

US EPA ARCHIVE DOCUMENT



Deigan & Associates, LLC
Environmental Consultants

100 S. Genesee St.
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Ms. Jill Groboski (LU-9J) via email June 22, 2009
Project Manager
US EPA Region V
Land and Chemicals Division
Remediation and Reuse Branch
Corrective Action Section
77 West Jackson Blvd.
Chicago, Illinois 60604-3590

Re: Description of Current Conditions (DOCC) Report Addendum
4th Round of Groundwater Sampling/Analysis
Lake Shore Foundry, Waukegan, IL. (ILR000 1110591)

Dear Ms. Groboski:

Enclosed please find the results of an additional round of groundwater sampling and analysis at the above-referenced property. Table 1 provides a summary table comparing the June and December 2008 sampling events for total and dissolved metals against the applicable Illinois groundwater and Lake Michigan Basin standards.

We have also included data trend graphs for certain parameters and wells.

Please contact me with any comments or questions.

Sincerely,
Deigan & Associates, LLC

Gary J. Deigan
Principal

Enclosures

cc:

Lake Shore Foundry

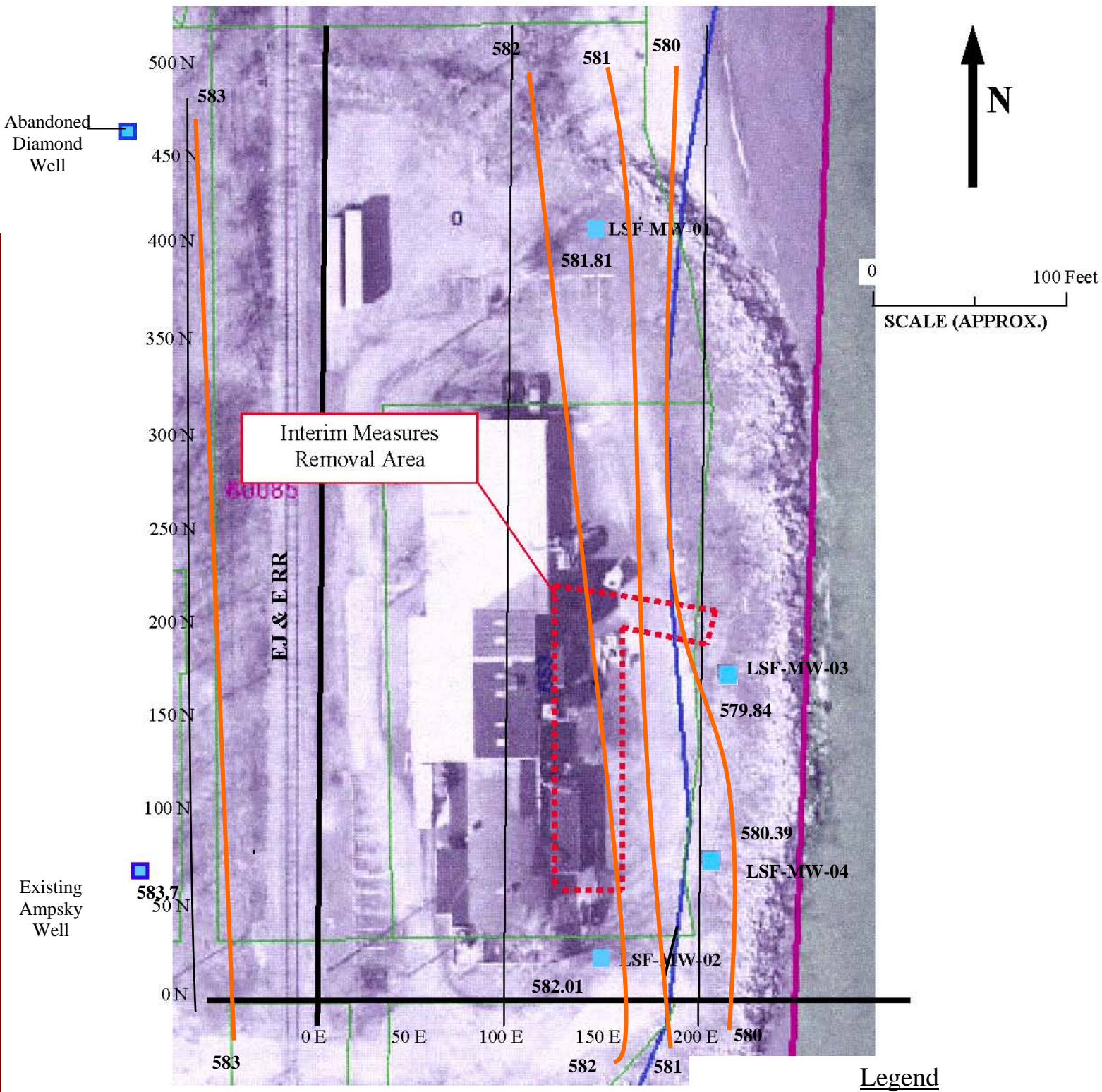


Figure 1— Groundwater Sample Locations and Groundwater Elevations, June 04, 2009
Lake Shore Foundry, Waukegan, IL

- Legend**
- Monitoring Well (GW elevation)
 - GW Contour

Table 1
Lake Shore Foundry June 08-June 09 Groundwater Analytical Summary

Table with columns for Method, Analyte, IEPA Groundwater Standard (Class I, II), Region 5 Ecological Screening Level, IEPA Lake Michigan Basin Standard (35 IAC 303.504 Acute, Chronic), LSF-MW-01 (June 08, Dec 08, March 09, June 09), LSF-MW-02 (June 08, Dec 08, March 09, June 09), LSF-MW-03 (June 08, Dec 08, March 09, June 09), LSF-MW-04 (June 08, Dec 08, March 09, June 09), and Existing South Background Well (June 08, Dec 08, March 09, June 09).

Groundwater standards(35 IAC Part 620) based on total metals analysis.
USEPA (September 2008) Regional Screening Level for tap water.
NA = Not analyzed.

Exceeds Class I standard.
Exceeds Class II standard.
Exceeds chronic standard
Exceeds acute standard

No standard available.
IEPA Lake Michigan Basin Standard
bold indicates exceeds ESL; shading indicates exceeds Lake Michigan standard.

cadmium (ug/L, dissolved) = Exp[-3.6867 + 1.28ln(H)] X (1.136672 - ((lnH)/(0.041838))]
Copper (ug/L, dissolve) = exp[-1.7 + 0.9422ln(H)] X 0.960
lead (ug/L, dissolved) = exp[-1.055 + 1.273ln(H)] X (1.46203 - ((lnH)/(0.145712))]
nickel (ug/L, dissolved) = exp[2.255 + 0.846ln(H)] X 0.998
zinc (ug/L, dissolved) = exp[0.884 + 0.843ln(H)] X 0.978
lead (ug/L, total) = exp[-1.055 + 1.273ln(H)]

Hardness (mg/L) 137
(H) 4.92
Central Lake County Joint Action Water Authority
http://www.ccljawa.com/faq.html

IEPA Lake Michigan Basin Standard

Table with 2 columns: Calculated, Chronic Standard (ug/L)

GLI Standard

Table with 2 columns: Calculated, Chronic Standard (ug/L)

ANALYTICAL REPORT

Job Number: 500-19288-1

SDG Number: 500-19288-1

Job Description: Lake Shore Foundry, Waukegan

For:

Deigan & Associates

100 S. Genesee St.

Waukegan, IL 60085

Attention: Gary Deigan



Approved for release.
Richard C Wright
Project Manager II
6/15/2009 3:40 PM

Richard C Wright
Project Manager II
richard.wright@testamericainc.com
06/15/2009

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.

TestAmerica Laboratories, Inc.

TestAmerica Chicago 2417 Bond Street, University Park, IL 60484

Tel (708) 534-5200 Fax (708) 534-5211 www.testamericainc.com



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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.

EXECUTIVE SUMMARY - Detections

Client: Deigan & Associates

Job Number: 500-19288-1

Sdg Number: 500-19288-1

Lab Sample ID	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
Analyte						
500-19288-1	MW-1					
Barium		0.096		0.010	mg/L	6010B
Lead		0.0022	J	0.0050	mg/L	6010B
Thallium		0.0027	J B	0.010	mg/L	6010B
pH		7.25	HF	0.200	SU	9040B
<i>Dissolved</i>						
Barium		0.076		0.010	mg/L	6010B
Antimony		0.00020	J	0.0020	mg/L	6020
500-19288-2	MW-2					
Antimony		0.0049	J	0.020	mg/L	6010B
Barium		0.074		0.010	mg/L	6010B
Cadmium		0.0037		0.0020	mg/L	6010B
Cobalt		0.0037	J	0.0050	mg/L	6010B
Copper		0.53		0.010	mg/L	6010B
Lead		0.012		0.0050	mg/L	6010B
Nickel		0.046		0.010	mg/L	6010B
Selenium		0.014		0.010	mg/L	6010B
Zinc		1.2		0.020	mg/L	6010B
pH		7.15	HF	0.200	SU	9040B
<i>Dissolved</i>						
Barium		0.073		0.010	mg/L	6010B
Cadmium		0.0037		0.0020	mg/L	6010B
Cobalt		0.0036	J	0.0050	mg/L	6010B
Copper		0.48		0.010	mg/L	6010B
Lead		0.0037	J	0.0050	mg/L	6010B
Nickel		0.046		0.010	mg/L	6010B
Selenium		0.013		0.010	mg/L	6010B
Zinc		1.2		0.020	mg/L	6010B
Antimony		0.0053		0.0020	mg/L	6020
<i>Total Recoverable</i>						
Antimony		0.0059		0.0020	mg/L	6020
Thallium		0.00030	J	0.0020	mg/L	6020

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EXECUTIVE SUMMARY - Detections

Client: Deigan & Associates

Job Number: 500-19288-1

Sdg Number: 500-19288-1

Lab Sample ID	Client Sample ID	Result / Qualifier		Reporting Limit	Units	Method
Analyte						
500-19288-3	MW-3					
Barium		0.046		0.010	mg/L	6010B
Copper		0.24		0.010	mg/L	6010B
Lead		0.0037	J	0.0050	mg/L	6010B
Nickel		0.0099	J	0.010	mg/L	6010B
Zinc		0.13		0.020	mg/L	6010B
pH		7.40	HF	0.200	SU	9040B
<i>Dissolved</i>						
Barium		0.042		0.010	mg/L	6010B
Copper		0.22		0.010	mg/L	6010B
Nickel		0.0092	J	0.010	mg/L	6010B
Zinc		0.12		0.020	mg/L	6010B
Antimony		0.0020		0.0020	mg/L	6020
<i>Total Recoverable</i>						
Antimony		0.0021		0.0020	mg/L	6020
500-19288-4	MW-4					
Arsenic		0.0033	J	0.010	mg/L	6010B
Barium		0.089		0.010	mg/L	6010B
Copper		0.020		0.010	mg/L	6010B
Lead		0.0036	J	0.0050	mg/L	6010B
Zinc		0.017	J	0.020	mg/L	6010B
pH		7.48	HF	0.200	SU	9040B
<i>Dissolved</i>						
Barium		0.038		0.010	mg/L	6010B
Copper		0.0063	J	0.010	mg/L	6010B
Lead		0.0026	J	0.0050	mg/L	6010B
Antimony		0.0020		0.0020	mg/L	6020
<i>Total Recoverable</i>						
Antimony		0.0019	J	0.0020	mg/L	6020

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EXECUTIVE SUMMARY - Detections

Client: Deigan & Associates

Job Number: 500-19288-1

Sdg Number: 500-19288-1

Lab Sample ID Analyte	Client Sample ID	Result / Qualifier	Reporting Limit	Units	Method
500-19288-5	EXISTING AMSKY WELL				
Barium		0.068	0.010	mg/L	6010B
Beryllium		0.00027 J	0.0040	mg/L	6010B
Cobalt		0.00097 J	0.0050	mg/L	6010B
Copper		0.022	0.010	mg/L	6010B
Zinc		0.018 J	0.020	mg/L	6010B
pH		7.20 HF	0.200	SU	9040B
<i>Dissolved</i>					
Barium		0.051	0.010	mg/L	6010B
Copper		0.0071 J	0.010	mg/L	6010B
Lead		0.0029 J	0.0050	mg/L	6010B
<i>Total Recoverable</i>					
Antimony		0.00016 J	0.0020	mg/L	6020

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METHOD SUMMARY

Client: Deigan & Associates

Job Number: 500-19288-1

Sdg Number: 500-19288-1

Description	Lab Location	Method	Preparation Method
Matrix: Water			
Metals (ICP)	TAL CHI	SW846 6010B	
Sample Filtration	TAL CHI		FILTRATION
Preparation, Total Metals	TAL CHI		SW846 3010A
Metals (ICP/MS)	TAL CHI	SW846 6020	
Sample Filtration	TAL CHI		FILTRATION
Preparation, Total Recoverable or Dissolved Metals	TAL CHI		SW846 3005A
Mercury (CVAA)	TAL CHI	SW846 7470A	
Sample Filtration	TAL CHI		FILTRATION
Preparation, Mercury	TAL CHI		SW846 7470A
pH	TAL CHI	SW846 9040B	

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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METHOD / ANALYST SUMMARY

Client: Deigan & Associates

Job Number: 500-19288-1

Sdg Number: 500-19288-1

Method	Analyst	Analyst ID
SW846 6010B	Smith, Todd D	TDS
SW846 6020	Kolarczyk, Paul F	PFK
SW846 7470A	Klee, George O	GOK
SW846 9040B	Moore, Colleen L	CLM

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SAMPLE SUMMARY

Client: Deigan & Associates

Job Number: 500-19288-1

Sdg Number: 500-19288-1

Lab Sample ID	Client Sample ID	Client Matrix	Date/Time Sampled	Date/Time Received
500-19288-1	MW-1	Water	06/04/2009 1350	06/05/2009 1015
500-19288-2	MW-2	Water	06/04/2009 1435	06/05/2009 1015
500-19288-3	MW-3	Water	06/04/2009 1405	06/05/2009 1015
500-19288-4	MW-4	Water	06/04/2009 1420	06/05/2009 1015
500-19288-5	EXISTING AMSKY WELL	Water	06/04/2009 1450	06/05/2009 1015

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SAMPLE RESULTS

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

Job Number: 500-19288-1
 Sdg Number: 500-19288-1

Client Sample ID: MW-1
 Lab Sample ID: 500-19288-1

Date Sampled: 06/04/2009 1350
 Date Received: 06/05/2009 1015
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: 6010B			Date Analyzed:	06/10/2009 1418	
Prep Method: 3010A			Date Prepared:	06/10/2009 0800	
Antimony	<0.020	mg/L	0.0023	0.020	1.0
Arsenic	<0.010	mg/L	0.0022	0.010	1.0
Barium	0.096	mg/L	0.00063	0.010	1.0
Beryllium	<0.0040	mg/L	0.00021	0.0040	1.0
Cadmium	<0.0020	mg/L	0.00034	0.0020	1.0
Chromium	<0.010	mg/L	0.0022	0.010	1.0
Cobalt	<0.0050	mg/L	0.00039	0.0050	1.0
Copper	<0.010	mg/L	0.0025	0.010	1.0
Lead	0.0022 J	mg/L	0.0021	0.0050	1.0
Nickel	<0.010	mg/L	0.0013	0.010	1.0
Selenium	<0.010	mg/L	0.0031	0.010	1.0
Silver	<0.0050	mg/L	0.0010	0.0050	1.0
Thallium	0.0027 J B	mg/L	0.0022	0.010	1.0
Tin	<0.020	mg/L	0.0041	0.020	1.0
Vanadium	<0.0050	mg/L	0.00077	0.0050	1.0
Zinc	<0.020	mg/L	0.0064	0.020	1.0
Method: Dissolved-6010B			Date Analyzed:	06/10/2009 1422	
Prep Method: 3010A			Date Prepared:	06/10/2009 0800	
Arsenic	<0.010	mg/L	0.0022	0.010	1.0
Barium	0.076	mg/L	0.00063	0.010	1.0
Beryllium	<0.0040	mg/L	0.00021	0.0040	1.0
Cadmium	<0.0020	mg/L	0.00034	0.0020	1.0
Chromium	<0.010	mg/L	0.0022	0.010	1.0
Cobalt	<0.0050	mg/L	0.00039	0.0050	1.0
Copper	<0.010	mg/L	0.0025	0.010	1.0
Lead	<0.0050	mg/L	0.0021	0.0050	1.0
Nickel	<0.010	mg/L	0.0013	0.010	1.0
Selenium	<0.010	mg/L	0.0031	0.010	1.0
Silver	<0.0050	mg/L	0.0010	0.0050	1.0
Tin	<0.020	mg/L	0.0041	0.020	1.0
Vanadium	<0.0050	mg/L	0.00077	0.0050	1.0
Zinc	<0.020	mg/L	0.0064	0.020	1.0
Method: Total Recoverable-6020			Date Analyzed:	06/10/2009 1415	
Prep Method: 3005A			Date Prepared:	06/08/2009 0800	
Antimony	<0.0020	mg/L	0.00016	0.0020	1.0
Thallium	<0.0020	mg/L	0.00030	0.0020	1.0
Method: Dissolved-6020			Date Analyzed:	06/10/2009 1420	

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Gary Deigan
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Job Number: 500-19288-1
 Sdg Number: 500-19288-1

Client Sample ID: MW-1
 Lab Sample ID: 500-19288-1

Date Sampled: 06/04/2009 1350
 Date Received: 06/05/2009 1015
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Prep Method: 3005A					
Antimony	0.00020 J	mg/L	0.00016	0.0020	1.0
Thallium	<0.0020	mg/L	0.00030	0.0020	1.0
Method: 7470A					
Prep Method: 7470A					
Mercury	<0.00020	mg/L	0.000078	0.00020	1.0
Method: Dissolved-7470A					
Prep Method: 7470A					
Mercury	<0.00020	mg/L	0.000078	0.00020	1.0
Method: 9040B					
pH	7.25 HF	SU	0.200	0.200	1.0

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Gary Deigan
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Job Number: 500-19288-1
 Sdg Number: 500-19288-1

Client Sample ID: MW-2
Lab Sample ID: 500-19288-2

Date Sampled: 06/04/2009 1435
 Date Received: 06/05/2009 1015
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: 6010B			Date Analyzed: 06/10/2009 1426		
Prep Method: 3010A			Date Prepared: 06/10/2009 0800		
Antimony	0.0049 J	mg/L	0.0023	0.020	1.0
Arsenic	<0.010	mg/L	0.0022	0.010	1.0
Barium	0.074	mg/L	0.00063	0.010	1.0
Beryllium	<0.0040	mg/L	0.00021	0.0040	1.0
Cadmium	0.0037	mg/L	0.00034	0.0020	1.0
Chromium	<0.010	mg/L	0.0022	0.010	1.0
Cobalt	0.0037 J	mg/L	0.00039	0.0050	1.0
Copper	0.53	mg/L	0.0025	0.010	1.0
Lead	0.012	mg/L	0.0021	0.0050	1.0
Nickel	0.046	mg/L	0.0013	0.010	1.0
Selenium	0.014	mg/L	0.0031	0.010	1.0
Silver	<0.0050	mg/L	0.0010	0.0050	1.0
Thallium	<0.010	mg/L	0.0022	0.010	1.0
Tin	<0.020	mg/L	0.0041	0.020	1.0
Vanadium	<0.0050	mg/L	0.00077	0.0050	1.0
Zinc	1.2	mg/L	0.0064	0.020	1.0
Method: Dissolved-6010B			Date Analyzed: 06/10/2009 1430		
Prep Method: 3010A			Date Prepared: 06/10/2009 0800		
Arsenic	<0.010	mg/L	0.0022	0.010	1.0
Barium	0.073	mg/L	0.00063	0.010	1.0
Beryllium	<0.0040	mg/L	0.00021	0.0040	1.0
Cadmium	0.0037	mg/L	0.00034	0.0020	1.0
Chromium	<0.010	mg/L	0.0022	0.010	1.0
Cobalt	0.0036 J	mg/L	0.00039	0.0050	1.0
Copper	0.48	mg/L	0.0025	0.010	1.0
Lead	0.0037 J	mg/L	0.0021	0.0050	1.0
Nickel	0.046	mg/L	0.0013	0.010	1.0
Selenium	0.013	mg/L	0.0031	0.010	1.0
Silver	<0.0050	mg/L	0.0010	0.0050	1.0
Tin	<0.020	mg/L	0.0041	0.020	1.0
Vanadium	<0.0050	mg/L	0.00077	0.0050	1.0
Zinc	1.2	mg/L	0.0064	0.020	1.0
Method: Total Recoverable-6020			Date Analyzed: 06/10/2009 1433		
Prep Method: 3005A			Date Prepared: 06/08/2009 0800		
Antimony	0.0059	mg/L	0.00016	0.0020	1.0
Thallium	0.00030 J	mg/L	0.00030	0.0020	1.0
Method: Dissolved-6020			Date Analyzed: 06/10/2009 1437		

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Gary Deigan
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Job Number: 500-19288-1
 Sdg Number: 500-19288-1

Client Sample ID: MW-2
Lab Sample ID: 500-19288-2

Date Sampled: 06/04/2009 1435
 Date Received: 06/05/2009 1015
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Prep Method: 3005A					
			Date Prepared: 06/08/2009 0800		
Antimony	0.0053	mg/L	0.00016	0.0020	1.0
Thallium	<0.0020	mg/L	0.00030	0.0020	1.0
Method: 7470A					
Prep Method: 7470A					
			Date Analyzed: 06/08/2009 1355		
Mercury	<0.00020	mg/L	0.000078	0.00020	1.0
Method: Dissolved-7470A					
Prep Method: 7470A					
			Date Analyzed: 06/08/2009 1357		
Mercury	<0.00020	mg/L	0.000078	0.00020	1.0
Method: 9040B					
pH	7.15	HF SU	Date Analyzed: 06/05/2009 1444	0.200	1.0

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 Waukegan, IL 60085

Job Number: 500-19288-1
 Sdg Number: 500-19288-1

Client Sample ID: MW-3
 Lab Sample ID: 500-19288-3

Date Sampled: 06/04/2009 1405
 Date Received: 06/05/2009 1015
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: 6010B			Date Analyzed:	06/10/2009 1434	
Prep Method: 3010A			Date Prepared:	06/10/2009 0800	
Antimony	<0.020	mg/L	0.0023	0.020	1.0
Arsenic	<0.010	mg/L	0.0022	0.010	1.0
Barium	0.046	mg/L	0.00063	0.010	1.0
Beryllium	<0.0040	mg/L	0.00021	0.0040	1.0
Cadmium	<0.0020	mg/L	0.00034	0.0020	1.0
Chromium	<0.010	mg/L	0.0022	0.010	1.0
Cobalt	<0.0050	mg/L	0.00039	0.0050	1.0
Copper	0.24	mg/L	0.0025	0.010	1.0
Lead	0.0037 J	mg/L	0.0021	0.0050	1.0
Nickel	0.0099 J	mg/L	0.0013	0.010	1.0
Selenium	<0.010	mg/L	0.0031	0.010	1.0
Silver	<0.0050	mg/L	0.0010	0.0050	1.0
Thallium	<0.010	mg/L	0.0022	0.010	1.0
Tin	<0.020	mg/L	0.0041	0.020	1.0
Vanadium	<0.0050	mg/L	0.00077	0.0050	1.0
Zinc	0.13	mg/L	0.0064	0.020	1.0
Method: Dissolved-6010B			Date Analyzed:	06/10/2009 1439	
Prep Method: 3010A			Date Prepared:	06/10/2009 0800	
Arsenic	<0.010	mg/L	0.0022	0.010	1.0
Barium	0.042	mg/L	0.00063	0.010	1.0
Beryllium	<0.0040	mg/L	0.00021	0.0040	1.0
Cadmium	<0.0020	mg/L	0.00034	0.0020	1.0
Chromium	<0.010	mg/L	0.0022	0.010	1.0
Cobalt	<0.0050	mg/L	0.00039	0.0050	1.0
Copper	0.22	mg/L	0.0025	0.010	1.0
Lead	<0.0050	mg/L	0.0021	0.0050	1.0
Nickel	0.0092 J	mg/L	0.0013	0.010	1.0
Selenium	<0.010	mg/L	0.0031	0.010	1.0
Silver	<0.0050	mg/L	0.0010	0.0050	1.0
Tin	<0.020	mg/L	0.0041	0.020	1.0
Vanadium	<0.0050	mg/L	0.00077	0.0050	1.0
Zinc	0.12	mg/L	0.0064	0.020	1.0
Method: Total Recoverable-6020			Date Analyzed:	06/10/2009 1441	
Prep Method: 3005A			Date Prepared:	06/08/2009 0800	
Antimony	0.0021	mg/L	0.00016	0.0020	1.0
Thallium	<0.0020	mg/L	0.00030	0.0020	1.0
Method: Dissolved-6020			Date Analyzed:	06/10/2009 1446	

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Gary Deigan
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 Waukegan, IL 60085

Job Number: 500-19288-1
 Sdg Number: 500-19288-1

Client Sample ID: MW-3
 Lab Sample ID: 500-19288-3

Date Sampled: 06/04/2009 1405
 Date Received: 06/05/2009 1015
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Prep Method: 3005A		Date Prepared: 06/08/2009 0800			
Antimony	0.0020	mg/L	0.00016	0.0020	1.0
Thallium	<0.0020	mg/L	0.00030	0.0020	1.0
Method: 7470A		Date Analyzed: 06/08/2009 1359			
Prep Method: 7470A		Date Prepared: 06/08/2009 0930			
Mercury	<0.00020	mg/L	0.000078	0.00020	1.0
Method: Dissolved-7470A		Date Analyzed: 06/08/2009 1406			
Prep Method: 7470A		Date Prepared: 06/08/2009 0930			
Mercury	<0.00020	mg/L	0.000078	0.00020	1.0
Method: 9040B		Date Analyzed: 06/05/2009 1447			
pH	7.40 HF	SU	0.200	0.200	1.0

US EPA ARCHIVE DOCUMENT

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 100 S. Genesee St.
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Job Number: 500-19288-1
 Sdg Number: 500-19288-1

Client Sample ID: MW-4
 Lab Sample ID: 500-19288-4

Date Sampled: 06/04/2009 1420
 Date Received: 06/05/2009 1015
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: 6010B			Date Analyzed: 06/10/2009 1443		
Prep Method: 3010A			Date Prepared: 06/10/2009 0800		
Antimony	<0.020	mg/L	0.0023	0.020	1.0
Arsenic	0.0033 J	mg/L	0.0022	0.010	1.0
Barium	0.089	mg/L	0.00063	0.010	1.0
Beryllium	<0.0040	mg/L	0.00021	0.0040	1.0
Cadmium	<0.0020	mg/L	0.00034	0.0020	1.0
Chromium	<0.010	mg/L	0.0022	0.010	1.0
Cobalt	<0.0050	mg/L	0.00039	0.0050	1.0
Copper	0.020	mg/L	0.0025	0.010	1.0
Lead	0.0036 J	mg/L	0.0021	0.0050	1.0
Nickel	<0.010	mg/L	0.0013	0.010	1.0
Selenium	<0.010	mg/L	0.0031	0.010	1.0
Silver	<0.0050	mg/L	0.0010	0.0050	1.0
Thallium	<0.010	mg/L	0.0022	0.010	1.0
Tin	<0.020	mg/L	0.0041	0.020	1.0
Vanadium	<0.0050	mg/L	0.00077	0.0050	1.0
Zinc	0.017 J	mg/L	0.0064	0.020	1.0
Method: Dissolved-6010B			Date Analyzed: 06/10/2009 1447		
Prep Method: 3010A			Date Prepared: 06/10/2009 0800		
Arsenic	<0.010	mg/L	0.0022	0.010	1.0
Barium	0.038	mg/L	0.00063	0.010	1.0
Beryllium	<0.0040	mg/L	0.00021	0.0040	1.0
Cadmium	<0.0020	mg/L	0.00034	0.0020	1.0
Chromium	<0.010	mg/L	0.0022	0.010	1.0
Cobalt	<0.0050	mg/L	0.00039	0.0050	1.0
Copper	0.0063 J	mg/L	0.0025	0.010	1.0
Lead	0.0026 J	mg/L	0.0021	0.0050	1.0
Nickel	<0.010	mg/L	0.0013	0.010	1.0
Selenium	<0.010	mg/L	0.0031	0.010	1.0
Silver	<0.0050	mg/L	0.0010	0.0050	1.0
Tin	<0.020	mg/L	0.0041	0.020	1.0
Vanadium	<0.0050	mg/L	0.00077	0.0050	1.0
Zinc	<0.020	mg/L	0.0064	0.020	1.0
Method: Total Recoverable-6020			Date Analyzed: 06/10/2009 1450		
Prep Method: 3005A			Date Prepared: 06/08/2009 0800		
Antimony	0.0019 J	mg/L	0.00016	0.0020	1.0
Thallium	<0.0020	mg/L	0.00030	0.0020	1.0
Method: Dissolved-6020			Date Analyzed: 06/10/2009 1454		

US EPA ARCHIVE DOCUMENT

Gary Deigan
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Job Number: 500-19288-1
 Sdg Number: 500-19288-1

Client Sample ID: MW-4
 Lab Sample ID: 500-19288-4

Date Sampled: 06/04/2009 1420
 Date Received: 06/05/2009 1015
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Prep Method: 3005A				Date Prepared: 06/08/2009 0800	
Antimony	0.0020	mg/L	0.00016	0.0020	1.0
Thallium	<0.0020	mg/L	0.00030	0.0020	1.0
Method: 7470A				Date Analyzed: 06/08/2009 1408	
Prep Method: 7470A				Date Prepared: 06/08/2009 0930	
Mercury	<0.00020	mg/L	0.000078	0.00020	1.0
Method: Dissolved-7470A				Date Analyzed: 06/08/2009 1410	
Prep Method: 7470A				Date Prepared: 06/08/2009 0930	
Mercury	<0.00020	mg/L	0.000078	0.00020	1.0
Method: 9040B				Date Analyzed: 06/05/2009 1450	
pH	7.48 HF	SU	0.200	0.200	1.0

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Job Number: 500-19288-1
 Sdg Number: 500-19288-1

Client Sample ID: EXISTING AMSKY WELL
 Lab Sample ID: 500-19288-5

Date Sampled: 06/04/2009 1450
 Date Received: 06/05/2009 1015
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Method: 6010B			Date Analyzed: 06/10/2009 1506		
Prep Method: 3010A			Date Prepared: 06/10/2009 0800		
Antimony	<0.020	mg/L	0.0023	0.020	1.0
Arsenic	<0.010	mg/L	0.0022	0.010	1.0
Barium	0.068	mg/L	0.00063	0.010	1.0
Beryllium	0.00027 J	mg/L	0.00021	0.0040	1.0
Cadmium	<0.0020	mg/L	0.00034	0.0020	1.0
Chromium	<0.010	mg/L	0.0022	0.010	1.0
Cobalt	0.00097 J	mg/L	0.00039	0.0050	1.0
Copper	0.022	mg/L	0.0025	0.010	1.0
Lead	<0.0050	mg/L	0.0021	0.0050	1.0
Nickel	<0.010	mg/L	0.0013	0.010	1.0
Selenium	<0.010	mg/L	0.0031	0.010	1.0
Silver	<0.0050	mg/L	0.0010	0.0050	1.0
Thallium	<0.010	mg/L	0.0022	0.010	1.0
Tin	<0.020	mg/L	0.0041	0.020	1.0
Vanadium	<0.0050	mg/L	0.00077	0.0050	1.0
Zinc	0.018 J	mg/L	0.0064	0.020	1.0
Method: Dissolved-6010B			Date Analyzed: 06/10/2009 1527		
Prep Method: 3010A			Date Prepared: 06/10/2009 0800		
Arsenic	<0.010	mg/L	0.0022	0.010	1.0
Barium	0.051	mg/L	0.00063	0.010	1.0
Beryllium	<0.0040	mg/L	0.00021	0.0040	1.0
Cadmium	<0.0020	mg/L	0.00034	0.0020	1.0
Chromium	<0.010	mg/L	0.0022	0.010	1.0
Cobalt	<0.0050	mg/L	0.00039	0.0050	1.0
Copper	0.0071 J	mg/L	0.0025	0.010	1.0
Lead	0.0029 J	mg/L	0.0021	0.0050	1.0
Nickel	<0.010	mg/L	0.0013	0.010	1.0
Selenium	<0.010	mg/L	0.0031	0.010	1.0
Silver	<0.0050	mg/L	0.0010	0.0050	1.0
Tin	<0.020	mg/L	0.0041	0.020	1.0
Vanadium	<0.0050	mg/L	0.00077	0.0050	1.0
Zinc	<0.020	mg/L	0.0064	0.020	1.0
Method: Total Recoverable-6020			Date Analyzed: 06/10/2009 1459		
Prep Method: 3005A			Date Prepared: 06/08/2009 0800		
Antimony	0.00016 J	mg/L	0.00016	0.0020	1.0
Thallium	<0.0020	mg/L	0.00030	0.0020	1.0
Method: Dissolved-6020			Date Analyzed: 06/10/2009 1503		

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Gary Deigan
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Job Number: 500-19288-1
 Sdg Number: 500-19288-1

Client Sample ID: EXISTING AMSKY WELL
 Lab Sample ID: 500-19288-5

Date Sampled: 06/04/2009 1450
 Date Received: 06/05/2009 1015
 Client Matrix: Water

Analyte	Result/Qualifier	Unit	MDL	RL	Dilution
Prep Method: 3005A					
			Date Prepared: 06/08/2009 0800		
Antimony	<0.0020	mg/L	0.00016	0.0020	1.0
Thallium	<0.0020	mg/L	0.00030	0.0020	1.0
Method: 7470A					
Prep Method: 7470A					
			Date Analyzed: 06/08/2009 1412		
Mercury	<0.00020	mg/L	0.000078	0.00020	1.0
Method: Dissolved-7470A					
Prep Method: 7470A					
			Date Analyzed: 06/08/2009 1414		
Mercury	<0.00020	mg/L	0.000078	0.00020	1.0
Method: 9040B					
pH	7.20 HF	SU	Date Analyzed: 06/05/2009 1453	0.200	1.0

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DATA REPORTING QUALIFIERS

Client: Deigan & Associates

Job Number: 500-19288-1

Sdg Number: 500-19288-1

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.
General Chemistry		
	HF	Field parameter with a holding time of 15 minutes

US EPA ARCHIVE DOCUMENT

QUALITY CONTROL RESULTS

Quality Control Results

Client: Deigan & Associates

Job Number: 500-19288-1

Sdg Number: 500-19288-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 500-65392					
LCS 500-65392/2-A	Lab Control Sample	R	Water	3005A	
MB 500-65392/1-A	Method Blank	R	Water	3005A	
500-19288-1	MW-1	D	Water	3005A	
500-19288-1	MW-1	R	Water	3005A	
500-19288-2	MW-2	D	Water	3005A	
500-19288-2	MW-2	R	Water	3005A	
500-19288-3	MW-3	D	Water	3005A	
500-19288-3	MW-3	R	Water	3005A	
500-19288-4	MW-4	D	Water	3005A	
500-19288-4	MW-4	R	Water	3005A	
500-19288-5	EXISTING AMSKY WELL	D	Water	3005A	
500-19288-5	EXISTING AMSKY WELL	R	Water	3005A	
Prep Batch: 500-65419					
LCS 500-65419/2-A	Lab Control Sample	T	Water	7470A	
MB 500-65419/1-A	Method Blank	T	Water	7470A	
500-19288-1	MW-1	D	Water	7470A	
500-19288-1	MW-1	T	Water	7470A	
500-19288-2	MW-2	D	Water	7470A	
500-19288-2	MW-2	T	Water	7470A	
500-19288-3	MW-3	D	Water	7470A	
500-19288-3	MW-3	T	Water	7470A	
500-19288-4	MW-4	D	Water	7470A	
500-19288-4	MW-4	T	Water	7470A	
500-19288-5	EXISTING AMSKY WELL	D	Water	7470A	
500-19288-5	EXISTING AMSKY WELL	T	Water	7470A	
Analysis Batch:500-65426					
LCS 500-65419/2-A	Lab Control Sample	T	Water	7470A	500-65419
MB 500-65419/1-A	Method Blank	T	Water	7470A	500-65419
500-19288-1	MW-1	D	Water	7470A	500-65419
500-19288-1	MW-1	T	Water	7470A	500-65419
500-19288-2	MW-2	D	Water	7470A	500-65419
500-19288-2	MW-2	T	Water	7470A	500-65419
500-19288-3	MW-3	D	Water	7470A	500-65419
500-19288-3	MW-3	T	Water	7470A	500-65419
500-19288-4	MW-4	D	Water	7470A	500-65419
500-19288-4	MW-4	T	Water	7470A	500-65419
500-19288-5	EXISTING AMSKY WELL	D	Water	7470A	500-65419
500-19288-5	EXISTING AMSKY WELL	T	Water	7470A	500-65419

US EPA ARCHIVE DOCUMENT

Quality Control Results

Client: Deigan & Associates

Job Number: 500-19288-1

Sdg Number: 500-19288-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report Basis	Client Matrix	Method	Prep Batch
Metals					
Prep Batch: 500-65540					
LCS 500-65540/2-A	Lab Control Sample	T	Water	3010A	
MB 500-65540/1-A	Method Blank	T	Water	3010A	
500-19288-1	MW-1	D	Water	3010A	
500-19288-1	MW-1	T	Water	3010A	
500-19288-2	MW-2	D	Water	3010A	
500-19288-2	MW-2	T	Water	3010A	
500-19288-3	MW-3	D	Water	3010A	
500-19288-3	MW-3	T	Water	3010A	
500-19288-4	MW-4	D	Water	3010A	
500-19288-4	MW-4	T	Water	3010A	
500-19288-5	EXISTING AMSKY WELL	D	Water	3010A	
500-19288-5	EXISTING AMSKY WELL	T	Water	3010A	
500-19288-5DU	Duplicate	T	Water	3010A	
500-19288-5MS	Matrix Spike	T	Water	3010A	
500-19288-5MSD	Matrix Spike Duplicate	T	Water	3010A	
Analysis Batch:500-65626					
LCS 500-65540/2-A	Lab Control Sample	T	Water	6010B	500-65540
MB 500-65540/1-A	Method Blank	T	Water	6010B	500-65540
500-19288-1	MW-1	D	Water	6010B	500-65540
500-19288-1	MW-1	T	Water	6010B	500-65540
500-19288-2	MW-2	D	Water	6010B	500-65540
500-19288-2	MW-2	T	Water	6010B	500-65540
500-19288-3	MW-3	D	Water	6010B	500-65540
500-19288-3	MW-3	T	Water	6010B	500-65540
500-19288-4	MW-4	D	Water	6010B	500-65540
500-19288-4	MW-4	T	Water	6010B	500-65540
500-19288-5	EXISTING AMSKY WELL	D	Water	6010B	500-65540
500-19288-5	EXISTING AMSKY WELL	T	Water	6010B	500-65540
500-19288-5DU	Duplicate	T	Water	6010B	500-65540
500-19288-5MS	Matrix Spike	T	Water	6010B	500-65540
500-19288-5MSD	Matrix Spike Duplicate	T	Water	6010B	500-65540

US EPA ARCHIVE DOCUMENT

Quality Control Results

Client: Deigan & Associates

Job Number: 500-19288-1

Sdg Number: 500-19288-1

QC Association Summary

Lab Sample ID	Client Sample ID	Report		Method	Prep Batch
		Basis	Client Matrix		
Metals					
Analysis Batch:500-65637					
LCS 500-65392/2-A	Lab Control Sample	R	Water	6020	500-65392
MB 500-65392/1-A	Method Blank	R	Water	6020	500-65392
500-19288-1	MW-1	D	Water	6020	500-65392
500-19288-1	MW-1	R	Water	6020	500-65392
500-19288-2	MW-2	D	Water	6020	500-65392
500-19288-2	MW-2	R	Water	6020	500-65392
500-19288-3	MW-3	D	Water	6020	500-65392
500-19288-3	MW-3	R	Water	6020	500-65392
500-19288-4	MW-4	D	Water	6020	500-65392
500-19288-4	MW-4	R	Water	6020	500-65392
500-19288-5	EXISTING AMSKY WELL	D	Water	6020	500-65392
500-19288-5	EXISTING AMSKY WELL	R	Water	6020	500-65392

Report Basis

D = Dissolved

R = Total Recoverable

T = Total

General Chemistry

Analysis Batch:500-65373					
500-19288-1	MW-1	T	Water	9040B	
500-19288-1DU	Duplicate	T	Water	9040B	
500-19288-2	MW-2	T	Water	9040B	
500-19288-2DU	Duplicate	T	Water	9040B	
500-19288-3	MW-3	T	Water	9040B	
500-19288-3DU	Duplicate	T	Water	9040B	
500-19288-4	MW-4	T	Water	9040B	
500-19288-4DU	Duplicate	T	Water	9040B	
500-19288-5	EXISTING AMSKY WELL	T	Water	9040B	
500-19288-5DU	Duplicate	T	Water	9040B	

Report Basis

T = Total

Quality Control Results

Client: Deigan & Associates

Job Number: 500-19288-1

Sdg Number: 500-19288-1

Method Blank - Batch: 500-65540

Method: 6010B

Preparation: 3010A

Lab Sample ID: MB 500-65540/1-A

Analysis Batch: 500-65626

Instrument ID: TJA ICAP 6500 DUO

Client Matrix: Water

Prep Batch: 500-65540

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 50 mL

Date Analyzed: 06/10/2009 1409

Final Weight/Volume: 50 mL

Date Prepared: 06/10/2009 0800

Analyte	Result	Qual	MDL	RL
Antimony	<0.020		0.0023	0.020
Arsenic	<0.010		0.0022	0.010
Barium	<0.010		0.00063	0.010
Beryllium	<0.0040		0.00021	0.0040
Cadmium	<0.0020		0.00034	0.0020
Chromium	<0.010		0.0022	0.010
Cobalt	<0.0050		0.00039	0.0050
Copper	<0.010		0.0025	0.010
Lead	<0.0050		0.0021	0.0050
Nickel	<0.010		0.0013	0.010
Selenium	<0.010		0.0031	0.010
Silver	<0.0050		0.0010	0.0050
Thallium	0.0031	J	0.0022	0.010
Tin	<0.020		0.0041	0.020
Vanadium	<0.0050		0.00077	0.0050
Zinc	<0.020		0.0064	0.020

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

Quality Control Results

Client: Deigan & Associates

Job Number: 500-19288-1

Sdg Number: 500-19288-1

Lab Control Sample - Batch: 500-65540

Method: 6010B

Preparation: 3010A

Lab Sample ID: LCS 500-65540/2-A

Analysis Batch: 500-65626

Instrument ID: TJA ICAP 6500 DUO

Client Matrix: Water

Prep Batch: 500-65540

Lab File ID: N/A

Dilution: 1.0

Units: mg/L

Initial Weight/Volume: 50 mL

Date Analyzed: 06/10/2009 1414

Final Weight/Volume: 50 mL

Date Prepared: 06/10/2009 0800

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	0.500	0.498	100	80 - 120	
Arsenic	0.100	0.0948	95	80 - 120	
Barium	2.00	1.93	96	80 - 120	
Beryllium	0.0500	0.0495	99	80 - 120	
Cadmium	0.0500	0.0483	97	80 - 120	
Chromium	0.200	0.198	99	80 - 120	
Cobalt	0.500	0.492	98	80 - 120	
Copper	0.250	0.250	100	80 - 120	
Lead	0.100	0.102	102	80 - 120	
Nickel	0.500	0.489	98	80 - 120	
Selenium	0.100	0.0928	93	80 - 120	
Silver	0.0500	0.0459	92	80 - 120	
Thallium	0.100	0.108	108	80 - 120	
Tin	1.00	0.978	98	80 - 120	
Vanadium	0.500	0.496	99	80 - 120	
Zinc	0.500	0.493	99	80 - 120	

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

Quality Control Results

Client: Deigan & Associates

Job Number: 500-19288-1

Sdg Number: 500-19288-1

Matrix Spike/

Matrix Spike Duplicate Recovery Report - Batch: 500-65540

Method: 6010B

Preparation: 3010A

MS Lab Sample ID: 500-19288-5
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 06/10/2009 1518
 Date Prepared: 06/10/2009 0800

Analysis Batch: 500-65626
 Prep Batch: 500-65540

Instrument ID: TJA ICAP 6500 DUO
 Lab File ID: N/A
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

MSD Lab Sample ID: 500-19288-5
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 06/10/2009 1523
 Date Prepared: 06/10/2009 0800

Analysis Batch: 500-65626
 Prep Batch: 500-65540

Instrument ID: TJA ICAP 6500 DUO
 Lab File ID: N/A
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	% Rec.		Limit	RPD	RPD Limit	MS Qual	MSD Qual
	MS	MSD					
Antimony	100	102	75 - 125	2	20		
Arsenic	98	99	75 - 125	1	20		
Barium	96	97	75 - 125	1	20		
Beryllium	100	102	75 - 125	2	20		
Cadmium	93	94	75 - 125	1	20		
Chromium	97	97	75 - 125	0	20		
Cobalt	94	95	75 - 125	1	20		
Copper	98	99	75 - 125	1	20		
Lead	98	100	75 - 125	2	20		
Nickel	93	94	75 - 125	1	20		
Selenium	94	94	75 - 125	0	20		
Silver	93	94	75 - 125	2	20		
Thallium	104	105	75 - 125	1	20		
Tin	95	96	75 - 125	1	20		
Vanadium	98	98	75 - 125	1	20		
Zinc	93	94	75 - 125	1	20		

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: 500-19288-1

Sdg Number: 500-19288-1

Duplicate - Batch: 500-65540

Method: 6010B

Preparation: 3010A

Lab Sample ID: 500-19288-5
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 06/10/2009 1514
 Date Prepared: 06/10/2009 0800

Analysis Batch: 500-65626
 Prep Batch: 500-65540
 Units: mg/L

Instrument ID: TJA ICAP 6500 DUO
 Lab File ID: N/A
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
Antimony	<0.020	<0.020	NC	20	
Arsenic	<0.010	<0.010	NC	20	
Barium	0.068	0.0652	4	20	
Beryllium	0.00027 J	<0.0040	NC	20	
Cadmium	<0.0020	<0.0020	NC	20	
Chromium	<0.010	<0.010	NC	20	
Cobalt	0.00097 J	0.000911	6	20	J
Copper	0.022	0.0215	3	20	
Lead	<0.0050	0.00254	NC	20	J
Nickel	<0.010	<0.010	NC	20	
Selenium	<0.010	<0.010	NC	20	
Silver	<0.0050	<0.0050	NC	20	
Thallium	<0.010	<0.010	NC	20	
Tin	<0.020	<0.020	NC	20	
Vanadium	<0.0050	<0.0050	NC	20	
Zinc	0.018 J	0.0169	7	20	J

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

Quality Control Results

Client: Deigan & Associates

Job Number: 500-19288-1

Sdg Number: 500-19288-1

Method Blank - Batch: 500-65392

Lab Sample ID: MB 500-65392/1-A
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 06/10/2009 1340
 Date Prepared: 06/08/2009 0800

Analysis Batch: 500-65637
 Prep Batch: 500-65392
 Units: mg/L

**Method: 6020
 Preparation: 3005A
 Total Recoverable**

Instrument ID: ThermoElectron ICP-MS
 Lab File ID: N/A
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	Result	Qual	MDL	RL
Antimony	<0.0020		0.00016	0.0020
Thallium	<0.0020		0.00030	0.0020

Lab Control Sample - Batch: 500-65392

Lab Sample ID: LCS 500-65392/2-A
 Client Matrix: Water
 Dilution: 1.0
 Date Analyzed: 06/10/2009 1345
 Date Prepared: 06/08/2009 0800

Analysis Batch: 500-65637
 Prep Batch: 500-65392
 Units: mg/L

**Method: 6020
 Preparation: 3005A
 Total Recoverable**

Instrument ID: ThermoElectron ICP-MS
 Lab File ID: N/A
 Initial Weight/Volume: 50 mL
 Final Weight/Volume: 50 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Antimony	0.500	0.536	107	80 - 120	
Thallium	0.100	0.103	103	80 - 120	

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

Quality Control Results

Client: Deigan & Associates

Job Number: 500-19288-1

Sdg Number: 500-19288-1

Method Blank - Batch: 500-65419

Lab Sample ID: MB 500-65419/1-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/08/2009 1319
Date Prepared: 06/08/2009 0930

Analysis Batch: 500-65426
Prep Batch: 500-65419
Units: mg/L

Method: 7470A Preparation: 7470A

Instrument ID: Leeman Labs PS200 Mercury
Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Result	Qual	MDL	RL
Mercury	<0.00020		0.000078	0.00020

Lab Control Sample - Batch: 500-65419

Lab Sample ID: LCS 500-65419/2-A
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/08/2009 1321
Date Prepared: 06/08/2009 0930

Analysis Batch: 500-65426
Prep Batch: 500-65419
Units: mg/L

Method: 7470A Preparation: 7470A

Instrument ID: Leeman Labs PS200 Mercury
Lab File ID: N/A
Initial Weight/Volume: 25 mL
Final Weight/Volume: 25 mL

Analyte	Spike Amount	Result	% Rec.	Limit	Qual
Mercury	0.00200	0.00198	99	80 - 120	

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

Quality Control Results

Client: Deigan & Associates

Job Number: 500-19288-1

Sdg Number: 500-19288-1

Duplicate - Batch: 500-65373

Method: 9040B

Preparation: N/A

Lab Sample ID: 500-19288-1
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/05/2009 1443
Date Prepared: N/A

Analysis Batch: 500-65373
Prep Batch: N/A
Units: SU

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	7.25	7.300	1		

Duplicate - Batch: 500-65373

Method: 9040B

Preparation: N/A

Lab Sample ID: 500-19288-2
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/05/2009 1446
Date Prepared: N/A

Analysis Batch: 500-65373
Prep Batch: N/A
Units: SU

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	7.15	7.160	0		

Duplicate - Batch: 500-65373

Method: 9040B

Preparation: N/A

Lab Sample ID: 500-19288-3
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/05/2009 1449
Date Prepared: N/A

Analysis Batch: 500-65373
Prep Batch: N/A
Units: SU

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	7.40	7.510	1		

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

Quality Control Results

Client: Deigan & Associates

Job Number: 500-19288-1

Sdg Number: 500-19288-1

Duplicate - Batch: 500-65373

Method: 9040B

Preparation: N/A

Lab Sample ID: 500-19288-4
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/05/2009 1452
Date Prepared: N/A

Analysis Batch: 500-65373
Prep Batch: N/A
Units: SU

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	7.48	7.510	0		

Duplicate - Batch: 500-65373

Method: 9040B

Preparation: N/A

Lab Sample ID: 500-19288-5
Client Matrix: Water
Dilution: 1.0
Date Analyzed: 06/05/2009 1454
Date Prepared: N/A

Analysis Batch: 500-65373
Prep Batch: N/A
Units: SU

Instrument ID: No Equipment Assigned
Lab File ID: N/A
Initial Weight/Volume: 1.0 mL
Final Weight/Volume: 1.0 mL

Analyte	Sample Result/Qual	Result	RPD	Limit	Qual
pH	7.20	7.240	1		

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

2417 Bond Street, University Park, IL 60486
 Phone: 708.534.5200 Fax: 708.534.5211

Report To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 E-Mail: _____

Bill To (optional)
 Contact: _____
 Company: _____
 Address: _____
 Address: _____
 Phone: _____
 Fax: _____
 POK/Nite/encr

Chain of Custody Record
 Lab Job #: 500-19288
 Chain of Custody Number: _____
 Page _____ of _____
 Temperature °C of Cooler: 4.1
 06/15/2005

Client: Lake Shore Foundry Client Project #: _____
 Project Name: _____ Preservative: _____
 Project Location/State: IL Lab Project #: _____
Waukegan Lab P#: W1567

Lab ID	MS/MSD	Sample ID	Sampling		# of Containers	Matrix	PH	Total metals	Dissolved metals	Comments
			Date	Time						

1		MW-1	6/4	11:50	3	W	✓	✓	✓	
2		MW-2		2:35	3	W	✓	✓	✓	
3		MW-3		2:05	3	W	✓	✓	✓	
4		MW-4		2:20	3	W	✓	✓	✓	
5		Existing Muckys well		2:30	3	W	✓	✓	✓	

Turnaround Time Required (Business Days): _____
 _____ Days _____ Days _____ Days _____ Days
 Other: _____
 Sample Disposal: Return to Client Disposed by Lab Arch ve for _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Relinquished By: Don Deigan Co-Party: DETROW & ASSOC. Date: 6/10/05 Time: 4:30
 Relinquished By: Glynn Co-Party: TA Date: 6/15/05 Time: 10:15
 Received By: FEET Co-Party: TA Date: 6/10/05 Time: 4:30
 Received By: JST Co-Party: TA Date: 6/15/05 Time: 10:15

Matrix Key: SE - Sediment, SO - Soil, L - Leachate, W - Wipe, DW - Drinking Water, O - Other, A - Air
 SE - Sediment, SO - Soil, L - Leachate, W - Wipe, DW - Drinking Water, O - Other, A - Air
 Lab Comments: _____
 Lab Counter: _____
 Shipped: EX
 Hand Delivered: _____

Login Sample Receipt Check List

Client: Deigan & Associates

Job Number: 500-19288-1
SDG Number: 500-19288-1

Login Number: 19288

List Source: TestAmerica Chicago

Creator: Lunt, Jeff T

List Number: 1

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	4.1
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	