010A

Lab Sample ID: LCS 500-27985/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/13/2007 0001
Date Prepared: 12/12/2007 0900

Analysis Batch: 500-28069
Prep Batch: 500-27985
Units: mg/L

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51212B
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Lead	0.100	0.101	101	80 - 120	

Calculations are performed before rounding to avoid round-off errors in calculated results.

US EPA ARCHIVE DOCUMENT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica
2417 Bond Street
University Park, IL 60466
708.534.5200

TAL-4124-530 (1107)

Sampler ID _____

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

Rush TAT

Chain of Custody Record

500-8251

12/13/2007

Client: Deigan Associates LLC	Project Manager: Gary Deigan	Date: 12/10/07	Chain of Custody Number:
Address: 100 S. Genesee	Telephone Number (Area Code)/Fax Number: (847) 623-9356	Lab Number:	Page 1 of 1
City: Waukegan; State: IL; Zip Code: 60085	Site Contact:	Lab Contact: D. Wright	
Project Name and Location (State): Lake Shore Foundry, Waukegan IL	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.			

	Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	TCLP Lead	Total Agg. 1X (Metals)	pH	Special Instructions/ Conditions of Receipt
1	TES-2R	12/10/07	9:40				X							X			* Rush TAT on TCLP Pb only. Standard TAT on 1X Metals, pH
2	TES-3R		9:50				X							X			
3	LSF-1		9:40				X							X	X	X	
4	LSF-2		9:45				X							X	X	X	
5	LSF-3		9:50				X							X	X	X	
6	LSF-4		9:55				X							X	X	X	
7	LSF-5		10:30				X							X	X	X	
8	LSF-6		10:35				X							X	X	X	
9	LSF-7		12:50				X							X	X	X	
10	LSF-8		12:55				X							X	X	X	
11	LSF-9		1:00				X							X	X	X	
12	LSF-10		1:05				X							X	X	X	
	LSF-11		1:10				X							X	X	X	
13	LSF-12		1:15				X							X	X	X	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify)

1. Relinquished By: Deigan Assoc. LLC	Date: 12/10/07	Time: 2:15	1. Received By:	Date: 12/11/07	Time: 1030
2. Relinquished By:	Date:	Time:	2. Received By:	Date:	Time:
3. Relinquished By:	Date:	Time:	3. Received By:	Date:	Time:

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Check List

Client: Deigan & Associates

Job Number: 500-8251-1

Login Number: 8251
Creator: Lunt, Jeff T
List Number: 1

List Source: TestAmerica Chicago

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	2.5
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 500-8251-2

Job Description: Lake Shore Foundry, Waukegan

For:
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Attention: Gary Deigan

Richard C Wright
Project Manager II
richard.wright@testamericainc.com
12/19/2007

These test results meet all the requirements of NELAC for accredited parameters.

The Lab Certification ID# is 100201.

All questions regarding this test report should be directed to the TestAmerica Project Manager whose signature appears on this report. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

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TestAmerica Laboratories, Inc.
TestAmerica Chicago 2417 Bond Street, University Park, IL 60466
Tel (708) 534-5200 Fax (708) 534-5211 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

Comments
No additional comments.

Receipt
Did not receive sample LSF-11.

All other samples were received in good condition within temperature requirements.

Metals
No analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

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EXECUTIVE SUMMARY - Detections

Client: Deigan & Associates

Job Number: 500-8251-2

Lab Sample ID / Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
500-8251-3	**LSF-1**					
Antimony		1.9	J	2.0	mg/Kg	6010B
Arsenic		5.6		1.0	mg/Kg	6010B
Barium		53		1.0	mg/Kg	6010B
Beryllium		0.60		0.41	mg/Kg	6010B
Cadmium		2.5		0.20	mg/Kg	6010B
Chromium		11	B	1.0	mg/Kg	6010B
Cobalt		4.5		0.51	mg/Kg	6010B
Copper		1800		1.0	mg/Kg	6010B
Lead		510		0.51	mg/Kg	6010B
Nickel		22		1.0	mg/Kg	6010B
Silver		0.67		0.51	mg/Kg	6010B
Tin		54	B	2.0	mg/Kg	6010B
Vanadium		14		0.51	mg/Kg	6010B
Zinc		2900	B	20	mg/Kg	6010B
Mercury		74		19	ug/Kg	7471A
pH		8.66		0.200	SU	9045C
Percent Moisture		13		0.10	%	PercentMoisture
Percent Solids		87		0.10	%	PercentMoisture
500-8251-4	**LSF-2**					
Antimony		0.63	J	2.1	mg/Kg	6010B
Arsenic		6.4		1.1	mg/Kg	6010B
Barium		67		1.1	mg/Kg	6010B
Beryllium		1.4		0.42	mg/Kg	6010B
Cadmium		1.6		0.21	mg/Kg	6010B
Chromium		19	B	1.1	mg/Kg	6010B
Cobalt		6.2		0.53	mg/Kg	6010B
Copper		560		1.1	mg/Kg	6010B
Lead		310		0.53	mg/Kg	6010B
Nickel		24		1.1	mg/Kg	6010B
Selenium		0.42	J	1.1	mg/Kg	6010B
Silver		5.2		0.53	mg/Kg	6010B
Tin		25	B	2.1	mg/Kg	6010B
Vanadium		17		0.53	mg/Kg	6010B
Zinc		1100	B	2.1	mg/Kg	6010B
Mercury		77		19	ug/Kg	7471A
pH		8.33		0.200	SU	9045C
Percent Moisture		11		0.10	%	PercentMoisture
Percent Solids		89		0.10	%	PercentMoisture

US EPA ARCHIVE DOCUMENT

EXECUTIVE SUMMARY - Detections

Client: Deigan & Associates

Job Number: 500-8251-2

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
500-8251-5	**LSF-3**					
Antimony		2.6		2.1	mg/Kg	6010B
Arsenic		4.6		1.0	mg/Kg	6010B
Barium		36		1.0	mg/Kg	6010B
Beryllium		0.59		0.42	mg/Kg	6010B
Cadmium		1.5		0.21	mg/Kg	6010B
Chromium		9.5	B	1.0	mg/Kg	6010B
Cobalt		3.0		0.52	mg/Kg	6010B
Copper		5200		10	mg/Kg	6010B
Lead		740		0.52	mg/Kg	6010B
Nickel		40		1.0	mg/Kg	6010B
Silver		1.6		0.52	mg/Kg	6010B
Tin		170	B	2.1	mg/Kg	6010B
Vanadium		8.0		0.52	mg/Kg	6010B
Zinc		3900	B	21	mg/Kg	6010B
Mercury		44		18	ug/Kg	7471A
pH		8.41		0.200	SU	9045C
Percent Moisture		8.2		0.10	%	PercentMoisture
Percent Solids		92		0.10	%	PercentMoisture
500-8251-6	**LSF-4**					
Arsenic		2.9		1.0	mg/Kg	6010B
Barium		25		1.0	mg/Kg	6010B
Beryllium		0.41		0.40	mg/Kg	6010B
Cadmium		0.32		0.20	mg/Kg	6010B
Chromium		13	B	1.0	mg/Kg	6010B
Cobalt		2.6		0.50	mg/Kg	6010B
Copper		130		1.0	mg/Kg	6010B
Lead		34		0.50	mg/Kg	6010B
Nickel		7.2		1.0	mg/Kg	6010B
Silver		0.15	J	0.50	mg/Kg	6010B
Tin		6.0	B	2.0	mg/Kg	6010B
Vanadium		10		0.50	mg/Kg	6010B
Zinc		140	B	2.0	mg/Kg	6010B
Mercury		26		19	ug/Kg	7471A
pH		8.46		0.200	SU	9045C
Percent Moisture		10		0.10	%	PercentMoisture
Percent Solids		90		0.10	%	PercentMoisture

US EPA ARCHIVE DOCUMENT

EXECUTIVE SUMMARY - Detections

Client: Deigan & Associates

Job Number: 500-8251-2

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
500-8251-7	**LSF-5**					
Antimony		2.9		2.1	mg/Kg	6010B
Arsenic		4.5		1.0	mg/Kg	6010B
Barium		110		1.0	mg/Kg	6010B
Beryllium		5.3		0.41	mg/Kg	6010B
Cadmium		1.5		0.21	mg/Kg	6010B
Chromium		17	B	1.0	mg/Kg	6010B
Cobalt		8.4		0.51	mg/Kg	6010B
Copper		4300		1.0	mg/Kg	6010B
Lead		770		0.51	mg/Kg	6010B
Nickel		63		1.0	mg/Kg	6010B
Selenium		0.50	J	1.0	mg/Kg	6010B
Silver		1.5		0.51	mg/Kg	6010B
Tin		370	B	2.1	mg/Kg	6010B
Vanadium		14		0.51	mg/Kg	6010B
Zinc		8200	B	21	mg/Kg	6010B
Mercury		89		18	ug/Kg	7471A
pH		6.57		0.200	SU	9045C
Percent Moisture		8.3		0.10	%	PercentMoisture
Percent Solids		92		0.10	%	PercentMoisture
500-8251-8	**LSF-6**					
Arsenic		5.4		1.0	mg/Kg	6010B
Barium		60		1.0	mg/Kg	6010B
Beryllium		1.0		0.41	mg/Kg	6010B
Cadmium		0.29		0.20	mg/Kg	6010B
Chromium		9.6	B	1.0	mg/Kg	6010B
Cobalt		4.4		0.51	mg/Kg	6010B
Copper		750		1.0	mg/Kg	6010B
Lead		110		0.51	mg/Kg	6010B
Nickel		16		1.0	mg/Kg	6010B
Silver		0.26	J	0.51	mg/Kg	6010B
Tin		23	B	2.0	mg/Kg	6010B
Vanadium		14		0.51	mg/Kg	6010B
Zinc		300	B	2.0	mg/Kg	6010B
Mercury		18	J	18	ug/Kg	7471A
pH		8.28		0.200	SU	9045C
Percent Moisture		8.6		0.10	%	PercentMoisture
Percent Solids		91		0.10	%	PercentMoisture

US EPA ARCHIVE DOCUMENT

EXECUTIVE SUMMARY - Detections

Client: Deigan & Associates

Job Number: 500-8251-2

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
500-8251-9	**LSF-7**					
Antimony		3.2		2.2	mg/Kg	6010B
Arsenic		6.7		1.1	mg/Kg	6010B
Barium		150		1.1	mg/Kg	6010B
Beryllium		1.5		0.44	mg/Kg	6010B
Cadmium		2.9		0.22	mg/Kg	6010B
Chromium		13	B	1.1	mg/Kg	6010B
Cobalt		5.8		0.55	mg/Kg	6010B
Copper		8000		11	mg/Kg	6010B
Lead		1500		0.55	mg/Kg	6010B
Nickel		59		1.1	mg/Kg	6010B
Selenium		1.0	J	1.1	mg/Kg	6010B
Silver		5.2		0.55	mg/Kg	6010B
Tin		290	B	2.2	mg/Kg	6010B
Vanadium		16		0.55	mg/Kg	6010B
Zinc		6900	B	22	mg/Kg	6010B
Mercury		170		20	ug/Kg	7471A
pH		8.35		0.200	SU	9045C
Percent Moisture		16		0.10	%	PercentMoisture
Percent Solids		84		0.10	%	PercentMoisture
500-8251-10	**LSF-8**					
Antimony		8.6		2.0	mg/Kg	6010B
Arsenic		7.6		1.0	mg/Kg	6010B
Barium		40		1.0	mg/Kg	6010B
Beryllium		0.68		0.40	mg/Kg	6010B
Cadmium		2.9		0.20	mg/Kg	6010B
Chromium		16	B	1.0	mg/Kg	6010B
Cobalt		5.8		0.51	mg/Kg	6010B
Copper		14000		10	mg/Kg	6010B
Lead		1700		0.51	mg/Kg	6010B
Nickel		110		1.0	mg/Kg	6010B
Selenium		0.71	J	1.0	mg/Kg	6010B
Silver		5.8		0.51	mg/Kg	6010B
Tin		520	B	2.0	mg/Kg	6010B
Vanadium		12		0.51	mg/Kg	6010B
Zinc		5900	B	20	mg/Kg	6010B
Mercury		150		19	ug/Kg	7471A
pH		7.75		0.200	SU	9045C
Percent Moisture		13		0.10	%	PercentMoisture
Percent Solids		87		0.10	%	PercentMoisture

US EPA ARCHIVE DOCUMENT

EXECUTIVE SUMMARY - Detections

Client: Deigan & Associates

Job Number: 500-8251-2

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
500-8251-11	**LSF-9**					
Antimony		5.1		2.0	mg/Kg	6010B
Arsenic		6.0		1.0	mg/Kg	6010B
Barium		540		1.0	mg/Kg	6010B
Beryllium		0.59		0.41	mg/Kg	6010B
Cadmium		1.7		0.20	mg/Kg	6010B
Chromium		14	B	1.0	mg/Kg	6010B
Cobalt		5.7		0.51	mg/Kg	6010B
Copper		7700		10	mg/Kg	6010B
Lead		880		0.51	mg/Kg	6010B
Nickel		68		1.0	mg/Kg	6010B
Selenium		0.51	J	1.0	mg/Kg	6010B
Silver		3.2		0.51	mg/Kg	6010B
Tin		260	B	2.0	mg/Kg	6010B
Vanadium		12		0.51	mg/Kg	6010B
Zinc		3500	B	20	mg/Kg	6010B
Mercury		110		18	ug/Kg	7471A
pH		5.85		0.200	SU	9045C
Percent Moisture		8.5		0.10	%	PercentMoisture
Percent Solids		92		0.10	%	PercentMoisture
500-8251-12	**LSF-10**					
Antimony		2.1		2.0	mg/Kg	6010B
Arsenic		4.6		1.0	mg/Kg	6010B
Barium		57		1.0	mg/Kg	6010B
Beryllium		0.73		0.41	mg/Kg	6010B
Cadmium		1.2		0.20	mg/Kg	6010B
Chromium		13	B	1.0	mg/Kg	6010B
Cobalt		6.5		0.51	mg/Kg	6010B
Copper		3200		1.0	mg/Kg	6010B
Lead		530		0.51	mg/Kg	6010B
Nickel		43		1.0	mg/Kg	6010B
Selenium		0.50	J	1.0	mg/Kg	6010B
Silver		1.4		0.51	mg/Kg	6010B
Tin		120	B	2.0	mg/Kg	6010B
Vanadium		13		0.51	mg/Kg	6010B
Zinc		2800	B	20	mg/Kg	6010B
Mercury		63		19	ug/Kg	7471A
pH		7.31		0.200	SU	9045C
Percent Moisture		12		0.10	%	PercentMoisture
Percent Solids		88		0.10	%	PercentMoisture

US EPA ARCHIVE DOCUMENT

EXECUTIVE SUMMARY - Detections

Client: Deigan & Associates

Job Number: 500-8251-2

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
500-8251-13	**LSF-12**					
Antimony		6.5		2.3	mg/Kg	6010B
Arsenic		5.7		1.1	mg/Kg	6010B
Barium		110		1.1	mg/Kg	6010B
Beryllium		0.87		0.46	mg/Kg	6010B
Cadmium		1.9		0.23	mg/Kg	6010B
Chromium		14	B	1.1	mg/Kg	6010B
Cobalt		5.0		0.57	mg/Kg	6010B
Copper		8900		11	mg/Kg	6010B
Lead		900		0.57	mg/Kg	6010B
Nickel		59		1.1	mg/Kg	6010B
Selenium		0.62	J	1.1	mg/Kg	6010B
Silver		6.3		0.57	mg/Kg	6010B
Tin		270	B	2.3	mg/Kg	6010B
Vanadium		14		0.57	mg/Kg	6010B
Zinc		2300	B	2.3	mg/Kg	6010B
Mercury		67		20	ug/Kg	7471A
pH		5.08		0.200	SU	9045C
Percent Moisture		15		0.10	%	PercentMoisture
Percent Solids		85		0.10	%	PercentMoisture

US EPA ARCHIVE DOCUMENT

METHOD SUMMARY

Client: Deigan & Associates | Job Number: 500-8251-2

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Inductively Coupled Plasma - Atomic Emission Spectrometry	TAL CHI	SW846 6010B	
Acid Digestion of Sediments, Sludges, and Soils	TAL CHI		SW846 3050B
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL CHI	SW846 7471A	
Mercury in Solid or Semi-Solid Waste (Manual Cold	TAL CHI		SW846 7471A
pH	TAL CHI	SW846 9045C	

Lab References:

TAL CHI = TestAmerica Chicago

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

US EPA ARCHIVE DOCUMENT

SAMPLE SUMMARY

Client: Deigan & Associates

Job Number: 500-8251-2

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
500-8251-3	LSF-1	Solid	12/10/2007 0940	12/11/2007 1030
500-8251-4	LSF-2	Solid	12/10/2007 0945	12/11/2007 1030
500-8251-5	LSF-3	Solid	12/10/2007 0950	12/11/2007 1030
500-8251-6	LSF-4	Solid	12/10/2007 0955	12/11/2007 1030
500-8251-7	LSF-5	Solid	12/10/2007 1030	12/11/2007 1030
500-8251-8	LSF-6	Solid	12/10/2007 1035	12/11/2007 1030
500-8251-9	LSF-7	Solid	12/10/2007 1250	12/11/2007 1030
500-8251-10	LSF-8	Solid	12/10/2007 1255	12/11/2007 1030
500-8251-11	LSF-9	Solid	12/10/2007 1300	12/11/2007 1030
500-8251-12	LSF-10	Solid	12/10/2007 1305	12/11/2007 1030
500-8251-13	LSF-12	Solid	12/10/2007 1315	12/11/2007 1030

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SAMPLE RESULTS

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8251-2

Client Sample ID: LSF-1
Lab Sample ID: 500-8251-3

Date Sampled: 12/10/2007 0940
Date Received: 12/11/2007 1030
Client Matrix: Solid
Percent Solids: 88

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: 6010B			Date Analyzed:	12/15/2007 0231		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Antimony	1.9	J	mg/Kg	0.55	2.0	1.0
Arsenic	5.6		mg/Kg	0.27	1.0	1.0
Barium	53		mg/Kg	0.45	1.0	1.0
Beryllium	0.60		mg/Kg	0.015	0.41	1.0
Cadmium	2.5		mg/Kg	0.061	0.20	1.0
Chromium	11	B	mg/Kg	0.11	1.0	1.0
Cobalt	4.5		mg/Kg	0.096	0.51	1.0
Copper	1800		mg/Kg	0.14	1.0	1.0
Lead	510		mg/Kg	0.24	0.51	1.0
Nickel	22		mg/Kg	0.44	1.0	1.0
Selenium	<1.0		mg/Kg	0.39	1.0	1.0
Silver	0.67		mg/Kg	0.10	0.51	1.0
Thallium	<1.0		mg/Kg	0.48	1.0	1.0
Tin	54	B	mg/Kg	0.43	2.0	1.0
Vanadium	14		mg/Kg	0.18	0.51	1.0
Method: 6010B			Date Analyzed:	12/17/2007 2233		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Zinc	2900	B	mg/Kg	2.5	20	10
Method: 7471A			Date Analyzed:	12/18/2007 1511		
Prep Method: 7471A			Date Prepared:	12/18/2007 1300		
Mercury	74		ug/Kg	6.1	19	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	8.66		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/11/2007 2243		
Percent Moisture	13		%	0.10	0.10	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8251-2

Client Sample ID: LSF-2
Lab Sample ID: 500-8251-4

Date Sampled: 12/10/2007 0945
Date Received: 12/11/2007 1030
Client Matrix: Solid
Percent Solids: 89

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: 6010B			Date Analyzed:	12/15/2007 0237		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Antimony	0.63	J	mg/Kg	0.57	2.1	1.0
Arsenic	6.4		mg/Kg	0.29	1.1	1.0
Barium	67		mg/Kg	0.46	1.1	1.0
Beryllium	1.4		mg/Kg	0.016	0.42	1.0
Cadmium	1.6		mg/Kg	0.063	0.21	1.0
Chromium	19	B	mg/Kg	0.12	1.1	1.0
Cobalt	6.2		mg/Kg	0.099	0.53	1.0
Copper	560		mg/Kg	0.15	1.1	1.0
Lead	310		mg/Kg	0.25	0.53	1.0
Nickel	24		mg/Kg	0.45	1.1	1.0
Selenium	0.42	J	mg/Kg	0.40	1.1	1.0
Silver	5.2		mg/Kg	0.11	0.53	1.0
Thallium	<1.1		mg/Kg	0.50	1.1	1.0
Tin	25	B	mg/Kg	0.44	2.1	1.0
Vanadium	17		mg/Kg	0.19	0.53	1.0
Zinc	1100	B	mg/Kg	0.26	2.1	1.0
Method: 7471A			Date Analyzed:	12/18/2007 1518		
Prep Method: 7471A			Date Prepared:	12/18/2007 1300		
Mercury	77		ug/Kg	6.0	19	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	8.33		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/11/2007 2243		
Percent Moisture	11		%	0.10	0.10	1.0

US EPA ARCHIVE DOCUMENT

Gary Deigan
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8251-2

Client Sample ID: LSF-3
Lab Sample ID: 500-8251-5

Date Sampled: 12/10/2007 0950
Date Received: 12/11/2007 1030
Client Matrix: Solid
Percent Solids: 92

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: 6010B			Date Analyzed:	12/15/2007 0309		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Antimony	2.6		mg/Kg	0.56	2.1	1.0
Arsenic	4.6		mg/Kg	0.28	1.0	1.0
Barium	36		mg/Kg	0.46	1.0	1.0
Beryllium	0.59		mg/Kg	0.016	0.42	1.0
Cadmium	1.5		mg/Kg	0.062	0.21	1.0
Chromium	9.5	B	mg/Kg	0.11	1.0	1.0
Cobalt	3.0		mg/Kg	0.098	0.52	1.0
Lead	740		mg/Kg	0.25	0.52	1.0
Nickel	40		mg/Kg	0.45	1.0	1.0
Selenium	<1.0		mg/Kg	0.40	1.0	1.0
Silver	1.6		mg/Kg	0.10	0.52	1.0
Thallium	<1.0		mg/Kg	0.49	1.0	1.0
Tin	170	B	mg/Kg	0.44	2.1	1.0
Vanadium	8.0		mg/Kg	0.19	0.52	1.0
Method: 6010B			Date Analyzed:	12/17/2007 2239		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Copper	5200		mg/Kg	1.5	10	10
Zinc	3900	B	mg/Kg	2.6	21	10
Method: 7471A			Date Analyzed:	12/18/2007 1520		
Prep Method: 7471A			Date Prepared:	12/18/2007 1300		
Mercury	44		ug/Kg	5.8	18	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	8.41		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/11/2007 2243		
Percent Moisture	8.2		%	0.10	0.10	1.0

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Job Number: 500-8251-2

Client Sample ID: LSF-4
Lab Sample ID: 500-8251-6

Date Sampled: 12/10/2007 0955
Date Received: 12/11/2007 1030
Client Matrix: Solid
Percent Solids: 90

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: 6010B			Date Analyzed:	12/15/2007 0315		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Antimony	<2.0		mg/Kg	0.54	2.0	1.0
Arsenic	2.9		mg/Kg	0.27	1.0	1.0
Barium	25		mg/Kg	0.44	1.0	1.0
Beryllium	0.41		mg/Kg	0.015	0.40	1.0
Cadmium	0.32		mg/Kg	0.060	0.20	1.0
Chromium	13	B	mg/Kg	0.11	1.0	1.0
Cobalt	2.6		mg/Kg	0.094	0.50	1.0
Copper	130		mg/Kg	0.14	1.0	1.0
Lead	34		mg/Kg	0.24	0.50	1.0
Nickel	7.2		mg/Kg	0.43	1.0	1.0
Selenium	<1.0		mg/Kg	0.38	1.0	1.0
Silver	0.15	J	mg/Kg	0.10	0.50	1.0
Thallium	<1.0		mg/Kg	0.47	1.0	1.0
Tin	6.0	B	mg/Kg	0.42	2.0	1.0
Vanadium	10		mg/Kg	0.18	0.50	1.0
Zinc	140	B	mg/Kg	0.25	2.0	1.0
Method: 7471A			Date Analyzed:	12/18/2007 1522		
Prep Method: 7471A			Date Prepared:	12/18/2007 1300		
Mercury	26		ug/Kg	5.9	19	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	8.46		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/11/2007 2243		
Percent Moisture	10		%	0.10	0.10	1.0

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Job Number: 500-8251-2

Client Sample ID: LSF-5
Lab Sample ID: 500-8251-7

Date Sampled: 12/10/2007 1030
Date Received: 12/11/2007 1030
Client Matrix: Solid
Percent Solids: 92

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: 6010B			Date Analyzed:	12/15/2007 0322		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Antimony	2.9		mg/Kg	0.56	2.1	1.0
Arsenic	4.5		mg/Kg	0.28	1.0	1.0
Barium	110		mg/Kg	0.45	1.0	1.0
Beryllium	5.3		mg/Kg	0.015	0.41	1.0
Cadmium	1.5		mg/Kg	0.062	0.21	1.0
Chromium	17	B	mg/Kg	0.11	1.0	1.0
Cobalt	8.4		mg/Kg	0.097	0.51	1.0
Copper	4300		mg/Kg	0.14	1.0	1.0
Lead	770		mg/Kg	0.25	0.51	1.0
Nickel	63		mg/Kg	0.44	1.0	1.0
Selenium	0.50	J	mg/Kg	0.39	1.0	1.0
Silver	1.5		mg/Kg	0.10	0.51	1.0
Thallium	<1.0		mg/Kg	0.48	1.0	1.0
Tin	370	B	mg/Kg	0.43	2.1	1.0
Vanadium	14		mg/Kg	0.19	0.51	1.0
Method: 6010B			Date Analyzed:	12/17/2007 2246		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Zinc	8200	B	mg/Kg	2.6	21	10
Method: 7471A			Date Analyzed:	12/18/2007 1524		
Prep Method: 7471A			Date Prepared:	12/18/2007 1300		
Mercury	89		ug/Kg	5.8	18	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	6.57		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/11/2007 2243		
Percent Moisture	8.3		%	0.10	0.10	1.0

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Job Number: 500-8251-2

Client Sample ID: LSF-6
Lab Sample ID: 500-8251-8

Date Sampled: 12/10/2007 1035
Date Received: 12/11/2007 1030
Client Matrix: Solid
Percent Solids: 91

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: 6010B			Date Analyzed:	12/15/2007 0328		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Antimony	<2.0		mg/Kg	0.55	2.0	1.0
Arsenic	5.4		mg/Kg	0.28	1.0	1.0
Barium	60		mg/Kg	0.45	1.0	1.0
Beryllium	1.0		mg/Kg	0.015	0.41	1.0
Cadmium	0.29		mg/Kg	0.061	0.20	1.0
Chromium	9.6	B	mg/Kg	0.11	1.0	1.0
Cobalt	4.4		mg/Kg	0.096	0.51	1.0
Copper	750		mg/Kg	0.14	1.0	1.0
Lead	110		mg/Kg	0.25	0.51	1.0
Nickel	16		mg/Kg	0.44	1.0	1.0
Selenium	<1.0		mg/Kg	0.39	1.0	1.0
Silver	0.26	J	mg/Kg	0.10	0.51	1.0
Thallium	<1.0		mg/Kg	0.48	1.0	1.0
Tin	23	B	mg/Kg	0.43	2.0	1.0
Vanadium	14		mg/Kg	0.18	0.51	1.0
Zinc	300	B	mg/Kg	0.26	2.0	1.0
Method: 7471A			Date Analyzed:	12/18/2007 1527		
Prep Method: 7471A			Date Prepared:	12/18/2007 1300		
Mercury	18	J	ug/Kg	5.8	18	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	8.28		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/11/2007 2243		
Percent Moisture	8.6		%	0.10	0.10	1.0

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Job Number: 500-8251-2

Client Sample ID: LSF-7
Lab Sample ID: 500-8251-9

Date Sampled: 12/10/2007 1250
Date Received: 12/11/2007 1030
Client Matrix: Solid
Percent Solids: 84

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: 6010B			Date Analyzed:	12/15/2007 0334		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Antimony	3.2		mg/Kg	0.59	2.2	1.0
Arsenic	6.7		mg/Kg	0.30	1.1	1.0
Barium	150		mg/Kg	0.48	1.1	1.0
Beryllium	1.5		mg/Kg	0.016	0.44	1.0
Cadmium	2.9		mg/Kg	0.066	0.22	1.0
Chromium	13	B	mg/Kg	0.12	1.1	1.0
Cobalt	5.8		mg/Kg	0.10	0.55	1.0
Lead	1500		mg/Kg	0.26	0.55	1.0
Nickel	59		mg/Kg	0.47	1.1	1.0
Selenium	1.0	J	mg/Kg	0.42	1.1	1.0
Silver	5.2		mg/Kg	0.11	0.55	1.0
Thallium	<1.1		mg/Kg	0.51	1.1	1.0
Tin	290	B	mg/Kg	0.46	2.2	1.0
Vanadium	16		mg/Kg	0.20	0.55	1.0
Method: 6010B			Date Analyzed:	12/17/2007 2252		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Copper	8000		mg/Kg	1.5	11	10
Zinc	6900	B	mg/Kg	2.7	22	10
Method: 7471A			Date Analyzed:	12/18/2007 1529		
Prep Method: 7471A			Date Prepared:	12/18/2007 1300		
Mercury	170		ug/Kg	6.3	20	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	8.35		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/11/2007 2243		
Percent Moisture	16		%	0.10	0.10	1.0

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Job Number: 500-8251-2

Client Sample ID: LSF-8
Lab Sample ID: 500-8251-10

Date Sampled: 12/10/2007 1255
Date Received: 12/11/2007 1030
Client Matrix: Solid
Percent Solids: 87

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: 6010B			Date Analyzed:	12/15/2007 0340		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Antimony	8.6		mg/Kg	0.55	2.0	1.0
Arsenic	7.6		mg/Kg	0.27	1.0	1.0
Barium	40		mg/Kg	0.44	1.0	1.0
Beryllium	0.68		mg/Kg	0.015	0.40	1.0
Cadmium	2.9		mg/Kg	0.061	0.20	1.0
Chromium	16	B	mg/Kg	0.11	1.0	1.0
Cobalt	5.8		mg/Kg	0.095	0.51	1.0
Lead	1700		mg/Kg	0.24	0.51	1.0
Nickel	110		mg/Kg	0.43	1.0	1.0
Selenium	0.71	J	mg/Kg	0.38	1.0	1.0
Silver	5.8		mg/Kg	0.10	0.51	1.0
Thallium	<1.0		mg/Kg	0.48	1.0	1.0
Tin	520	B	mg/Kg	0.42	2.0	1.0
Vanadium	12		mg/Kg	0.18	0.51	1.0
Method: 6010B			Date Analyzed:	12/17/2007 2258		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Copper	14000		mg/Kg	1.4	10	10
Zinc	5900	B	mg/Kg	2.5	20	10
Method: 7471A			Date Analyzed:	12/18/2007 1531		
Prep Method: 7471A			Date Prepared:	12/18/2007 1300		
Mercury	150		ug/Kg	6.1	19	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	7.75		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/11/2007 2243		
Percent Moisture	13		%	0.10	0.10	1.0

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Job Number: 500-8251-2

Client Sample ID: LSF-9
Lab Sample ID: 500-8251-11

Date Sampled: 12/10/2007 1300
Date Received: 12/11/2007 1030
Client Matrix: Solid
Percent Solids: 92

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: 6010B			Date Analyzed:	12/15/2007 0346		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Antimony	5.1		mg/Kg	0.55	2.0	1.0
Arsenic	6.0		mg/Kg	0.28	1.0	1.0
Barium	540		mg/Kg	0.45	1.0	1.0
Beryllium	0.59		mg/Kg	0.015	0.41	1.0
Cadmium	1.7		mg/Kg	0.061	0.20	1.0
Chromium	14	B	mg/Kg	0.11	1.0	1.0
Cobalt	5.7		mg/Kg	0.096	0.51	1.0
Lead	880		mg/Kg	0.24	0.51	1.0
Nickel	68		mg/Kg	0.44	1.0	1.0
Selenium	0.51	J	mg/Kg	0.39	1.0	1.0
Silver	3.2		mg/Kg	0.10	0.51	1.0
Thallium	<1.0		mg/Kg	0.48	1.0	1.0
Tin	260	B	mg/Kg	0.43	2.0	1.0
Vanadium	12		mg/Kg	0.18	0.51	1.0
Method: 6010B			Date Analyzed:	12/17/2007 2304		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Copper	7700		mg/Kg	1.4	10	10
Zinc	3500	B	mg/Kg	2.5	20	10
Method: 7471A			Date Analyzed:	12/18/2007 1533		
Prep Method: 7471A			Date Prepared:	12/18/2007 1300		
Mercury	110		ug/Kg	5.8	18	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	5.85		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/11/2007 2243		
Percent Moisture	8.5		%	0.10	0.10	1.0

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Job Number: 500-8251-2

Client Sample ID: LSF-10
Lab Sample ID: 500-8251-12

Date Sampled: 12/10/2007 1305
Date Received: 12/11/2007 1030
Client Matrix: Solid
Percent Solids: 88

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: 6010B			Date Analyzed:	12/15/2007 0353		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Antimony	2.1		mg/Kg	0.55	2.0	1.0
Arsenic	4.6		mg/Kg	0.27	1.0	1.0
Barium	57		mg/Kg	0.45	1.0	1.0
Beryllium	0.73		mg/Kg	0.015	0.41	1.0
Cadmium	1.2		mg/Kg	0.061	0.20	1.0
Chromium	13	B	mg/Kg	0.11	1.0	1.0
Cobalt	6.5		mg/Kg	0.095	0.51	1.0
Copper	3200		mg/Kg	0.14	1.0	1.0
Lead	530		mg/Kg	0.24	0.51	1.0
Nickel	43		mg/Kg	0.44	1.0	1.0
Selenium	0.50	J	mg/Kg	0.39	1.0	1.0
Silver	1.4		mg/Kg	0.10	0.51	1.0
Thallium	<1.0		mg/Kg	0.48	1.0	1.0
Tin	120	B	mg/Kg	0.43	2.0	1.0
Vanadium	13		mg/Kg	0.18	0.51	1.0
Method: 6010B			Date Analyzed:	12/17/2007 2310		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Zinc	2800	B	mg/Kg	2.5	20	10
Method: 7471A			Date Analyzed:	12/18/2007 1535		
Prep Method: 7471A			Date Prepared:	12/18/2007 1300		
Mercury	63		ug/Kg	6.0	19	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	7.31		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/11/2007 2243		
Percent Moisture	12		%	0.10	0.10	1.0

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Job Number: 500-8251-2

Client Sample ID: LSF-12
Lab Sample ID: 500-8251-13

Date Sampled: 12/10/2007 1315
Date Received: 12/11/2007 1030
Client Matrix: Solid
Percent Solids: 85

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: 6010B			Date Analyzed:	12/15/2007 0359		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Antimony	6.5		mg/Kg	0.62	2.3	1.0
Arsenic	5.7		mg/Kg	0.31	1.1	1.0
Barium	110		mg/Kg	0.50	1.1	1.0
Beryllium	0.87		mg/Kg	0.017	0.46	1.0
Cadmium	1.9		mg/Kg	0.069	0.23	1.0
Chromium	14	B	mg/Kg	0.13	1.1	1.0
Cobalt	5.0		mg/Kg	0.11	0.57	1.0
Lead	900		mg/Kg	0.27	0.57	1.0
Nickel	59		mg/Kg	0.49	1.1	1.0
Selenium	0.62	J	mg/Kg	0.44	1.1	1.0
Silver	6.3		mg/Kg	0.11	0.57	1.0
Thallium	<1.1		mg/Kg	0.54	1.1	1.0
Tin	270	B	mg/Kg	0.48	2.3	1.0
Vanadium	14		mg/Kg	0.21	0.57	1.0
Zinc	2300	B	mg/Kg	0.29	2.3	1.0
Method: 6010B			Date Analyzed:	12/17/2007 2317		
Prep Method: 3050B			Date Prepared:	12/12/2007 1020		
Copper	8900		mg/Kg	1.6	11	10
Method: 7471A			Date Analyzed:	12/18/2007 1538		
Prep Method: 7471A			Date Prepared:	12/18/2007 1300		
Mercury	67		ug/Kg	6.3	20	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	5.08		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/11/2007 2243		
Percent Moisture	15		%	0.10	0.10	1.0

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DATA REPORTING QUALIFIERS

Client: Deigan & Associates

Job Number: 500-8251-2

Lab Section	Qualifier	Description
Metals		
	B	Compound was found in the blank and sample.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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QUALITY CONTROL RESULTS

Client: Deigan & Associates

Job Number: 500-8251-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 500-27981					
LCS 500-27981/2-A	Lab Control Spike	T	Solid	3050B	
MB 500-27981/1-A	Method Blank	T	Solid	3050B	
500-8251-3	LSF-1	T	Solid	3050B	
500-8251-4	LSF-2	T	Solid	3050B	
500-8251-5	LSF-3	T	Solid	3050B	
500-8251-6	LSF-4	T	Solid	3050B	
500-8251-7	LSF-5	T	Solid	3050B	
500-8251-8	LSF-6	T	Solid	3050B	
500-8251-9	LSF-7	T	Solid	3050B	
500-8251-10	LSF-8	T	Solid	3050B	
500-8251-11	LSF-9	T	Solid	3050B	
500-8251-12	LSF-10	T	Solid	3050B	
500-8251-13	LSF-12	T	Solid	3050B	
Analysis Batch:500-28295					
LCS 500-27981/2-A	Lab Control Spike	T	Solid	6010B	500-27981
MB 500-27981/1-A	Method Blank	T	Solid	6010B	500-27981
500-8251-3	LSF-1	T	Solid	6010B	500-27981
500-8251-4	LSF-2	T	Solid	6010B	500-27981
500-8251-5	LSF-3	T	Solid	6010B	500-27981
500-8251-6	LSF-4	T	Solid	6010B	500-27981
500-8251-7	LSF-5	T	Solid	6010B	500-27981
500-8251-8	LSF-6	T	Solid	6010B	500-27981
500-8251-9	LSF-7	T	Solid	6010B	500-27981
500-8251-10	LSF-8	T	Solid	6010B	500-27981
500-8251-11	LSF-9	T	Solid	6010B	500-27981
500-8251-12	LSF-10	T	Solid	6010B	500-27981
500-8251-13	LSF-12	T	Solid	6010B	500-27981
Analysis Batch:500-28380					
500-8251-3	LSF-1	T	Solid	6010B	500-27981
500-8251-5	LSF-3	T	Solid	6010B	500-27981
500-8251-7	LSF-5	T	Solid	6010B	500-27981
500-8251-9	LSF-7	T	Solid	6010B	500-27981
500-8251-10	LSF-8	T	Solid	6010B	500-27981
500-8251-11	LSF-9	T	Solid	6010B	500-27981
500-8251-12	LSF-10	T	Solid	6010B	500-27981
500-8251-13	LSF-12	T	Solid	6010B	500-27981

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Client: Deigan & Associates

Job Number: 500-8251-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:500-28459					
LCS 500-28526/2-A	Lab Control Spike	T	Solid	7471A	500-28526
MB 500-28526/1-A	Method Blank	T	Solid	7471A	500-28526
500-8251-3	LSF-1	T	Solid	7471A	500-28526
500-8251-4	LSF-2	T	Solid	7471A	500-28526
500-8251-5	LSF-3	T	Solid	7471A	500-28526
500-8251-6	LSF-4	T	Solid	7471A	500-28526
500-8251-7	LSF-5	T	Solid	7471A	500-28526
500-8251-8	LSF-6	T	Solid	7471A	500-28526
500-8251-9	LSF-7	T	Solid	7471A	500-28526
500-8251-10	LSF-8	T	Solid	7471A	500-28526
500-8251-11	LSF-9	T	Solid	7471A	500-28526
500-8251-12	LSF-10	T	Solid	7471A	500-28526
500-8251-13	LSF-12	T	Solid	7471A	500-28526
Prep Batch: 500-28526					
LCS 500-28526/2-A	Lab Control Spike	T	Solid	7471A	
MB 500-28526/1-A	Method Blank	T	Solid	7471A	
500-8251-3	LSF-1	T	Solid	7471A	
500-8251-4	LSF-2	T	Solid	7471A	
500-8251-5	LSF-3	T	Solid	7471A	
500-8251-6	LSF-4	T	Solid	7471A	
500-8251-7	LSF-5	T	Solid	7471A	
500-8251-8	LSF-6	T	Solid	7471A	
500-8251-9	LSF-7	T	Solid	7471A	
500-8251-10	LSF-8	T	Solid	7471A	
500-8251-11	LSF-9	T	Solid	7471A	
500-8251-12	LSF-10	T	Solid	7471A	
500-8251-13	LSF-12	T	Solid	7471A	

Report Basis
T = Total

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8251-2

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:500-27944					
500-8251-A-1 DUDU	Duplicate		Solid	PercentMoisture	
500-8251-3	LSF-1	T	Solid	PercentMoisture	
500-8251-4	LSF-2	T	Solid	PercentMoisture	
500-8251-5	LSF-3	T	Solid	PercentMoisture	
500-8251-6	LSF-4	T	Solid	PercentMoisture	
500-8251-7	LSF-5	T	Solid	PercentMoisture	
500-8251-8	LSF-6	T	Solid	PercentMoisture	
500-8251-9	LSF-7	T	Solid	PercentMoisture	
500-8251-10	LSF-8	T	Solid	PercentMoisture	
500-8251-11	LSF-9	T	Solid	PercentMoisture	
500-8251-12	LSF-10	T	Solid	PercentMoisture	
500-8251-13	LSF-12	T	Solid	PercentMoisture	
Analysis Batch:500-28485					
500-8251-3	LSF-1	T	Solid	9045C	
500-8251-4	LSF-2	T	Solid	9045C	
500-8251-5	LSF-3	T	Solid	9045C	
500-8251-6	LSF-4	T	Solid	9045C	
500-8251-7	LSF-5	T	Solid	9045C	
500-8251-8	LSF-6	T	Solid	9045C	
500-8251-9	LSF-7	T	Solid	9045C	
500-8251-10	LSF-8	T	Solid	9045C	
500-8251-11	LSF-9	T	Solid	9045C	
500-8251-12	LSF-10	T	Solid	9045C	
500-8251-12DU	Duplicate	T	Solid	9045C	
500-8251-13	LSF-12	T	Solid	9045C	

Report Basis
= Total/NA
T = Total

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8251-2

Method Blank - Batch: 500-27981

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 500-27981/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/15/2007 0139
Date Prepared: 12/12/2007 1020

Analysis Batch: 500-28295
Prep Batch: 500-27981
Units: mg/Kg

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51214B
Initial Weight/Volume: 1.0000 g
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Antimony	<2.0		0.54	2.0
Arsenic	<1.0		0.27	1.0
Barium	<1.0		0.44	1.0
Beryllium	<0.40		0.015	0.40
Cadmium	<0.20		0.060	0.20
Chromium	0.22	J	0.11	1.0
Cobalt	<0.50		0.094	0.50
Copper	<1.0		0.14	1.0
Lead	<0.50		0.24	0.50
Nickel	<1.0		0.43	1.0
Selenium	<1.0		0.38	1.0
Silver	<0.50		0.10	0.50
Thallium	<1.0		0.47	1.0
Tin	1.6	J	0.42	2.0
Vanadium	<0.50		0.18	0.50
Zinc	0.78	J	0.25	2.0

Calculations are performed before rounding to avoid round-off errors in calculated results.

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8251-2

Lab Control Spike - Batch: 500-27981

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCS 500-27981/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/15/2007 0145
Date Prepared: 12/12/2007 1020

Analysis Batch: 500-28295
Prep Batch: 500-27981
Units: mg/Kg

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51214B
Initial Weight/Volume: 1.0000 g
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	50.0	46.8	94	80 - 120	
Arsenic	10.0	9.23	92	80 - 120	
Barium	200	191	96	80 - 120	
Beryllium	5.00	4.87	97	80 - 120	
Cadmium	5.00	4.70	94	80 - 120	
Chromium	20.0	19.5	97	80 - 120	
Cobalt	50.0	47.1	94	80 - 120	
Copper	25.0	24.6	98	80 - 120	
Lead	10.0	9.74	97	80 - 120	
Nickel	50.0	47.3	95	80 - 120	
Selenium	10.0	8.96	90	80 - 120	
Silver	5.00	4.80	96	80 - 120	
Thallium	10.0	9.39	94	80 - 120	
Tin	100	95.9	96	80 - 120	
Vanadium	50.0	47.5	95	80 - 120	
Zinc	50.0	47.7	95	80 - 120	

Calculations are performed before rounding to avoid round-off errors in calculated results.

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8251-2

Method Blank - Batch: 500-28526

Method: 7471A
Preparation: 7471A

Lab Sample ID: MB 500-28526/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/18/2007 1458
Date Prepared: 12/18/2007 1300

Analysis Batch: 500-28459
Prep Batch: 500-28526
Units: ug/Kg

Instrument ID: Leeman Labs PS200 Merc
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Mercury	<17		5.3	17

Lab Control Spike - Batch: 500-28526

Method: 7471A
Preparation: 7471A

Lab Sample ID: LCS 500-28526/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/18/2007 1501
Date Prepared: 12/18/2007 1300

Analysis Batch: 500-28459
Prep Batch: 500-28526
Units: ug/Kg

Instrument ID: Leeman Labs PS200 Merc
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	167	178	107	80 - 120	

Calculations are performed before rounding to avoid round-off errors in calculated results.

US EPA ARCHIVE DOCUMENT

Quality Control Results

Client: Deigan & Associates

Job Number: 500-8251-2

Duplicate - Batch: 500-28485

Method: 9045C
Preparation: N/A

Lab Sample ID: 500-8251-12
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/18/2007 1520
Date Prepared: N/A

Analysis Batch: 500-28485
Prep Batch: N/A
Units: SU

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: mL
Final Weight/Volume: mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	7.31	7.31			

Calculations are performed before rounding to avoid round-off errors in calculated results.

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Quality Control Results

Client: Deigan & Associates

Job Number: 500-8251-2

Duplicate - Batch: 500-27944

Method: PercentMoisture
Preparation: N/A

Lab Sample ID: 500-8251-A-1 DU
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/11/2007 2243
Date Prepared: N/A

Analysis Batch: 500-27944
Prep Batch: N/A
Units: %

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume:

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	16	15.4			
Percent Solids	84	84.6	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

US EPA ARCHIVE DOCUMENT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica
2417 Bond Street
University Park, IL 60466
708.534.5200

TAL-4124-530 (1107)

Sampler ID _____

Temperature on Receipt _____

Drinking Water? Yes ☐ No ☐

Rush TAT

Chain of Custody Record

500-8251

12/19/2007

Client: Deigan Associates LLC	Project Manager: Gary Deigan	Date: 12/10/07	Chain of Custody Number:
Address: 100 S. Genesee	Telephone Number (Area Code)/Fax Number: (847) 623-9356	Lab Number:	Page 1 of 1
City: Waukegan; State: IL; Zip Code: 60085	Site Contact:	Lab Contact: D. Wright	
Project Name and Location (State): Lake Shore Foundry, Waukegan IL	Carrier/Waybill Number:		
Contract/Purchase Order/Quote No.:			

Analysis (Attach list if more space is needed)

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	TCLP Lead	Total Agg. 1X (Metals)	pH	Special Instructions/ Conditions of Receipt
1 TES-2R	12/10/07	9:40				X							X			* Rush TAT on TCLP Pb only. Standard TAT on 1X Metals, pH
2 TES-3R		9:50				X							X			
3 LSF-1		9:40				X							X	X	X	
4 LSF-2		9:45				X							X	X	X	
5 LSF-3		9:50				X							X	X	X	
6 LSF-4		9:55				X							X	X	X	
7 LSF-5		10:30				X							X	X	X	
8 LSF-6		10:35				X							X	X	X	
9 LSF-7		12:50				X							X	X	X	
10 LSF-8		12:55				X							X	X	X	
11 LSF-9		1:00				X							X	X	X	
12 LSF-10		1:05				X							X	X	X	
13 LSF-11		1:10				X							X	X	X	
14 LSF-12		1:15				X							X	X	X	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For ___ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☐ Other _____

QC Requirements (Specify):

1. Relinquished By: Deigan Assoc. LLC	Date: 12/10/07	Time: 2:15	1. Received By:	Date: 12/11/07	Time: 1030		
2. Relinquished By:	Date:	Time:	2. Received By:	Date:	Time:		
3. Relinquished By:	Date:	Time:	3. Received By:	Date:	Time:		

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Check List

Client: Deigan & Associates

Job Number: 500-8251-2

Login Number: 8251
Creator: Lunt, Jeff T
List Number: 1

List Source: TestAmerica Chicago

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	2.5
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 500-8386-1

Job Description: Lake Shore Foundry, Waukegan

For:
Deigan & Associates
100 S. Genesee St.
Waukegan, IL 60085

Attention: Gary Deigan

Richard C Wright
Project Manager II
richard.wright@testamericainc.com
12/31/2007

These test results meet all the requirements of NELAC for accredited parameters.

The Lab Certification ID# is 100201.

All questions regarding this test report should be directed to the TestAmerica Project Manager whose signature appears on this report. All pages of this report are integral parts of the analytical data. Therefore, this report should be reproduced only in its entirety.

Reporting limits are adjusted for sample size used, dilutions and moisture content if applicable.

US EPA ARCHIVE DOCUMENT

TestAmerica Laboratories, Inc.
TestAmerica Chicago 2417 Bond Street, University Park, IL 60466
Tel (708) 534-5200 Fax (708) 534-5211 www.testamericainc.com

ACCREDITED IN ACCORDANCE WITH nelac

Job Narrative
500-J8386-1

Comments
No additional comments.

Receipt
All samples were received in good condition within temperature requirements.

Metals
Method(s) 6010B: The matrix duplicate %RPD for sample 500-8386-2 was outside the control limits for Pb.

Method(s) 6010B: The matrix duplicate %RPD for sample 500-8386-6 was outside the control limits for Sb,Ba,Be,Co,Pb,Ni,Ag, and Sn.

Method(s) 6010B: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for batch 28775 sample 500-8386-6 were outside control limits for Sb,Be, and Cr. The MSD was also out for Ag. The associated laboratory control standard (LCS) met acceptance criteria.

Method(s) 6010B: The matrix duplicate %RPD for sample 500-8386-6 was outside the control limits for Cu.

No other analytical or quality issues were noted.

General Chemistry
No analytical or quality issues were noted.

US EPA ARCHIVE DOCUMENT

EXECUTIVE SUMMARY - Detections

Client: Deigan & Associates

Job Number: 500-8386-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
500-8386-1	**LSF-3R**					
Antimony		2.1		2.0	mg/Kg	6010B
Arsenic		2.8		1.0	mg/Kg	6010B
Barium		37		1.0	mg/Kg	6010B
Beryllium		0.18	J	0.41	mg/Kg	6010B
Cadmium		1.9		0.20	mg/Kg	6010B
Chromium		13	B	1.0	mg/Kg	6010B
Cobalt		2.1		0.51	mg/Kg	6010B
Copper		4500	B	1.0	mg/Kg	6010B
Lead		760		0.51	mg/Kg	6010B
Nickel		54		1.0	mg/Kg	6010B
Selenium		0.47	J	1.0	mg/Kg	6010B
Silver		1.4		0.51	mg/Kg	6010B
Tin		110	B	2.0	mg/Kg	6010B
Vanadium		6.0		0.51	mg/Kg	6010B
Zinc		3300	B	20	mg/Kg	6010B
Mercury		250		19	ug/Kg	7471A
pH		7.92		0.200	SU	9045C
Percent Moisture		11		0.10	%	PercentMoisture
Percent Solids		89		0.10	%	PercentMoisture
TCLP						
Lead		6.1		0.0075	mg/L	6010B
500-8386-2	**LSF-11**					
Antimony		7.1		1.9	mg/Kg	6010B
Arsenic		6.1		0.97	mg/Kg	6010B
Barium		40		0.97	mg/Kg	6010B
Beryllium		0.49		0.39	mg/Kg	6010B
Cadmium		3.3		0.19	mg/Kg	6010B
Chromium		28	B	0.97	mg/Kg	6010B
Cobalt		6.5		0.49	mg/Kg	6010B
Copper		9600		9.7	mg/Kg	6010B
Lead		900		0.49	mg/Kg	6010B
Nickel		70		0.97	mg/Kg	6010B
Silver		3.9		0.49	mg/Kg	6010B
Tin		320	B	1.9	mg/Kg	6010B
Vanadium		14		0.49	mg/Kg	6010B
Zinc		3400	B	19	mg/Kg	6010B
Mercury		72		19	ug/Kg	7471A
pH		5.84		0.200	SU	9045C
Percent Moisture		14		0.10	%	PercentMoisture
Percent Solids		86		0.10	%	PercentMoisture
TCLP						
Lead		0.14		0.0075	mg/L	6010B

US EPA ARCHIVE DOCUMENT

EXECUTIVE SUMMARY - Detections

Client: Deigan & Associates

Job Number: 500-8386-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
500-8386-3	**LSF-11 DUPLICATE**					
Antimony		2.3		2.1	mg/Kg	6010B
Arsenic		5.1		1.1	mg/Kg	6010B
Barium		43		1.1	mg/Kg	6010B
Beryllium		0.42	J	0.43	mg/Kg	6010B
Cadmium		2.7		0.21	mg/Kg	6010B
Chromium		13	B	1.1	mg/Kg	6010B
Cobalt		5.6		0.54	mg/Kg	6010B
Copper		3500	B	1.1	mg/Kg	6010B
Lead		590		0.54	mg/Kg	6010B
Nickel		40		1.1	mg/Kg	6010B
Selenium		0.44	J	1.1	mg/Kg	6010B
Silver		1.9		0.54	mg/Kg	6010B
Tin		120	B	2.1	mg/Kg	6010B
Vanadium		14		0.54	mg/Kg	6010B
Zinc		3600	B	21	mg/Kg	6010B
Mercury		120		20	ug/Kg	7471A
pH		6.07		0.200	SU	9045C
Percent Moisture		15		0.10	%	PercentMoisture
Percent Solids		85		0.10	%	PercentMoisture
TCLP						
Lead		0.15		0.0075	mg/L	6010B

US EPA ARCHIVE DOCUMENT

EXECUTIVE SUMMARY - Detections

Client: Deigan & Associates

Job Number: 500-8386-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
500-8386-4	**LSF-13**					
Antimony		6.2		2.3	mg/Kg	6010B
Arsenic		3.5		1.1	mg/Kg	6010B
Barium		18		1.1	mg/Kg	6010B
Beryllium		0.31	J	0.45	mg/Kg	6010B
Cadmium		7.0		0.23	mg/Kg	6010B
Chromium		16	B	1.1	mg/Kg	6010B
Cobalt		3.0		0.56	mg/Kg	6010B
Copper		12000		11	mg/Kg	6010B
Lead		1800		0.56	mg/Kg	6010B
Nickel		65		1.1	mg/Kg	6010B
Selenium		0.77	J	1.1	mg/Kg	6010B
Silver		4.4		0.56	mg/Kg	6010B
Tin		360	B	2.3	mg/Kg	6010B
Vanadium		5.5		0.56	mg/Kg	6010B
Zinc		6500	B	23	mg/Kg	6010B
Mercury		29		19	ug/Kg	7471A
pH		5.01		0.200	SU	9045C
Percent Moisture		14		0.10	%	PercentMoisture
Percent Solids		86		0.10	%	PercentMoisture
TCLP						
Lead		0.11		0.0075	mg/L	6010B

US EPA ARCHIVE DOCUMENT

EXECUTIVE SUMMARY - Detections

Client: Deigan & Associates

Job Number: 500-8386-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
500-8386-5	**LSF-14**					
Antimony		5.3		2.3	mg/Kg	6010B
Arsenic		8.1		1.1	mg/Kg	6010B
Barium		190		1.1	mg/Kg	6010B
Beryllium		0.55		0.46	mg/Kg	6010B
Cadmium		3.6		0.23	mg/Kg	6010B
Chromium		200	B	1.1	mg/Kg	6010B
Cobalt		7.3		0.57	mg/Kg	6010B
Copper		7300		11	mg/Kg	6010B
Lead		1900		0.57	mg/Kg	6010B
Nickel		62		1.1	mg/Kg	6010B
Selenium		0.69	J	1.1	mg/Kg	6010B
Silver		15		0.57	mg/Kg	6010B
Tin		300	B	2.3	mg/Kg	6010B
Vanadium		14		0.57	mg/Kg	6010B
Zinc		4100	B	23	mg/Kg	6010B
Mercury		420		20	ug/Kg	7471A
pH		4.52		0.200	SU	9045C
Percent Moisture		17		0.10	%	PercentMoisture
Percent Solids		83		0.10	%	PercentMoisture
TCLP						
Lead		0.014		0.0075	mg/L	6010B
500-8386-6	**LSF-15**					
Antimony		4.0		2.0	mg/Kg	6010B
Arsenic		4.1		0.99	mg/Kg	6010B
Barium		51		0.99	mg/Kg	6010B
Beryllium		3.0		0.39	mg/Kg	6010B
Cadmium		3.0		0.20	mg/Kg	6010B
Chromium		17	B	0.99	mg/Kg	6010B
Cobalt		6.7		0.49	mg/Kg	6010B
Copper		7200		9.9	mg/Kg	6010B
Lead		1200		0.49	mg/Kg	6010B
Nickel		84		0.99	mg/Kg	6010B
Silver		2.7		0.49	mg/Kg	6010B
Tin		350	B	2.0	mg/Kg	6010B
Vanadium		7.8		0.49	mg/Kg	6010B
Zinc		7200	B	39	mg/Kg	6010B
Mercury		18		18	ug/Kg	7471A
pH		7.60		0.200	SU	9045C
Percent Moisture		7.8		0.10	%	PercentMoisture
Percent Solids		92		0.10	%	PercentMoisture
TCLP						
Lead		3.0		0.0075	mg/L	6010B

US EPA ARCHIVE DOCUMENT

EXECUTIVE SUMMARY - Detections

Client: Deigan & Associates

Job Number: 500-8386-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
500-8386-7	**LSF-8R**					
Antimony		4.1		1.9	mg/Kg	6010B
Arsenic		7.9		0.96	mg/Kg	6010B
Barium		420		0.96	mg/Kg	6010B
Beryllium		0.93		0.38	mg/Kg	6010B
Cadmium		2.4		0.19	mg/Kg	6010B
Chromium		28	B	0.96	mg/Kg	6010B
Cobalt		12		0.48	mg/Kg	6010B
Copper		7000		9.6	mg/Kg	6010B
Lead		1000		0.48	mg/Kg	6010B
Nickel		68		0.96	mg/Kg	6010B
Selenium		0.78	J	0.96	mg/Kg	6010B
Silver		3.1		0.48	mg/Kg	6010B
Tin		260	B	1.9	mg/Kg	6010B
Vanadium		15		0.48	mg/Kg	6010B
Zinc		3700	B	19	mg/Kg	6010B
Mercury		210		18	ug/Kg	7471A
pH		8.02		0.200	SU	9045C
Percent Moisture		8.6		0.10	%	PercentMoisture
Percent Solids		91		0.10	%	PercentMoisture
TCLP						
Lead		3.6		0.0075	mg/L	6010B

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EXECUTIVE SUMMARY - Detections

Client: Deigan & Associates

Job Number: 500-8386-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
500-8386-8	**LSF-8R DUPLICATE**					
Antimony		3.4		1.9	mg/Kg	6010B
Arsenic		9.5		0.94	mg/Kg	6010B
Barium		780		0.94	mg/Kg	6010B
Beryllium		0.51		0.38	mg/Kg	6010B
Cadmium		2.6		0.19	mg/Kg	6010B
Chromium		39	B	0.94	mg/Kg	6010B
Cobalt		14		0.47	mg/Kg	6010B
Copper		6800		9.4	mg/Kg	6010B
Lead		1100		0.47	mg/Kg	6010B
Nickel		67		0.94	mg/Kg	6010B
Selenium		0.52	J	0.94	mg/Kg	6010B
Silver		2.6		0.47	mg/Kg	6010B
Tin		200	B	1.9	mg/Kg	6010B
Vanadium		15		0.47	mg/Kg	6010B
Zinc		3900	B	19	mg/Kg	6010B
Mercury		270		18	ug/Kg	7471A
pH		7.88		0.200	SU	9045C
Percent Moisture		7.8		0.10	%	PercentMoisture
Percent Solids		92		0.10	%	PercentMoisture
TCLP						
Lead		1.6		0.0075	mg/L	6010B

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METHOD SUMMARY

Client: Deigan & Associates | Job Number: 500-8386-1

Description	Lab Location	Method	Preparation Method
Matrix: Solid			
Inductively Coupled Plasma - Atomic Emission Spectrometry	TAL CHI	SW846 6010B	
TCLP Lead	TAL CHI	SW846 6010B	
Toxicity Characteristic Leaching Procedure	TAL CHI		SW846 1311
Acid Digestion of Sediments, Sludges, and Soils	TAL CHI		SW846 3050B
Acid Digestion of Aqueous Samples and Extracts for	TAL CHI		SW846 3010A
Mercury in Solid or Semisolid Waste (Manual Cold Vapor Technique)	TAL CHI	SW846 7471A	
Mercury in Solid or Semi-Solid Waste (Manual Cold	TAL CHI		SW846 7471A
pH	TAL CHI	SW846 9045C	

Lab References:

TAL CHI = TestAmerica Chicago

Method References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

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SAMPLE SUMMARY

Client: Deigan & Associates

Job Number: 500-8386-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
500-8386-1	LSF-3R	Solid	12/14/2007 0810	12/15/2007 0920
500-8386-2	LSF-11	Solid	12/14/2007 0830	12/15/2007 0920
500-8386-3	LSF-11 DUPLICATE	Solid	12/14/2007 0830	12/15/2007 0920
500-8386-4	LSF-13	Solid	12/14/2007 1025	12/15/2007 0920
500-8386-5	LSF-14	Solid	12/14/2007 1035	12/15/2007 0920
500-8386-6	LSF-15	Solid	12/14/2007 1110	12/15/2007 0920
500-8386-7	LSF-8R	Solid	12/14/2007 0910	12/15/2007 0920
500-8386-8	LSF-8R DUPLICATE	Solid	12/14/2007 0910	12/15/2007 0920

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SAMPLE RESULTS

Gary Deigan
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100 S. Genesee St.
Waukegan, IL 60085

Job Number: 500-8386-1

Client Sample ID: LSF-3R
Lab Sample ID: 500-8386-1

Date Sampled: 12/14/2007 0810
Date Received: 12/15/2007 0920
Client Matrix: Solid

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: TCLP-6010B			Date Analyzed:	12/19/2007 0520		
Prep Method: 3010A			Date Prepared:	12/18/2007 0900		
Lead	6.1		mg/L	0.0050	0.0075	1.0
Method: 6010B			Date Analyzed:	12/27/2007 0748		
Prep Method: 3050B			Date Prepared:	12/21/2007 0945		
Antimony	2.1		mg/Kg	0.55	2.0	1.0
Arsenic	2.8		mg/Kg	0.27	1.0	1.0
Barium	37		mg/Kg	0.45	1.0	1.0
Beryllium	0.18	J	mg/Kg	0.015	0.41	1.0
Cadmium	1.9		mg/Kg	0.061	0.20	1.0
Chromium	13	B	mg/Kg	0.11	1.0	1.0
Cobalt	2.1		mg/Kg	0.096	0.51	1.0
Copper	4500	B	mg/Kg	0.14	1.0	1.0
Lead	760		mg/Kg	0.24	0.51	1.0
Nickel	54		mg/Kg	0.44	1.0	1.0
Selenium	0.47	J	mg/Kg	0.39	1.0	1.0
Silver	1.4		mg/Kg	0.10	0.51	1.0
Thallium	<1.0		mg/Kg	0.48	1.0	1.0
Tin	110	B	mg/Kg	0.43	2.0	1.0
Vanadium	6.0		mg/Kg	0.18	0.51	1.0
Method: 6010B			Date Analyzed:	12/27/2007 1551		
Prep Method: 3050B			Date Prepared:	12/21/2007 0945		
Zinc	3300	B	mg/Kg	2.5	20	10
Method: 7471A			Date Analyzed:	12/21/2007 1338		
Prep Method: 7471A			Date Prepared:	12/21/2007 1100		
Mercury	250		ug/Kg	6.0	19	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	7.92		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/18/2007 2250		
Percent Moisture	11		%	0.10	0.10	1.0

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Job Number: 500-8386-1

Client Sample ID: LSF-11
Lab Sample ID: 500-8386-2

Date Sampled: 12/14/2007 0830
Date Received: 12/15/2007 0920
Client Matrix: Solid

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: TCLP-6010B			Date Analyzed:	12/19/2007 0526		
Prep Method: 3010A			Date Prepared:	12/18/2007 0900		
Lead	0.14		mg/L	0.0050	0.0075	1.0
Method: 6010B			Date Analyzed:	12/27/2007 0754		
Prep Method: 3050B			Date Prepared:	12/21/2007 0945		
Antimony	7.1		mg/Kg	0.52	1.9	1.0
Arsenic	6.1		mg/Kg	0.26	0.97	1.0
Barium	40		mg/Kg	0.43	0.97	1.0
Beryllium	0.49		mg/Kg	0.015	0.39	1.0
Cadmium	3.3		mg/Kg	0.058	0.19	1.0
Chromium	28	B	mg/Kg	0.11	0.97	1.0
Cobalt	6.5		mg/Kg	0.091	0.49	1.0
Lead	900		mg/Kg	0.23	0.49	1.0
Nickel	70		mg/Kg	0.42	0.97	1.0
Selenium	<0.97		mg/Kg	0.37	0.97	1.0
Silver	3.9		mg/Kg	0.097	0.49	1.0
Thallium	<0.97		mg/Kg	0.46	0.97	1.0
Tin	320	B	mg/Kg	0.41	1.9	1.0
Vanadium	14		mg/Kg	0.17	0.49	1.0
Method: 6010B			Date Analyzed:	12/27/2007 1557		
Prep Method: 3050B			Date Prepared:	12/21/2007 0945		
Copper	9600		mg/Kg	1.4	9.7	10
Zinc	3400	B	mg/Kg	2.4	19	10
Method: 7471A			Date Analyzed:	12/21/2007 1340		
Prep Method: 7471A			Date Prepared:	12/21/2007 1100		
Mercury	72		ug/Kg	6.2	19	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	5.84		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/18/2007 2250		
Percent Moisture	14		%	0.10	0.10	1.0

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Job Number: 500-8386-1

Client Sample ID: LSF-11 DUPLICATE
Lab Sample ID: 500-8386-3

Date Sampled: 12/14/2007 0830
Date Received: 12/15/2007 0920
Client Matrix: Solid

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: TCLP-6010B			Date Analyzed:	12/19/2007 0621		
Prep Method: 3010A			Date Prepared:	12/18/2007 0900		
Lead	0.15		mg/L	0.0050	0.0075	1.0
Method: 6010B			Date Analyzed:	12/27/2007 0800		
Prep Method: 3050B			Date Prepared:	12/21/2007 0945		
Antimony	2.3		mg/Kg	0.58	2.1	1.0
Arsenic	5.1		mg/Kg	0.29	1.1	1.0
Barium	43		mg/Kg	0.47	1.1	1.0
Beryllium	0.42	J	mg/Kg	0.016	0.43	1.0
Cadmium	2.7		mg/Kg	0.064	0.21	1.0
Chromium	13	B	mg/Kg	0.12	1.1	1.0
Cobalt	5.6		mg/Kg	0.10	0.54	1.0
Copper	3500	B	mg/Kg	0.15	1.1	1.0
Lead	590		mg/Kg	0.26	0.54	1.0
Nickel	40		mg/Kg	0.46	1.1	1.0
Selenium	0.44	J	mg/Kg	0.41	1.1	1.0
Silver	1.9		mg/Kg	0.11	0.54	1.0
Thallium	<1.1		mg/Kg	0.50	1.1	1.0
Tin	120	B	mg/Kg	0.45	2.1	1.0
Vanadium	14		mg/Kg	0.19	0.54	1.0
Method: 6010B			Date Analyzed:	12/27/2007 1603		
Prep Method: 3050B			Date Prepared:	12/21/2007 0945		
Zinc	3600	B	mg/Kg	2.7	21	10
Method: 7471A			Date Analyzed:	12/21/2007 1343		
Prep Method: 7471A			Date Prepared:	12/21/2007 1100		
Mercury	120		ug/Kg	6.2	20	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	6.07		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/18/2007 2250		
Percent Moisture	15		%	0.10	0.10	1.0

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Job Number: 500-8386-1

Client Sample ID: LSF-13
Lab Sample ID: 500-8386-4

Date Sampled: 12/14/2007 1025
Date Received: 12/15/2007 0920
Client Matrix: Solid

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: TCLP-6010B			Date Analyzed:	12/19/2007 0628		
Prep Method: 3010A			Date Prepared:	12/18/2007 0900		
Lead	0.11		mg/L	0.0050	0.0075	1.0
Method: 6010B			Date Analyzed:	12/27/2007 0807		
Prep Method: 3050B			Date Prepared:	12/21/2007 0945		
Antimony	6.2		mg/Kg	0.61	2.3	1.0
Arsenic	3.5		mg/Kg	0.30	1.1	1.0
Barium	18		mg/Kg	0.50	1.1	1.0
Beryllium	0.31	J	mg/Kg	0.017	0.45	1.0
Cadmium	7.0		mg/Kg	0.068	0.23	1.0
Chromium	16	B	mg/Kg	0.12	1.1	1.0
Cobalt	3.0		mg/Kg	0.11	0.56	1.0
Lead	1800		mg/Kg	0.27	0.56	1.0
Nickel	65		mg/Kg	0.49	1.1	1.0
Selenium	0.77	J	mg/Kg	0.43	1.1	1.0
Silver	4.4		mg/Kg	0.11	0.56	1.0
Thallium	<1.1		mg/Kg	0.53	1.1	1.0
Tin	360	B	mg/Kg	0.47	2.3	1.0
Vanadium	5.5		mg/Kg	0.20	0.56	1.0
Method: 6010B			Date Analyzed:	12/27/2007 1610		
Prep Method: 3050B			Date Prepared:	12/21/2007 0945		
Copper	12000		mg/Kg	1.6	11	10
Zinc	6500	B	mg/Kg	2.8	23	10
Method: 7471A			Date Analyzed:	12/21/2007 1345		
Prep Method: 7471A			Date Prepared:	12/21/2007 1100		
Mercury	29		ug/Kg	6.1	19	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	5.01		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/18/2007 2250		
Percent Moisture	14		%	0.10	0.10	1.0

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Job Number: 500-8386-1

Client Sample ID: LSF-14
Lab Sample ID: 500-8386-5

Date Sampled: 12/14/2007 1035
Date Received: 12/15/2007 0920
Client Matrix: Solid

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: TCLP-6010B			Date Analyzed:	12/19/2007 0634		
Prep Method: 3010A			Date Prepared:	12/18/2007 0900		
Lead	0.014		mg/L	0.0050	0.0075	1.0
Method: 6010B			Date Analyzed:	12/27/2007 0814		
Prep Method: 3050B			Date Prepared:	12/21/2007 0945		
Antimony	5.3		mg/Kg	0.62	2.3	1.0
Arsenic	8.1		mg/Kg	0.31	1.1	1.0
Barium	190		mg/Kg	0.50	1.1	1.0
Beryllium	0.55		mg/Kg	0.017	0.46	1.0
Cadmium	3.6		mg/Kg	0.069	0.23	1.0
Chromium	200	B	mg/Kg	0.13	1.1	1.0
Cobalt	7.3		mg/Kg	0.11	0.57	1.0
Lead	1900		mg/Kg	0.27	0.57	1.0
Nickel	62		mg/Kg	0.49	1.1	1.0
Selenium	0.69	J	mg/Kg	0.43	1.1	1.0
Silver	15		mg/Kg	0.11	0.57	1.0
Thallium	<1.1		mg/Kg	0.54	1.1	1.0
Tin	300	B	mg/Kg	0.48	2.3	1.0
Vanadium	14		mg/Kg	0.21	0.57	1.0
Method: 6010B			Date Analyzed:	12/27/2007 1616		
Prep Method: 3050B			Date Prepared:	12/21/2007 0945		
Copper	7300		mg/Kg	1.6	11	10
Zinc	4100	B	mg/Kg	2.9	23	10
Method: 7471A			Date Analyzed:	12/21/2007 1347		
Prep Method: 7471A			Date Prepared:	12/21/2007 1100		
Mercury	420		ug/Kg	6.4	20	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	4.52		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/18/2007 2250		
Percent Moisture	17		%	0.10	0.10	1.0

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Job Number: 500-8386-1

Client Sample ID: LSF-15
Lab Sample ID: 500-8386-6

Date Sampled: 12/14/2007 1110
Date Received: 12/15/2007 0920
Client Matrix: Solid

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: TCLP-6010B			Date Analyzed:	12/19/2007 0640		
Prep Method: 3010A			Date Prepared:	12/18/2007 0900		
Lead	3.0		mg/L	0.0050	0.0075	1.0
Method: 6010B			Date Analyzed:	12/27/2007 0846		
Prep Method: 3050B			Date Prepared:	12/21/2007 0945		
Antimony	4.0		mg/Kg	0.53	2.0	1.0
Arsenic	4.1		mg/Kg	0.27	0.99	1.0
Barium	51		mg/Kg	0.43	0.99	1.0
Beryllium	3.0		mg/Kg	0.015	0.39	1.0
Cadmium	3.0		mg/Kg	0.059	0.20	1.0
Chromium	17	B	mg/Kg	0.11	0.99	1.0
Cobalt	6.7		mg/Kg	0.093	0.49	1.0
Lead	1200		mg/Kg	0.24	0.49	1.0
Nickel	84		mg/Kg	0.42	0.99	1.0
Selenium	<0.99		mg/Kg	0.37	0.99	1.0
Silver	2.7		mg/Kg	0.099	0.49	1.0
Thallium	<0.99		mg/Kg	0.46	0.99	1.0
Tin	350	B	mg/Kg	0.41	2.0	1.0
Vanadium	7.8		mg/Kg	0.18	0.49	1.0
Method: 6010B			Date Analyzed:	12/27/2007 1622		
Prep Method: 3050B			Date Prepared:	12/21/2007 0945		
Copper	7200		mg/Kg	1.4	9.9	10
Method: 6010B			Date Analyzed:	12/28/2007 1939		
Prep Method: 3050B			Date Prepared:	12/21/2007 0945		
Zinc	7200	B	mg/Kg	4.9	39	20
Method: 7471A			Date Analyzed:	12/21/2007 1349		
Prep Method: 7471A			Date Prepared:	12/21/2007 1100		
Mercury	18		ug/Kg	5.7	18	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	7.60		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/18/2007 2250		
Percent Moisture	7.8		%	0.10	0.10	1.0

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Gary Deigan
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Job Number: 500-8386-1

Client Sample ID: LSF-8R
Lab Sample ID: 500-8386-7

Date Sampled: 12/14/2007 0910
Date Received: 12/15/2007 0920
Client Matrix: Solid

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: TCLP-6010B			Date Analyzed:	12/19/2007 0646		
Prep Method: 3010A			Date Prepared:	12/18/2007 0900		
Lead	3.6		mg/L	0.0050	0.0075	1.0
Method: 6010B			Date Analyzed:	12/27/2007 0918		
Prep Method: 3050B			Date Prepared:	12/21/2007 0945		
Antimony	4.1		mg/Kg	0.52	1.9	1.0
Arsenic	7.9		mg/Kg	0.26	0.96	1.0
Barium	420		mg/Kg	0.42	0.96	1.0
Beryllium	0.93		mg/Kg	0.014	0.38	1.0
Cadmium	2.4		mg/Kg	0.057	0.19	1.0
Chromium	28	B	mg/Kg	0.11	0.96	1.0
Cobalt	12		mg/Kg	0.090	0.48	1.0
Lead	1000		mg/Kg	0.23	0.48	1.0
Nickel	68		mg/Kg	0.41	0.96	1.0
Selenium	0.78	J	mg/Kg	0.36	0.96	1.0
Silver	3.1		mg/Kg	0.096	0.48	1.0
Thallium	<0.96		mg/Kg	0.45	0.96	1.0
Tin	260	B	mg/Kg	0.40	1.9	1.0
Vanadium	15		mg/Kg	0.17	0.48	1.0
Method: 6010B			Date Analyzed:	12/27/2007 1719		
Prep Method: 3050B			Date Prepared:	12/21/2007 0945		
Copper	7000		mg/Kg	1.3	9.6	10
Zinc	3700	B	mg/Kg	2.4	19	10
Method: 7471A			Date Analyzed:	12/21/2007 1351		
Prep Method: 7471A			Date Prepared:	12/21/2007 1100		
Mercury	210		ug/Kg	5.8	18	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	8.02		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/18/2007 2250		
Percent Moisture	8.6		%	0.10	0.10	1.0

US EPA ARCHIVE DOCUMENT

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Job Number: 500-8386-1

Client Sample ID: LSF-8R DUPLICATE
Lab Sample ID: 500-8386-8

Date Sampled: 12/14/2007 0910
Date Received: 12/15/2007 0920
Client Matrix: Solid

Analyte	Result/Qualifier		Unit	MDL	RL	Dilution
Method: TCLP-6010B			Date Analyzed:	12/19/2007 0653		
Prep Method: 3010A			Date Prepared:	12/18/2007 0900		
Lead	1.6		mg/L	0.0050	0.0075	1.0
Method: 6010B			Date Analyzed:	12/27/2007 0924		
Prep Method: 3050B			Date Prepared:	12/21/2007 0945		
Antimony	3.4		mg/Kg	0.51	1.9	1.0
Arsenic	9.5		mg/Kg	0.25	0.94	1.0
Barium	780		mg/Kg	0.41	0.94	1.0
Beryllium	0.51		mg/Kg	0.014	0.38	1.0
Cadmium	2.6		mg/Kg	0.056	0.19	1.0
Chromium	39	B	mg/Kg	0.10	0.94	1.0
Cobalt	14		mg/Kg	0.088	0.47	1.0
Lead	1100		mg/Kg	0.23	0.47	1.0
Nickel	67		mg/Kg	0.40	0.94	1.0
Selenium	0.52	J	mg/Kg	0.36	0.94	1.0
Silver	2.6		mg/Kg	0.094	0.47	1.0
Thallium	<0.94		mg/Kg	0.44	0.94	1.0
Tin	200	B	mg/Kg	0.39	1.9	1.0
Vanadium	15		mg/Kg	0.17	0.47	1.0
Method: 6010B			Date Analyzed:	12/27/2007 1725		
Prep Method: 3050B			Date Prepared:	12/21/2007 0945		
Copper	6800		mg/Kg	1.3	9.4	10
Zinc	3900	B	mg/Kg	2.3	19	10
Method: 7471A			Date Analyzed:	12/21/2007 1354		
Prep Method: 7471A			Date Prepared:	12/21/2007 1100		
Mercury	270		ug/Kg	5.7	18	1.0
Method: 9045C			Date Analyzed:	12/18/2007 1520		
pH	7.88		SU	0.200	0.200	1.0
Method: PercentMoisture			Date Analyzed:	12/18/2007 2250		
Percent Moisture	7.8		%	0.10	0.10	1.0

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DATA REPORTING QUALIFIERS

Client: Deigan & Associates

Job Number: 500-8386-1

Lab Section	Qualifier	Description
Metals		
	B	Compound was found in the blank and sample.
	F	Duplicate RPD exceeds the control limit
	F	MS or MSD exceeds the control limits
	4	MS, MSD: The analyte present in the original sample is 4 times greater than the matrix spike concentration; therefore, control limits are not applicable.
	J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
	F	RPD of the MS and MSD exceeds the control limits

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QUALITY CONTROL RESULTS

Client: Deigan & Associates

Job Number: 500-8386-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 500-28351					
LB 500-28351/1-B	TCLP SPLPE Leachate Blank	P	Solid	1311	
500-8386-1	LSF-3R	P	Solid	1311	
500-8386-2	LSF-11	P	Solid	1311	
500-8386-2DU	Duplicate	P	Solid	1311	
500-8386-2MS	Matrix Spike	P	Solid	1311	
500-8386-3	LSF-11 DUPLICATE	P	Solid	1311	
500-8386-4	LSF-13	P	Solid	1311	
500-8386-5	LSF-14	P	Solid	1311	
500-8386-6	LSF-15	P	Solid	1311	
500-8386-7	LSF-8R	P	Solid	1311	
500-8386-8	LSF-8R DUPLICATE	P	Solid	1311	
Prep Batch: 500-28401					
LCS 500-28401/3-A	Lab Control Spike	T	Water	3010A	
LB 500-28351/1-B	TCLP SPLPE Leachate Blank	P	Solid	3010A	500-28351
500-8386-1	LSF-3R	P	Solid	3010A	500-28351
500-8386-2	LSF-11	P	Solid	3010A	500-28351
500-8386-2DU	Duplicate	P	Solid	3010A	500-28351
500-8386-2MS	Matrix Spike	P	Solid	3010A	500-28351
500-8386-3	LSF-11 DUPLICATE	P	Solid	3010A	500-28351
500-8386-4	LSF-13	P	Solid	3010A	500-28351
500-8386-5	LSF-14	P	Solid	3010A	500-28351
500-8386-6	LSF-15	P	Solid	3010A	500-28351
500-8386-7	LSF-8R	P	Solid	3010A	500-28351
500-8386-8	LSF-8R DUPLICATE	P	Solid	3010A	500-28351
Analysis Batch:500-28511					
LB 500-28351/1-B	TCLP SPLPE Leachate Blank	P	Solid	6010B	500-28401
LCS 500-28401/3-A	Lab Control Spike	T	Water	6010B	500-28401
500-8386-1	LSF-3R	P	Solid	6010B	500-28401
500-8386-2	LSF-11	P	Solid	6010B	500-28401
500-8386-2DU	Duplicate	P	Solid	6010B	500-28401
500-8386-2MS	Matrix Spike	P	Solid	6010B	500-28401
500-8386-3	LSF-11 DUPLICATE	P	Solid	6010B	500-28401
500-8386-4	LSF-13	P	Solid	6010B	500-28401
500-8386-5	LSF-14	P	Solid	6010B	500-28401
500-8386-6	LSF-15	P	Solid	6010B	500-28401
500-8386-7	LSF-8R	P	Solid	6010B	500-28401
500-8386-8	LSF-8R DUPLICATE	P	Solid	6010B	500-28401

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Client: Deigan & Associates

Job Number: 500-8386-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 500-28775					
LCS 500-28775/2-A	Lab Control Spike	T	Solid	3050B	
MB 500-28775/1-A	Method Blank	T	Solid	3050B	
500-8386-1	LSF-3R	T	Solid	3050B	
500-8386-2	LSF-11	T	Solid	3050B	
500-8386-3	LSF-11 DUPLICATE	T	Solid	3050B	
500-8386-4	LSF-13	T	Solid	3050B	
500-8386-5	LSF-14	T	Solid	3050B	
500-8386-6	LSF-15	T	Solid	3050B	
500-8386-6DU	Duplicate	T	Solid	3050B	
500-8386-6MS	Matrix Spike	T	Solid	3050B	
500-8386-6MSD	Matrix Spike Duplicate	T	Solid	3050B	
500-8386-7	LSF-8R	T	Solid	3050B	
500-8386-8	LSF-8R DUPLICATE	T	Solid	3050B	
Analysis Batch:500-28839					
LCS 500-28897/2-A	Lab Control Spike	T	Solid	7471A	500-28897
MB 500-28897/1-A	Method Blank	T	Solid	7471A	500-28897
500-8386-1	LSF-3R	T	Solid	7471A	500-28897
500-8386-2	LSF-11	T	Solid	7471A	500-28897
500-8386-3	LSF-11 DUPLICATE	T	Solid	7471A	500-28897
500-8386-4	LSF-13	T	Solid	7471A	500-28897
500-8386-5	LSF-14	T	Solid	7471A	500-28897
500-8386-6	LSF-15	T	Solid	7471A	500-28897
500-8386-7	LSF-8R	T	Solid	7471A	500-28897
500-8386-8	LSF-8R DUPLICATE	T	Solid	7471A	500-28897
Prep Batch: 500-28897					
LCS 500-28897/2-A	Lab Control Spike	T	Solid	7471A	
MB 500-28897/1-A	Method Blank	T	Solid	7471A	
500-8386-1	LSF-3R	T	Solid	7471A	
500-8386-2	LSF-11	T	Solid	7471A	
500-8386-3	LSF-11 DUPLICATE	T	Solid	7471A	
500-8386-4	LSF-13	T	Solid	7471A	
500-8386-5	LSF-14	T	Solid	7471A	
500-8386-6	LSF-15	T	Solid	7471A	
500-8386-7	LSF-8R	T	Solid	7471A	
500-8386-8	LSF-8R DUPLICATE	T	Solid	7471A	

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Client: Deigan & Associates

Job Number: 500-8386-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Analysis Batch:500-29077					
LCS 500-28775/2-A	Lab Control Spike	T	Solid	6010B	500-28775
MB 500-28775/1-A	Method Blank	T	Solid	6010B	500-28775
500-8386-1	LSF-3R	T	Solid	6010B	500-28775
500-8386-2	LSF-11	T	Solid	6010B	500-28775
500-8386-3	LSF-11 DUPLICATE	T	Solid	6010B	500-28775
500-8386-4	LSF-13	T	Solid	6010B	500-28775
500-8386-5	LSF-14	T	Solid	6010B	500-28775
500-8386-6	LSF-15	T	Solid	6010B	500-28775
500-8386-6DU	Duplicate	T	Solid	6010B	500-28775
500-8386-6MS	Matrix Spike	T	Solid	6010B	500-28775
500-8386-6MSD	Matrix Spike Duplicate	T	Solid	6010B	500-28775
500-8386-7	LSF-8R	T	Solid	6010B	500-28775
500-8386-8	LSF-8R DUPLICATE	T	Solid	6010B	500-28775
Analysis Batch:500-29131					
LCS 500-28775/2-A	Lab Control Spike	T	Solid	6010B	500-28775
MB 500-28775/1-A	Method Blank	T	Solid	6010B	500-28775
500-8386-1	LSF-3R	T	Solid	6010B	500-28775
500-8386-2	LSF-11	T	Solid	6010B	500-28775
500-8386-3	LSF-11 DUPLICATE	T	Solid	6010B	500-28775
500-8386-4	LSF-13	T	Solid	6010B	500-28775
500-8386-5	LSF-14	T	Solid	6010B	500-28775
500-8386-6	LSF-15	T	Solid	6010B	500-28775
500-8386-6DU	Duplicate	T	Solid	6010B	500-28775
500-8386-6MS	Matrix Spike	T	Solid	6010B	500-28775
500-8386-6MSD	Matrix Spike Duplicate	T	Solid	6010B	500-28775
500-8386-7	LSF-8R	T	Solid	6010B	500-28775
500-8386-8	LSF-8R DUPLICATE	T	Solid	6010B	500-28775
Analysis Batch:500-29269					
500-8386-6	LSF-15	T	Solid	6010B	500-28775
500-8386-6DU	Duplicate	T	Solid	6010B	500-28775
500-8386-6MS	Matrix Spike	T	Solid	6010B	500-28775
500-8386-6MSD	Matrix Spike Duplicate	T	Solid	6010B	500-28775

Report Basis
P = TCLP
T = Total

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8386-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
General Chemistry					
Analysis Batch:500-28465					
500-8386-1	LSF-3R	T	Solid	PercentMoisture	
500-8386-1DU	Duplicate		Solid	PercentMoisture	
500-8386-2	LSF-11	T	Solid	PercentMoisture	
500-8386-3	LSF-11 DUPLICATE	T	Solid	PercentMoisture	
500-8386-4	LSF-13	T	Solid	PercentMoisture	
500-8386-5	LSF-14	T	Solid	PercentMoisture	
500-8386-6	LSF-15	T	Solid	PercentMoisture	
500-8386-7	LSF-8R	T	Solid	PercentMoisture	
500-8386-8	LSF-8R DUPLICATE	T	Solid	PercentMoisture	
Analysis Batch:500-28485					
500-8386-1	LSF-3R	T	Solid	9045C	
500-8386-2	LSF-11	T	Solid	9045C	
500-8386-3	LSF-11 DUPLICATE	T	Solid	9045C	
500-8386-4	LSF-13	T	Solid	9045C	
500-8386-5	LSF-14	T	Solid	9045C	
500-8386-6	LSF-15	T	Solid	9045C	
500-8386-7	LSF-8R	T	Solid	9045C	
500-8386-8	LSF-8R DUPLICATE	T	Solid	9045C	

Report Basis
= Total/NA
T = Total

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Client: Deigan & Associates

Job Number: 500-8386-1

TCLP SPLPE Leachate Blank - Batch: 500-28401

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID: LB 500-28351/1-B
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/19/2007 0437
Date Prepared: 12/18/2007 0900
Date Leached: 12/17/2007 1340

Analysis Batch: 500-28511
Prep Batch: 500-28401
Units: mg/L
Leachate Batch: 500-28351

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51218B
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Lead	<0.0075		0.0050	0.0075

Lab Control Spike - Batch: 500-28401

Method: 6010B
Preparation: 3010A

Lab Sample ID: LCS 500-28401/3-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 12/19/2007 0449
Date Prepared: 12/18/2007 0900

Analysis Batch: 500-28511
Prep Batch: 500-28401
Units: mg/L

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51218B
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Lead	0.100	0.0978	98	80 - 120	

Matrix Spike - Batch: 500-28401

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID: 500-8386-2
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/19/2007 0611
Date Prepared: 12/18/2007 0900
Date Leached: 12/17/2007 1340

Analysis Batch: 500-28511
Prep Batch: 500-28401
Units: mg/L
Leachate Batch: 500-28351

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51218B
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Spike Amount	Result	% Rec.	Limit	Qual
Lead	0.14	5.00	4.85	94	50 - 150	

Calculations are performed before rounding to avoid round-off errors in calculated results.

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8386-1

Duplicate - Batch: 500-28401

Method: 6010B
Preparation: 3010A
TCLP

Lab Sample ID: 500-8386-2
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/19/2007 0605
Date Prepared: 12/18/2007 0900
Date Leached: 12/17/2007 1340

Analysis Batch: 500-28511
Prep Batch: 500-28401
Units: mg/L

Leachate Batch: 500-28351

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51218B
Initial Weight/Volume: 50 mL
Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Lead	0.14	0.0963	35	20	F

Calculations are performed before rounding to avoid round-off errors in calculated results.

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Client: Deigan & Associates

Job Number: 500-8386-1

Method Blank - Batch: 500-28775

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 500-28775/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/27/2007 0713
Date Prepared: 12/21/2007 0945

Analysis Batch: 500-29077
Prep Batch: 500-28775
Units: mg/Kg

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51226C
Initial Weight/Volume: 1.0 g
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Antimony	<2.0		0.54	2.0
Arsenic	<1.0		0.27	1.0
Barium	<1.0		0.44	1.0
Beryllium	<0.40		0.015	0.40
Cadmium	<0.20		0.060	0.20
Chromium	0.15	J	0.11	1.0
Cobalt	<0.50		0.094	0.50
Copper	0.35	J	0.14	1.0
Lead	<0.50		0.24	0.50
Nickel	<1.0		0.43	1.0
Selenium	<1.0		0.38	1.0
Silver	<0.50		0.10	0.50
Thallium	<1.0		0.47	1.0
Tin	1.7	J	0.42	2.0
Vanadium	<0.50		0.18	0.50

Method Blank - Batch: 500-28775

Method: 6010B
Preparation: 3050B

Lab Sample ID: MB 500-28775/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/27/2007 1539
Date Prepared: 12/21/2007 0945

Analysis Batch: 500-29131
Prep Batch: 500-28775
Units: mg/Kg

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51227A
Initial Weight/Volume: 1.0 g
Final Weight/Volume: 100 mL

Analyte	Result	Qual	MDL	RL
Zinc	0.46	J	0.25	2.0

Calculations are performed before rounding to avoid round-off errors in calculated results.

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8386-1

Lab Control Spike - Batch: 500-28775

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCS 500-28775/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/27/2007 0719
Date Prepared: 12/21/2007 0945

Analysis Batch: 500-29077
Prep Batch: 500-28775
Units: mg/Kg

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51226C
Initial Weight/Volume: 1.0 g
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	50.0	45.0	90	80 - 120	
Arsenic	10.0	9.12	91	80 - 120	
Barium	200	182	91	80 - 120	
Beryllium	5.00	4.70	94	80 - 120	
Cadmium	5.00	4.77	95	80 - 120	
Chromium	20.0	19.5	97	80 - 120	
Cobalt	50.0	47.3	95	80 - 120	
Copper	25.0	24.0	96	80 - 120	
Lead	10.0	9.69	97	80 - 120	
Nickel	50.0	47.3	95	80 - 120	
Selenium	10.0	8.80	88	80 - 120	
Silver	5.00	4.53	91	80 - 120	
Thallium	10.0	9.00	90	80 - 120	
Tin	100	94.9	95	80 - 120	
Vanadium	50.0	47.6	95	80 - 120	

Lab Control Spike - Batch: 500-28775

Method: 6010B
Preparation: 3050B

Lab Sample ID: LCS 500-28775/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/27/2007 1545
Date Prepared: 12/21/2007 0945

Analysis Batch: 500-29131
Prep Batch: 500-28775
Units: mg/Kg

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51227A
Initial Weight/Volume: 1.0 g
Final Weight/Volume: 100 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Zinc	50.0	48.7	97	80 - 120	

Calculations are performed before rounding to avoid round-off errors in calculated results.

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8386-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 500-28775

Method: 6010B
Preparation: 3050B

MS Lab Sample ID: 500-8386-6
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/27/2007 0905
Date Prepared: 12/21/2007 0945

Analysis Batch: 500-29077
Prep Batch: 500-28775

Instrument ID: TJA ICAP 61E Trace
Lab File ID: P51226C
Initial Weight/Volume: 1.0121 g
Final Weight/Volume: 100 mL

MSD Lab Sample ID: 500-8386-6
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/27/2007 0911
Date Prepared: 12/21/2007 0945

Analysis Batch: 500-29077
Prep Batch: 500-28775

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51226C
Initial Weight/Volume: 1.1128 g
Final Weight/Volume: 100 mL

	% Rec.						
Analyte	MS	MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Antimony	51	48	75 - 125	14	20	F	F
Arsenic	88	97	75 - 125	0	20		
Barium	90	84	75 - 125	12	20		
Beryllium	71	52	75 - 125	21	20	F	F
Cadmium	82	89	75 - 125	1	20		
Chromium	68	66	75 - 125	5	20	F	F
Cobalt	87	87	75 - 125	7	20		
Lead	-20	1750	75 - 125	13	20	4	4
Nickel	84	106	75 - 125	5	20		
Selenium	92	90	75 - 125	11	20		
Silver	114	152	75 - 125	14	20		F
Thallium	83	93	75 - 125	2	20		
Tin	85	120	75 - 125	6	20		
Vanadium	91	96	75 - 125	3	20		

Calculations are performed before rounding to avoid round-off errors in calculated results.

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8386-1

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 500-28775

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	500-8386-6	Analysis Batch:	500-29131	Instrument ID:	TJA ICAP 61E Trace
Client Matrix:	Solid	Prep Batch:	500-28775	Lab File ID:	P51227A
Dilution:	10			Initial Weight/Volume:	1.0121 g
Date Analyzed:	12/27/2007 1707			Final Weight/Volume:	100 mL
Date Prepared:	12/21/2007 0945				

MSD Lab Sample ID:	500-8386-6	Analysis Batch:	500-29131	Instrument ID:	TJA ICAP 61E Trace Analy
Client Matrix:	Solid	Prep Batch:	500-28775	Lab File ID:	P51227A
Dilution:	10			Initial Weight/Volume:	1.1128 g
Date Analyzed:	12/27/2007 1713			Final Weight/Volume:	100 mL
Date Prepared:	12/21/2007 0945				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Copper	7720	15600	75 - 125	17	20	4	4

Matrix Spike/
Matrix Spike Duplicate Recovery Report - Batch: 500-28775

Method: 6010B
Preparation: 3050B

MS Lab Sample ID:	500-8386-6	Analysis Batch:	500-29269	Instrument ID:	TJA ICAP 61E Trace
Client Matrix:	Solid	Prep Batch:	500-28775	Lab File ID:	P41228B
Dilution:	20			Initial Weight/Volume:	1.0121 g
Date Analyzed:	12/28/2007 2000			Final Weight/Volume:	100 mL
Date Prepared:	12/21/2007 0945				

MSD Lab Sample ID:	500-8386-6	Analysis Batch:	500-29269	Instrument ID:	TJA ICAP 61E Trace Analy
Client Matrix:	Solid	Prep Batch:	500-28775	Lab File ID:	P41228B
Dilution:	20			Initial Weight/Volume:	1.1128 g
Date Analyzed:	12/28/2007 2007			Final Weight/Volume:	100 mL
Date Prepared:	12/21/2007 0945				

Analyte	% Rec. MS	% Rec. MSD	Limit	RPD	RPD Limit	MS Qual	MSD Qual
Zinc	-2330	-4420	75 - 125	16	20	B 4	B 4

Calculations are performed before rounding to avoid round-off errors in calculated results.

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Client: Deigan & Associates

Job Number: 500-8386-1

Duplicate - Batch: 500-28775

Method: 6010B
Preparation: 3050B

Lab Sample ID: 500-8386-6
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/27/2007 0859
Date Prepared: 12/21/2007 0945

Analysis Batch: 500-29077
Prep Batch: 500-28775
Units: mg/Kg

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51226C
Initial Weight/Volume: 1.0799 g
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Antimony	4.0	6.64	51	20	F
Arsenic	4.1	3.38	19	20	
Barium	51	67.7	28	20	F
Beryllium	3.0	5.51	60	20	F
Cadmium	3.0	3.10	3	20	
Chromium	17	14.7	17	20	
Cobalt	6.7	12.3	58	20	F
Lead	1200	2680	76	20	F
Nickel	84	141	51	20	F
Selenium	<0.99	0.554	NC	20	J
Silver	2.7	3.64	31	20	F
Thallium	<0.99	-0.346	NC	20	
Tin	350	899	88	20	F
Vanadium	7.8	7.49	5	20	

Duplicate - Batch: 500-28775

Method: 6010B
Preparation: 3050B

Lab Sample ID: 500-8386-6
Client Matrix: Solid
Dilution: 10
Date Analyzed: 12/27/2007 1634
Date Prepared: 12/21/2007 0945

Analysis Batch: 500-29131
Prep Batch: 500-28775
Units: mg/Kg

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P51227A
Initial Weight/Volume: 1.0799 g
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Copper	7200	8990	22	20	F

Calculations are performed before rounding to avoid round-off errors in calculated results.

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8386-1

Duplicate - Batch: 500-28775

Method: 6010B
Preparation: 3050B

Lab Sample ID: 500-8386-6
Client Matrix: Solid
Dilution: 20
Date Analyzed: 12/28/2007 1953
Date Prepared: 12/21/2007 0945

Analysis Batch: 500-29269
Prep Batch: 500-28775
Units: mg/Kg

Instrument ID: TJA ICAP 61E Trace Analy
Lab File ID: P41228B
Initial Weight/Volume: 1.0799 g
Final Weight/Volume: 100 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Zinc	7200	27100	116	20	B F

Calculations are performed before rounding to avoid round-off errors in calculated results.

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8386-1

Method Blank - Batch: 500-28897

Method: 7471A
Preparation: 7471A

Lab Sample ID: MB 500-28897/1-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/21/2007 1253
Date Prepared: 12/21/2007 1100

Analysis Batch: 500-28839
Prep Batch: 500-28897
Units: ug/Kg

Instrument ID: Leeman Labs PS200 Merc
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Mercury	<17		5.3	17

Lab Control Spike - Batch: 500-28897

Method: 7471A
Preparation: 7471A

Lab Sample ID: LCS 500-28897/2-A
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/21/2007 1255
Date Prepared: 12/21/2007 1100

Analysis Batch: 500-28839
Prep Batch: 500-28897
Units: ug/Kg

Instrument ID: Leeman Labs PS200 Merc
Lab File ID: N/A
Initial Weight/Volume: 0.60 g
Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	167	179	107	80 - 120	

Calculations are performed before rounding to avoid round-off errors in calculated results.

US EPA ARCHIVE DOCUMENT

Client: Deigan & Associates

Job Number: 500-8386-1

Duplicate - Batch: 500-28465

Method: PercentMoisture
Preparation: N/A

Lab Sample ID: 500-8386-1
Client Matrix: Solid
Dilution: 1.0
Date Analyzed: 12/18/2007 2250
Date Prepared: N/A

Analysis Batch: 500-28465
Prep Batch: N/A
Units: %

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume:
Final Weight/Volume:

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Percent Moisture	11	11.7			
Percent Solids	89	88.3	0	20	

Calculations are performed before rounding to avoid round-off errors in calculated results.

US EPA ARCHIVE DOCUMENT

Chain of Custody Record

SEVERN TRENT **STL**

Severn Trent Laboratories, Inc.

STL-4124 (0901)

500-8386

12/31/2007

Client	Project Manager	Date	Chain of Custody Number
Deigan Assoc. LLC	Gary Deigan	12/14/07	359717

Address	Telephone Number (Area Code)/Fax Number	Lab Number	Page 1 of 1
100 S. Genesee	(847) 623-9356		

City	State	Zip Code	Site Contact	Lab Contact
Waukegan	IL	60085	Van Allen	D. Wright

Project Name and Location (State): Lake Shore Foundry, Waukegan

Carrier/Waybill Number:

Contract/Purchase Order/Quote No.:

Analysis (Attach list if more space is needed)

	Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	TCLP Pb	Total Ix	Metals, pH	Special Instructions/ Conditions of Receipt
1	LSF-3R	12/14/07	8:10			X							X	X	X	
2	LSF-11	↓	8:30			X							X	X	X	
3	LSF-11 Duplicate		8:30			X							X	X	X	
4	LSF-13		10:25			X							X	X	X	
5	LSF-14		10:35			X							X	X	X	
6	LSF-15		11:10			X							X	X	X	
7	LSF-8R		9:10			X							X	X	X	
8	LSF-8R Duplicate	↓	9:10			X							X	X	X	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☒ Archive For 1 Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required: ☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other Standard

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By: Kim Deigan Assoc.	12/14/07	4:30	1. Received By: [signature]	12/15/07	0920
2. Relinquished By:			2. Received By:		
3. Relinquished By:			3. Received By:		

Comments:

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

Login Sample Receipt Check List

Client: Deigan & Associates

Job Number: 500-8386-1

Login Number: 8386
Creator: Lunt, Jeff T
List Number: 1

List Source: TestAmerica Chicago

Question	T / F/ NA	Comment
Radioactivity either was not measured or, if measured, is at or below background	True	
The cooler's custody seal, if present, is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	2.4
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the sample IDs on the containers and the COC.	True	
Samples are received within Holding Time.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
VOA sample vials do not have headspace or bubble is <6mm (1/4") in diameter.	True	
If necessary, staff have been informed of any short hold time or quick TAT needs	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	