

US EPA ARCHIVE DOCUMENT



Deigan & Associates, LLC
Environmental Consultants

162 E. Cook Ave.
Libertyville, Illinois 60048

847.578.5000

January 30, 2012

Christine M. McConaghy, M.E.M.
U.S. Environmental Protection Agency
RCRA Corrective Action Project Manager
Quality Assurance Liaison
77 West Jackson Blvd.
Chicago, Illinois 60604-3590

via email to mcconaghy.christine@epa.gov

**Re: Description of Current Conditions (DOCC) Report Addendum
7th Round of Groundwater Sampling/Analysis
Former Lake Shore Foundry, Waukegan, IL. (ILR000 1110591)**

Dear Ms. McConaghy:

As requested by USEPA, enclosed please find the results of an additional (7th) round of groundwater sampling and analysis at the above-referenced property conducted on behalf of NorStates Bank, which received the property via foreclosure. Groundwater flow direction is also confirmed via water level readings as depicted in Figure 1, Groundwater Contour Map.

Table 1 provides a summary table comparing the January 18, 2012 sampling event for total and dissolved metals against the applicable Illinois Class I & II groundwater standards. The data shows that no Class I & II groundwater standards are exceeded at the four (4) on-site monitoring wells (MW-01, MW-03, MW-04 and MW-05). MW-02 which is located near former building source areas has only a negligible exceedance of Class I groundwater standard for total cadmium (0.0053 vs. 0.005 mg/L) on January 18, 2012. The dissolved concentration of cadmium at MW-02 does not exceed the Class I groundwater standard.

Please contact me with any comments or questions and what next timely steps can be taken to close out the Consent Order.

Sincerely,
Deigan & Associates, LLC

Gary J. Deigan, Principal

cc: K. Biegay, NorStates Bank

Former Lakeshore Foundry
July 20, 2011
DOCC Addendum

Enclosures:
Table 1, Figure 1 and Lab Data



LEGEND



Monitoring Well



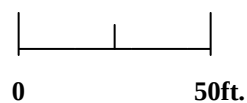
Groundwater Contour



Groundwater Elevation

Figure 1
Groundwater Sample Locations and
Groundwater Elevations, January 18, 2012
Former Lake Shore Foundry
653 S. Market St.
Waukegan, IL 60085

Scale (Approx.)



Customer	Deigan & Associates
Project	Former Lake Shore Foundry
Sample Date	1/18/2012
Lab Name	TestAmerica Chicago
Job Number	500-43776-1

Analytical Results for Water Samples		* Exposure Routes for Specific SROs				Sample ID					
TABLE 1						pH					
Method	Analyte	Ingestion mg/L	Inhalation mg/L	Class I mg/L	Class II mg/L	LSF-MW-01 7.21	LSF-MW-02 7.01	LSF-MW-03 7.48	LSF-MW-04 7.50	LSF-MW-05 7.22	EXISTING AMPSKY WELL 7.10
6010B	Arsenic	NRO	NRO	0.05	0.2	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
6010B	Barium	NRO	NRO	2	2	0.085	0.084	0.064	0.059	0.14	0.065
6010B	Beryllium	NRO	NRO	0.004	0.5	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
6010B	Cadmium	NRO	NRO	0.005	0.05	<0.0020	0.0053	<0.0020	<0.0020	<0.0020	<0.0020
6010B	Chromium	NRO	NRO	0.1	1	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
6010B	Cobalt	NRO	NRO	1	1	<0.0050	0.0038	<0.0050	0.00066	0.0011	0.0012
6010B	Copper	NRO	NRO	0.65	0.65	<0.010	0.51	0.27	0.034	0.018	<0.010
6010B	Lead	NRO	NRO	0.0075	0.1	<0.0050	0.0037	0.0023	<0.0050	0.0037	<0.0050
6010B	Nickel	NRO	NRO	0.1	2	<0.010	0.039	0.019	0.0054	0.0051	0.0016
6010B	Selenium	NRO	NRO	0.05	0.05	<0.010	0.0068	0.0025	<0.010	<0.010	<0.010
6010B	Silver	NRO	NRO	0.05	NRO	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
6010B	Tin	NRO	NRO	4.2	NRO	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
6010B	Vanadium	NRO	NRO	0.049	0.1	0.0040	0.0048	0.0039	0.0053	0.0053	0.0043
6010B	Zinc	NRO	NRO	5	10	<0.020	1.5	0.20	0.042	0.51	0.0074
6010B-Diss	Arsenic, Diss	NRO	NRO	NRO	NRO	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
6010B-Diss	Barium, Diss	NRO	NRO	NRO	NRO	0.071	0.081	0.062	0.052	0.091	0.063
6010B-Diss	Beryllium, Diss	NRO	NRO	NRO	NRO	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040	<0.0040
6010B-Diss	Cadmium, Diss	NRO	NRO	NRO	NRO	0.00090	0.0059	0.0011	0.0010	0.0011	0.0010
6010B-Diss	Chromium, Diss	NRO	NRO	NRO	NRO	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010
6010B-Diss	Cobalt, Diss	NRO	NRO	NRO	NRO	<0.0050	0.0035	<0.0050	<0.0050	<0.0050	0.00047
6010B-Diss	Copper, Diss	NRO	NRO	NRO	NRO	<0.010	0.45	0.25	0.019	0.0024	0.0023
6010B-Diss	Lead, Diss	NRO	NRO	NRO	NRO	<0.0050	0.0024	<0.0050	<0.0050	<0.0050	<0.0050
6010B-Diss	Nickel, Diss	NRO	NRO	NRO	NRO	<0.010	0.039	0.019	0.0042	0.0046	0.00090
6010B-Diss	Selenium, Diss	NRO	NRO	NRO	NRO	<0.010	0.0080	0.0053	0.0035	<0.010	<0.010
6010B-Diss	Silver, Diss	NRO	NRO	NRO	NRO	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
6010B-Diss	Tin, Diss	NRO	NRO	NRO	NRO	<0.040	<0.040	<0.040	<0.040	<0.040	<0.040
6010B-Diss	Vanadium, Diss	NRO	NRO	NRO	NRO	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
6010B-Diss	Zinc, Diss	NRO	NRO	NRO	NRO	<0.020	1.4	0.20	0.031	0.29	0.0087
6020	Antimony	NRO	NRO	0.006	0.024	<0.0030	0.0031	0.0014	0.0031	<0.0030	<0.0030
6020	Thallium	NRO	NRO	0.002	0.02	0.00077	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
6020-Diss	Antimony, Diss	NRO	NRO	NRO	NRO	<0.0030	0.0027	0.0015	0.0025	<0.0030	<0.0030
6020-Diss	Thallium, Diss	NRO	NRO	NRO	NRO	0.00061	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020
7470A	Mercury	NRO	NRO	0.002	0.01	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020
7470A-Diss	Mercury, Diss	NRO	NRO	NRO	NRO	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020	<0.00020

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Chicago

2417 Bond Street

University Park, IL 60484

Tel: (708)534-5200

TestAmerica Job ID: 500-43776-1

TestAmerica Sample Delivery Group: 500-43776-1

Client Project/Site: Former Lake Shore Foundry

For:

Deigan & Associates

162 E. Cook Ave.

Libertyville, Illinois 60048

Attn: Gary Deigan



Authorized for release by:

1/25/2012 2:10:01 PM

Richard Wright

Project Manager II

richard.wright@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Case Narrative

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Job ID: 500-43776-1

Laboratory: TestAmerica Chicago

Narrative

Job Narrative
500-43776-1

Comments

No additional comments.

Receipt

All 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.

Detection Summary

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Client Sample ID: LSF-MW-01

Lab Sample ID: 500-43776-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.085		0.010	0.00084	mg/L	1		6010B	Total/NA
Vanadium	0.0040	J	0.0050	0.00071	mg/L	1		6010B	Total/NA
Barium	0.071		0.010	0.00084	mg/L	1		6010B	Dissolved
Cadmium	0.00090	J	0.0020	0.00036	mg/L	1		6010B	Dissolved
Thallium	0.00077	J	0.0020	0.00036	mg/L	1		6020	Total Recovers
Thallium	0.00061	J	0.0020	0.00036	mg/L	1		6020	Dissolved
pH	7.21	HF	0.200	0.200	SU	1		9040B	Total/NA

Client Sample ID: LSF-MW-02

Lab Sample ID: 500-43776-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.084		0.010	0.00084	mg/L	1		6010B	Total/NA
Cadmium	0.0053		0.0020	0.00036	mg/L	1		6010B	Total/NA
Cobalt	0.0038	J	0.0050	0.00043	mg/L	1		6010B	Total/NA
Copper	0.51		0.010	0.0014	mg/L	1		6010B	Total/NA
Lead	0.0037	J	0.0050	0.0020	mg/L	1		6010B	Total/NA
Nickel	0.039		0.010	0.00081	mg/L	1		6010B	Total/NA
Selenium	0.0068	J	0.010	0.0025	mg/L	1		6010B	Total/NA
Vanadium	0.0048	J	0.0050	0.00071	mg/L	1		6010B	Total/NA
Zinc	1.5		0.020	0.0066	mg/L	1		6010B	Total/NA
Barium	0.081		0.010	0.00084	mg/L	1		6010B	Dissolved
Cadmium	0.0059		0.0020	0.00036	mg/L	1		6010B	Dissolved
Cobalt	0.0035	J	0.0050	0.00043	mg/L	1		6010B	Dissolved
Copper	0.45		0.010	0.0014	mg/L	1		6010B	Dissolved
Lead	0.0024	J	0.0050	0.0020	mg/L	1		6010B	Dissolved
Nickel	0.039		0.010	0.00081	mg/L	1		6010B	Dissolved
Selenium	0.0080	J B	0.010	0.0025	mg/L	1		6010B	Dissolved
Zinc	1.4	B	0.020	0.0066	mg/L	1		6010B	Dissolved
Antimony	0.0031		0.0030	0.00063	mg/L	1		6020	Total Recovers
Antimony	0.0027	J	0.0030	0.00063	mg/L	1		6020	Dissolved
pH	7.01	HF	0.200	0.200	SU	1		9040B	Total/NA

Client Sample ID: LSF-MW-03

Lab Sample ID: 500-43776-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.064		0.010	0.00084	mg/L	1		6010B	Total/NA
Copper	0.27		0.010	0.0014	mg/L	1		6010B	Total/NA
Lead	0.0023	J	0.0050	0.0020	mg/L	1		6010B	Total/NA
Nickel	0.019		0.010	0.00081	mg/L	1		6010B	Total/NA
Selenium	0.0025	J	0.010	0.0025	mg/L	1		6010B	Total/NA
Vanadium	0.0039	J	0.0050	0.00071	mg/L	1		6010B	Total/NA
Zinc	0.20		0.020	0.0066	mg/L	1		6010B	Total/NA
Barium	0.062		0.010	0.00084	mg/L	1		6010B	Dissolved
Cadmium	0.0011	J	0.0020	0.00036	mg/L	1		6010B	Dissolved
Copper	0.25		0.010	0.0014	mg/L	1		6010B	Dissolved
Nickel	0.019		0.010	0.00081	mg/L	1		6010B	Dissolved
Selenium	0.0053	J B	0.010	0.0025	mg/L	1		6010B	Dissolved
Zinc	0.20	B	0.020	0.0066	mg/L	1		6010B	Dissolved
Antimony	0.0014	J	0.0030	0.00063	mg/L	1		6020	Total Recovers
Antimony	0.0015	J	0.0030	0.00063	mg/L	1		6020	Dissolved
pH	7.48	HF	0.200	0.200	SU	1		9040B	Total/NA

Client Sample ID: LSF-MW-04

Lab Sample ID: 500-43776-4

Detection Summary

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Client Sample ID: LSF-MW-04 (Continued)

Lab Sample ID: 500-43776-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.059		0.010	0.00084	mg/L	1		6010B	Total/NA
Cobalt	0.00066	J	0.0050	0.00043	mg/L	1		6010B	Total/NA
Copper	0.034		0.010	0.0014	mg/L	1		6010B	Total/NA
Nickel	0.0054	J	0.010	0.00081	mg/L	1		6010B	Total/NA
Vanadium	0.0053		0.0050	0.00071	mg/L	1		6010B	Total/NA
Zinc	0.042		0.020	0.0066	mg/L	1		6010B	Total/NA
Barium	0.052		0.010	0.00084	mg/L	1		6010B	Dissolved
Cadmium	0.0010	J	0.0020	0.00036	mg/L	1		6010B	Dissolved
Copper	0.019		0.010	0.0014	mg/L	1		6010B	Dissolved
Nickel	0.0042	J	0.010	0.00081	mg/L	1		6010B	Dissolved
Selenium	0.0035	J B	0.010	0.0025	mg/L	1		6010B	Dissolved
Zinc	0.031	B	0.020	0.0066	mg/L	1		6010B	Dissolved
Antimony	0.0031		0.0030	0.00063	mg/L	1		6020	Total Recovera
Antimony	0.0025	J	0.0030	0.00063	mg/L	1		6020	Dissolved
pH	7.50	HF	0.200	0.200	SU	1		9040B	Total/NA

Client Sample ID: LSF-MW-05

Lab Sample ID: 500-43776-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.14		0.010	0.00084	mg/L	1		6010B	Total/NA
Cobalt	0.0011	J	0.0050	0.00043	mg/L	1		6010B	Total/NA
Copper	0.018		0.010	0.0014	mg/L	1		6010B	Total/NA
Lead	0.0037	J	0.0050	0.0020	mg/L	1		6010B	Total/NA
Nickel	0.0051	J	0.010	0.00081	mg/L	1		6010B	Total/NA
Vanadium	0.0053		0.0050	0.00071	mg/L	1		6010B	Total/NA
Zinc	0.51		0.020	0.0066	mg/L	1		6010B	Total/NA
Barium	0.091		0.010	0.00084	mg/L	1		6010B	Dissolved
Cadmium	0.0011	J	0.0020	0.00036	mg/L	1		6010B	Dissolved
Copper	0.0024	J	0.010	0.0014	mg/L	1		6010B	Dissolved
Nickel	0.0046	J	0.010	0.00081	mg/L	1		6010B	Dissolved
Zinc	0.29	B	0.020	0.0066	mg/L	1		6010B	Dissolved
pH	7.22	HF	0.200	0.200	SU	1		9040B	Total/NA

Client Sample ID: EXISTING AMPSKY WELL

Lab Sample ID: 500-43776-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Barium	0.065		0.010	0.00084	mg/L	1		6010B	Total/NA
Cobalt	0.0012	J	0.0050	0.00043	mg/L	1		6010B	Total/NA
Nickel	0.0016	J	0.010	0.00081	mg/L	1		6010B	Total/NA
Vanadium	0.0043	J	0.0050	0.00071	mg/L	1		6010B	Total/NA
Zinc	0.0074	J	0.020	0.0066	mg/L	1		6010B	Total/NA
Barium	0.063		0.010	0.00084	mg/L	1		6010B	Dissolved
Cadmium	0.0010	J	0.0020	0.00036	mg/L	1		6010B	Dissolved
Cobalt	0.00047	J	0.0050	0.00043	mg/L	1		6010B	Dissolved
Copper	0.0023	J	0.010	0.0014	mg/L	1		6010B	Dissolved
Nickel	0.00090	J	0.010	0.00081	mg/L	1		6010B	Dissolved
Zinc	0.0087	J B	0.020	0.0066	mg/L	1		6010B	Dissolved
pH	7.10	HF	0.200	0.200	SU	1		9040B	Total/NA

Method Summary

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Method	Method Description	Protocol	Laboratory
6010B	Metals (ICP)	SW846	TAL CHI
6020	Metals (ICP/MS)	SW846	TAL CHI
7470A	Mercury (CVAA)	SW846	TAL CHI
9040B	pH	SW846	TAL CHI

Protocol References:

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

Laboratory References:

TAL CHI = TestAmerica Chicago, 2417 Bond Street, University Park, IL 60484, TEL (708)534-5200

Sample Summary

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
500-43776-1	LSF-MW-01	Water	01/18/12 15:00	01/19/12 10:10
500-43776-2	LSF-MW-02	Water	01/18/12 10:30	01/19/12 10:10
500-43776-3	LSF-MW-03	Water	01/18/12 13:45	01/19/12 10:10
500-43776-4	LSF-MW-04	Water	01/18/12 13:00	01/19/12 10:10
500-43776-5	LSF-MW-05	Water	01/18/12 11:45	01/19/12 10:10
500-43776-6	EXISTING AMPSKY WELL	Water	01/18/12 15:30	01/19/12 10:10

Client Sample Results

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Client Sample ID: LSF-MW-01

Lab Sample ID: 500-43776-1

Date Collected: 01/18/12 15:00

Matrix: Water

Date Received: 01/19/12 10:10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		01/19/12 16:10	01/20/12 14:26	1
Barium	0.085		0.010	0.00084	mg/L		01/19/12 16:10	01/20/12 14:26	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		01/19/12 16:10	01/20/12 14:26	1
Cadmium	<0.0020		0.0020	0.00036	mg/L		01/19/12 16:10	01/20/12 14:26	1
Chromium	<0.010		0.010	0.0015	mg/L		01/19/12 16:10	01/20/12 14:26	1
Cobalt	<0.0050		0.0050	0.00043	mg/L		01/19/12 16:10	01/20/12 14:26	1
Copper	<0.010		0.010	0.0014	mg/L		01/19/12 16:10	01/20/12 14:26	1
Lead	<0.0050		0.0050	0.0020	mg/L		01/19/12 16:10	01/20/12 14:26	1
Nickel	<0.010		0.010	0.00081	mg/L		01/19/12 16:10	01/20/12 14:26	1
Selenium	<0.010		0.010	0.0025	mg/L		01/19/12 16:10	01/20/12 14:26	1
Silver	<0.0050		0.0050	0.00071	mg/L		01/19/12 16:10	01/20/12 14:26	1
Tin	<0.040		0.040	0.0035	mg/L		01/19/12 16:10	01/20/12 14:26	1
Vanadium	0.0040	J	0.0050	0.00071	mg/L		01/19/12 16:10	01/20/12 14:26	1
Zinc	<0.020		0.020	0.0066	mg/L		01/19/12 16:10	01/20/12 14:26	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		01/20/12 16:30	01/23/12 14:58	1
Barium	0.071		0.010	0.00084	mg/L		01/20/12 16:30	01/23/12 14:58	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		01/20/12 16:30	01/23/12 14:58	1
Cadmium	0.00090	J	0.0020	0.00036	mg/L		01/20/12 16:30	01/23/12 14:58	1
Chromium	<0.010		0.010	0.0015	mg/L		01/20/12 16:30	01/23/12 14:58	1
Cobalt	<0.0050		0.0050	0.00043	mg/L		01/20/12 16:30	01/23/12 14:58	1
Copper	<0.010		0.010	0.0014	mg/L		01/20/12 16:30	01/23/12 14:58	1
Lead	<0.0050		0.0050	0.0020	mg/L		01/20/12 16:30	01/23/12 14:58	1
Nickel	<0.010		0.010	0.00081	mg/L		01/20/12 16:30	01/23/12 14:58	1
Selenium	<0.010		0.010	0.0025	mg/L		01/20/12 16:30	01/23/12 14:58	1
Silver	<0.0050		0.0050	0.00071	mg/L		01/20/12 16:30	01/23/12 14:58	1
Tin	<0.040		0.040	0.0035	mg/L		01/20/12 16:30	01/23/12 14:58	1
Vanadium	<0.0050		0.0050	0.00071	mg/L		01/20/12 16:30	01/23/12 14:58	1
Zinc	<0.020		0.020	0.0066	mg/L		01/20/12 16:30	01/24/12 17:24	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.00063	mg/L		01/23/12 16:30	01/24/12 16:07	1
Thallium	0.00077	J	0.0020	0.00036	mg/L		01/23/12 16:30	01/24/12 16:07	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.00063	mg/L		01/23/12 16:30	01/24/12 16:21	1
Thallium	0.00061	J	0.0020	0.00036	mg/L		01/23/12 16:30	01/24/12 16:21	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000070	mg/L		01/23/12 14:00	01/24/12 09:27	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000070	mg/L		01/23/12 14:00	01/24/12 09:28	1

US EPA ARCHIVE DOCUMENT

Client Sample Results

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Client Sample ID: LSF-MW-01

Date Collected: 01/18/12 15:00

Date Received: 01/19/12 10:10

Lab Sample ID: 500-43776-1

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.21	HF	0.200	0.200	SU	—		01/19/12 12:07	1

Client Sample Results

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Client Sample ID: LSF-MW-02

Lab Sample ID: 500-43776-2

Date Collected: 01/18/12 10:30

Matrix: Water

Date Received: 01/19/12 10:10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		01/19/12 16:10	01/20/12 14:33	1
Barium	0.084		0.010	0.00084	mg/L		01/19/12 16:10	01/20/12 14:33	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		01/19/12 16:10	01/20/12 14:33	1
Cadmium	0.0053		0.0020	0.00036	mg/L		01/19/12 16:10	01/20/12 14:33	1
Chromium	<0.010		0.010	0.0015	mg/L		01/19/12 16:10	01/20/12 14:33	1
Cobalt	0.0038	J	0.0050	0.00043	mg/L		01/19/12 16:10	01/20/12 14:33	1
Copper	0.51		0.010	0.0014	mg/L		01/19/12 16:10	01/20/12 14:33	1
Lead	0.0037	J	0.0050	0.0020	mg/L		01/19/12 16:10	01/20/12 14:33	1
Nickel	0.039		0.010	0.00081	mg/L		01/19/12 16:10	01/20/12 14:33	1
Selenium	0.0068	J	0.010	0.0025	mg/L		01/19/12 16:10	01/20/12 14:33	1
Silver	<0.0050		0.0050	0.00071	mg/L		01/19/12 16:10	01/20/12 14:33	1
Tin	<0.040		0.040	0.0035	mg/L		01/19/12 16:10	01/20/12 14:33	1
Vanadium	0.0048	J	0.0050	0.00071	mg/L		01/19/12 16:10	01/20/12 14:33	1
Zinc	1.5		0.020	0.0066	mg/L		01/19/12 16:10	01/20/12 14:33	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		01/20/12 16:30	01/23/12 15:11	1
Barium	0.081		0.010	0.00084	mg/L		01/20/12 16:30	01/23/12 15:11	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		01/20/12 16:30	01/23/12 15:11	1
Cadmium	0.0059		0.0020	0.00036	mg/L		01/20/12 16:30	01/23/12 15:11	1
Chromium	<0.010		0.010	0.0015	mg/L		01/20/12 16:30	01/23/12 15:11	1
Cobalt	0.0035	J	0.0050	0.00043	mg/L		01/20/12 16:30	01/23/12 15:11	1
Copper	0.45		0.010	0.0014	mg/L		01/20/12 16:30	01/23/12 15:11	1
Lead	0.0024	J	0.0050	0.0020	mg/L		01/20/12 16:30	01/23/12 15:11	1
Nickel	0.039		0.010	0.00081	mg/L		01/20/12 16:30	01/23/12 15:11	1
Selenium	0.0080	J B	0.010	0.0025	mg/L		01/20/12 16:30	01/23/12 15:11	1
Silver	<0.0050		0.0050	0.00071	mg/L		01/20/12 16:30	01/23/12 15:11	1
Tin	<0.040		0.040	0.0035	mg/L		01/20/12 16:30	01/23/12 15:11	1
Vanadium	<0.0050		0.0050	0.00071	mg/L		01/20/12 16:30	01/23/12 15:11	1
Zinc	1.4	B	0.020	0.0066	mg/L		01/20/12 16:30	01/24/12 17:30	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0031		0.0030	0.00063	mg/L		01/23/12 16:30	01/24/12 16:23	1
Thallium	<0.0020		0.0020	0.00036	mg/L		01/23/12 16:30	01/24/12 16:23	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0027	J	0.0030	0.00063	mg/L		01/23/12 16:30	01/24/12 16:26	1
Thallium	<0.0020		0.0020	0.00036	mg/L		01/23/12 16:30	01/24/12 16:26	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000070	mg/L		01/23/12 14:00	01/24/12 09:40	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000070	mg/L		01/23/12 14:00	01/24/12 09:41	1

US EPA ARCHIVE DOCUMENT

Client Sample Results

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Client Sample ID: LSF-MW-02

Lab Sample ID: 500-43776-2

Date Collected: 01/18/12 10:30

Matrix: Water

Date Received: 01/19/12 10:10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.01	HF	0.200	0.200	SU	-		01/19/12 12:11	1

Client Sample Results

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Client Sample ID: LSF-MW-03

Lab Sample ID: 500-43776-3

Date Collected: 01/18/12 13:45

Matrix: Water

Date Received: 01/19/12 10:10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		01/19/12 16:10	01/20/12 14:39	1
Barium	0.064		0.010	0.00084	mg/L		01/19/12 16:10	01/20/12 14:39	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		01/19/12 16:10	01/20/12 14:39	1
Cadmium	<0.0020		0.0020	0.00036	mg/L		01/19/12 16:10	01/20/12 14:39	1
Chromium	<0.010		0.010	0.0015	mg/L		01/19/12 16:10	01/20/12 14:39	1
Cobalt	<0.0050		0.0050	0.00043	mg/L		01/19/12 16:10	01/20/12 14:39	1
Copper	0.27		0.010	0.0014	mg/L		01/19/12 16:10	01/20/12 14:39	1
Lead	0.0023	J	0.0050	0.0020	mg/L		01/19/12 16:10	01/20/12 14:39	1
Nickel	0.019		0.010	0.00081	mg/L		01/19/12 16:10	01/20/12 14:39	1
Selenium	0.0025	J	0.010	0.0025	mg/L		01/19/12 16:10	01/20/12 14:39	1
Silver	<0.0050		0.0050	0.00071	mg/L		01/19/12 16:10	01/20/12 14:39	1
Tin	<0.040		0.040	0.0035	mg/L		01/19/12 16:10	01/20/12 14:39	1
Vanadium	0.0039	J	0.0050	0.00071	mg/L		01/19/12 16:10	01/20/12 14:39	1
Zinc	0.20		0.020	0.0066	mg/L		01/19/12 16:10	01/20/12 14:39	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		01/20/12 16:30	01/23/12 15:15	1
Barium	0.062		0.010	0.00084	mg/L		01/20/12 16:30	01/23/12 15:15	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		01/20/12 16:30	01/23/12 15:15	1
Cadmium	0.0011	J	0.0020	0.00036	mg/L		01/20/12 16:30	01/23/12 15:15	1
Chromium	<0.010		0.010	0.0015	mg/L		01/20/12 16:30	01/23/12 15:15	1
Cobalt	<0.0050		0.0050	0.00043	mg/L		01/20/12 16:30	01/23/12 15:15	1
Copper	0.25		0.010	0.0014	mg/L		01/20/12 16:30	01/23/12 15:15	1
Lead	<0.0050		0.0050	0.0020	mg/L		01/20/12 16:30	01/23/12 15:15	1
Nickel	0.019		0.010	0.00081	mg/L		01/20/12 16:30	01/23/12 15:15	1
Selenium	0.0053	J B	0.010	0.0025	mg/L		01/20/12 16:30	01/23/12 15:15	1
Silver	<0.0050		0.0050	0.00071	mg/L		01/20/12 16:30	01/23/12 15:15	1
Tin	<0.040		0.040	0.0035	mg/L		01/20/12 16:30	01/23/12 15:15	1
Vanadium	<0.0050		0.0050	0.00071	mg/L		01/20/12 16:30	01/23/12 15:15	1
Zinc	0.20	B	0.020	0.0066	mg/L		01/20/12 16:30	01/24/12 17:36	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0014	J	0.0030	0.00063	mg/L		01/23/12 16:30	01/24/12 16:34	1
Thallium	<0.0020		0.0020	0.00036	mg/L		01/23/12 16:30	01/24/12 16:34	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0015	J	0.0030	0.00063	mg/L		01/23/12 16:30	01/24/12 16:37	1
Thallium	<0.0020		0.0020	0.00036	mg/L		01/23/12 16:30	01/24/12 16:37	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000070	mg/L		01/23/12 14:00	01/24/12 09:43	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000070	mg/L		01/23/12 14:00	01/24/12 09:45	1

US EPA ARCHIVE DOCUMENT

Client Sample Results

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Client Sample ID: LSF-MW-03

Lab Sample ID: 500-43776-3

Date Collected: 01/18/12 13:45

Matrix: Water

Date Received: 01/19/12 10:10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.48	HF	0.200	0.200	SU	—		01/19/12 12:15	1

Client Sample Results

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Client Sample ID: LSF-MW-04

Lab Sample ID: 500-43776-4

Date Collected: 01/18/12 13:00

Matrix: Water

Date Received: 01/19/12 10:10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		01/19/12 16:10	01/20/12 15:00	1
Barium	0.059		0.010	0.00084	mg/L		01/19/12 16:10	01/20/12 15:00	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		01/19/12 16:10	01/20/12 15:00	1
Cadmium	<0.0020		0.0020	0.00036	mg/L		01/19/12 16:10	01/20/12 15:00	1
Chromium	<0.010		0.010	0.0015	mg/L		01/19/12 16:10	01/20/12 15:00	1
Cobalt	0.00066	J	0.0050	0.00043	mg/L		01/19/12 16:10	01/20/12 15:00	1
Copper	0.034		0.010	0.0014	mg/L		01/19/12 16:10	01/20/12 15:00	1
Lead	<0.0050		0.0050	0.0020	mg/L		01/19/12 16:10	01/20/12 15:00	1
Nickel	0.0054	J	0.010	0.00081	mg/L		01/19/12 16:10	01/20/12 15:00	1
Selenium	<0.010		0.010	0.0025	mg/L		01/19/12 16:10	01/20/12 15:00	1
Silver	<0.0050		0.0050	0.00071	mg/L		01/19/12 16:10	01/20/12 15:00	1
Tin	<0.040		0.040	0.0035	mg/L		01/19/12 16:10	01/20/12 15:00	1
Vanadium	0.0053		0.0050	0.00071	mg/L		01/19/12 16:10	01/20/12 15:00	1
Zinc	0.042		0.020	0.0066	mg/L		01/19/12 16:10	01/20/12 15:00	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		01/20/12 16:30	01/23/12 15:19	1
Barium	0.052		0.010	0.00084	mg/L		01/20/12 16:30	01/23/12 15:19	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		01/20/12 16:30	01/23/12 15:19	1
Cadmium	0.0010	J	0.0020	0.00036	mg/L		01/20/12 16:30	01/23/12 15:19	1
Chromium	<0.010		0.010	0.0015	mg/L		01/20/12 16:30	01/23/12 15:19	1
Cobalt	<0.0050		0.0050	0.00043	mg/L		01/20/12 16:30	01/23/12 15:19	1
Copper	0.019		0.010	0.0014	mg/L		01/20/12 16:30	01/23/12 15:19	1
Lead	<0.0050		0.0050	0.0020	mg/L		01/20/12 16:30	01/23/12 15:19	1
Nickel	0.0042	J	0.010	0.00081	mg/L		01/20/12 16:30	01/23/12 15:19	1
Selenium	0.0035	J B	0.010	0.0025	mg/L		01/20/12 16:30	01/23/12 15:19	1
Silver	<0.0050		0.0050	0.00071	mg/L		01/20/12 16:30	01/23/12 15:19	1
Tin	<0.040		0.040	0.0035	mg/L		01/20/12 16:30	01/23/12 15:19	1
Vanadium	<0.0050		0.0050	0.00071	mg/L		01/20/12 16:30	01/23/12 15:19	1
Zinc	0.031	B	0.020	0.0066	mg/L		01/20/12 16:30	01/24/12 18:02	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0031		0.0030	0.00063	mg/L		01/23/12 16:30	01/24/12 16:39	1
Thallium	<0.0020		0.0020	0.00036	mg/L		01/23/12 16:30	01/24/12 16:39	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.0025	J	0.0030	0.00063	mg/L		01/23/12 16:30	01/24/12 16:42	1
Thallium	<0.0020		0.0020	0.00036	mg/L		01/23/12 16:30	01/24/12 16:42	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000070	mg/L		01/23/12 14:00	01/24/12 09:46	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000070	mg/L		01/23/12 14:00	01/24/12 09:48	1

US EPA ARCHIVE DOCUMENT

Client Sample Results

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Client Sample ID: LSF-MW-04

Date Collected: 01/18/12 13:00

Date Received: 01/19/12 10:10

Lab Sample ID: 500-43776-4

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.50	HF	0.200	0.200	SU	-		01/19/12 12:20	1

Client Sample Results

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Client Sample ID: LSF-MW-05

Lab Sample ID: 500-43776-5

Date Collected: 01/18/12 11:45

Matrix: Water

Date Received: 01/19/12 10:10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		01/19/12 16:10	01/20/12 15:06	1
Barium	0.14		0.010	0.00084	mg/L		01/19/12 16:10	01/20/12 15:06	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		01/19/12 16:10	01/20/12 15:06	1
Cadmium	<0.0020		0.0020	0.00036	mg/L		01/19/12 16:10	01/20/12 15:06	1
Chromium	<0.010		0.010	0.0015	mg/L		01/19/12 16:10	01/20/12 15:06	1
Cobalt	0.0011	J	0.0050	0.00043	mg/L		01/19/12 16:10	01/20/12 15:06	1
Copper	0.018		0.010	0.0014	mg/L		01/19/12 16:10	01/20/12 15:06	1
Lead	0.0037	J	0.0050	0.0020	mg/L		01/19/12 16:10	01/20/12 15:06	1
Nickel	0.0051	J	0.010	0.00081	mg/L		01/19/12 16:10	01/20/12 15:06	1
Selenium	<0.010		0.010	0.0025	mg/L		01/19/12 16:10	01/20/12 15:06	1
Silver	<0.0050		0.0050	0.00071	mg/L		01/19/12 16:10	01/20/12 15:06	1
Tin	<0.040		0.040	0.0035	mg/L		01/19/12 16:10	01/20/12 15:06	1
Vanadium	0.0053		0.0050	0.00071	mg/L		01/19/12 16:10	01/20/12 15:06	1
Zinc	0.51		0.020	0.0066	mg/L		01/19/12 16:10	01/20/12 15:06	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		01/20/12 16:30	01/23/12 15:23	1
Barium	0.091		0.010	0.00084	mg/L		01/20/12 16:30	01/23/12 15:23	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		01/20/12 16:30	01/23/12 15:23	1
Cadmium	0.0011	J	0.0020	0.00036	mg/L		01/20/12 16:30	01/23/12 15:23	1
Chromium	<0.010		0.010	0.0015	mg/L		01/20/12 16:30	01/23/12 15:23	1
Cobalt	<0.0050		0.0050	0.00043	mg/L		01/20/12 16:30	01/23/12 15:23	1
Copper	0.0024	J	0.010	0.0014	mg/L		01/20/12 16:30	01/23/12 15:23	1
Lead	<0.0050		0.0050	0.0020	mg/L		01/20/12 16:30	01/23/12 15:23	1
Nickel	0.0046	J	0.010	0.00081	mg/L		01/20/12 16:30	01/23/12 15:23	1
Selenium	<0.010		0.010	0.0025	mg/L		01/20/12 16:30	01/23/12 15:23	1
Silver	<0.0050		0.0050	0.00071	mg/L		01/20/12 16:30	01/23/12 15:23	1
Tin	<0.040		0.040	0.0035	mg/L		01/20/12 16:30	01/23/12 15:23	1
Vanadium	<0.0050		0.0050	0.00071	mg/L		01/20/12 16:30	01/23/12 15:23	1
Zinc	0.29	B	0.020	0.0066	mg/L		01/20/12 16:30	01/24/12 18:08	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.00063	mg/L		01/23/12 16:30	01/24/12 16:44	1
Thallium	<0.0020		0.0020	0.00036	mg/L		01/23/12 16:30	01/24/12 16:44	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.00063	mg/L		01/23/12 16:30	01/24/12 16:47	1
Thallium	<0.0020		0.0020	0.00036	mg/L		01/23/12 16:30	01/24/12 16:47	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000070	mg/L		01/23/12 14:00	01/24/12 09:50	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000070	mg/L		01/23/12 14:00	01/24/12 09:52	1

US EPA ARCHIVE DOCUMENT

Client Sample Results

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Client Sample ID: LSF-MW-05

Date Collected: 01/18/12 11:45

Date Received: 01/19/12 10:10

Lab Sample ID: 500-43776-5

Matrix: Water

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.22	HF	0.200	0.200	SU	—		01/19/12 12:24	1

Client Sample Results

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Client Sample ID: EXISTING AMPSKY WELL

Lab Sample ID: 500-43776-6

Date Collected: 01/18/12 15:30

Matrix: Water

Date Received: 01/19/12 10:10

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		01/19/12 16:10	01/20/12 15:12	1
Barium	0.065		0.010	0.00084	mg/L		01/19/12 16:10	01/20/12 15:12	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		01/19/12 16:10	01/20/12 15:12	1
Cadmium	<0.0020		0.0020	0.00036	mg/L		01/19/12 16:10	01/20/12 15:12	1
Chromium	<0.010		0.010	0.0015	mg/L		01/19/12 16:10	01/20/12 15:12	1
Cobalt	0.0012	J	0.0050	0.00043	mg/L		01/19/12 16:10	01/20/12 15:12	1
Copper	<0.010		0.010	0.0014	mg/L		01/19/12 16:10	01/20/12 15:12	1
Lead	<0.0050		0.0050	0.0020	mg/L		01/19/12 16:10	01/20/12 15:12	1
Nickel	0.0016	J	0.010	0.00081	mg/L		01/19/12 16:10	01/20/12 15:12	1
Selenium	<0.010		0.010	0.0025	mg/L		01/19/12 16:10	01/20/12 15:12	1
Silver	<0.0050		0.0050	0.00071	mg/L		01/19/12 16:10	01/20/12 15:12	1
Tin	<0.040		0.040	0.0035	mg/L		01/19/12 16:10	01/20/12 15:12	1
Vanadium	0.0043	J	0.0050	0.00071	mg/L		01/19/12 16:10	01/20/12 15:12	1
Zinc	0.0074	J	0.020	0.0066	mg/L		01/19/12 16:10	01/20/12 15:12	1

Method: 6010B - Metals (ICP) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		01/20/12 16:30	01/23/12 15:27	1
Barium	0.063		0.010	0.00084	mg/L		01/20/12 16:30	01/23/12 15:27	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		01/20/12 16:30	01/23/12 15:27	1
Cadmium	0.0010	J	0.0020	0.00036	mg/L		01/20/12 16:30	01/23/12 15:27	1
Chromium	<0.010		0.010	0.0015	mg/L		01/20/12 16:30	01/23/12 15:27	1
Cobalt	0.00047	J	0.0050	0.00043	mg/L		01/20/12 16:30	01/23/12 15:27	1
Copper	0.0023	J	0.010	0.0014	mg/L		01/20/12 16:30	01/23/12 15:27	1
Lead	<0.0050		0.0050	0.0020	mg/L		01/20/12 16:30	01/23/12 15:27	1
Nickel	0.00090	J	0.010	0.00081	mg/L		01/20/12 16:30	01/23/12 15:27	1
Selenium	<0.010		0.010	0.0025	mg/L		01/20/12 16:30	01/23/12 15:27	1
Silver	<0.0050		0.0050	0.00071	mg/L		01/20/12 16:30	01/23/12 15:27	1
Tin	<0.040		0.040	0.0035	mg/L		01/20/12 16:30	01/23/12 15:27	1
Vanadium	<0.0050		0.0050	0.00071	mg/L		01/20/12 16:30	01/23/12 15:27	1
Zinc	0.0087	J B	0.020	0.0066	mg/L		01/20/12 16:30	01/24/12 18:14	1

Method: 6020 - Metals (ICP/MS) - Total Recoverable

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.00063	mg/L		01/23/12 16:30	01/24/12 16:50	1
Thallium	<0.0020		0.0020	0.00036	mg/L		01/23/12 16:30	01/24/12 16:50	1

Method: 6020 - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.00063	mg/L		01/23/12 16:30	01/24/12 16:52	1
Thallium	<0.0020		0.0020	0.00036	mg/L		01/23/12 16:30	01/24/12 16:52	1

Method: 7470A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000070	mg/L		01/23/12 14:00	01/24/12 09:53	1

Method: 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000070	mg/L		01/23/12 14:00	01/24/12 09:55	1

US EPA ARCHIVE DOCUMENT

Client Sample Results

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Client Sample ID: EXISTING AMPSKY WELL

Lab Sample ID: 500-43776-6

Date Collected: 01/18/12 15:30

Matrix: Water

Date Received: 01/19/12 10:10

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH	7.10	HF	0.200	0.200	SU	-		01/19/12 12:28	1

Definitions/Glossary

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Qualifiers

Metals

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
B	Compound was found in the blank and sample.
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

General Chemistry

Qualifier	Qualifier Description
HF	Field parameter with a holding time of 15 minutes

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DL, RA, RE, IN	Indicates a Dilution, Reanalysis, Re-extraction, or additional Initial metals/anion analysis of the sample
EDL	Estimated Detection Limit
EPA	United States Environmental Protection Agency
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RL	Reporting Limit
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

QC Association Summary

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Metals

Prep Batch: 138626

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-43776-1	LSF-MW-01	Total/NA	Water	3010A	
500-43776-2	LSF-MW-02	Total/NA	Water	3010A	
500-43776-3	LSF-MW-03	Total/NA	Water	3010A	
500-43776-4	LSF-MW-04	Total/NA	Water	3010A	
500-43776-5	LSF-MW-05	Total/NA	Water	3010A	
500-43776-6	EXISTING AMPSKY WELL	Total/NA	Water	3010A	
500-43776-6 DU	EXISTING AMPSKY WELL	Total/NA	Water	3010A	
500-43776-6 MS	EXISTING AMPSKY WELL	Total/NA	Water	3010A	
500-43776-6 MSD	EXISTING AMPSKY WELL	Total/NA	Water	3010A	
LCS 500-138626/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 500-138626/1-A	Method Blank	Total/NA	Water	3010A	

Prep Batch: 138752

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-43776-1	LSF-MW-01	Dissolved	Water	3010A	
500-43776-2	LSF-MW-02	Dissolved	Water	3010A	
500-43776-3	LSF-MW-03	Dissolved	Water	3010A	
500-43776-4	LSF-MW-04	Dissolved	Water	3010A	
500-43776-5	LSF-MW-05	Dissolved	Water	3010A	
500-43776-6	EXISTING AMPSKY WELL	Dissolved	Water	3010A	
LCS 500-138752/2-A	Lab Control Sample	Total/NA	Water	3010A	
MB 500-138752/1-A	Method Blank	Total/NA	Water	3010A	

Analysis Batch: 138806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-43776-1	LSF-MW-01	Total/NA	Water	6010B	138626
500-43776-2	LSF-MW-02	Total/NA	Water	6010B	138626
500-43776-3	LSF-MW-03	Total/NA	Water	6010B	138626
500-43776-4	LSF-MW-04	Total/NA	Water	6010B	138626
500-43776-5	LSF-MW-05	Total/NA	Water	6010B	138626
500-43776-6	EXISTING AMPSKY WELL	Total/NA	Water	6010B	138626
500-43776-6 DU	EXISTING AMPSKY WELL	Total/NA	Water	6010B	138626
500-43776-6 MS	EXISTING AMPSKY WELL	Total/NA	Water	6010B	138626
500-43776-6 MSD	EXISTING AMPSKY WELL	Total/NA	Water	6010B	138626
LCS 500-138626/2-A	Lab Control Sample	Total/NA	Water	6010B	138626
MB 500-138626/1-A	Method Blank	Total/NA	Water	6010B	138626

Prep Batch: 138883

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-43776-1	LSF-MW-01	Total/NA	Water	7470A	
500-43776-1	LSF-MW-01	Dissolved	Water	7470A	
500-43776-2	LSF-MW-02	Total/NA	Water	7470A	
500-43776-2	LSF-MW-02	Dissolved	Water	7470A	
500-43776-3	LSF-MW-03	Total/NA	Water	7470A	
500-43776-3	LSF-MW-03	Dissolved	Water	7470A	
500-43776-4	LSF-MW-04	Total/NA	Water	7470A	
500-43776-4	LSF-MW-04	Dissolved	Water	7470A	
500-43776-5	LSF-MW-05	Total/NA	Water	7470A	
500-43776-5	LSF-MW-05	Dissolved	Water	7470A	
500-43776-6	EXISTING AMPSKY WELL	Total/NA	Water	7470A	
500-43776-6	EXISTING AMPSKY WELL	Dissolved	Water	7470A	
LCS 500-138883/8-A	Lab Control Sample	Total/NA	Water	7470A	

QC Association Summary

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Metals (Continued)

Prep Batch: 138883 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 500-138883/7-A	Method Blank	Total/NA	Water	7470A	

Prep Batch: 138901

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-43776-1	LSF-MW-01	Total Recoverable	Water	3005A	
500-43776-1	LSF-MW-01	Dissolved	Water	3005A	
500-43776-1 DU	LSF-MW-01	Total Recoverable	Water	3005A	
500-43776-1 MS	LSF-MW-01	Total Recoverable	Water	3005A	
500-43776-1 MSD	LSF-MW-01	Total Recoverable	Water	3005A	
500-43776-2	LSF-MW-02	Total Recoverable	Water	3005A	
500-43776-2	LSF-MW-02	Dissolved	Water	3005A	
500-43776-3	LSF-MW-03	Total Recoverable	Water	3005A	
500-43776-3	LSF-MW-03	Dissolved	Water	3005A	
500-43776-4	LSF-MW-04	Total Recoverable	Water	3005A	
500-43776-4	LSF-MW-04	Dissolved	Water	3005A	
500-43776-5	LSF-MW-05	Total Recoverable	Water	3005A	
500-43776-5	LSF-MW-05	Dissolved	Water	3005A	
500-43776-6	EXISTING AMPSKY WELL	Total Recoverable	Water	3005A	
500-43776-6	EXISTING AMPSKY WELL	Dissolved	Water	3005A	
LCS 500-138901/2-A	Lab Control Sample	Total Recoverable	Water	3005A	
MB 500-138901/1-A	Method Blank	Total Recoverable	Water	3005A	

Analysis Batch: 138927

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-43776-1	LSF-MW-01	Dissolved	Water	6010B	138752
500-43776-2	LSF-MW-02	Dissolved	Water	6010B	138752
500-43776-3	LSF-MW-03	Dissolved	Water	6010B	138752
500-43776-4	LSF-MW-04	Dissolved	Water	6010B	138752
500-43776-5	LSF-MW-05	Dissolved	Water	6010B	138752
500-43776-6	EXISTING AMPSKY WELL	Dissolved	Water	6010B	138752
LCS 500-138752/2-A	Lab Control Sample	Total/NA	Water	6010B	138752
MB 500-138752/1-A	Method Blank	Total/NA	Water	6010B	138752

Analysis Batch: 138991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-43776-1	LSF-MW-01	Total/NA	Water	7470A	138883
500-43776-1	LSF-MW-01	Dissolved	Water	7470A	138883
500-43776-2	LSF-MW-02	Total/NA	Water	7470A	138883
500-43776-2	LSF-MW-02	Dissolved	Water	7470A	138883
500-43776-3	LSF-MW-03	Total/NA	Water	7470A	138883
500-43776-3	LSF-MW-03	Dissolved	Water	7470A	138883
500-43776-4	LSF-MW-04	Total/NA	Water	7470A	138883
500-43776-4	LSF-MW-04	Dissolved	Water	7470A	138883
500-43776-5	LSF-MW-05	Total/NA	Water	7470A	138883
500-43776-5	LSF-MW-05	Dissolved	Water	7470A	138883
500-43776-6	EXISTING AMPSKY WELL	Total/NA	Water	7470A	138883
500-43776-6	EXISTING AMPSKY WELL	Dissolved	Water	7470A	138883
LCS 500-138883/8-A	Lab Control Sample	Total/NA	Water	7470A	138883
MB 500-138883/7-A	Method Blank	Total/NA	Water	7470A	138883

QC Association Summary

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Metals (Continued)

Analysis Batch: 139060

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-43776-1	LSF-MW-01	Dissolved	Water	6010B	138752
500-43776-2	LSF-MW-02	Dissolved	Water	6010B	138752
500-43776-3	LSF-MW-03	Dissolved	Water	6010B	138752
500-43776-4	LSF-MW-04	Dissolved	Water	6010B	138752
500-43776-5	LSF-MW-05	Dissolved	Water	6010B	138752
500-43776-6	EXISTING AMPSKY WELL	Dissolved	Water	6010B	138752
LCS 500-138752/2-A	Lab Control Sample	Total/NA	Water	6010B	138752
MB 500-138752/1-A	Method Blank	Total/NA	Water	6010B	138752

Analysis Batch: 139106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-43776-1	LSF-MW-01	Total Recoverable	Water	6020	138901
500-43776-1	LSF-MW-01	Dissolved	Water	6020	138901
500-43776-1 DU	LSF-MW-01	Total Recoverable	Water	6020	138901
500-43776-1 MS	LSF-MW-01	Total Recoverable	Water	6020	138901
500-43776-1 MSD	LSF-MW-01	Total Recoverable	Water	6020	138901
500-43776-2	LSF-MW-02	Total Recoverable	Water	6020	138901
500-43776-2	LSF-MW-02	Dissolved	Water	6020	138901
500-43776-3	LSF-MW-03	Total Recoverable	Water	6020	138901
500-43776-3	LSF-MW-03	Dissolved	Water	6020	138901
500-43776-4	LSF-MW-04	Total Recoverable	Water	6020	138901
500-43776-4	LSF-MW-04	Dissolved	Water	6020	138901
500-43776-5	LSF-MW-05	Total Recoverable	Water	6020	138901
500-43776-5	LSF-MW-05	Dissolved	Water	6020	138901
500-43776-6	EXISTING AMPSKY WELL	Total Recoverable	Water	6020	138901
500-43776-6	EXISTING AMPSKY WELL	Dissolved	Water	6020	138901
LCS 500-138901/2-A	Lab Control Sample	Total Recoverable	Water	6020	138901
MB 500-138901/1-A	Method Blank	Total Recoverable	Water	6020	138901

General Chemistry

Analysis Batch: 138592

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-43776-1	LSF-MW-01	Total/NA	Water	9040B	
500-43776-1 DU	LSF-MW-01	Total/NA	Water	9040B	
500-43776-2	LSF-MW-02	Total/NA	Water	9040B	
500-43776-2 DU	LSF-MW-02	Total/NA	Water	9040B	
500-43776-3	LSF-MW-03	Total/NA	Water	9040B	
500-43776-3 DU	LSF-MW-03	Total/NA	Water	9040B	
500-43776-4	LSF-MW-04	Total/NA	Water	9040B	
500-43776-4 DU	LSF-MW-04	Total/NA	Water	9040B	
500-43776-5	LSF-MW-05	Total/NA	Water	9040B	
500-43776-5 DU	LSF-MW-05	Total/NA	Water	9040B	
500-43776-6	EXISTING AMPSKY WELL	Total/NA	Water	9040B	
500-43776-6 DU	EXISTING AMPSKY WELL	Total/NA	Water	9040B	

QC Sample Results

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 500-138626/1-A
Matrix: Water
Analysis Batch: 138806

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138626

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		01/19/12 16:10	01/20/12 13:49	1
Barium	<0.010		0.010	0.00084	mg/L		01/19/12 16:10	01/20/12 13:49	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		01/19/12 16:10	01/20/12 13:49	1
Cadmium	<0.0020		0.0020	0.00036	mg/L		01/19/12 16:10	01/20/12 13:49	1
Chromium	<0.010		0.010	0.0015	mg/L		01/19/12 16:10	01/20/12 13:49	1
Cobalt	<0.0050		0.0050	0.00043	mg/L		01/19/12 16:10	01/20/12 13:49	1
Copper	<0.010		0.010	0.0014	mg/L		01/19/12 16:10	01/20/12 13:49	1
Lead	<0.0050		0.0050	0.0020	mg/L		01/19/12 16:10	01/20/12 13:49	1
Nickel	<0.010		0.010	0.00081	mg/L		01/19/12 16:10	01/20/12 13:49	1
Selenium	<0.010		0.010	0.0025	mg/L		01/19/12 16:10	01/20/12 13:49	1
Silver	<0.0050		0.0050	0.00071	mg/L		01/19/12 16:10	01/20/12 13:49	1
Tin	<0.040		0.040	0.0035	mg/L		01/19/12 16:10	01/20/12 13:49	1
Vanadium	<0.0050		0.0050	0.00071	mg/L		01/19/12 16:10	01/20/12 13:49	1
Zinc	<0.020		0.020	0.0066	mg/L		01/19/12 16:10	01/20/12 13:49	1

Lab Sample ID: LCS 500-138626/2-A
Matrix: Water
Analysis Batch: 138806

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138626

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0956		mg/L		96	80 - 120
Barium	2.00	1.99		mg/L		100	80 - 120
Beryllium	0.0500	0.0508		mg/L		102	80 - 120
Cadmium	0.0500	0.0500		mg/L		100	80 - 120
Chromium	0.200	0.202		mg/L		101	80 - 120
Cobalt	0.500	0.496		mg/L		99	80 - 120
Copper	0.250	0.255		mg/L		102	80 - 120
Lead	0.100	0.102		mg/L		102	80 - 120
Nickel	0.500	0.505		mg/L		101	80 - 120
Selenium	0.100	0.0859		mg/L		86	80 - 120
Silver	0.0500	0.0478		mg/L		96	80 - 120
Tin	1.00	0.969		mg/L		97	80 - 120
Vanadium	0.500	0.508		mg/L		102	80 - 120
Zinc	0.500	0.481		mg/L		96	80 - 120

Lab Sample ID: 500-43776-6 MS
Matrix: Water
Analysis Batch: 138806

Client Sample ID: EXISTING AMPSKY WELL
Prep Type: Total/NA
Prep Batch: 138626

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	<0.010		0.100	0.0993		mg/L		99	75 - 125
Barium	0.065		2.00	2.07		mg/L		100	75 - 125
Beryllium	<0.0040		0.0500	0.0513		mg/L		103	75 - 125
Cadmium	<0.0020		0.0500	0.0489		mg/L		98	75 - 125
Chromium	<0.010		0.200	0.201		mg/L		101	75 - 125
Cobalt	0.0012	J	0.500	0.487		mg/L		97	75 - 125
Copper	<0.010		0.250	0.263		mg/L		105	75 - 125
Lead	<0.0050		0.100	0.102		mg/L		102	75 - 125
Nickel	0.0016	J	0.500	0.491		mg/L		98	75 - 125
Selenium	<0.010		0.100	0.0890		mg/L		89	75 - 125

QC Sample Results

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: 500-43776-6 MS

Matrix: Water

Analysis Batch: 138806

Client Sample ID: EXISTING AMPSKY WELL

Prep Type: Total/NA

Prep Batch: 138626

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Silver	<0.0050		0.0500	0.0497		mg/L		99	75 - 125
Tin	<0.040		1.00	0.985		mg/L		98	75 - 125
Vanadium	0.0043	J	0.500	0.515		mg/L		102	75 - 125
Zinc	0.0074	J	0.500	0.478		mg/L		94	75 - 125

Lab Sample ID: 500-43776-6 MSD

Matrix: Water

Analysis Batch: 138806

Client Sample ID: EXISTING AMPSKY WELL

Prep Type: Total/NA

Prep Batch: 138626

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	<0.010		0.100	0.0992		mg/L		99	75 - 125	0	20
Barium	0.065		2.00	2.06		mg/L		100	75 - 125	0	20
Beryllium	<0.0040		0.0500	0.0513		mg/L		103	75 - 125	0	20
Cadmium	<0.0020		0.0500	0.0488		mg/L		98	75 - 125	0	20
Chromium	<0.010		0.200	0.201		mg/L		100	75 - 125	0	20
Cobalt	0.0012	J	0.500	0.487		mg/L		97	75 - 125	0	20
Copper	<0.010		0.250	0.264		mg/L		105	75 - 125	0	20
Lead	<0.0050		0.100	0.101		mg/L		101	75 - 125	1	20
Nickel	0.0016	J	0.500	0.491		mg/L		98	75 - 125	0	20
Selenium	<0.010		0.100	0.0886		mg/L		89	75 - 125	0	20
Silver	<0.0050		0.0500	0.0493		mg/L		99	75 - 125	1	20
Tin	<0.040		1.00	0.982		mg/L		98	75 - 125	0	20
Vanadium	0.0043	J	0.500	0.513		mg/L		102	75 - 125	0	20
Zinc	0.0074	J	0.500	0.478		mg/L		94	75 - 125	0	20

Lab Sample ID: 500-43776-6 DU

Matrix: Water

Analysis Batch: 138806

Client Sample ID: EXISTING AMPSKY WELL

Prep Type: Total/NA

Prep Batch: 138626

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Arsenic	<0.010		<0.010		mg/L		NC	20
Barium	0.065		0.0652		mg/L		0.3	20
Beryllium	<0.0040		<0.0040		mg/L		NC	20
Cadmium	<0.0020		<0.0020		mg/L		NC	20
Chromium	<0.010		<0.010		mg/L		NC	20
Cobalt	0.0012	J	0.00101	J	mg/L		18	20
Copper	<0.010		<0.010		mg/L		NC	20
Lead	<0.0050		<0.0050		mg/L		NC	20
Nickel	0.0016	J	0.00197	J	mg/L		19	20
Selenium	<0.010		<0.010		mg/L		NC	20
Silver	<0.0050		<0.0050		mg/L		NC	20
Tin	<0.040		<0.040		mg/L		NC	20
Vanadium	0.0043	J	0.00483	J	mg/L		13	20
Zinc	0.0074	J	0.00779	J	mg/L		5	20

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QC Sample Results

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: MB 500-138752/1-A
Matrix: Water
Analysis Batch: 138927

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138752

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	<0.010		0.010	0.0025	mg/L		01/20/12 16:30	01/23/12 14:27	1
Barium	<0.010		0.010	0.00084	mg/L		01/20/12 16:30	01/23/12 14:27	1
Beryllium	<0.0040		0.0040	0.00051	mg/L		01/20/12 16:30	01/23/12 14:27	1
Cadmium	<0.0020		0.0020	0.00036	mg/L		01/20/12 16:30	01/23/12 14:27	1
Chromium	<0.010		0.010	0.0015	mg/L		01/20/12 16:30	01/23/12 14:27	1
Cobalt	<0.0050		0.0050	0.00043	mg/L		01/20/12 16:30	01/23/12 14:27	1
Copper	<0.010		0.010	0.0014	mg/L		01/20/12 16:30	01/23/12 14:27	1
Lead	<0.0050		0.0050	0.0020	mg/L		01/20/12 16:30	01/23/12 14:27	1
Nickel	<0.010		0.010	0.00081	mg/L		01/20/12 16:30	01/23/12 14:27	1
Selenium	0.00380	J	0.010	0.0025	mg/L		01/20/12 16:30	01/23/12 14:27	1
Silver	<0.0050		0.0050	0.00071	mg/L		01/20/12 16:30	01/23/12 14:27	1
Tin	<0.040		0.040	0.0035	mg/L		01/20/12 16:30	01/23/12 14:27	1
Vanadium	<0.0050		0.0050	0.00071	mg/L		01/20/12 16:30	01/23/12 14:27	1

Lab Sample ID: MB 500-138752/1-A
Matrix: Water
Analysis Batch: 139060

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138752

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Zinc	0.00725	J	0.020	0.0066	mg/L		01/20/12 16:30	01/24/12 17:11	1

Lab Sample ID: LCS 500-138752/2-A
Matrix: Water
Analysis Batch: 138927

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138752

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	0.100	0.0982		mg/L		98	80 - 120
Barium	2.00	1.98		mg/L		99	80 - 120
Beryllium	0.0500	0.0490		mg/L		98	80 - 120
Cadmium	0.0500	0.0482		mg/L		96	80 - 120
Chromium	0.200	0.204		mg/L		102	80 - 120
Cobalt	0.500	0.509		mg/L		102	80 - 120
Copper	0.250	0.251		mg/L		100	80 - 120
Lead	0.100	0.101		mg/L		101	80 - 120
Nickel	0.500	0.507		mg/L		101	80 - 120
Selenium	0.100	0.0913		mg/L		91	80 - 120
Tin	1.00	0.992		mg/L		99	80 - 120
Vanadium	0.500	0.521		mg/L		104	80 - 120
Zinc	0.500	0.512	^	mg/L		102	80 - 120

Lab Sample ID: LCS 500-138752/2-A
Matrix: Water
Analysis Batch: 139060

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138752

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Zinc	0.500	0.503		mg/L		101	80 - 120

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QC Sample Results

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 500-138901/1-A
Matrix: Water
Analysis Batch: 139106

Client Sample ID: Method Blank
Prep Type: Total Recoverable
Prep Batch: 138901

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	<0.0030		0.0030	0.00063	mg/L		01/23/12 16:30	01/24/12 16:02	1
Thallium	<0.0020		0.0020	0.00036	mg/L		01/23/12 16:30	01/24/12 16:02	1

Lab Sample ID: LCS 500-138901/2-A
Matrix: Water
Analysis Batch: 139106

Client Sample ID: Lab Control Sample
Prep Type: Total Recoverable
Prep Batch: 138901

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	0.500	0.527		mg/L		105	80 - 120
Thallium	0.100	0.102		mg/L		102	80 - 120

Lab Sample ID: 500-43776-1 MS
Matrix: Water
Analysis Batch: 139106

Client Sample ID: LSF-MW-01
Prep Type: Total Recoverable
Prep Batch: 138901

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Antimony	<0.0030		0.500	0.507		mg/L		101	75 - 125
Thallium	0.00077	J	0.100	0.105		mg/L		104	75 - 125

Lab Sample ID: 500-43776-1 MSD
Matrix: Water
Analysis Batch: 139106

Client Sample ID: LSF-MW-01
Prep Type: Total Recoverable
Prep Batch: 138901

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Antimony	<0.0030		0.500	0.520		mg/L		104	75 - 125	3	20
Thallium	0.00077	J	0.100	0.107		mg/L		106	75 - 125	2	20

Lab Sample ID: 500-43776-1 DU
Matrix: Water
Analysis Batch: 139106

Client Sample ID: LSF-MW-01
Prep Type: Total Recoverable
Prep Batch: 138901

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Antimony	<0.0030		<0.0030		mg/L		NC	20
Thallium	0.00077	J	<0.0020		mg/L		NC	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 500-138883/7-A
Matrix: Water
Analysis Batch: 138991

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 138883

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.00020		0.00020	0.000070	mg/L		01/23/12 14:00	01/24/12 09:18	1

Lab Sample ID: LCS 500-138883/8-A
Matrix: Water
Analysis Batch: 138991

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 138883

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.00200	0.00193		mg/L		97	80 - 120

QC Sample Results

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Method: 9040B - pH

Lab Sample ID: 500-43776-1 DU
Matrix: Water
Analysis Batch: 138592

Client Sample ID: LSF-MW-01
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.21	HF	7.240		SU		0.4	

Lab Sample ID: 500-43776-2 DU
Matrix: Water
Analysis Batch: 138592

Client Sample ID: LSF-MW-02
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.01	HF	7.020		SU		0.143	

Lab Sample ID: 500-43776-3 DU
Matrix: Water
Analysis Batch: 138592

Client Sample ID: LSF-MW-03
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.48	HF	7.540		SU		0.799	

Lab Sample ID: 500-43776-4 DU
Matrix: Water
Analysis Batch: 138592

Client Sample ID: LSF-MW-04
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.50	HF	7.520		SU		0.266	

Lab Sample ID: 500-43776-5 DU
Matrix: Water
Analysis Batch: 138592

Client Sample ID: LSF-MW-05
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.22	HF	7.240		SU		0.277	

Lab Sample ID: 500-43776-6 DU
Matrix: Water
Analysis Batch: 138592

Client Sample ID: EXISTING AMPSKY WELL
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	7.10	HF	7.100		SU		0.000	

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Certification Summary

Client: Deigan & Associates
Project/Site: Former Lake Shore Foundry

TestAmerica Job ID: 500-43776-1
SDG: 500-43776-1

Laboratory	Authority	Program	EPA Region	Certification ID
TestAmerica Chicago	Alabama	State Program	4	40461
TestAmerica Chicago	California	NELAC	9	01132CA
TestAmerica Chicago	Florida	NELAC	4	E871072
TestAmerica Chicago	Georgia	Georgia EPD	4	N/A
TestAmerica Chicago	Georgia	State Program	4	939
TestAmerica Chicago	Hawaii	State Program	9	N/A
TestAmerica Chicago	Illinois	NELAC	5	100201
TestAmerica Chicago	Indiana	State Program	5	C-IL-02
TestAmerica Chicago	Iowa	State Program	7	82
TestAmerica Chicago	Kansas	NELAC	7	E-10161
TestAmerica Chicago	Kentucky	Kentucky UST	4	66
TestAmerica Chicago	Kentucky	State Program	4	90023
TestAmerica Chicago	L-A-B	DoD ELAP		L2304
TestAmerica Chicago	L-A-B	ISO/IEC 17025		L2304
TestAmerica Chicago	Louisiana	NELAC	6	30720
TestAmerica Chicago	Massachusetts	State Program	1	M-IL035
TestAmerica Chicago	Mississippi	State Program	4	N/A
TestAmerica Chicago	North Carolina	North Carolina DENR	4	291
TestAmerica Chicago	Oklahoma	State Program	6	8908
TestAmerica Chicago	South Carolina	State Program	4	77001
TestAmerica Chicago	Texas	NELAC	6	T104704252-09-TX
TestAmerica Chicago	USDA	USDA		P330-09-00027
TestAmerica Chicago	Virginia	NELAC Secondary AB	3	460142
TestAmerica Chicago	Wisconsin	State Program	5	999580010
TestAmerica Chicago	Wyoming	State Program	8	8TMS-Q

Accreditation may not be offered or required for all methods and analytes reported in this package. Please contact your project manager for the laboratory's current list of certified methods and analytes.

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TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60484
Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
Contact: _____
Company: Dwyer Associates, LLC
Address: _____
Address: _____
Phone: (847) 578-5000
Fax: _____
E-Mail: _____

Bill To (optional)
Contact: _____
Company: _____
Address: _____
Address: _____
Phone: _____
Fax: _____
PO#/Reference#: _____

Chain of Custody Record

Lab Job #: 500-43776
Chain of Custody Number: _____
Page 1 of 1
Temperature °C of Cooler: 2.3

Client		Client Project #		Preservative		Parameter		Total Metals		Dissolved Metals		PH		Preservative Key	
Project Name		Project Location/State		Lab Project #		Lab PM								1. HCL, Cool to 4° 2. H2SO4, Cool to 4° 3. HNO3, Cool to 4° 4. NaOH, Cool to 4° 5. NaOH/Zn, Cool to 4° 6. NaHSO4 7. Cool to 4° 8. None 9. Other	
Sampler		Sample ID		Sampling		# of Containers		Matrix						Comments	
Lab ID	MSMSD	Date	Time												
1		LSF-MW-01	1/18	300PM	3	W			✓	✓	✓				
2		LSF-MW-02	1/18	1030AM	3	W			✓	✓	✓				
3		LSF-MW-03	1/18	145PM	3	W			✓	✓	✓				
4		LSF-MW-04	1/18	100PM	3	W			✓	✓	✓				
5		LSF-MW-05	1/18	1145AM	3	W			✓	✓	✓				
6		Existing Ampsky Well	1/18	330PM	3	W			✓	✓	✓				

Turnaround Time Required (Business Days)
☐ 1 Day ☐ 2 Days ☐ 5 Days ☐ 7 Days ☒ 10 Days ☐ 15 Days ☐ Other
 Requested Due Date _____

Sample Disposal
☐ Return to Client ☐ Disposal by Lab ☐ Archive for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By <u>M. Grillo</u>	Company <u>Dwyer Associates, LLC</u>	Date <u>1/18/12</u>	Time <u>630PM</u>	Received By <u>[Signature]</u>	Company <u>FLSx</u>	Date <u>1/18/12</u>	Time <u>630PM</u>	Lab Courier <u>FX</u>
Relinquished By <u>[Signature]</u>	Company <u>TD</u>	Date <u>1/19/12</u>	Time <u>1010</u>	Received By <u>[Signature]</u>	Company <u>TD</u>	Date <u>1/19/12</u>	Time <u>1010</u>	Shipped <u>FX</u>
Relinquished By	Company	Date	Time	Received By	Company	Date	Time	Hand Delivered

Matrix Key WW - Wastewater SE - Sediment W - Water SO - Soil S - Soil L - Leachate SL - Sludge WI - Wipe MS - Miscellaneous DW - Drinking Water OL - Oil O - Other A - Air	Client Comments	Lab Comments
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Login Sample Receipt Checklist

Client: Deigan & Associates

Job Number: 500-43776-1

SDG Number: 500-43776-1

Login Number: 43776

List Number: 1

Creator: Lunt, Jeff T

List Source: TestAmerica Chicago

Question	Answer	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	2.3
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	
Is the Field Sampler's name present on COC?	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	
Sample Preservation Verified.	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	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	