Exhibit H - Memorial Auditorium Block Environmental Reports

Analytical Report Cover Page (53 Pages)

Environmental Soil Data Report for the Former Buffalo Memorial Auditorium Site (118 Pages) Supplemental Environmental Data Report for inner Harbor Development (43 pages)



Analytical Report Cover Page

LIRO Engineers

For Lab Project # 09-1769
Issued May 28, 2009
Re-Issued May 29, 2009
This report contains a total of 53 pages

This project was re-issued to reflect the Volatile analysis for TCLP Extract.

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

[&]quot;ND" = analyzed for but not detected.

[&]quot;E" = Result has been estimated, calibration limit exceeded.

[&]quot;D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

[&]quot;M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

[&]quot;B" = Method blank contained trace levels of analyte. Refer to included method blank report.



pH Analysis Report

Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium Lab Project Number:

09-1769

Client Job Number:

Demo N/A

Date Sampled:

05/14/2009

Time Sampled:

11:20 - 15:00

Date Received:

05/15/2009

Sample Type: Location:

Soil Laboratory Time Received: Date Analyzed:

5:10 PM 05/18/2009

Time Analyzed:

1:50 PM

Lab Sample Number	Field Number	Field Location	Result (pH)
5934	N/A	BMAD-South-0-1	8.62
5935	N/A	BMAD-N.East-0-1	9.4
5936	N/A	BMAD-North-0-1	11.08
5937	N/A	BMAD-N.West-0-1	9.77
5938	N/A	BMAD-S.West-0-1	10.6
5939	N/A	BMAD-S.East-0-1	8.41

ELAP Number 10958

Method: EPA 9045C

Comments:

Signature:



Flashpoint by Pensky-Martin Analysis Report

Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium Lab Project Number:

09-1769

Client Job Number:

Demo N/A

Date Sampled:

05/14/2009

Date Received:

05/15/2009

Sample Type:

Soil

Date Analyzed:

5/18 - 5/19/2009

Lab Sample Number	Field Number	Field Location	Result (°C)
5934	N/A	BMAD-South-0-1	>70
5935	N/A	BMAD-N.East-0-1	>70
5936	N/A	BMAD-North-0-1	>70
5937	N/A	BMAD-N.West-0-1	>70
5938	N/A	BMAD-S.West-0-1	>70
5939	N/A	BMAD-S.East-0-1	>70

ELAP Number 10958

Method: SW846 1010

Comments:

°C = degrees Centigrade

Signature:



Paint Filter Analysis Report

Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium Lab Project Number:

09-1769

Client Job Number:

Demo N/A

Date Sampled:

05/14/2009

05/15/2009

Sample Type:

Soil

Date Received: Date Analyzed:

05/18/2009

Lab Sample Number	Field Number	Field Location	Result
5934	N/A	BMAD-South-0-1	Pass (No free liquid)
5935	N/A	BMAD-N.East-0-1	Pass (No free liquid)
5936	N/A	BMAD-North-0-1	Pass (No free liquid)
5937	N/A	BMAD-N.West-0-1	Pass (No free liquid)
5938	N/A	BMAD-S.West-0-1	Pass (No free liquid)
5939	N/A	BMAD-S.East-0-1	Pass (No free liquid)

ELAP Number 10958

Method: SW846 9095

Comments:

Signature:



Client:

LIRO Engineers Inc.

Lab Project No.:

09-1769

Client Job Site: Buffalo Memorial Auditorium

Lab Sample No.:

5934

Client Job No.: N/A

Demo

Sample Type:

Soil

Field Location:

BMAD-South-0-1

Date Sampled:

05/14/2009

Field ID No.:

N/A

Date Received:

05/15/2009

Laboratory Report for Solid Waste Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	05/18/2009	EPA 6010	4.81
Barium	05/20/2009	EPA 6010	50.3
Cadmium	05/18/2009	EPA 6010	<0.427
Chromium	05/18/2009	EPA 6010	10.6
Lead	05/18/2009	EPA 6010	63.8
Mecury	05/19/2009	EPA 7471	0.127
Selenium	05/18/2009	EPA 6010	<0.427
Silver	05/18/2009	EPA 6010	<0.854

ELAP ID No.:10958

Comments: The laboratory control spike and spike duplicate percent difference was outside QC limits for Barium.



Client: LIRO Engineers Inc. Lab Project No.:

09-1769

Client Job Site: Buffalo Memorial Auditorium

Lab Sample No.:

5935

Client Job No.: N/A

Demo

Sample Type:

Soil

Field Location: BMAD-N.East-0-1

Date Sampled:

05/14/2009

Field ID No.:

N/A

Date Received:

05/15/2009

Laboratory Report for Solid Waste Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	05/18/2009	EPA 6010	5.99
Barium	05/20/2009	EPA 6010	115
Cadmium	05/18/2009	EPA 6010	<0.581
Chromium	05/18/2009	EPA 6010	10.8
Lead	05/18/2009	EPA 6010	377
Mecury	05/19/2009	EPA 7471	1.49
Selenium	05/18/2009	EPA 6010	<0.581
Silver	05/18/2009	EPA 6010	<1.16

ELAP ID No.:10958

Comments: The laboratory control spike and spike duplicate percent difference was outside QC limits for Barium.

Approved By:



Client:

LIRO Engineers Inc.

Lab Project No.:

09-1769

Client Job Site: Buffalo Memorial Auditorium

Lab Sample No.:

5936

Client Job No.:

Demo

Sample Type:

Soil

Field Location: BMAD-North-0-1

N/A

Date Sampled:

05/14/2009

Field ID No.:

N/A

Date Received:

05/15/2009

Laboratory Report for Solid Waste Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	05/18/2009	EPA 6010	27.7
Barium	05/18/2009	EPA 6010	62.1
Cadmium	05/18/2009	EPA 6010	<0.593
Chromium	05/18/2009	EPA 6010	12.4
Lead	05/18/2009	EPA 6010	205
Mecury	05/19/2009	EPA 7471	0.0206
Selenium	05/18/2009	EPA 6010	<0.593
Silver	05/18/2009	EPA 6010	<1.19

ELAP ID No.:10958

Comments: The laboratory control spike and spike duplicate percent difference was outside QC limits for Barium.

Approved By: _



Client:

LIRO Engineers Inc.

Lab Project No.:

09-1769

Client Job Site: Buffalo Memorial Auditorium

Lab Sample No.:

5937

Demo

Sample Type:

Soil

Client Job No.: N/A

Field Location: BMAD-N.West-0-1

Date Sampled:

05/14/2009

Field ID No.:

N/A

Date Received:

05/15/2009

Laboratory Report for Solid Waste Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	05/20/2009	EPA 6010	9.44
Barium	05/20/2009	EPA 6010	95.8
Cadmium	05/20/2009	EPA 6010	<0.404
Chromium	05/20/2009	EPA 6010	11.3
Lead	05/20/2009	EPA 6010	343
Mecury	05/19/2009	EPA 7471	0.512
Selenium	05/20/2009	EPA 6010	3.97
Silver	05/20/2009	EPA 6010	<0.809

ELAP ID No.:10958

Comments: The laboratory control spike and spike duplicate percent difference was outside QC limits for Barium.

Approved By:



Client:

LIRO Engineers Inc.

Lab Project No.:

09-1769

Client Job Site: Buffalo Memorial Auditorium

Lab Sample No.:

5938

Client Job No.: N/A

Demo

Sample Type:

Soil

Field Location: BMAD-S.West-0-1

Date Sampled:

05/14/2009

Field ID No.:

N/A

Date Received:

05/15/2009

Laboratory Report for Solid Waste Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Arsenic	05/20/2009	EPA 6010	9.53
Barium	05/20/2009	EPA 6010	88.7
Cadmium	05/20/2009	EPA 6010	<0.471
Chromium	05/20/2009	EPA 6010	8.01
Lead	05/20/2009	EPA 6010	198
Mecury	05/19/2009	EPA 7471	0.521
Selenium	05/20/2009	EPA 6010	<0.471
Silver	05/20/2009	EPA 6010	<0.942

ELAP ID No.:10958

Comments: The laboratory control spike and spike duplicate percent difference was outside QC limits for Barium.

Approved By: _



Client: LIRO Engineers Inc. Lab Project No.:

09-1769

Client Job Site: Buffalo Memorial Auditorium

Lab Sample No.:

5939

Client Job No.: N/A

Demo

Sample Type:

Soil

Field Location:

BMAD-S.East-0-1

Date Sampled:

05/14/2009

Field ID No.:

N/A

Date Received:

05/15/2009

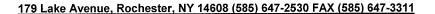
Laboratory Report for Solid Waste Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)	
Arsenic	05/20/2009	EPA 6010	9.00	D
Barium	05/20/2009	EPA 6010	36.3	D
Cadmium	05/20/2009	EPA 6010	<0.517	М
Chromium	05/20/2009	EPA 6010	9.09	
Lead	05/20/2009	EPA 6010	132	D,M
Mecury	05/19/2009	EPA 7471	0.109	D,M
Selenium	05/20/2009	EPA 6010	<0.517	
Silver	05/20/2009	EPA 6010	<1.03	

ELAP ID No.:10958

Comments: The laboratory control spike and spike duplicate percent difference was outside QC limits for Barium.

Approved By: _





LIRO Engineers Inc.

Lab Project No.:

09-1769

Client Job Site:

Buffalo Memorial Auditorium

Lab Sample No.: 593

5934

Demo

Sample Type:

TCLP Extract

Client Job No.:

N/A

Date Sampled:

05/14/2009

Field Location:

BMAD-South-0-1

Date Received:

05/15/2009

Field ID No.:

N/A

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	05/22/2009	EPA 6010	<0.100	5.0
Barium	05/22/2009	EPA 6010	1.41	100.0
Cadmium	05/22/2009	EPA 6010	<0.025	1.0
Chromium	05/22/2009	EPA 6010	<0.050	5.0
Lead	05/22/2009	EPA 6010	<0.100	5.0
Mercury	05/21/2009	EPA 7470	<0.0020	0.2
Selenium	05/22/2009	EPA 6010	<0.100	1.0
Silver	05/22/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Approved By:



Client:

LIRO Engineers Inc.

Lab Project No.:

09-1769

Client Job Site:

Buffalo Memorial Auditorium

Lab Sample No.:

5935

One of the

Demo

Sample Type:

TCLP Extract

Client Job No.: Field Location:

N/A

BMAD-N.East-0-1

Date Sampled: Date Received:

05/14/2009 05/15/2009

Field ID No.:

N/A

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	05/22/2009	EPA 6010	<0.100	5.0
Barium	05/22/2009	EPA 6010	1.08	100.0
Cadmium	05/22/2009	EPA 6010	<0.025	1.0
Chromium	05/22/2009	EPA 6010	<0.050	5.0
Lead	05/22/2009	EPA 6010	<0.100	5.0
Mercury	05/21/2009	EPA 7470	<0.0020	0.2
Selenium	05/22/2009	EPA 6010	<0.100	1.0
Silver	05/22/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Approved By:



Client:

LIRO Engineers Inc.

Lab Project No.:

09-1769

Client Job Site:

Buffalo Memorial Auditorium

Lab Sample No.:

5936

Demo

Sample Type:

TCLP Extract

Client Job No.:

N/A

BMAD-North-0-1 Field Location:

Date Sampled: Date Received: 05/14/2009 05/15/2009

Field ID No.:

N/A

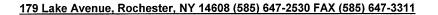
Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	05/22/2009	EPA 6010	<0.100	5.0
Barium	05/22/2009	EPA 6010	0.584	100.0
Cadmium	05/22/2009	EPA 6010	<0.025	1.0
Chromium	05/22/2009	EPA 6010	<0.050	5.0
Lead	05/22/2009	EPA 6010	<0.100	5.0
Mercury	05/21/2009	EPA 7470	<0.0020	0.2
Selenium	05/22/2009	EPA 6010	<0.100	1.0
Silver	05/22/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Approved By:





LIRO Engineers Inc.

Lab Project No.:

09-1769

Client Job Site:

Buffalo Memorial Auditorium

Lab Sample No.:

5937

Demo

Sample Type:

TCLP Extract

Client Job No.: Field Location:

N/A

BMAD-N.West-0-1

Date Sampled: Date Received:

05/14/2009 05/15/2009

Field ID No.:

N/A

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	05/22/2009	EPA 6010	<0.100	5.0
Barium	05/22/2009	EPA 6010	0.869	100.0
Cadmium	05/22/2009	EPA 6010	<0.025	1.0
Chromium	05/22/2009	EPA 6010	<0.050	5.0
Lead	05/22/2009	EPA 6010	<0.100	5.0
Mercury	05/21/2009	EPA 7470	<0.0020	0.2
Selenium	05/22/2009	EPA 6010	<0.100	1.0
Silver	05/22/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Approved By:



LIRO Engineers Inc.

Lab Project No.:

09-1769

Client Job Site:

Buffalo Memorial Auditorium

Lab Sample No.: 5938

Demo

Sample Type:

TCLP Extract

Client Job No.:

N/A

BMAD-S.West-0-1

Date Sampled:

05/14/2009

Field Location:

Field ID No.:

N/A

Date Received: 05/15/2009

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	05/22/2009	EPA 6010	<0.100	5.0
Barium	05/22/2009	EPA 6010	1.18	100.0
Cadmium	05/22/2009	EPA 6010	<0.025	1.0
Chromium	05/22/2009	EPA 6010	<0.050	5.0
Lead	05/22/2009	EPA 6010	<0.100	5.0
Mercury	05/21/2009	EPA 7470	<0.0020	0.2
Selenium	05/22/2009	EPA 6010	<0.100	1.0
Silver	05/22/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Approved By:



LIRO Engineers Inc.

Lab Project No.:

09-1769

Client Job Site:

Buffalo Memorial Auditorium

Lab Sample No.:

5939

Demo

Sample Type:

TCLP Extract

Client Job No.: Field Location: N/A

BMAD-S.East-0-1

Date Sampled: Date Received: 05/14/2009 05/15/2009

Field ID No.:

N/A

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	05/22/2009	EPA 6010	<0.100	5.0
Barium	05/22/2009	EPA 6010	0.966	100.0
Cadmium	05/22/2009	EPA 6010	<0.025	1.0
Chromium	05/22/2009	EPA 6010	<0.050	5.0
Lead	05/22/2009	EPA 6010	<0.100	5.0
Mercury	05/21/2009	EPA 7470	<0.0020	0.2
Selenium	05/22/2009	EPA 6010	<0.100	1.0
Silver	05/22/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Approved By:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Demo

Lab Project Number: 09-1769 Lab Sample Number: 5934

Client Job Number: N/A

Field Location:

BMAD - South - 0 - 1

Field ID Number:

Date Sampled:

Sample Type:

N/A Soil **Date Received:**

05/14/2009 05/15/2009

Date Analyzed:

05/21/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.333
Aroclor 1221	ND< 0.333
Aroclor 1232	ND< 0.333
Aroclor 1242	ND< 0.333
Aroclor 1248	ND< 0.333
Aroclor 1254	ND< 0.333
Aroclor 1260	ND< 0.333

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect

mg / Kg = milligram per Kilogram

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Demo

Lab Project Number: 09-1769 Lab Sample Number: 5935

Client Job Number: N/A

Field Location:

BMAD - N. East - 0 - 1

Date Sampled:

05/14/2009

Field ID Number: Sample Type:

N/A Soil **Date Received:**

05/15/2009

Date Analyzed:

05/21/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.351
Aroclor 1221	ND< 0.351
Aroclor 1232	ND< 0.351
Aroclor 1242	ND< 0.351
Aroclor 1248	ND< 0.351
Aroclor 1254	ND< 0.351
Aroclor 1260	ND< 0.351

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect mg / Kg = milligram per Kilogram

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Demo

Lab Project Number: 09-1769

Lab Sample Number: 5936

N/A Client Job Number:

Field Location:

BMAD - North - 0 - 1

Date Sampled:

05/14/2009 05/15/2009

Field ID Number: Sample Type:

N/A Soil **Date Received:** Date Analyzed:

05/21/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.356
Aroclor 1221	ND< 0.356
Aroclor 1232	ND< 0.356
Aroclor 1242	ND< 0.356
Aroclor 1248	ND< 0.356
Aroclor 1254	ND< 0.356
Aroclor 1260	ND< 0.356

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect mg / Kg = milligram per Kilogram

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Demo

Lab Project Number: 09-1769

Lab Sample Number: 5937

Client Job Number: N/A

Field Location:

BMAD - N. West - 0 - 1

Date Sampled:

05/14/2009 05/15/2009

Field ID Number: Sample Type:

N/A Soil Date Received: Date Analyzed:

05/21/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.348
Aroclor 1221	ND< 0.348
Aroclor 1232	ND< 0.348
Aroclor 1242	ND< 0.348
Aroclor 1248	ND< 0.348
Aroclor 1254	ND< 0.348
Aroclor 1260	ND< 0.348

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect mg / Kg = milligram per Kilogram

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Lab Project Number: 09-1769 Lab Sample Number: 5938

Demo Client Job Number: N/A

Field Location:

BMAD - S. West - 0 - 1

Date Sampled:

05/14/2009

Field ID Number: Sample Type:

N/A Soil **Date Received:**

05/15/2009

Date Analyzed:

05/21/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.345
Aroclor 1221	ND< 0.345
Aroclor 1232	ND< 0.345
Aroclor 1242	ND< 0.345
Aroclor 1248	ND< 0.345
Aroclor 1254	ND< 0.345
Aroclor 1260	ND< 0.345

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect mg / Kg = milligram per Kilogram

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Lab Project Number: 09-1769

Lab Sample Number: 5939

Client Job Number: N/A

Field Location:

BMAD - S. East - 0 - 1

Date Sampled:

05/14/2009

Field ID Number: Sample Type:

N/A Soil

Demo

Date Received:

05/15/2009

Date Analyzed:

05/21/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.382
Aroclor 1221	ND< 0.382
Aroclor 1232	ND< 0.382
Aroclor 1242	ND< 0.382
Aroclor 1248	ND< 0.382
Aroclor 1254	ND< 0.382
Aroclor 1260	ND< 0.382

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect

mg / Kg = milligram per Kilogram

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Lab Project Number: 09-1769 Lab Sample Number: 5934

Demo N/A Client Job Number:

Field Location:

BMAD - South - 0 - 1

Date Sampled:

05/14/2009

Field ID Number:

N/A

Date Received:

05/15/2009

Sample Type:

Soil

Date Analyzed:

05/22/2009

PHC Classification	Results in ug / Kg
Medium Weight PHC as: Diesel Fuel	10,600

ELAP Number 10958

Method: NYSDOH 310.13

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram PHC = Petroleum Hydrocarbon

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium Demo

Lab Project Number: 09-1769 Lab Sample Number: 5935

Client Job Number: N/A

Field Location:

BMAD - N. East - 0 - 1

Date Sampled:

05/14/2009 05/15/2009

Field ID Number: Sample Type:

N/A Soil **Date Received:** Date Analyzed:

05/22/2009

PHC Classification

Results in ug / Kg

Medium Weight PHC as:

Diesel Fuel

54,100

ELAP Number 10958

Method: NYSDOH 310.13

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram PHC = Petroleum Hydrocarboy

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Demo

Lab Project Number: 09-1769 Lab Sample Number: 5936

N/A Client Job Number:

Field Location:

BMAD - North - 0 - 1

Date Sampled:

05/14/2009

Field ID Number: Sample Type:

N/A Soil **Date Received:**

05/15/2009

Date Analyzed:

05/22/2009

PHC Classification	Results in ug / Kg
Medium Weight PHC as: Diesel Fuel	17,600

ELAP Number 10958

Method: NYSDOH 310.13

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram PHC = Petroleum Hydrocarbon

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Lab Project Number: 09-1769 Lab Sample Number: 5937

Demo Client Job Number: N/A

Field Location:

BMAD - N. West - 0 - 1

Date Sampled:

05/14/2009

Field ID Number: Sample Type:

N/A Soil **Date Received:**

05/15/2009

Date Analyzed:

05/22/2009

Results in ug / Kg PHC Classification Medium Weight PHC as:

Diesel Fuel

339,000

ELAP Number 10958

Method: NYSDOH 310.13

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram PHC = Petroleum Hydrocarbon

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Lab Project Number: 09-1769 Lab Sample Number: 5938

Demo Client Job Number: N/A

Field Location:

BMAD - S. West - 0 - 1

Date Sampled:

05/14/2009

Field ID Number: Sample Type:

N/A Soil **Date Received:**

05/15/2009

Date Analyzed:

05/22/2009

PHC Classification

Results in ug / Kg

Medium Weight PHC as: Diesel Fuel

16,400

ELAP Number 10958

Method: NYSDOH 310.13

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram PHC = Petroleum Hydrocarbon

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Lab Project Number: 09-1769 Lab Sample Number: 5939

Demo Client Job Number: N/A

Field Location:

BMAD - S. East - 0 - 1

Date Sampled:

05/14/2009

Field ID Number: Sample Type:

N/A Soil **Date Received:**

05/15/2009

Date Analyzed:

05/22/2009

PHC Classification	Results in ug / Kg
Medium Weight PHC as: Diesel Fuel	10,000

ELAP Number 10958

Method: NYSDOH 310.13

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram PHC = Petroleum Hydrocarbon

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Demo

Lab Project Number: 09-1769 Lab Sample Number: 5934

N/A

Client Job Number: Field Location:

Date Sampled: BMAD - South - 0 - 1

05/14/2009

Field ID Number: Sample Type:

N/A Soil **Date Received:**

05/15/2009

Date Analyzed:

05/20/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 321	Dibenz (a,h) anthracene	ND< 321
Anthracene	ND< 321	Fluoranthene	ND< 321
Benzo (a) anthracene	ND< 321	Fluorene	ND< 321
Benzo (a) pyrene	ND< 321	Indeno (1,2,3-cd) pyrene	ND< 321
Benzo (b) fluoranthene	ND< 321	Naphthalene	ND< 321
Benzo (g,h,i) perylene	ND< 321	Phenanthrene	ND< 321
Benzo (k) fluoranthene	ND< 321	Pyrene	ND< 321
Chrysene	ND< 321	Acenaphthylene	ND< 321
Diethyl phthalate	ND< 321	1,2-Dichlorobenzene	ND< 321
Dimethyl phthalate	ND< 803	1,3-Dichlorobenzene	ND< 321
Butylbenzylphthalate	ND< 321	1,4-Dichlorobenzene	ND< 321
Di-n-butyl phthalate	ND< 321	1,2,4-Trichlorobenzene	ND< 321
Di-n-octylphthalate	ND< 321	Nitrobenzene	ND< 321
Bis (2-ethylhexyl) phthalate	ND< 321	2,4-Dinitrotoluene	ND< 321
2-Chloronaphthalene	ND< 321	2,6-Dinitrotoluene	ND< 321
Hexachlorobenzene	ND< 321	Bis (2-chloroethyl) ether	ND< 321
Hexachloroethane	ND< 321	Bis (2-chloroisopropyl) ether	ND< 321
Hexachlorocyclopentadiene	ND< 321	Bis (2-chloroethoxy) methan	ND< 321
Hexachlorobutadiene	ND< 321	4-Bromophenyl phenyl ether	ND< 321
N-Nitroso-di-n-propylamine	ND< 321	4-Chlorophenyl phenyl ether	ND< 321
N-Nitrosodiphenylamine	ND< 321	Benzidine	ND< 803
N-Nitrosodimethylamine	ND< 321	3,3'-Dichlorobenzidine	ND< 321
Isophorone	ND< 321	4-Chloroaniline	ND< 321
Benzyl alcohol	ND< 803	2-Nitroaniline	ND< 803
Dibenzofuran	ND< 321	3-Nitroaniline	ND< 803
2-Methylnapthalene	ND< 321	4-Nitroaniline	ND< 803

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 321	2-Methylphenol	ND< 321
2-Chlorophenol	ND< 321	3&4-Methylphenol	ND< 321
2,4-Dichlorophenol	ND< 321	2,4-Dimethylphenol	ND< 321
2,6-Dichlorophenol	ND< 321	2-Nitrophenol	ND< 321
2,4,5-Trichlorophenol	ND< 803	4-Nitrophenol	ND< 803
2,4,6-Trichlorophenol	ND< 321	2,4-Dinitrophenol	ND< 321
Pentachlorophenol	ND< 803	4,6-Dinitro-2-methylphenol	ND< 803
4-Chloro-3-methylphenol	ND< 321	Benzoic acid	ND< 803

ELAP Number 10958

Method: EPA 8270C

Data File: S45332.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Lab Project Number: 09-1769 Lab Sample Number: 5935

Client Job Number: N/A

Field Location:

BMAD - N. East - 0 - 1

Date Sampled: Date Received: 05/14/2009 05/15/2009

Field ID Number: Sample Type:

N/A Soil

Demo

Date Analyzed:

05/20/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	456	Dibenz (a,h) anthracene	ND< 332
Anthracene	1,130	Fluoranthene	4,290
Benzo (a) anthracene	1,760	Fluorene	384
Benzo (a) pyrene	1,430	Indeno (1,2,3-cd) pyrene	695
Benzo (b) fluoranthene	1,520	Naphthalene	ND< 332
Benzo (g,h,i) perylene	661	Phenanthrene	3,700
Benzo (k) fluoranthene	865	Pyrene	2,710
Chrysene	1,640	Acenaphthylene	ND< 332
Diethyl phthalate	ND< 332	1,2-Dichlorobenzene	ND< 332
Dimethyl phthalate	ND< 831	1,3-Dichlorobenzene	ND< 332
Butylbenzylphthalate	ND< 332	1,4-Dichlorobenzene	ND< 332
Di-n-butyl phthalate	ND< 332	1,2,4-Trichlorobenzene	ND< 332
Di-n-octylphthalate	ND< 332	Nitrobenzene	ND< 332
Bis (2-ethylhexyl) phthalate	ND< 332	2,4-Dinitrotoluene	ND< 332
2-Chloronaphthalene	ND< 332	2,6-Dinitrotoluene	ND< 332
Hexachlorobenzene	ND< 332	Bis (2-chloroethyl) ether	ND< 332
Hexachloroethane	ND< 332	Bis (2-chloroisopropyl) ether	ND< 332
Hexachlorocyclopentadiene	ND< 332	Bis (2-chloroethoxy) methan	ND< 332
Hexachlorobutadiene	ND< 332	4-Bromophenyl phenyl ether	ND< 332
N-Nitroso-di-n-propylamine	ND< 332	4-Chlorophenyl phenyl ether	ND< 332
N-Nitrosodiphenylamine	ND< 332	Benzidine	ND< 831
N-Nitrosodimethylamine	ND< 332	3,3'-Dichlorobenzidine	ND< 332
Isophorone	ND< 332	4-Chloroaniline	ND< 332
Benzyl alcohol	ND< 831	2-Nitroaniline	ND< 831
Dibenzofuran	ND< 332	3-Nitroaniline	ND< 831
2-Methylnapthalene	ND< 332	4-Nitroaniline	ND< 831

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 332	2-Methylphenol	ND< 332
2-Chlorophenol	ND< 332	3&4-Methylphenol	ND< 332
2,4-Dichlorophenol	ND< 332	2,4-Dimethylphenol	ND< 332
2,6-Dichlorophenol	ND< 332	2-Nitrophenol	ND< 332
2,4,5-Trichlorophenol	ND< 831	4-Nitrophenol	ND< 831
2,4,6-Trichlorophenol	ND< 332	2,4-Dinitrophenol	ND< 332
Pentachlorophenol	ND< 831	4,6-Dinitro-2-methylphenol	ND< 831
4-Chloro-3-methylphenol	ND< 332	Benzoic acid	ND< 831

ELAP Number 10958

Method: EPA 8270C

Data File: S45333.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Lab Project Number: 09-1769 Demo

Lab Sample Number: 5936

Client Job Number: N/A

Field Location:

BMAD - North - 0 - 1

Date Sampled: Date Received: 05/14/2009 05/15/2009

Field ID Number: Sample Type:

N/A Soil

Date Analyzed:

05/20/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 340	Dibenz (a,h) anthracene	ND< 340
Anthracene	517	Fluoranthene	3,140
Benzo (a) anthracene	1,060	Fluorene	ND< 340
Benzo (a) pyrene	574	Indeno (1,2,3-cd) pyrene	ND< 340
Benzo (b) fluoranthene	817	Naphthalene	ND< 340
Benzo (g,h,i) perylene	ND< 340	Phenanthrene	2,390
Benzo (k) fluoranthene	513	Pyrene	1,870
Chrysene	1,120	Acenaphthylene	ND< 340
Diethyl phthalate	ND< 340	1,2-Dichlorobenzene	ND< 340
Dimethyl phthalate	ND< 850	1,3-Dichlorobenzene	ND< 340
Butylbenzylphthalate	ND< 340	1,4-Dichlorobenzene	ND< 340
Di-n-butyl phthalate	ND< 340	1,2,4-Trichlorobenzene	ND< 340
Di-n-octylphthalate	ND< 340	Nitrobenzene	ND< 340
Bis (2-ethylhexyl) phthalate	ND< 340	2,4-Dinitrotoluene	ND< 340
2-Chloronaphthalene	ND< 340	2,6-Dinitrotoluene	ND< 340
Hexachlorobenzene	ND< 340	Bis (2-chloroethyl) ether	ND< 340
Hexachloroethane	ND< 340	Bis (2-chloroisopropyl) ether	ND< 340
Hexachlorocyclopentadiene	ND< 340	Bis (2-chloroethoxy) methan	ND< 340
Hexachlorobutadiene	ND< 340	4-Bromophenyl phenyl ether	ND< 340
N-Nitroso-di-n-propylamine	ND< 340	4-Chlorophenyl phenyl ether	ND< 340
N-Nitrosodiphenylamine	ND< 340	Benzidine	ND< 850
N-Nitrosodimethylamine	ND< 340	3,3'-Dichlorobenzidine	ND< 340
Isophorone	ND< 340	4-Chloroaniline	ND< 340
Benzyl alcohol	ND< 850	2-Nitroaniline	ND< 850
Dibenzofuran	ND< 340	3-Nitroaniline	ND< 850
2-Methylnapthalene	ND< 340	4-Nitroaniline	ND< 850

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 340	2-Methylphenol	ND< 340
2-Chlorophenol	ND< 340	3&4-Methylphenol	ND< 340
2,4-Dichlorophenol	ND< 340	2,4-Dimethylphenol	ND< 340
2,6-Dichlorophenol	ND< 340	2-Nitrophenol	ND< 340
2,4,5-Trichlorophenol	ND< 850	4-Nitrophenol	ND< 850
2,4,6-Trichlorophenol	ND< 340	2,4-Dinitrophenol	ND< 340
Pentachlorophenol	ND< 850	4,6-Dinitro-2-methylphenol	ND< 850
4-Chloro-3-methylphenol	ND< 340	Benzoic acid	ND< 850

ELAP Number 10958

Method: EPA 8270C

Data File: S45334.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Client: LIRO Engineers Inc.

Client Job Site: Buffalo Memorial Auditorium

Demo

Lab Project Number: 09-1769

Lab Sample Number: 5937

N/A Client Job Number:

Field Location:

BMAD - N. West - 0 - 1

Date Sampled: Date Received: 05/14/2009 05/15/2009

Field ID Number: N/A Sample Type: Soil

Date Analyzed:

05/21/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	20,500	Dibenz (a,h) anthracene	ND< 16,700
Anthracene	48,000	Fluoranthene	174,000
Benzo (a) anthracene	61,200	Fluorene	22,300
Benzo (a) pyrene	51,000	Indeno (1,2,3-cd) pyrene	28,300
Benzo (b) fluoranthene	49,000	Naphthalene	24,700
Benzo (g,h,i) perylene	32,900	Phenanthrene	183,000
Benzo (k) fluoranthene	38,500	Pyrene	120,000
Chrysene	57,500	Acenaphthylene	ND< 16,700
Diethyl phthalate	ND< 16,700	1,2-Dichlorobenzene	ND< 16,700
Dimethyl phthalate	ND< 41,800	1,3-Dichlorobenzene	ND< 16,700
Butylbenzylphthalate	ND< 16,700	1,4-Dichlorobenzene	ND< 16,700
Di-n-butyl phthalate	ND< 16,700	1,2,4-Trichlorobenzene	ND< 16,700
Di-n-octylphthalate	ND< 16,700	Nitrobenzene	ND< 16,700
Bis (2-ethylhexyl) phthalate	ND< 16,700	2,4-Dinitrotoluene	ND< 16,700
2-Chloronaphthalene	ND< 16,700	2,6-Dinitrotoluene	ND< 16,700
Hexachlorobenzene	ND< 16,700	Bis (2-chloroethyl) ether	ND< 16,700
Hexachloroethane	ND< 16,700	Bis (2-chloroisopropyl) ether	ND< 16,700
Hexachlorocyclopentadiene	ND< 16,700	Bis (2-chloroethoxy) methan	ND< 16,700
Hexachlorobutadiene	ND< 16,700	4-Bromophenyl phenyl ether	ND< 16,700
N-Nitroso-di-n-propylamine	ND< 16,700	4-Chlorophenyl phenyl ether	ND< 16,700
N-Nitrosodiphenylamine	ND< 16,700	Benzidine	ND< 41,800
N-Nitrosodimethylamine	ND< 16,700	3,3'-Dichlorobenzidine	ND< 16,700
Isophorone	ND< 16,700	4-Chloroaniline	ND< 16,700
Benzyl alcohol	ND< 41,800	2-Nitroaniline	ND< 41,800
Dibenzofuran	19,000	3-Nitroaniline	ND< 41,800
2-Methylnapthalene	ND< 16,700	4-Nitroaniline	ND< 41,800

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 16,700	2-Methylphenol	ND< 16,700
2-Chlorophenol	ND< 16,700	3&4-Methylphenol	ND< 16,700
2,4-Dichlorophenol	ND< 16,700	2,4-Dimethylphenol	ND< 16,700
2,6-Dichlorophenol	ND< 16,700	2-Nitrophenol	ND< 16,700
2,4,5-Trichlorophenol	ND< 41,800	4-Nitrophenol	ND< 41,800
2,4,6-Trichlorophenol	ND< 16,700	2,4-Dinitrophenol	ND< 16,700
Pentachlorophenol	ND< 41,800	4,6-Dinitro-2-methylphenol	ND< 41,800
4-Chloro-3-methylphenol	ND< 16,700	Benzoic acid	ND< 41,800

ELAP Number 10958

Method: EPA 8270C

Data File: S45353.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Demo

Lab Project Number: 09-1769

Lab Sample Number: 5938

Client Job Number: N/A

Field Location:

BMAD - S. West - 0 - 1

Date Sampled: **Date Received:** 05/14/2009 05/15/2009

Field ID Number: Sample Type:

N/A Soil

Date Analyzed:

05/20/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 330	Dibenz (a,h) anthracene	ND< 330
Anthracene	524	Fluoranthene	2,160
Benzo (a) anthracene	835	Fluorene	ND< 330
Benzo (a) pyrene	647	Indeno (1,2,3-cd) pyrene	419
Benzo (b) fluoranthene	699	Naphthalene	ND< 330
Benzo (g,h,i) perylene	444	Phenanthrene	1,920
Benzo (k) fluoranthene	455	Pyrene	1,410
Chrysene	805	Acenaphthylene	ND< 330
Diethyl phthalate	ND< 330	1,2-Dichlorobenzene	ND< 330
Dimethyl phthalate	ND< 826	1,3-Dichlorobenzene	ND< 330
Butylbenzylphthalate	ND< 330	1,4-Dichlorobenzene	ND< 330
Di-n-butyl phthalate	ND< 330	1,2,4-Trichlorobenzene	ND< 330
Di-n-octylphthalate	ND< 330	Nitrobenzene	ND< 330
Bis (2-ethylhexyl) phthalate	ND< 330	2,4-Dinitrotoluene	ND< 330
2-Chloronaphthalene	ND< 330	2,6-Dinitrotoluene	ND< 330
Hexachlorobenzene	ND< 330	Bis (2-chloroethyl) ether	ND< 330
Hexachloroethane	ND< 330	Bis (2-chloroisopropyl) ether	ND< 330
Hexachlorocyclopentadiene	ND< 330	Bis (2-chloroethoxy) methan	ND< 330
Hexachlorobutadiene	ND< 330	4-Bromophenyl phenyl ether	ND< 330
N-Nitroso-di-n-propylamine	ND< 330	4-Chlorophenyl phenyl ether	ND< 330
N-Nitrosodiphenylamine	ND< 330	Benzidine	ND< 826
N-Nitrosodimethylamine	ND< 330	3,3'-Dichlorobenzidine	ND< 330
Isophorone	ND< 330	4-Chloroaniline	ND< 330
Benzyl alcohol	ND< 826	2-Nitroaniline	ND< 826
Dibenzofuran	ND< 330	3-Nitroaniline	ND< 826
2-Methylnapthalene	ND< 330	4-Nitroaniline	ND< 826

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 330	2-Methylphenol	ND< 330
2-Chlorophenol	ND< 330	3&4-Methylphenol	ND< 330
2,4-Dichlorophenol	ND< 330	2,4-Dimethylphenol	ND< 330
2,6-Dichlorophenol	ND< 330	2-Nitrophenol	ND< 330
2,4,5-Trichlorophenol	ND< 826	4-Nitrophenol	ND< 826
2,4,6-Trichlorophenol	ND< 330	2,4-Dinitrophenol	ND< 330
Pentachlorophenol	ND< 826	4,6-Dinitro-2-methylphenol	ND< 826
4-Chloro-3-methylphenol	ND< 330	Benzoic acid	ND< 826

ELAP Number 10958

Method: EPA 8270C

Data File: S45337.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Client: LIRO Engineers Inc.

Client Job Site: Buffalo Memorial Auditorium

Demo

Soil

Lab Project Number: 09-1769

Lab Sample Number: 5939

Client Job Number: N/A

Field Location: Field ID Number:

Sample Type:

BMAD - S. East - 0 - 1

Date Sampled: **Date Received:** N/A

05/14/2009 05/15/2009

Date Analyzed:

05/20/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 365	Dibenz (a,h) anthracene	ND< 365
Anthracene	ND< 365	Fluoranthene	ND< 365
Benzo (a) anthracene	ND< 365	Fluorene	ND< 365
Benzo (a) pyrene	ND< 365	Indeno (1,2,3-cd) pyrene	ND< 365
Benzo (b) fluoranthene	ND< 365	Naphthalene	ND< 365
Benzo (g,h,i) perylene	ND< 365	Phenanthrene	ND< 365
Benzo (k) fluoranthene	ND< 365	Pyrene	ND< 365
Chrysene	ND< 365	Acenaphthylene	ND< 365
Diethyl phthalate	ND< 365	1,2-Dichlorobenzene	ND< 365
Dimethyl phthalate	ND< 913	1,3-Dichlorobenzene	ND< 365
Butylbenzylphthalate	ND< 365	1,4-Dichlorobenzene	ND< 365
Di-n-butyl phthalate	ND< 365	1,2,4-Trichlorobenzene	ND< 365
Di-n-octylphthalate	ND< 365	Nitrobenzene	ND< 365
Bis (2-ethylhexyl) phthalate	ND< 365	2,4-Dinitrotoluene	ND< 365
2-Chloronaphthalene	ND< 365	2,6-Dinitrotoluene	ND< 365
Hexachlorobenzene	ND< 365	Bis (2-chloroethyl) ether	ND< 365
Hexachloroethane	ND< 365	Bis (2-chloroisopropyl) ether	ND< 365
Hexachlorocyclopentadiene	ND< 365	Bis (2-chloroethoxy) methan	ND< 365
Hexachlorobutadiene	ND< 365	4-Bromophenyl phenyl ether	ND< 365
N-Nitroso-di-n-propylamine	ND< 365	4-Chlorophenyl phenyl ether	ND< 365
N-Nitrosodiphenylamine	ND< 365	Benzidine	ND< 913
N-Nitrosodimethylamine	ND< 365	3,3'-Dichlorobenzidine	ND< 365
Isophorone	ND< 365	4-Chloroaniline	ND< 365
Benzyl alcohol	ND< 913	2-Nitroaniline	ND< 913
Dibenzofuran	ND< 365	3-Nitroaniline	ND< 913
2-Methylnapthalene	ND< 365	4-Nitroaniline	ND< 913

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 365	2-Methylphenol	ND< 365
2-Chlorophenol	ND< 365	3&4-Methylphenol	ND< 365
2,4-Dichlorophenol	ND< 365	2,4-Dimethylphenol	ND< 365
2,6-Dichlorophenol	ND< 365	2-Nitrophenol	ND< 365
2,4,5-Trichlorophenol	ND< 913	4-Nitrophenol	ND< 913
2,4,6-Trichlorophenol	ND< 365	2,4-Dinitrophenol	ND< 365
Pentachlorophenol	ND< 913	4,6-Dinitro-2-methylphenol	ND< 913
4-Chloro-3-methylphenol	ND< 365	Benzoic acid	ND< 913

ELAP Number 10958

Method: EPA 8270C

Data File: S45338.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Semi-Volatile Analysis Report for TCLP Extract

Client: LIRO Engineers Inc.

Buffalo Memorial Auditorium Client Job Site:

Lab Project Number: 09-1769 Lab Sample Number: 5934 Demo

Client Job Number: N/A

Field Location:

Field ID Number: N/A

Sample Type: **TCLP Extract**

BMAD - South - 0 - 1

Date Sampled:

05/14/2009

Date Received:

05/15/2009

Date Analyzed:

05/23/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000

ELAP Number 10958

Method: EPA 8270C

Data File: S45377.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Client: LIRO Engineers Inc.

Client Job Number:

Field Location:

Sample Type:

Field ID Number:

Buffalo Memorial Auditorium Client Job Site:

> Demo N/A

N/A

TCLP Extract

Lab Project Number: 09-1769

Lab Sample Number: 5935

Date Sampled: BMAD - N. East - 0 - 1 **Date Received:** 05/14/2009 05/15/2009

Date Analyzed:

05/23/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000

ELAP Number 10958

Method: EPA 8270C

Data File: S45378.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Lab Project Number: 09-1769 Lab Sample Number: 5936

Demo **Client Job Number:** N/A

Field Location:

BMAD - North - 0 - 1

Date Sampled:

05/14/2009

Field ID Number:

N/A

Date Received:

05/15/2009

Sample Type:

TCLP Extract

Date Analyzed:

05/23/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pvridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000

ELAP Number 10958

Method: EPA 8270C

Data File: S45379.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium Demo

Lab Project Number: 09-1769 Lab Sample Number: 5937

Client Job Number: N/A

Field Location:

BMAD - N. West - 0 - 1

Date Sampled:

05/14/2009

Field ID Number:

N/A

Date Received:

05/15/2009

Sample Type:

TCLP Extract

Date Analyzed:

05/23/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2.4.5-Trichlorophenol	ND< 100	400,000
2.4.6-Trichlorophenol	ND< 40.0	2000

ELAP Number 10958

Method: EPA 8270C

Data File: S45380.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Client: LIRO Engineers Inc.

Client Job Site: Buffalo Memorial Auditorium

Lab Project Number: 09-1769 Lab Sample Number: 5938 Demo

Client Job Number: N/A

Field Location:

Field ID Number:

N/A

BMAD - S. West - 0 - 1

Date Sampled: **Date Received:** 05/14/2009

05/15/2009

Sample Type: TCLP Extract Date Analyzed:

05/23/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachiorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000

ELAP Number 10958

Method: EPA 8270C

Data File: S45381.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Lab Sample Number: 5939

Lab Project Number: 09-1769

Demo Client Job Number: N/A

Field Location:

BMAD - S. East - 0 - 1

TCLP Extract

Date Sampled:

05/14/2009

Field ID Number: Sample Type:

N/A

Date Received:

05/15/2009

Date Analyzed:

05/23/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Results in ug / L	Regulatory Limits in ug / L
ND< 80.0	200,000
ND< 100	100,000
ND< 100	400,000
ND< 40.0	2000
	ND< 80.0 ND< 100 ND< 100

ELAP Number 10958

Method: EPA 8270C

Data File: S45382.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Demo

Client Job Number: N/A

Field Location:

Field ID Number: Sample Type:

N/A Soil

BMAD - South - 0 - 1

Date Sampled: **Date Received:** 05/14/2009 05/15/2009

Date Analyzed:

Lab Project Number: 09-1769

Lab Sample Number: 5934

05/20/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 7.28
Bromomethane	ND< 7.28
Bromoform	ND< 18.2
Carbon Tetrachloride	ND< 18.2
Chloroethane	ND< 7.28
Chloromethane	ND< 7.28
2-Chloroethyl vinyl Ether	ND< 36.4
Chloroform	ND< 7.28
Dibromochloromethane	ND< 7.28
1,1-Dichloroethane	ND< 7.28
1,2-Dichloroethane	ND< 7.28
1,1-Dichloroethene	ND< 7.28
cis-1,2-Dichloroethene	ND< 7.28
trans-1,2-Dichloroethene	ND< 7.28
1,2-Dichloropropane	ND< 7.28
cis-1,3-Dichloropropene	ND< 7.28
trans-1,3-Dichloropropene	ND< 7.28
Methylene chloride	ND< 18.2
1,1,2,2-Tetrachloroethane	ND< 7.28
Tetrachloroethene	ND< 7.28
1,1,1-Trichloroethane	ND< 7.28
1,1,2-Trichloroethane	ND< 7.28
Trichloroethene	ND< 7.28
Trichlorofluoromethane	ND< 7.28
Vinyl chloride	ND< 7.28
ELAP Number 10958	Method

Aromatics	Results in ug / Kg
Benzene	ND< 7.28
Chlorobenzene	ND< 7.28
Ethylbenzene	ND< 7.28
Toluene	ND< 7.28
m,p-Xylene	ND< 7.28
o-Xylene	ND< 7.28
Styrene	ND< 18.2
1,2-Dichlorobenzene	ND< 18.2
1,3-Dichlorobenzene	ND< 18.2
1,4-Dichlorobenzene	ND< 7.28

Ketones	Results in ug / Kg	
Acetone	145	
2-Butanone	ND< 36.4	
2-Hexanone	ND< 18.2	
4-Methyl-2-pentanone	ND< 18.2	

Miscellaneous	Results in ug / Kg	
Carbon disulfide	ND< 7.28	
Vinyl acetate	ND< 18.2	

ELAP Number 10958

Method: EPA 8260B

Data File: V65824.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference Internal Standard outliers indicate probable matrix interference

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Demo

Lab Project Number: 09-1769 Lab Sample Number: 5935

Client Job Number:

N/A

Date Sampled: BMAD - N. East - 0 - 1

05/14/2009

Field Location: Field ID Number: Sample Type

N/A Soil **Date Received:**

05/15/2009

Date Analyzed:

05/20/2009

Jan	ibie i	ype	•	-

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 7.58
Bromomethane	ND< 7.58
Bromoform	ND< 18.9
Carbon Tetrachloride	ND< 18.9
Chloroethane	ND< 7.58
Chloromethane	ND< 7.58
O O I I I I I I I I I I I I I I I I I I	ND < 27.0

TOURDON TOURSE	
Chloroethane	ND< 7.58
Chloromethane	ND< 7.58
2-Chloroethyl vinyl Ether	ND< 37.9
Chloroform	ND< 7.58
Dibromochloromethane	ND< 7.58
1,1-Dichloroethane	ND< 7.58
1,2-Dichloroethane	ND< 7.58

11,2-Dichioroethane	110~ 7.00
1,1-Dichloroethene	ND< 7.58
cis-1,2-Dichloroethene	ND< 7.58
trans-1,2-Dichloroethene	ND< 7.58
1,2-Dichloropropane	ND< 7.58
cis-1,3-Dichloropropene	ND< 7.58

trans-1,3-Dichloropropene	ND< 7.58
Methylene chloride	ND< 18.9
1,1,2,2-Tetrachloroethane	ND< 7.58
Tetrachloroethene	ND< 7.58
1,1,1-Trichloroethane	ND< 7.58
1,1,2-Trichloroethane	ND< 7.58
Trichloroethene	ND< 7.58

ND< 7.58 ND< 7.58

ELAP	Number	10958

Vinyl chloride

Trichlorofluoromethane

Aromatics	Results in ug / Kg
Benzene	ND< 7.58
Chlorobenzene	ND< 7.58
Ethylbenzene	ND< 7.58
Toluene	ND< 7.58
m,p-Xylene	ND< 7.58
o-Xylene	ND< 7.58
Styrene	ND< 18.9
1,2-Dichlorobenzene	ND< 18.9
1,3-Dichlorobenzene	ND< 18.9
1,4-Dichlorobenzene	ND< 7.58

Ketones	Results in ug / Kg
Acetone	114
2-Butanone	ND< 37.9
2-Hexanone	ND< 18.9
4-Methyl-2-pentanone	ND< 18.9

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 7.58
Vinyl acetate	ND< 18.9
•	

Method: EPA 8260B

Data File: V65825.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Demo

Lab Project Number: 09-1769 Lab Sample Number: 5936

Client Job Number: N/A

Field Location:

BMAD - North - 0 - 1

Field ID Number: Sample Type:

N/A Soil **Date Sampled: Date Received:** 05/14/2009 05/15/2009

Date Analyzed:

05/20/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 7.53
Bromomethane	ND< 7.53
Bromoform	ND< 18.8
Carbon Tetrachloride	ND< 18.8
Chloroethane	ND< 7.53
Chloromethane	ND< 7.53
2-Chloroethyl vinyl Ether	ND< 37.7
Chloroform	ND< 7.53
Dibromochloromethane	ND< 7.53
1,1-Dichloroethane	ND< 7.53
1,2-Dichloroethane	ND< 7.53
1,1-Dichloroethene	ND< 7.53
cis-1,2-Dichloroethene	ND< 7.53
trans-1,2-Dichloroethene	ND< 7.53
1,2-Dichloropropane	ND< 7.53
cis-1,3-Dichloropropene	ND< 7.53
trans-1,3-Dichloropropene	ND< 7.53
Methylene chloride	ND< 18.8
1,1,2,2-Tetrachloroethane	ND< 7.53
Tetrachloroethene	ND< 7.53
1,1,1-Trichloroethane	ND< 7.53
1,1,2-Trichloroethane	ND< 7.53
Trichloroethene	ND< 7.53
Trichlorofluoromethane	251
Vinyl chloride	ND< 7.53
ELAP Number 10958	Metho

Aromatics	Results in ug / Kg
Benzene	ND< 7.53
Chlorobenzene	ND< 7.53
Ethylbenzene	ND< 7.53
Toluene	ND< 7.53
m,p-Xylene	ND< 7.53
o-Xylene	ND< 7.53
Styrene	ND< 18.8
1,2-Dichlorobenzene	ND< 18.8
1,3-Dichlorobenzene	ND< 18.8
1,4-Dichlorobenzene	ND< 7.53

Ketones	Results in ug / Kg
Acetone	284
2-Butanone	ND< 37.7
2-Hexanone	ND< 18.8
4-Methyl-2-pentanone	ND< 18.8

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 7.53
Vinyl acetate	ND< 18.8
•	

ELAP Number 10958

Method: EPA 8260B

Data File: V65826.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Field ID Number:

Sample Type:

Buffalo Memorial Auditorium

Demo

Lab Sample Number: 5937

Lab Project Number: 09-1769

Client Job Number: N/A

Field Location:

BMAD - N. West - 0 - 1

N/A Soil **Date Sampled:**

05/14/2009

Date Received:

05/15/2009

Date Analyzed:

05/20/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 8.02
Bromomethane	ND< 8.02
Bromoform	ND< 20.0
Carbon Tetrachloride	ND< 20.0
Chloroethane	ND< 8.02
Chloromethane	ND< 8.02
2-Chloroethyl vinyl Ether	ND< 40.1
Chloroform	ND< 8.02
Dibromochloromethane	ND< 8.02
1,1-Dichloroethane	ND< 8.02
1,2-Dichloroethane	ND< 8.02
1,1-Dichloroethene	ND< 8.02
cis-1,2-Dichloroethene	ND< 8.02
trans-1,2-Dichloroethene	ND< 8.02
1,2-Dichloropropane	ND< 8.02
cis-1,3-Dichloropropene	ND< 8.02
trans-1,3-Dichloropropene	ND< 8.02
Methylene chloride	ND< 20.0
1,1,2,2-Tetrachloroethane	ND< 8.02
Tetrachloroethene	ND< 8.02
1,1,1-Trichloroethane	ND< 8.02
1,1,2-Trichloroethane	ND< 8.02
Trichloroethene	ND< 8.02
Trichlorofluoromethane	42.7
Vinyl chloride	ND< 8.02
ELAD Number 10958	Method

G	Deculto in us / Vs
Aromatics	Results in ug / Kg
Benzene	ND< 8.02
Chlorobenzene	ND< 8.02
Ethylbenzene	ND< 8.02
Toluene	ND< 8.02
m,p-Xylene	ND< 8.02
o-Xylene	ND< 8.02
Styrene	ND< 20.0
1,2-Dichlorobenzene	ND< 20.0
1,3-Dichlorobenzene	ND< 20.0
1,4-Dichlorobenzene	ND< 8.02

Ketones	Results in ug / Kg
Acetone	153
2-Butanone	ND< 40.1
2-Hexanone	ND< 20.0
4-Methyl-2-pentanone	ND< 20.0

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 8.02
Vinyl acetate	ND< 20.0
•	

ELAP Number 10958

Method: EPA 8260B

Data File: V65827.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Client: LIRO Engineers Inc.

Client Job Site: Buffalo Memorial Auditorium

Demo

Lab Project Number: 09-1769 Lab Sample Number: 5938

Client Job Number: N/A

Field Location:

BMAD - S. West - 0 - 1 **Date Sampled:** 05/14/2009

Field ID Number:

N/A

Date Received:

05/15/2009

Sample Type: Soil Date Analyzed:

05/20/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 10.6
Bromomethane	ND< 10.6
Bromoform	ND< 26.4
Carbon Tetrachloride	ND< 26.4
Chloroethane	ND< 10.6
Chloromethane	ND< 10.6
2-Chloroethyl vinyl Ether	ND< 52.9
Chloroform	ND< 10.6
Dibromochloromethane	ND< 10.6
1,1-Dichloroethane	ND< 10.6
1,2-Dichloroethane	ND< 10.6
1,1-Dichloroethene	ND< 10.6
cis-1,2-Dichloroethene	ND< 10.6
trans-1,2-Dichloroethene	ND< 10.6
1,2-Dichloropropane	ND< 10.6
cis-1,3-Dichloropropene	ND< 10.6
trans-1,3-Dichloropropene	ND< 10.6
Methylene chloride	ND< 26.4
1,1,2,2-Tetrachloroethane	ND< 10.6
Tetrachloroethene	ND< 10.6
1,1,1-Trichloroethane	ND< 10.6
1,1,2-Trichloroethane	ND< 10.6
Trichloroethene	ND< 10.6
Trichlorofluoromethane	18.3
Vinyl chloride	ND< 10.6

Aromatics	Results in ug / Kg
Benzene	ND< 10.6
Chlorobenzene	ND< 10.6
Ethylbenzene	ND< 10.6
Toluene	ND< 10.6
m,p-Xylene	ND< 10.6
o-Xylene	ND< 10.6
Styrene	ND< 26.4
1,2-Dichlorobenzene	ND< 26.4
1,3-Dichlorobenzene	ND< 26.4
1,4-Dichlorobenzene	ND< 10.6

Ketones	Results in ug / Kg
Acetone	277
2-Butanone	ND< 52.9
2-Hexanone	ND< 26.4
4-Methyl-2-pentanone	ND< 26.4

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 10.6
Vinyl acetate	ND< 26.4
·	

ELAP Number 10958

Method: EPA 8260B

Data File: V65828.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Lab Sample Number: 5939

Lab Project Number: 09-1769

Demo Client Job Number: N/A

Field Location:

BMAD - S. East - 0 - 1

Date Sampled: Date Received:

05/14/2009 05/15/2009

Field ID Number: Sample Type:

N/A Soil

Date Analyzed:

05/20/2009

Halocarbons		Results in ug / Kg
Bromodichlorom	ethane	ND< 9.22
Bromomethane		ND< 9.22
Bromoform		ND< 23.1
Carbon Tetrachle	oride	ND< 23.1
Chloroethane		ND< 9.22
Chloromethane		ND< 9.22
2-Chloroethyl vir	yl Ether	ND< 46.1
Chloroform		ND< 9.22
Dibromochlorom	ethane	ND< 9.22
1,1-Dichloroetha	ne	ND< 9.22
1,2-Dichloroetha	ne	ND< 9.22
1,1-Dichloroethe	ne	ND< 9.22
cis-1,2-Dichloroe	ethene	ND< 9.22
trans-1,2-Dichlor	oethene	ND< 9.22
1,2-Dichloroprop	ane	ND< 9.22
cis-1,3-Dichlorop	ropene	ND< 9.22
trans-1,3-Dichlor	opropene	ND< 9.22
Methylene chlori	de	ND< 23.1
1,1,2,2-Tetrachlo	roethane	ND< 9.22
Tetrachloroether		ND< 9.22

Aromatics	Results in ug / Kg
Benzene	ND< 9.22
Chlorobenzene	ND< 9.22
Ethylbenzene	ND< 9.22
Toluene	ND< 9.22
m,p-Xylene	ND< 9.22
o-Xylene	ND< 9.22
Styrene	ND< 23.1
1,2-Dichlorobenzene	ND< 23.1
1,3-Dichlorobenzene	ND< 23.1
1,4-Dichlorobenzene	ND< 9.22

Ketones	Results in ug / Kg
Acetone	204
2-Butanone	ND< 46.1
2-Hexanone	ND< 23.1
4-Methyl-2-pentanone	ND< 23.1

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 9.22
Vinyl acetate	ND< 23.1
•	

ELAP Number 10958

Trichloroethene Trichlorofluoromethane

Vinyl chloride

1,1,1-Trichloroethane

1,1,2-Trichloroethane

Method: EPA 8260B

Data File: V65829.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference Internal Standard outliers/indicate probable matrix interference

ND< 9.22

ND< 9.22 ND< 9.22

ND< 9.22 ND< 9.22

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Lab Project Number: 09-1769 Lab Sample Number: 5934

Demo Client Job Number: N/A

Field Location:

BMAD - South - 0 - 1

Date Sampled:

05/14/2009

Field ID Number:

N/A

Date Received:

05/15/2009

Sample Type:

TCLP Extract

Date Analyzed:

05/19/2009

Date Reissued:

05/29/2009

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 7.00	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

ELAP Number 10958

Method: EPA 8260B

Data File: V65780.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:

ENVIRONMENTAL SERVICES. INC. 179 Lake Avenue Rochester, New York 14608 (585) 647 - 2530 FAX (585) 647 - 3311

Volatile Analysis Report for TCLP Extract

Client: LIRO Engineers Inc.

Client Job Site:

Field ID Number:

Sample Type:

Buffalo Memorial Auditorium

Lab Project Number: 09-1769 Lab Sample Number: 5935

Demo

Client Job Number: N/A Field Location:

BMAD - N. East - 0 - 1

TCLP Extract

N/A

Date Sampled:

05/14/2009

Date Received:

05/15/2009

Date Analyzed:

05/19/2009

Date Reissued:

05/29/2009

Compounds	Results in ug / L	Regulatory Limits in ug / I
Benzene	ND< 7.00	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

ELAP Number 10958

Method: EPA 8260B

Data File: V65781.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Field ID Number:

Sample Type:

Buffalo Memorial Auditorium

Lab Project Number: 09-1769 Lab Sample Number: 5936

Demo Client Job Number:

N/A Field Location:

BMAD - North - 0 - 1

TCLP Extract

N/A

Date Sampled:

05/14/2009

Date Received:

05/15/2009

Date Analyzed:

05/19/2009

Date Reissued:

05/29/2009

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 7.00	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

ELAP Number 10958 Method: EPA 8260B Data File: V65782.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:

Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Lab Project Number: 09-1769

Client Job Number:

Demo N/A

Lab Sample Number: 5937

Field Location:

BMAD - N. West - 0 - 1

Date Sampled:

05/14/2009

Field ID Number:

N/A

Date Received:

05/15/2009

Sample Type: **TCLP Extract**

Date Analyzed:

05/21/2009

Date Reissued:

05/29/2009

Compounds	Results in ug / L	Regulatory Limits in ug / l
Benzene	ND< 7.00	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

ELAP Number 10958 Method: EPA 8260B Data File: V65855.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Lab Project Number: 09-1769 Lab Sample Number: 5938

Demo

Client Job Number: N/A

Field Location:

BMAD - S. West - 0 - 1

Date Sampled:

05/14/2009 05/15/2009

Field ID Number: N/A

Date Received: Date Analyzed:

05/21/2009

Sample Type:

TCLP Extract

Date Reissued:

05/29/2009

Compounds	Results in ug / L	Regulatory Limits in ug / l
Benzene	ND< 7.00	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

ELAP Number 10958 Method: EPA 8260B Data File: V65856.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Client: LIRO Engineers Inc.

Client Job Site:

Buffalo Memorial Auditorium

Lab Project Number: 09-1769 Lab Sample Number: 5939

Demo Client Job Number:

N/A Field Location:

BMAD - S. East - 0 - 1

Date Sampled:

05/14/2009

Field ID Number:

N/A

Date Received:

05/15/2009

TCLP Extract Sample Type:

Date Analyzed:

05/21/2009

Date Reissued:

05/29/2009

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 7.00	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

ELAP Number 10958 Method: EPA 8260B Data File: V65857.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:

Paradign Environmental

BKPeterson, LLC - & Services

1451-246 Avenue

CHAIN OF CUSTODY

Temperature:	Holding Time:	Preservation:	Container Type:	Sample Condition: Per NELAC/ELAP 210/241/242/243/244 Receipt Parameter NELAC Co	10 NEWBELOWARINE	9	8	7	65 14 pg 1500 X	1 204 20 X	45/14/09/1430 7	35/14/340340 >	1	15 4 5 1120 X	DATE TIME P G G G G G G	MODIFICATION OF THE PROPERTY O	Topiat Topiat	JONE _	ADDRE	Rochester, NY 14608 COMPANY:
, , ,	~	~	Υ N	241/242/243/244 NELAC Compliance	NEC.				BIMED SENST	BHAD S WEST	BMAD-N.WEST	HDOON .		-SOUTH-	SAMPLE LOCATION/FIELD ID	911 - TAD-	MIKE 13	367.5476	90 OF	" LIRO ENGINEERS
Received @ Lab By		Sampled By Much III	mull Mh						0-1 543	0-1 5/3	× 2 1-0	·0-1 S 13 X	0-1834	0-1 5d/3 X	X-N-X NMWXCZ NAMZ->-ZOC TCLPVOCS CUSVOCS ROPA RAB MUTUS	1755 FMAN REQUESTE	ATTN: PA	7.470 PHONE 2777	AUB ADDRESS: 181	1 C COMPANY:
Date/Time	. 20	02	5/14/09				Mike Mike	30n	NXXXXXX S	22 XXXXXXXXXX	XXXXXX and	SS TATATATATA	XXXXXX	XXXXXXX	TOTAL VOCS TOTAL SVICS PCBS TPH PH ABILITY PH TGNITABILITY PHITE	ANALYSIS (Q. 1)	6	15-806 216-775-8087	LOVE ROAD	おって
	020	Total Cost:	1500			J	Le Guine.	120	Per JH 5/18 do	DONS O	nd TCLP YOA,	RCRA RCRA total FAASIS	ROTO APLITATI	RUMATCI (total)	REMARKS	m.com quote	1 2 3	2 IURNAROUND IIME: (WORKING DAYS)	09-1769	LAB PROJECT #:
]								2) U	0	0	0	۵ ۷	5034	BKPeterson LAB SAMPLE NUMBER	te JDO4	5			CLIENT PROJECT #:



A SUBSIDIARY OF SJB SERVICES, INC.

November 6, 2009 Project No. BE-09-094A

Erie Canal Harbor Development Corporation

c/o Mr. Darryl C. Murszewski, Senior Project Engineer **C&S** Companies 90 Broadway Street Buffalo, New York, 14203

Re: Environmental Soil Data Report for the Former Buffalo Memorial Auditorium Site Proposed Buffalo Canal Side Development Buffalo, New York

Dear Mr. Murszewski:

Empire GeoServices, Inc. (Empire) was retained by C&S Companies (C&S) on behalf of the Erie Canal Harbor Development Corporation (ECHDC), to complete a subsurface investigation at the former Buffalo Memorial Auditorium Site located in Buffalo, New York. This investigation included a geotechnical evaluation and environmental laboratory analysis of selected soil samples. This letter report summarizes the environmental laboratory data. Empire submitted the geotechnical evaluation to C&S under separate covers dated July 14th, 2009 and November 2nd, 2009.

SUBSURFACE INVESTIGATION

Empire completed the subsurface investigation during two events. The first event was completed in June, 2009 and the second event was completed during September and October, 2009. The two subsurface investigation efforts included the completion of 14 test borings and the installation of four groundwater observation wells. The test borings were designated B-1 through B-14 and the groundwater observation wells were identified by the test borings in which they were installed (B-1, B-4, B-7A, and B-14).

CORPORATE/ **BUFFALO OFFICE**

167 South Park Avenue Hamburg, NY 14075 Phone: (716) 649-8110 Fax: (716) 649-8051

ALBANY OFFICE PO Box 2199 Ballston Spa, NY 12020

5 Knabner Road Mechanicville, NY 12118 Phone: (518) 899-7491 (518) 899-7496

☐ CORTLAND OFFICE

60 Miller Street Cortland, NY 13045 Phone: (607) 758-7182 Fax: (607) 758-7188

□ ROCHESTER OFFICE

535 Summit Point Drive Henrietta, NY 14467 Phone: (585) 359-2730 Fax: (585) 359-9668

MEMBER

The test borings were advanced using a Central Mine Equipment (CME) model 550X, all terrain drill rig and a CME model 85 truck mounted drill rig. All the test borings were advanced in overburden using hollow stem augers and split spoon sampling techniques. Representative soil samples were continuously obtained from the ground surface to a depth of 14 to 56 feet and in intervals of five feet or less below the zone of continuous sampling. The two inch outside diameter split spoon sampler was driven into the undisturbed soils ahead of the augers, utilizing a 140 pound drop hammer freely falling 30-inches. Details of the subsurface investigation including test boring locations, soil types encountered, standard penetration test results, and monitoring well installation diagrams were presented in Empire's previously submitted geotechnical evaluation reports.

ENVIRONMENTAL SCREENING

The recovered soil samples were screened for volatile organic compound (VOC) vapors using an Ion Science PhoCheck 1000 Photoionization Detector (PID) equipped with a 10.6 eV lamp. The PID will detect, if present, the aggregate concentration of many VOCs at a practical threshold of approximately 1-2 parts per million (ppm). In addition, the soils were visually inspected for evidence of environmental degradation (i.e. discoloration, odors, etc.).

In general, the PID readings were at ambient/background levels for the recovered soil samples. Isolated detections of slightly elevated PID measurements were recorded on soil samples recovered from test borings B-1, B-2, B-10 and B-11. Evidence of petroleum or chemical staining was not observed on the recovered soils. The results of the PID screenings and noted observations are presented on the subsurface logs presented in Empire's previous geotechnical reports.

SAMPLE COLLECTION AND ENVIRONMENTAL LABORATORY ANALYSIS

Soil samples were collected for environmental laboratory analysis from test borings B-1, B-2, B-3A, B-4, B-5, B-7, B-8, and B-10 as directed by C&S. Samples B-2, B-3A, and B-4 were composited from ground surface to a depth 24 feet. Soil samples from borings B-7 and B-8 were composited from the ground surface to eight feet below grade. B-1 was collected from ground surface to a depth of 12 feet. Sample B-5 was collected from ground surface to 16 feet below grade. B-8 was composited from ground surface to a depth of nine feet.

All samples were analyzed for Target Compound List (TCL) Volatile Organic Compounds (VOCs) including NYSDEC Spill Technology and Remediation Series (STARS) VOCs and Methyl tert-butyl Ether (MTBE), TCL Semi-Volatile Organic Compounds (SVOCs), Target Analyte List Metals including Mercury, Pesticide Compounds, Herbicide Compounds, and Polychlorinated Biphenyls (PCBs). In addition, a second set of soil samples was collected from test borings B-1, B-2, B-5, and B-8 that was analyzed for Toxicity Characteristic Leaching Procedure (TCLP) VOCS, TCLP SVOCs, TCLP Metals, TCLP Pesticide Compounds, ignitability, corrosivity, reactivity, and paint filter analysis.

The collected soil samples were placed into pre-cleaned containers, labeled with the date, time and location of project and placed in an iced cooler at approximately 4-degrees Celsius for transport to Paradigm Environmental Services, Inc. (Paradigm) in Rochester, New York. Paradigm is a New York State Department of Health (NYSDOH) certified analytical testing laboratory. Chain-of-custody documentation accompanied the samples. Analytical data summary tables are presented in Attachment A. Paradigm's analytical reports are included in Attachment B.

LABORATORY ANALTYCAL RESULTS

Analysis for Total Concentrations

The analytical results of the soil samples were compared the New York State Department of Environmental Conservation (NYSDEC) Recommended Soil Cleanup Objectives (RSCOs) presented in the Division Technical and Administrative Guidance Memorandum: Determination of Soil Cleanup Objectives and Cleanup Levels (TAGM 4046). Compounds or elements that were detected above the laboratory method detection limits are briefly summarized below. Specific information regarding detections is presented on the summary tables in Attachment A.

Volatile Organic Compounds: The four VOCs toluene, m/p-xylenes, naphthalene, and 1,3,5-trimethylbenzene were detected in the collected soil samples. The concentration levels of these detections were well below the NYSDEC TAGM 4046 RSCOs. A summary of the detected VOCs is presented on Table 1 of Attachment A.

Semi Volatile Organic Compounds: Seventeen SVOCs were detected in the collected soil samples. Of these detections, the individual SVOCs benzo(a)anthracene, benzo(a)pyrene, benzo(ghi)perylene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)pyrene exceeded NYSDEC TAGM 4046 RSCOs. However the total SVOC concentrations in all of the soil samples were well-below the TAGM 4046 RSCO for total SVOCs. A summary of the detected SVOCs is presented on Table 2 of Attachment A.

Metals: Nineteen metals were detected in collected soil samples. Of these detections, cadmium, lead, calcium, copper, magnesium, mercury, and zinc exceeded NYSDEC TAGM 4046 RSCOs. The TAGM RSCOIs for these metals are based on background levels averaged over the eastern United States. Since it is likely that these detections are at or near background levels for this local, commercial/industrial area of Buffalo, they are not considered to represent a significant environmental concern. Additional research regarding local background levels would be required for verification. A summary of the detected metals is presented on Table 3 of Attachment A.

Pesticide Compounds: The two pesticide compounds beta-BHC and gamma-BHC were detected in the collected soil samples. These detections were below NYSDEC TAGM 4046 RSCOs.

Herbicide Compounds: Herbicide compounds were not detected in any of the soil samples.

Polychlorinated Biphenyls: Polychlorinated biphenyls were not detected in any of the soil samples.

Analysis for Leachable Concentrations and Hazardous Waste Testing

The laboratory data resulting from the Toxicity Characteristic Leaching Procedure (TCLP) analysis were compared to the Regulatory Levels included in Table 1, "Contaminant Concentration for Toxicity," of NYSDEC Part 371.2 regarding hazardous waste criteria.

Volatile Organic Compounds: The analysis of the TCLP extracts did not detect volatile organic compounds above the method detection limits.

Semi Volatile Organic Compounds: The analysis of the TCLP extracts did not detect semi volatile organic compounds above the method detection limits.

Metal/Inorganic Compounds: The two metals barium and lead were detected in the TCLP extracts at levels well below the Part 371.2 levels. A summary of the detected TCLP metals is presented on Table 5 of Attachment A.

Pesticide Compounds: The analysis of the TCLP extracts did not detect pesticide compounds above the method detection limits.

Herbicide Compounds: The analysis of the TCLP extracts did not detect herbicide compounds above the method detection limits.

Ignitability: The submitted soil samples did not exhibit a flashpoint greater than 70 degrees Celsius and therefore were nonhazardous for ignitability.

Reactivity: The submitted soil samples did not exhibit cyanide and sulfide reactivity levels that exceeded regulatory limits and therefore were nonhazardous for reactivity.

Corrosivity: The submitted soil samples exhibited pH results from 7.82 to 10.4 standard units and therefore were nonhazardous for corrosivity.

Paint Filter Test: The submitted soil samples had acceptable results for the paint filter test.

This report has been prepared for the exclusive use of Erie Canal Harbor Development Corporation c/o C&S Companies for specific application to the Former Buffalo Memorial Auditorium Site in accordance with generally accepted environmental practices. If you have any questions or require further assistance, please contact our office at (716) 649-8110.

Respectfully submitted,

EMPIRE GEOSERVICES, INC.

Stephen J. Bochenek Engineering Geologist

David R. Steiner

Environmental Services Manager

Attachments

A – Analytical Summary Tables

B – Paradigm Environmental Services, Inc. Analytical Reports

ATTACHMENT A

Analytical Summary Tables

TABLE 1
BUFFALO MEMORIAL AUDITORIUM - PROPOSED BUFFALO CANAL SIDE DEVELOPMENT
SUMMARY OF DETECTED VOLATILE ORGANIC COMPOUNDS

COMMINATOR DETECTED VOLUTION CONTROL CONTROL										
		TAGM 4046		LOCATIONS (Sampling Interval)						
		Recommended								
VOCs	Units	Soil Cleanup								
		Objective	B-1 (0 - 12')	B-2 (0 - 24')	B-3A (0 - 24')	B-4 (0 - 24')	B-5 (0 - 16')	B-7 (0 - 8')	B-8 (0 - 9')	B-10 (0 - 8')
Toluene	ppb	1,500	ND	ND	ND	ND	ND	ND	11.9	ND
m/p-Xylene	ppb	1,200 [*]	ND	ND	ND	ND	ND	ND	13.8	ND
Naphthalene	ppb	13,000	377	177	ND	ND	ND	ND	ND	ND
1,2,4-Trimethylbenzene	ppb	1,360	11.1	ND	ND	ND	ND	ND	ND	ND
Total VOCs Concentation	ppb	10,000	388.1	177	ND	ND	ND	ND	25.7	ND

Notes:

MDL- Method Detection Limit
ND- Non Detect
ppb- Parts Per Billion
*- Total Xylene Recommended Soil Cleanup Objective Listed
Bold Concentration Equals or Exceeds TAGM 4046 Recommended Soil Cleanup Objectives

TABLE 2 **BUFFALO MEMORIAL AUDITORIUM - PROPOSED BUFFALO CANAL SIDE DEVELOPMENT** SUMMARY OF DETECTED SEMI-VOLATILE ORGANIC COMPOUNDS

		TAGM 4046			LC	OCATIONS (Sa	mpling Interv	al)		
SVOCs	Units	Recommended Soil Cleanup								
		Objective	B-1 (0 - 12')	B-2 (0 - 24')	B-3A (0 - 24')	B-4 (0 - 22')	B-5 (0 - 16')	B-7 (0 - 8')	B-8 (0 - 9')	B-10 (0 - 8')
Acenaphthene	ppb	50,000*	1,750	2,750	ND	529	ND	ND	ND	ND
Acenaphthylene	ppb	41,000	1,980	ND	ND	ND	ND	ND	ND	ND
Anthracene	ppb	41,000	8,220	6,010	ND	1,700	ND	444	ND	ND
Benzo(a)anthracene	ppb	224 or MDL	14,700	8,240	ND	2,880	ND	890	ND	ND
Benzo(a)pyrene	ppb	61 or MDL	11,600	6,840	ND	2,270	ND	812	ND	ND
Benzo(b)fluoranthene	ppb	1,100	10,600	5,710	ND	2,230	ND	758	ND	ND
Benzo(ghi)perylene	ppb	50,000*	6,050	3,780	ND	1,310	ND	577	ND	ND
Benzo(k)fluoranthene	ppb	1,100	11,300	5,510	ND	2,100	ND	592	ND	ND
Bis(2-ethylhexyl)phthalate	ppb	50,000*	ND	ND	ND	ND	ND	ND	822	ND
Chrysene	ppb	400	13,000	7,350	ND	2,630	ND	895	ND	ND
Dibenzo(a,h)anthracene	ppb	14 or MDL	2,910	ND	ND	608	ND	ND	ND	ND
Dibenzofuran	ppb	6,200	2,670	1,940	ND	516	ND	ND	ND	ND
Fluoranthene	ppb	50,000*	31,900	19,100	ND	5,840	ND	2,020	409	722
Fluorene	ppb	50,000*	4,160	2,700	345	803	ND	ND	ND	ND
Indeno(1,2,3-cd)pyrene	ppb	3,200	7,060	3,490	ND	1,310	ND	623	ND	ND
Naphthalene	ppb	13,000	2,070	2,160	ND	325	ND	ND	ND	ND
Phenanthrene	ppb	50,000*	22,200	16,600	ND	4,720	ND	1,800	ND	607
Pyrene	ppb	50,000*	21,800	14,600	ND	4,290	ND	1,640	355	533
Total SVOCs Concentation	ppb	500,000	173,970	106,780	345	34,061	ND	11,051	1,586	1,862

Notes:

MDL- Method Detection Limit

ND- Non Detect

ppb- Parts Per Billion
*- Total SVOC Concentration Less Than 500,000 ppb
Bold Concentration Equals or Exceeds TAGM 4046 Recommended Soil Cleanup Objectives

TABLE 3 BUFFALO MEMORIAL AUDITORIUM - PROPOSED BUFFALO CANAL SIDE DEVELOPMENT **SUMMARY OF DETECTED METALS**

		TAGI	LOCATIONS (Sampling Interval)								
INORGANIC COMPOUNDS	Units	Recommended Soil Cleanup Objective	Eastern USA Background	B-1 (0 - 12')	B-2 (0 - 24')	B-3A (0 - 24')				B-8 (0 - 9')	B-10 (0 - 8')
Aluminum	mg/kg	SB	33,000	6,390	6,430	7,250	6,340	8,760	9,640	8,170	13,900
Arsenic	mg/kg	7.5 or SB	3 - 12	8.41	6.76	5.87	5.25	5.28	9.32	3.83	4.66
Barium	mg/kg	300 or SB	15 - 600	64.2	111	76.8	82.2	47.9	402	55	106
Beryllium	mg/kg	0.16 or SB	0 - 1.75	ND	ND	ND	ND	ND	0.457	ND	0.689
Cadmium	mg/kg	1 or SB	0.1 - 1	0.542	ND	ND	ND	ND	2.46	ND	0.697
Calcium	mg/kg	SB	130 - 35,000	81,900	55,500	46,300	42,800	47,100	31,200	64,500	64,200
Chromium	mg/kg	10 or SB	1.5 - 40	9.89	10.4	11.1	9.42	21.0	25.5	13	20
Cobalt	mg/kg	30 or SB	2.5 - 60	5.33	4.49	5.43	4.45	5.86	5.86	5.07	8.38
Copper	mg/kg	25 or SB	1 - 50	29.5	38.9	28.4	21.4	26.4	149	23.7	31.3
Iron	mg/kg	2,000 or SB	2,000 - 550,000	14,900	14,600	13,500	11,000	16,200	19,200	13,500	21,500
Lead	mg/kg	SB	200 - 500	120	144	133	122	65.6	1,650	66.4	161
Magnesium	mg/kg	SB	100 - 5,000	26,400	10,800	14,000	10,100	23,600	8,900	11,100	16,600
Manganese	mg/kg	SB	50 - 5,000	353	243	307	301	366	317	327	288
Mercury	mg/kg	0.1	0.001 - 0.2	0.0728	0.377	0.0121	0.327	0.136	1.52	0.109	0.388
Nickel	mg/kg	13 or SB	0.5 - 25	12	10.4	13.8	9.86	17.2	19.2	12.1	19.7
Potassium	mg/kg	SB	8,500 - 43,000	1,180	1,140	1,240	1,080	1,810	1,870	1,220	3,440
Selenium	mg/kg	2 or SB	0.1 - 3.9	ND	ND	0.734	ND	ND	ND	ND	ND
Sodium	mg/kg	SB	6,000 - 8,000	383	236	430	178	126	487	461	886
Vanadium	mg/kg	150 or SB	1 - 300	15.4	16.8	17.6	15.3	20.1	23.2	13.3	29.1
Zinc	mg/kg	20 or SB	9 - 50	88.7	115	119	94.5	75.0	1,250	53.2	102

Notes:

SB- Site Background ND- Non Detect

mg/kg- milligrams per kilogram
Bold Concentration Equals or Exceeds TAGM 4046 Recommended Soil Cleanup Objectives

TABLE 4 BUFFALO MEMORIAL AUDITORIUM - PROPOSED BUFFALO CANAL SIDE DEVELOPMENT SUMMARY OF DETECTED RESTIGIDE COMPOUNDS										
SUMMARY OF DETECTED PESTICIDE COMPOUNDS TAGM 4046 LOCATIONS (Sampling Inverval)										
PESTICIDES	Units	Recommended Soil Cleanup				•				
		Objective	B-1 (0 -12')	B-2 (0 - 24')	B-3A (0 - 24')	B-4 (0 - 24')	B-5 (0 -16')	B-7 (0 - 8')	B-8 (0 - 9')	B-10 (0 - 8')
beta-BHC	ppb	200	ND	ND	13.9	ND	7.94	ND	ND	ND
gamma-BHC	ppb	60	ND	ND	4.40	ND	4.30	ND	ND	ND

Notes:

ND- Non Detect ppb- Parts Per Billion

TABLE 5 BUFFALO MEMORIAL AUDITORIUM - PROPOSED BUFFALO CANAL SIDE DEVELOPMENT SUMMARY OF DETECTED TCLP METALS

			LOCATIONS (Sampling Interval)			
INORGANIC COMPOUNDS	Units	Federal Regulatory Limits	B-1 (0 - 12')	B-2 (0 - 24')	B-5 (0 - 16')	B-8 (0 - 9')
Barium	mg/l	100.0	1.31	1.27	1.65	0.512
Lead	mg/l	5.0	0.153	ND	ND	ND

Notes:

ND- Non Detect

mg/l- milligrams per liter

ATTACHMENT B
Paradigm Environmental Services, Inc. Analytical Reports



Analytical Report Cover Page

SJB Services

For Lab Project # 09-2303
Issued July 13, 2009
This report contains a total of 18 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

[&]quot;ND" = analyzed for but not detected.

[&]quot;E" = Result has been estimated, calibration limit exceeded.

[&]quot;D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

[&]quot;M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

[&]quot;B" = Method blank contained trace levels of analyte. Refer to included method blank report.



179 Lake Avenue Rochester, New York 14608 (585) 647-2530 FAX (585) 647-3311

Client:

SJB Services

Lab Project No.: Lab Sample No.: 09-2303

Client Job Site:

Buffalo Aud Site

7427

Client Job No.:

N/A

Sample Type:

Soil

Field Location:

B-1 (0-12')

Date Sampled:

6/26/2009

Date Received:

6/29/2009

Laboratory Report for Reactivity

Parameter	Date Analyzed	Analytical Method	Results (mg/kg)
Cyanide Reactivity	6/30/2009	SW846, 7.3.3.2	ND<1.0
Sulfide Reactivity	6/30/2009	SW846, 7.3.4.2	20

ELAP ID. No.: 10709

Comments:

ND denotes Non Detect.

Hazardous Waste Regulatory Levels for Reactivity are as follows:

Sulfide - 500 mg/kg, Cyanide - 250 mg/kg.

Approved By Technical Director:

Bruce Hoogesteger



179 Lake Avenue Rochester, New York 14608 (585) 647-2530 FAX (585) 647-3311

Client:

SJB Services

Lab Project No:

09-2303

Client Job Site:

Buffalo Aud. Site

Lab Sample No: Sample Type:

7427 Soil

Client Job No:

N/A

Date Sampled:

6/26/2009

Field Location:

B-1 (0-12')

Date Received:

6/29/2009

Date Analyzed:

7/10/2009

Laboratory Report for Herbicides Analysis

Parameter	Result (ug/kg)	Reporting Limit (ug/kg)
2,4-D	ND	200
Dinoseb	ND	200
Dicamba	ND	200
2,4,5-T	ND	200
2,4,5-TP (Silvex)	ND	200

Analytical Method: SW 8151A

ELAP ID: 10709

Comments:

ND denotes Non Detect.

Approved By Technical Director:

File ID: SJB 09-2303



179 Lake Avenue Rochester, New York 14608 (585) 647-2530 FAX (585) 647-3311

Client:

SJB Services

Lab Project No:

09-2303 7427

Client Job Site:

Buffalo Aud. Site

Lab Sample No: Sample Type:

TCLP Extract

Client Job No:

N/A

Date Sampled: Date Received:

6/26/2009 6/29/2009

Field Location:

B-1 (0-12')

Date Analyzed:

7/8/2009

Herbicide Analysis Report for TCLP Extract

Parameter	Result (mg/L)	Regulatory Limit (mg/L)
2,4,5-TP (Silvex)	ND<0.05	1.0
2,4-D	ND<0.50	10.0

Analytical Method: SW1311/8151

ELAP ID: 10709

Comments:

ND denotes Non Detect.

Approved By Technical Director:

Bruce Hoodesteder

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

File ID: SJB 09-2303



pH Analysis Report

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number:

09-2303

Client Job Number:

N/A

Date Sampled: Time Sampled: 6/26/2009 9:00 AM

Date Received:

6/29/2009

Sample Type: Location:

Soil

Time Received:

4:05 PM

Laboratory

Date Analyzed:

6/30/2009

Time Analyzed:

9:35 AM

Lab Sample Number	Field Number	Field Location	Result (pH)
7427	N/A	B-1 (0-12')	10.4

ELAP Number 10958

Method: EPA 9045C

Comments:

Signature:



Paint Filter Analysis Report

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number:

09-2303

Client Job Number:

N/A

Date Sampled:

6/26/2009

Sample Type:

Soil

Date Received: Date Analyzed:

6/29/2009 6/30/2009

Lab Sample Number	Field Number	Field Location	Result
7427	N/A	B-1 (0-12')	Pass (No free liquid)

ELAP Number 10958

Method: SW846 9095

Comments:

Signature:



Flashpoint by Pensky-Martin Analysis Report

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number:

09-2303

Client Job Number:

N/A

Date Sampled:

06/26/2009

Sample Type:

Soil

Date Received: Date Analyzed:

06/29/2009 07/06/2009

Lab Sample Number	Field Number	Field Location	Result (°C)
7427	N/A	B-1 (0-12')	> 70

ELAP Number 10958

Method: SW846 1010

Comments:

°C = degrees Centigrade

Signature:



Client:

SJB Services

Lab Project No.:

09-2303

Client Job Site:

Buffalo Aud Site

Lab Sample No.:

7427

Client Job No.:

N/A

Soil

Field Location:

B-1 (0-12')

Date Sampled:

Sample Type:

06/26/2009

Field ID No.:

N/A

Date Received:

06/29/2009

Laboratory Report for TAL Metals Analysis in Solid

Parameter	Date Analyzed	Analytical	Result (mg/kg)
		Method	
Aluminum	07/02/2009	SW846 6010	6390
Antimony	07/02/2009	SW846 6010	<6.04
Arsenic	07/02/2009	SW846 6010	8.41
Barium	07/02/2009	SW846 6010	64.2
Beryllium	07/02/2009	SW846 6010	<0.502
Cadmium	07/02/2009	SW846 6010	0.542
Calcium	07/02/2009	SW846 6010	81900
Chromium	07/02/2009	SW846 6010	9.89
Cobalt	07/02/2009	SW846 6010	5.33
Copper	07/02/2009	SW846 6010	29.5
Iron	07/02/2009	SW846 6010	14900
Lead	07/02/2009	SW846 6010	120
Magnesium	07/02/2009	SW846 6010	26400
Manganese	07/02/2009	SW846 6010	353
Mercury	06/30/2009	SW846 7471	0.0728 D
Nickel	07/02/2009	SW846 6010	12.0
Potassium	07/02/2009	SW846 6010	1180
Selenium	07/02/2009	SW846 6010	<0.502
Silver	07/02/2009	SW846 6010	<1.01
Sodium	07/07/2009	SW846 6010	383
Thallium	07/02/2009	SW846 6010	<0.604
Vanadium	07/02/2009	SW846 6010	15.4
Zinc	07/02/2009	SW846 6010	88.7

ELAP ID No.:10958

Comments:



Client:

SJB Services

Lab Project No.:

09-2303

Client Job Site:

Buffalo Aud Site

Lab Sample No.: 7427

Sample Type:

TCLP Extract

Client Job No.: Field Location: N/A

B-1 (0-12')

Date Sampled: Date Received: 06/26/2009 06/29/2009

Field ID No.:

N/A

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	07/02/2009	EPA 6010	<0.100	5.0
Barium	07/02/2009	EPA 6010	1.31	100.0
Cadmium	07/02/2009	EPA 6010	<0.025	1.0
Chromium	07/02/2009	EPA 6010	<0.050	5.0
Lead	07/02/2009	EPA 6010	0.153	5.0
Mercury	06/30/2009	EPA 7470	<0.0020	0.2
Selenium	07/02/2009	EPA 6010	<0.100	1.0
Silver	07/02/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments: The laboratory control spike was outside QC limits for Ba.

Approved By: Nalmullu



PCB Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2303

Lab Sample Number: 7427

Client Job Number: N/A

B-1 (0-12')

Date Sampled:

06/26/2009

Field Location: Field ID Number:

Sample Type:

N/A Soil

Date Received:

06/29/2009

Date Analyzed:

07/01/2009

Method: EPA 8082

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.358
Aroclor 1221	ND< 0.358
Aroclor 1232	ND< 0.358
Aroclor 1242	ND< 0.358
Aroclor 1248	ND< 0.358
Aroclor 1254	ND< 0.358
Aroclor 1260	ND< 0.358

Comments: ND denotes Non Detect

mg / Kg = milligram per Kilogram

ELAP Number 10958

Signature:



Pesticide Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2303

Lab Sample Number: 7427

Client Job Number:

N/A

Date Sampled:

06/26/2009

Field Location: Field ID Number: B-1 (0-12') N/A

Date Received:

06/29/2009

Sample Type:

Soil

Date Analyzed:

06/30/2009

anipio	. ypu.	COII

Pesticide Identification	Results in ug / Kg
Aldrin	ND< 3.45
alpha-BHC	ND< 3.45
beta-BHC	ND< 3.45
delta-BHC	ND< 3.45
gamma-BHC	ND< 3.45
alpha-Chlordane	ND< 3.45
gamma-Chlordane	ND< 3.45
4,4'-DDD	ND< 3.45
4,4'-DDE	ND< 3.45
4,4'-DDT	ND< 3.45
Dieldrin	ND< 3.45
Endosulfan I	ND< 3.45
Endosulfan II	ND< 3.45
Endosulfan Sulfate	ND< 3.45
Endrin	ND< 3.45
Endrin Aldehyde	ND< 3.45
Heptachlor	ND< 3.45
Heptachlor Epoxide	ND< 3.45
Methoxychlor	ND< 3.45
Toxaphene	ND< 173

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Pesticide Analysis Report for TCLP Extract

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2303

Client Job Number: N/A

Lab Sample Number: 7427

Field Location:

B-1 (0-12')

Date Sampled:

06/26/2009

Field ID Number:

N/A

Date Received:

06/29/2009

Sample Type:

TCLP Extract

Date Analyzed:

06/30/2009

Pesticide Identification	Results in ug / L	Regulatory Limits in ug / L
gamma-BHC	ND< 1.00	400
Chlordane	ND< 1.00	30.0
Endrin	ND< 1.00	20.0
Heptachlor	ND< 1.00	8.00
Heptachlor Epoxide	ND< 1.00	8.00
Methoxychlor	ND< 1.00	10000
Toxaphene	ND< 50.0	500

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2303

N/A

Lab Sample Number: 7427

Field Location:

Client Job Number:

B-1 (0-12') Date Sampled:

06/26/2009

Field ID Number:

N/A Date Received:

06/29/2009

Sample Type:

Soil

Date Analyzed:

07/06/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	1,750	Dibenz (a,h) anthracene	2,910
Anthracene	8,220	Fluoranthene	31,900
Benzo (a) anthracene	14,700	Fluorene	4,160
Benzo (a) pyrene	11,600	Indeno (1,2,3-cd) pyrene	7,060
Benzo (b) fluoranthene	10,600	Naphthalene	2,070
Benzo (g,h,i) perylene	6,050	Phenanthrene	22,200
Benzo (k) fluoranthene	11,300	Pyrene	21,800
Chrysene	13,000	Acenaphthylene	1,980
Diethyl phthalate	ND< 1,720	1,2-Dichlorobenzene	ND< 1,720
Dimethyl phthalate	ND< 4,300	1,3-Dichlorobenzene	ND< 1,720
Butylbenzylphthalate	ND< 1,720	1,4-Dichlorobenzene	ND< 1,720
Di-n-butyl phthalate	ND< 1,720	1,2,4-Trichlorobenzene	ND< 1,720
Di-n-octylphthalate	ND< 1,720	Nitrobenzene	ND< 1,720
Bis (2-ethylhexyl) phthalate	ND< 1,720	2,4-Dinitrotoluene	ND< 1,720
2-Chloronaphthalene	ND< 1,720	2,6-Dinitrotoluene	ND< 1,720
Hexachlorobenzene	ND< 1,720	Bis (2-chloroethyl) ether	ND< 1,720
Hexachloroethane	ND< 1,720	Bis (2-chloroisopropyl) ether	ND< 1,720
Hexachlorocyclopentadiene	ND< 1,720	Bis (2-chloroethoxy) methan	ND< 1,720
Hexachlorobutadiene	ND< 1,720	4-Bromophenyl phenyl ether	ND< 1,720
N-Nitroso-di-n-propylamine	ND< 1,720	4-Chlorophenyl phenyl ether	ND< 1,720
N-Nitrosodiphenylamine	ND< 1,720	Benzidine	ND< 4,300
N-Nitrosodimethylamine	ND< 1,720	3,3'-Dichlorobenzidine	ND< 1,720
Isophorone	ND< 1,720	4-Chloroaniline	ND< 1,720
Benzyl alcohol	ND< 4,300	2-Nitroaniline	ND< 4,300
Dibenzofuran	2,670	3-Nitroaniline	ND< 4,300
2-Methylnapthalene	ND< 1,720	4-Nitroaniline	ND< 4,300

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 1,720	2-Methylphenol	ND< 1,720
2-Chlorophenol	ND< 1,720	3&4-Methylphenol	ND< 1,720
2,4-Dichlorophenol	ND< 1,720	2,4-Dimethylphenol	ND< 1,720
2,6-Dichlorophenol	ND< 1,720	2-Nitrophenol	ND< 1,720
2,4,5-Trichlorophenol	ND< 4,300	4-Nitrophenol	ND< 4,300
2,4,6-Trichlorophenol	ND< 1,720	2,4-Dinitrophenol	ND< 4,300
Pentachlorophenol	ND< 4,300	4,6-Dinitro-2-methylphenol	ND< 4,300
4-Chloro-3-methylphenol	ND< 1,720	Benzoic acid	ND< 4,300

ELAP Number 10958

Method: EPA 8270C

Data File: S46016.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

092303S1.XLS



Semi-Volatile Analysis Report for TCLP Extract

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2303

Lab Sample Number: 7427

Client Job Number:

N/A

B-1 (0-12')

Date Sampled:

06/26/2009

Field Location: Field ID Number:

Date Received:

N/A

06/29/2009

Sample Type:

TCLP Extract

Date Analyzed:

07/01/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pvridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000

ELAP Number 10958

Method: EPA 8270C

Data File: S45960.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Volatile Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud site

Lab Project Number: 09-2303

Lab Sample Number: 7427

Client Job Number:

N/A

Date Sampled:

06/26/2009

Field Location: Field ID Number:

B-1 (0-12') N/A

Date Received:

06/29/2009

Sample Type:

Soil

Date Analyzed:

07/02/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 10.5
Bromomethane	ND< 10.5
Bromoform	ND< 26.2
Carbon Tetrachloride	ND< 26.2
Chloroethane	ND< 10.5
Chloromethane	ND< 10.5
2-Chloroethyl vinyl Ether	ND< 52.4
Chloroform	ND< 10.5
Dibromochloromethane	ND< 10.5
1,1-Dichloroethane	ND< 10.5
1,2-Dichloroethane	ND< 10.5
1,1-Dichloroethene	ND< 10.5
cis-1,2-Dichloroethene	ND< 10.5

Aromatics	Results in ug / Kg
Benzene	ND< 10.5
Chlorobenzene	ND< 10.5
Ethylbenzene	ND< 10.5
Toluene	ND< 10.5
m,p-Xylene	ND< 10.5
o-Xylene	ND< 10.5
Styrene	ND< 26.2
1,2-Dichlorobenzene	ND< 26.2
1,3-Dichlorobenzene	ND< 26.2
1,4-Dichlorobenzene	ND< 10.5

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ND< 10.5

ND< 10.5

ND< 10.5

ND< 10.5 ND< 26.2

ND< 10.5

ND< 10.5

ND< 10.5

ND< 10.5

ND< 10.5 ND< 10.5

ND< 10.5

Ketones	Results in ug / Kg
Acetone	ND< 52.4
2-Butanone	ND< 52.4
2-Hexanone	ND< 26.2
4-Methyl-2-pentanone	ND< 26.2

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 10.5
Vinyl acetate	ND< 26.2
•	

ELAP Number 10958

trans-1,2-Dichloroethene 1,2-Dichloropropane

cis-1,3-Dichloropropene

Methylene chloride 1,1,2,2-Tetrachloroethane

Tetrachloroethene

Trichloroethene

Vinyl chloride

1.1.1-Trichloroethane

1,1,2-Trichloroethane

Trichlorofluoromethane

trans-1,3-Dichloropropene

Method: EPA 8260B

Data File: V66819.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)

Client: SJB Services

Client Job Site:

Buffalo Aud site

Lab Project Number: 09-2303

Client Job Number:

N/A

Lab Sample Number: 7427

Date Sampled:

06/26/2009

Field Location: Field ID Number: B-1 (0-12') N/A

Date Received:

06/29/2009

Sample Type:

Soil

Date Analyzed:

07/02/2009

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	ND< 52.4	1,2,4-Trimethylbenzene	11.1
sec-Butylbenzene	ND< 10.5	1,3,5-Trimethylbenzene	ND< 10.5
tert-Butylbenzene	ND< 26.2		
n-Propylbenzene	ND< 10.5	Miscellaneous	
Isopropylbenzene	ND< 52.4	Methyl tert-butyl Ether	ND< 10.5
p-Isopropyltoluene	ND< 52.4	•	
Naphthalene	377		

ELAP Number 10958 Method: EPA 8260B Data File: V66819.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Volatile Analysis Report for TCLP Extract

Client: SJB Service

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2303

Lab Sample Number: 7427

Client Job Number: N/A

B-1 (0-12')

Date Sampled:

06/26/2009

Field Location: Field ID Number:

N/A

Date Received:

06/29/2009

Sample Type:

TCLP Extract

Date Analyzed:

07/01/2009

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 7.00	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

ELAP Number 10958 Method: EPA 8260B Data File: V66782.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:

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ENVIRONMENTAL	REPORT TO:	INVOICE TO:	
SERVICES, INC.	COMPANYS JR SAVES	COMPANY: SAME	LAB PROJECT #: CLIENT PROJECT #:
179 Lake Avenue	ADDRESS: S1675034 PC		
Hochester, NY 14608 (585) 647-2530 • (800) 724-1997 EAY: /585) 647-2311	CITY: HEMOONE STATE: NY	CITY: STATE:	ZIP: TURNAROUND TIME: (WORKING DAYS)
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162609 0500 X	B-1 (O-121)		TCL "Labeled "Boxto 7427
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Analytical Report Cover Page

SJB Services

For Lab Project # 09-2255 Issued July 13, 2009 This report contains a total of 18 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

[&]quot;ND" = analyzed for but not detected.

[&]quot;E" = Result has been estimated, calibration limit exceeded.

[&]quot;D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

[&]quot;M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

[&]quot;B" = Method blank contained trace levels of analyte. Refer to included method blank report.



pH Analysis Report

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number:

09-2255

Client Job Number:

N/A

Date Sampled:

06/22/2009

Time Sampled:

10:40 AM

Date Received:

06/25/2009

Sample Type:

Soil

Time Received: Date Analyzed:

10:50 AM

Location: Laboratory

06/25/2009

Time Analyzed:

1:00 PM

Lab Sample Number	Field Number	Field Location	Result (pH)
7287	N/A	B-2 (0-24')	9.08
,			

ELAP Number 10958

Method: EPA 9045C

Comments:

Signature:



Flashpoint by Pensky-Martin Analysis Report

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number:

09-2255

Client Job Number:

N/A

Date Sampled:

06/22/2009 06/25/2009

Sample Type:

Soil

Date Received: Date Analyzed:

06/25/2009

Lab Sample Number	Field Number	Field Location	Result (°C)
7287	N/A	B-2 (0-24')	>70

ELAP Number 10958

Method: SW846 1010

Comments:

°C = degrees Centigrade

Signature:



Paint Filter Analysis Report

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number:

09-2255

Client Job Number:

N/A

Date Sampled:

06/22/2009

Date Received:

06/25/2009

Sample Type:

Soil

Date Analyzed:

06/25/2009

Lab Sample Number	Field Number	Field Location	Result
7287	N/A	B-2 (0-24')	Pass (No free liquid)

ELAP Number 10958

Method: SW846 9095

Comments:

Signature:



Client:

SJB Services

Lab Project No.:

09-2255

Client Job Site:

Buffalo Aud Site

Lab Sample No.: 7287

Client Job No.:

N/A

Soil

Field Location:

B-2 (0-24')

Date Sampled:

Sample Type:

06/22/2009

Field ID No.:

N/A

Date Received: 06

06/25/2009

Laboratory Report for TAL Metals Analysis in Solid

Parameter	Date Analyzed	Analytical	Result (mg/kg)
		Method	
Aluminum	06/29/2009	SW846 6010	6430
Antimony	06/29/2009	SW846 6010	<5.67
Arsenic	06/29/2009	SW846 6010	6.76
Barium	06/29/2009	SW846 6010	111
Beryllium	06/29/2009	SW846 6010	<0.472
Cadmium	06/29/2009	SW846 6010	<0.472
Calcium	07/01/2009	SW846 6010	55500
Chromium	06/29/2009	SW846 6010	10.4
Cobalt	06/29/2009	SW846 6010	4.49
Copper	06/29/2009	SW846 6010	38.9
Iron	06/29/2009	SW846 6010	14600
Lead	06/29/2009	SW846 6010	144
Magnesium	06/29/2009	SW846 6010	10800
Manganese	06/29/2009	SW846 6010	243
Mercury	06/30/2009	SW846 7471	0.377
Nickel	06/29/2009	SW846 6010	10.4
Potassium	06/29/2009	SW846 6010	1140
Selenium	06/29/2009	SW846 6010	<0.472
Silver	06/29/2009	SW846 6010	<0.945
Sodium	07/01/2009	SW846 6010	236
Thallium	06/29/2009	SW846 6010	<0.567
Vanadium	06/29/2009	SW846 6010	16.8
Zinc	06/29/2009	SW846 6010	115

ELAP ID No.:10958

Comments:

Approved By:



Client:

SJB Services

Lab Project No.: Lab Sample No.: 09-2255 7287

Client Job Site:

Buffalo Aud Site

Sample Type:

TCLP Extract

Client Job No.:

N/A

Field Location:

B-2 (0-24')

Date Sampled: Date Received:

06/22/2009 06/25/2009

Field ID No.:

N/A

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	06/30/2009	EPA 6010	<0.100	5.0
Barium	06/30/2009	EPA 6010	1.27	100.0
Cadmium	06/30/2009	EPA 6010	<0.025	1.0
Chromium	06/30/2009	EPA 6010	<0.050	5.0
Lead	06/30/2009	EPA 6010	<0.100	5.0
Mercury	06/26/2009	EPA 7470	<0.0020	0.2
Selenium	06/30/2009	EPA 6010	<0.100	1.0
Silver	06/30/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:	The laboratory	control spike	e and spike	duplicate	percent	difference	was outsic	le QC	limits
for Ba									

Approved By:



Client:

SJB Services

Lab Project No.: Lab Sample No.:

09-2255

Client Job Site:

Buffalo Aud Site

Client Job No.:

N/A

Sample Type:

Soil

7287

Field Location:

B-2 (0-24')

Date Sampled:

6/22/2009

Date Received:

6/25/2009

Laboratory Report for Reactivity

Parameter	Date Analyzed	Analytical Method	Results (mg/kg)
Cyanide Reactivity	6/30/2009	SW846, 7.3.3.2	ND<1.0
Sulfide Reactivity	6/30/2009	SW846, 7.3.4.2	16

ELAP ID. No.: 10709

Comments:

ND denotes Non Detect.

Hazardous Waste Regulatory Levels for Reactivity are as follows:

Sulfide - 500 mg/kg, Cyanide - 250 mg/kg.

Approved By Technical Director:

Bruce Hoogesteger

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with sample condition requirements upon receipt.

File ID: SJB 09-2255



Client:

SJB Services

Lab Project No:

09-2255

Client Job Site:

Buffalo Aud. Site

Lab Sample No: Sample Type:

7287 Soil

Client Job No:

N/A

Date Sampled:

6/22/2009

Field Location:

B-2 (0-24')

Date Received: Date Analyzed:

6/25/2009 7/10/2009

Laboratory Report for Herbicides Analysis

Parameter	Result (ug/kg)	Reporting Limit (ug/kg)
2,4-D	ND	200
Dinoseb	ND	200
Dicamba	ND	200
2,4,5-T	ND	200
2,4,5-TP (Silvex)	ND	200

Analytical Method: SW 8151A

ELAP ID: 10709

Comments:

ND denotes Non Detect.

Approved By Technical Director:

Bruce Høogesteger

File ID: SJB 09-2255



Client:

SJB Services

Lab Project No:

09-2255 7287

Client Job Site:

Buffalo Aud. Site

Lab Sample No: Sample Type:

TCLP Extract

Client Job No:

N/A

Date Sampled:

6/22/2009

Field Location:

B-2 (0-24')

Date Received: Date Analyzed:

6/25/2009 7/8/2009

Herbicide Analysis Report for TCLP Extract

Parameter	Result (mg/L)	Regulatory Limit (mg/L)
2,4,5-TP (Silvex)	ND<0.05	1.0
2,4-D	ND<0.50	10.0

Analytical Method: SW1311/8151

ELAP ID: 10709

Comments:

ND denotes Non Detect.

Approved By Technical Director:

Bruce Hoogestege



PCB Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2255

Client Job Number:

N/A

Lab Sample Number: 7287

Field Location:

B-2 (0-24')

Date Sampled:

06/22/2009

Field ID Number: Sample Type:

N/A Soil **Date Received:**

06/25/2009

Date Analyzed:

06/25/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.335
Aroclor 1221	ND< 0.335
Aroclor 1232	ND< 0.335
Aroclor 1242	ND< 0.335
Aroclor 1248	ND< 0.335
Aroclor 1254	ND< 0.335
Aroclor 1260	ND< 0.335

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect mg / Kg = milligram per Kilogram

Signature:



Pesticide Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2255

Lab Sample Number: 7287

Client Job Number:

N/A

B-2 (0-24')

Date Sampled:

06/22/2009

Field Location: Field ID Number:

Sample Type:

N/A Soil Date Received:

06/25/2009

Date Analyzed:

06/29/2009

Pesticide Identification	Results in ug / Kg
Aldrin	ND< 3.25
alpha-BHC	ND< 3.25
beta-BHC	ND< 3.25
delta-BHC	ND< 3.25
gamma-BHC	ND< 3.25
alpha-Chlordane	ND< 3.25
gamma-Chlordane	ND< 3.25
4,4'-DDD	ND< 3.25
4,4'-DDE	ND< 3.25
4,4'-DDT	ND< 3.25
Dieldrin	ND< 3.25
Endosulfan I	ND< 3.25
Endosulfan II	ND< 3.25
Endosulfan Sulfate	ND< 3.25
Endrin	ND< 3.25
Endrin Aldehyde	ND< 3.25
Heptachlor	ND< 3.25
Heptachlor Epoxide	ND< 3.25
Methoxychlor	ND< 3.25
Toxaphene	ND< 162

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Pesticide Analysis Report for TCLP Extract

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2255

Client Job Number: N/A

Lab Sample Number: 7287

Field Location:

B-2 (0-24')

Date Sampled:

06/22/2009 06/25/2009

Field ID Number:

N/A

Date Received:

TCLP Extract Sample Type:

Date Analyzed:

06/30/2009

Pesticide Identification	Results in ug / L	Regulatory Limits in ug / L
gamma-BHC	ND< 1.00	400
Chlordane	ND< 1.00	30.0
Endrin	ND< 1.00	20.0
Heptachlor	ND< 1.00	8.00
Heptachlor Epoxide	ND< 1.00	8.00
Methoxychlor	ND< 1.00	10000
Toxaphene	ND< 50.0	500

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2255

Lab Sample Number: 7287

Client Job Number:

N/A

Date Sampled:

06/22/2009 06/25/2009

Field Location: Field ID Number: B-2 (0-24') N/A

Date Received:

Sample Type:

Soil

Date Analyzed:

06/30/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	2,750	Dibenz (a,h) anthracene	ND< 1,610
Anthracene	6,010	Fluoranthene	19,100
Benzo (a) anthracene	8,240	Fluorene	2,700
Benzo (a) pyrene	6,840	Indeno (1,2,3-cd) pyrene	3,490
Benzo (b) fluoranthene	5,710	Naphthalene	2,160
Benzo (g,h,i) perylene	3,780	Phenanthrene	16,600
Benzo (k) fluoranthene	5,510	Pyrene	14,600
Chrysene	7,350	Acenaphthylene	ND< 1,610
Diethyl phthalate	ND< 1,610	1,2-Dichlorobenzene	ND< 1,610
Dimethyl phthalate	ND< 4,040	1,3-Dichlorobenzene	ND< 1,610
Butylbenzylphthalate	ND< 1,610	1,4-Dichlorobenzene	ND< 1,610
Di-n-butyl phthalate	ND< 1,610	1,2,4-Trichlorobenzene	ND< 1,610
Di-n-octylphthalate	ND< 1,610	Nitrobenzene	ND< 1,610
Bis (2-ethylhexyl) phthalate	ND< 1,610	2,4-Dinitrotoluene	ND< 1,610
2-Chloronaphthalene	ND< 1,610	2,6-Dinitrotoluene	ND< 1,610
Hexachlorobenzene	ND< 1,610	Bis (2-chloroethyl) ether	ND< 1,610
Hexachloroethane	ND< 1,610	Bis (2-chloroisopropyl) ether	ND< 1,610
Hexachlorocyclopentadiene	ND< 1,610	Bis (2-chloroethoxy) methan	ND< 1,610
Hexachlorobutadiene	ND< 1,610	4-Bromophenyl phenyl ether	ND< 1,610
N-Nitroso-di-n-propylamine	ND< 1,610	4-Chlorophenyl phenyl ether	ND< 1,610
N-Nitrosodiphenylamine	ND< 1,610	Benzidine	ND< 4,040
N-Nitrosodimethylamine	ND< 1,610	3,3'-Dichlorobenzidine	ND< 1,610
Isophorone	ND< 1,610	4-Chloroaniline	ND< 1,610
Benzyl alcohol	ND< 4,040	2-Nitroaniline	ND< 4,040
Dibenzofuran	1,940	3-Nitroaniline	ND< 4,040
2-Methylnapthalene	ND< 1,610	4-Nitroaniline	ND< 4,040

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 1,610	2-Methylphenol	ND< 1,610
2-Chlorophenol	ND< 1,610	3&4-Methylphenol	ND< 1,610
2,4-Dichlorophenol	ND< 1,610	2,4-Dimethylphenol	ND< 1,610
2,6-Dichlorophenol	ND< 1,610	2-Nitrophenol	ND< 1,610
2,4,5-Trichlorophenol	ND< 4,040	4-Nitrophenol	ND< 4,040
2,4,6-Trichlorophenol	ND< 1,610	2,4-Dinitrophenol	ND< 4,040
Pentachlorophenol	ND< 4,040	4,6-Dinitro-2-methylphenol	ND< 4,040
4-Chloro-3-methylphenol	ND< 1,610	Benzoic acid	ND< 4,040

ELAP Number 10958

Method: EPA 8270C

Data File: S45933.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition 092255S1.XLS requirements upon receipt.



Semi-Volatile Analysis Report for TCLP Extract

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2255

Client Job Number: N/A

Lab Sample Number: 7287

Field Location:

B-2 (0-24')

Date Sampled:

06/22/2009

Field ID Number:

N/A

Date Received:

06/25/2009

Sample Type:

TCLP Extract

Date Analyzed:

06/25/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2.4.5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000

ELAP Number 10958

Method: EPA 8270C

Data File: S45909.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Volatile Analysis Report for TCLP Extract

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2255

Lab Sample Number: 7287

Client Job Number:

N/A

Field Location:

B-2 (0-24')

Date Sampled:

06/22/2009

Field ID Number:

N/A

Date Received:

06/25/2009

Sample Type:

TCLP Extract

Date Analyzed:

06/29/2009

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 20.0	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinvl chloride	ND< 20.0	200

ELAP Number 10958

Method: EPA 8260B

Data File: V66722.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Volatile Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2255

Client Job Number:

N/A

Lab Sample Number: 7287

Field Location:

B-2 (0-24')

Date Sampled: Date Received:

Aromatics

Chlorobenzene

Ethylbenzene

Benzene

Toluene

m,p-Xylene

06/22/2009 06/25/2009

Field ID Number: Sample Type:

Dibromochloromethane

1,1-Dichloroethane 1,2-Dichloroethane

1,1-Dichloroethene

cis-1,2-Dichloroethene trans-1,2-Dichloroethene

1,2-Dichloropropane

Methylene chloride 1,1,2,2-Tetrachloroethane

Tetrachloroethene 1.1.1-Trichloroethane

Trichloroethene

Vinyl chloride

1,1,2-Trichloroethane

Trichlorofluoromethane

cis-1,3-Dichloropropene trans-1,3-Dichloropropene

N/A Soil

Date Analyzed:

06/30/2009

Results in ug / Kg

ND< 8.69

ND< 8.69

ND< 8.69

ND< 8.69

ND< 8.69

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 8.69
Bromomethane	ND< 8.69
Bromoform	ND< 21.7
Carbon Tetrachloride	ND< 21.7
Chloroethane	ND< 8.69
Chloromethane	ND< 8.69
2-Chloroethyl vinyl Ether	ND< 43.5
Chloroform	ND< 8.69

110 - 0.00	
ND< 8.69	
ND< 21.7	
ND< 21.7	
ND< 8.69	
ND< 8.69	
ND< 43.5	
ND< 8.69	

ND< 8.69

ND< 8.69 ND< 8.69

ND< 8.69

ND< 8.69 ND< 21.7

ND< 8.69 ND< 8.69

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o-Xylene	ND< 8.69
Styrene	ND< 21.7
1,2-Dichlorobenzene	ND< 21.7
1,3-Dichlorobenzene	ND< 21.7
1,4-Dichlorobenzene	ND< 8.69
Ketones	Results in ug / Kg
Acatono	ND< 43.5

Ketones	Results in ug / Kg
Acetone	ND< 43.5
2-Butanone	ND< 43.5
2-Hexanone	ND< 21.7
4-Methyl-2-pentanone	ND< 21.7

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 8.69
Vinyl acetate	ND< 21.7

ELAP Number 10958

Method: EPA 8260B

Data File: V66751.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2255

Client Job Number: N/A

Lab Sample Number: 7287

Field Location:

B-2 (0-24') N/A

Date Sampled: Date Received: 06/22/2009 06/25/2009

Field ID Number: Sample Type:

Soil

Date Analyzed:

06/30/2009

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	ND< 43.5	1,2,4-Trimethylbenzene	ND< 8.69
sec-Butylbenzene	ND< 8.69	1,3,5-Trimethylbenzene	ND< 8.69
tert-Butylbenzene	ND< 21.7		
n-Propylbenzene	ND< 8.69	Miscellaneous	
Isopropylbenzene	ND< 43.5	Methyl tert-butyl Ether	ND< 8.69
p-Isopropyltoluene	ND< 43.5		

Naphthalene ELAP Number 10958

Method: EPA 8260B

177

Data File: V66751.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:

PARADIGM

CHAIN OF CUSTODY

Comments: Temperature:	Holding Time:	Preservation:	Container Type:	Receipt Parameter	Sample Condition: Per NELAC/ELAP 210/241/242/243/244	**LAB USE ONLY BELOW THIS LINE**		0 1-9/K-0	8 Am Questons 7	7	6	OT .	4	ω	2 + ×	162205 1040 X	DATE TIME P		TUFFELLO AND STREET		(585) 647-2530 • (800) 724-1997 FAX: (585) 647-3311		SERVICES, INC.
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7 1050	/4: 1/5 PLE	14145 Total Cost:	UZY09					•	· Harbicides	· Hestwider U	" TALMetels + Ha	"TCL SYCS	YOUS+ MTBE	· TCL YOUS + STARS	Total Anchysis;	Til " Labeled" Bothles		J/1042804	1 2 3	1	ZIP: TURNAROUND TIME: (WORKING DAYS)	09.2255	
																728	PARADIGM LAB SAMPLE NUMBER SAMPLE NUMBER	.809		STD OTHE	ING DAYS)		CLIENT PROJECT #:



Analytical Report Cover Page

SJB Services

For Lab Project # 09-2254
Issued July 13, 2009
This report contains a total of 9 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

[&]quot;ND" = analyzed for but not detected.

[&]quot;E" = Result has been estimated, calibration limit exceeded.

[&]quot;D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

[&]quot;M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

[&]quot;B" = Method blank contained trace levels of analyte. Refer to included method blank report.



Client: SJB Services Lab Project No.: 09-2254

Lab Sample No.: 7286

Client Job Site: Buffalo Aud Site Sample Type: Soil

Client Job No.: N/A

 Field Location:
 B-3A (0-24')
 Date Sampled:
 06/23/2009

 Date Received:
 06/25/2009

Field ID No.: N/A

Laboratory Report for TAL Metals Analysis in Solid

Parameter	Date Analyzed	Analytical	Result (mg/kg)				
		Method					
Aluminum	06/29/2009	SW846 6010	7250				
Antimony	06/29/2009	SW846 6010	<6.11				
Arsenic	06/29/2009	SW846 6010	5.87				
Barium	06/29/2009	SW846 6010	76.8				
Beryllium	06/29/2009	SW846 6010	<0.509				
Cadmium	06/29/2009	SW846 6010	<0.509				
Calcium	06/29/2009	SW846 6010	46300				
Chromium	06/29/2009	SW846 6010	11.1				
Cobalt	06/29/2009	SW846 6010	5.43				
Copper	06/29/2009	SW846 6010	28.4				
Iron	06/29/2009	SW846 6010	13500				
Lead	06/29/2009	SW846 6010	133				
Magnesium	06/29/2009	SW846 6010	14000				
Manganese	06/29/2009	SW846 6010	307				
Mercury	06/26/2009	SW846 7471	0.0121				
Nickel	06/29/2009	SW846 6010	13.8				
Potassium	06/29/2009	SW846 6010	1240				
Selenium	06/29/2009	SW846 6010	0.734				
Silver	06/29/2009	SW846 6010	<1.02				
Sodium	07/01/2009	SW846 6010	430				
Thallium	06/29/2009	SW846 6010	<0.611				
Vanadium	06/29/2009	SW846 6010	17.6				
Zinc	06/29/2009	SW846 6010	119				

ELAP ID No.:10958

Comments:

Annroyed By:



Client:

SJB Services

Lab Project No:

09-2254

Client Job Site:

Buffalo Aud. Site

Lab Sample No: Sample Type:

7286 Soil

Client Job No:

N/A

Date Sampled:

6/23/2009

Field Location:

B-3A (0-24')

Date Received: Date Analyzed:

6/25/2009 7/10/2009

Laboratory Report for Herbicides Analysis

Parameter	Result (ug/kg)	Reporting Limit (ug/kg)
2,4-D	ND	200
Dinoseb	ND	200
Dicamba	ND	200
2,4,5-T	ND	200
2,4,5-TP (Silvex)	ND	200

Analytical Method: SW 8151A

ELAP ID: 10709

Comments:

ND denotes Non Detect.

Approved By Technical Director:

Bruce Hoogesteger

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

File ID: SJB 09-2254



PCB Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2254

Lab Sample Number: 7286

Client Job Number: N/A

Date Sampled:

06/23/2009

Field Location: Field ID Number: B-3A (0-24') N/A

Date Received:

06/25/2009

Sample Type:

Soil

Date Analyzed:

06/25/2009

PCB Identification	Results in mg / Kg	
Aroclor 1016	ND< 0.343	
Aroclor 1221	ND< 0.343	
Aroclor 1232	ND< 0.343	
Aroclor 1242	ND< 0.343	
Aroclor 1248	ND< 0.343	
Aroclor 1254	ND< 0.343	
Aroclor 1260	ND< 0.343	

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect mg / Kg = milligram per Kilogram

Signature:



Pesticide Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2254

Client Job Number: N/A

Lab Sample Number: 7286

Field Location: Field ID Number: B-3A (0-24') Date Sampled: Date Received: 06/23/2009 06/25/2009

Sample Type:

N/A Soil

Date Analyzed:

06/29/2009

Destiside Identification	Poculte in ua / Ka	
Pesticide Identification	Results in ug / Kg	
Aldrin	ND< 3.33	
alpha-BHC	ND< 3.33	
beta-BHC	13.9	
delta-BHC	ND< 3.33	
gamma-BHC	4.40	
alpha-Chlordane	ND< 3.33	
gamma-Chlordane	ND< 3.33	
4,4'-DDD	ND< 3.33	
4,4'-DDE	ND< 3.33	
4,4'-DDT	ND< 3.33	
Dieldrin	ND< 3.33	
Endosulfan I	ND< 3.33	
Endosulfan II	ND< 3.33	
Endosulfan Sulfate	ND< 3.33	
Endrin	ND< 3.33	
Endrin Aldehyde	ND< 3.33	
Heptachlor	ND< 3.33	
Heptachlor Epoxide	ND< 3.33	
Methoxychlor	ND< 3.33	
Toxaphene	ND< 167	

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2254

Lab Sample Number: 7286

Client Job Number: N/A

Field Location:

B-3A (0-24')

Field ID Number: Sample Type:

N/A

Soil

Date Sampled: Date Received: 06/23/2009 06/25/2009

Date Analyzed:

06/29/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 332	Dibenz (a,h) anthracene	ND< 332
Anthracene	ND< 332	Fluoranthene	345
Benzo (a) anthracene	ND< 332	Fluorene	ND< 332
Benzo (a) pyrene	ND< 332	Indeno (1,2,3-cd) pyrene	ND< 332
Benzo (b) fluoranthene	ND< 332	Naphthalene	ND< 332
Benzo (g,h,i) perylene	ND< 332	Phenanthrene	ND< 332
Benzo (k) fluoranthene	ND< 332	Pyrene	ND< 332
Chrysene	ND< 332	Acenaphthylene	ND< 332
Diethyl phthalate	ND< 332	1,2-Dichlorobenzene	ND< 332
Dimethyl phthalate	ND< 831	1,3-Dichlorobenzene	ND< 332
Butylbenzylphthalate	ND< 332	1,4-Dichlorobenzene	ND< 332
Di-n-butyl phthalate	ND< 332	1,2,4-Trichlorobenzene	ND< 332
Di-n-octylphthalate	ND< 332	Nitrobenzene	ND< 332
Bis (2-ethylhexyl) phthalate	ND< 332	2,4-Dinitrotoluene	ND< 332
2-Chloronaphthalene	ND< 332	2,6-Dinitrotoluene	ND< 332
Hexachlorobenzene	ND< 332	Bis (2-chloroethyl) ether	ND< 332
Hexachloroethane	ND< 332	Bis (2-chloroisopropyl) ether	ND< 332
Hexachlorocyclopentadiene	ND< 332	Bis (2-chloroethoxy) methan	ND< 332
Hexachlorobutadiene	ND< 332	4-Bromophenyl phenyl ether	ND< 332
N-Nitroso-di-n-propylamine	ND< 332	4-Chlorophenyl phenyl ether	ND< 332
N-Nitrosodiphenylamine	ND< 332	Benzidine	ND< 831
N-Nitrosodimethylamine	ND< 332	3,3'-Dichlorobenzidine	ND< 332
Isophorone	ND< 332	4-Chloroaniline	ND< 332
Benzyl alcohol	ND< 831	2-Nitroaniline	ND< 831
Dibenzofuran	ND< 332	3-Nitroaniline	ND< 831
2-Methylnapthalene	ND< 332	4-Nitroaniline	ND< 831

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 332	2-Methylphenol	ND< 332
2-Chlorophenol	ND< 332	3&4-Methylphenol	ND< 332
2,4-Dichlorophenol	ND< 332	2,4-Dimethylphenol	ND< 332
2,6-Dichlorophenol	ND< 332	2-Nitrophenol	ND< 332
2,4,5-Trichlorophenol	ND< 831	4-Nitrophenol	ND< 831
2,4,6-Trichlorophenol	ND< 332	2,4-Dinitrophenol	ND< 831
Pentachlorophenol	ND< 831	4,6-Dinitro-2-methylphenol	ND< 831
4-Chloro-3-methylphenol	ND< 332	Benzoic acid	ND< 831

ELAP Number 10958 Method: EPA 8270C Data File: S45920.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Volatile Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Field Location:

Sample Type:

Buffalo Aud Site

Lab Project Number: 09-2254

Lab Sample Number: 7286

Client Job Number:

N/A

B-3A (0-24')

Field ID Number:

N/A Soil **Date Sampled:**

06/23/2009 06/25/2009

Date Received:

Date Analyzed:

06/29/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 9.28
Bromomethane	ND< 9.28
Bromoform	ND< 23.2
Carbon Tetrachloride	ND< 23.2
Chloroethane	ND< 9.28
Chloromethane	ND< 9.28
2-Chloroethyl vinyl Ether	ND< 46.4
Chloroform	ND< 9.28
Dibromochloromethane	ND< 9.28
1,1-Dichloroethane	ND< 9.28
1,2-Dichloroethane	ND< 9.28
1,1-Dichloroethene	ND< 9.28
cis-1,2-Dichloroethene	ND< 9.28
trans-1,2-Dichloroethene	ND< 9.28
1,2-Dichloropropane	ND< 9.28
cis-1,3-Dichloropropene	ND< 9.28
trans-1,3-Dichloropropene	ND< 9.28
Methylene chloride	ND< 23.2
1,1,2,2-Tetrachloroethane	ND< 9.28
Tetrachloroethene	ND< 9.28
1,1,1-Trichloroethane	ND< 9.28
1,1,2-Trichloroethane	ND< 9.28
Trichloroethene	ND< 9.28
Trichlorofluoromethane	ND< 9.28
Vinyl chloride	ND< 9.28
ELAD Number 10050	Motho

Aromatics	Results in ug / Kg
Benzene	ND< 9.28
Chlorobenzene	ND< 9.28
Ethylbenzene	ND< 9.28
Toluene	ND< 9.28
m,p-Xylene	ND< 9.28
o-Xylene	ND< 9.28
Styrene	ND< 23.2
1,2-Dichlorobenzene	ND< 23.2
1,3-Dichlorobenzene	ND< 23.2
1,4-Dichlorobenzene	ND< 9.28

Ketones	Results in ug / Kg
Acetone	ND< 46.4
2-Butanone	ND< 46.4
2-Hexanone	ND< 23.2
4-Methyl-2-pentanone	ND< 23.2

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 9.28
Vinyl acetate	ND< 23.2

ELAP Number 10958

Method: EPA 8260B

Data File: V66743.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2254

Client Job Number:

N/A

Lab Sample Number: 7286

Field Location:

B-3A (0-24')

Date Sampled: Date Received: 06/23/2009

Field ID Number: Sample Type:

N/A Soil

06/25/2009

Date Analyzed:

06/29/2009

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	ND< 46.4	1,2,4-Trimethylbenzene	ND< 9.28
sec-Butylbenzene	ND< 9.28	1,3,5-Trimethylbenzene	ND< 9.28
tert-Butylbenzene	ND< 23.2		
n-Propylbenzene	ND< 9.28	Miscellaneous	
Isopropylbenzene	ND< 46.4	Methyl tert-butyl Ether	ND< 9.28
p-Isopropyltoluene	ND< 46.4	7 (197	
Naphthalene	ND< 23.2		

ELAP Number 10958

Method: EPA 8260B

Data File: V66743.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition 092254V1.XLS requirements upon receipt.

PARADIGM

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ENVIRONMENTAL		REPORT TO:		INVOICE TO:		
SERVICES, INC.	COMPANY	Sannes	COMPANY:			CLIENT PROJECT #:
179 Lake Avenue	ADDRESS:	JOSO # POKE	OC ADDRESS:		09.2254	
Rochester, NY 14608 (585) 647-2530 • (800) 724-1997 FAX: (585) 647-3311	F S	STATE:	ZIP: CITY:	STATE:	ZIP: TURNAROUND TIME: (WORKING DAYS)	ING DAYS)
FAX: (585) 647-3311	PHONE:	G FAX:	PHONE:	FAX:		STD OTHER
PROJECT NAME/SITE NAME:	ATTN: Da	Dave Steiner	ATTN:		1 2 3	5
B. Alo Adsite	COMMENTS:	F	To dste	@s1bea	S-COM QUOTE #: /	96
4		•		ESTED ANALYSIS		
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DATE TIME O S I	ω > π	SAMPLE LOCATION/FIELD ID	×		REMARKS	PARADIGM LAB SAMPLE NUMBER
1623.05 1455 X		B-3A (0-24)) Sal Z /		Total Analysis:	7286
N					TCLNOCS +STARS	
ω					NOCS + MTBE	
4					· TCL SNOCS	
CI					-TAL met 15 +Ha	
0					· Presticides	
7					* Herbicides	
8 Any Question	VAR	Se (511			·PCBs	
9 Daves	tener	118-549-911				
10						
LAB USE ONLY BELOW THIS LINE	THIS LII	NE**				
Sample Condition: Per NELAC/ELAP 210/241/242/243/244	P 210/241/2	242/243/244				
Receipt Parameter		NELAC Compliance	5 }			
Container Type:		z	Sample V	6·2	6 ·23·09 Date/Time	
Preservation: \mathcal{N}/\mathcal{A}	D	z	Rewnquished B	(6-24-09/	14:40 IDIAI COST.	
Holding Time:		z D	Received By	6-24-69 Date	Date/Time PIE	
Temperature:	Ced	z X	1) Clipabeth a	a. Hon ch 6/25	0401	



Analytical Report Cover Page

SJB Services

For Lab Project # 09-2283
Issued July 13, 2009
This report contains a total of 25 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

[&]quot;ND" = analyzed for but not detected.

[&]quot;E" = Result has been estimated, calibration limit exceeded.

[&]quot;D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

[&]quot;M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

[&]quot;B" = Method blank contained trace levels of analyte. Refer to included method blank report.



Client:

SJB Services

Lab Project No.:

09-2283

Client Job Site:

Buffalo Aud Site

Sample Type:

Soil

Client Job No.: N/A

Method:

SW846 9045C

Date(s) Sampled:

06/24/2009

Date Received:

06/26/2009

Date Analyzed:

06/26/2009

Laboratory Report for pH Analysis

Lab Sample No.	Field ID No.	Field Location	pH Results (S.U.)
7371	N/A	B-5 (0-16')	8.03
			FLAD ID No. 10059

ELAP ID No.: 10958

Comments:

Approved By:

Bruce Hoogesteger, Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional sample information, including compliance with sample condition requirements upon receipt.

File ID:092283.xls



Client:

SJB Services

Lab Project No.:

09-2283

Client Job Site:

Buffalo Aud Site

Sample Type:

Soil

Client Job No.:

N/A

Method:

SW846 1010

Date(s) Sampled:

06/24/2009

Date Received:

06/26/2009

Date Analyzed:

06/30/2009

Laboratory Report for Flashpoint Analysis

Lab Sample No.	Field ID No.	Field Location	Flashpoint Results (°C)
7371	N/A	B-5 (0-16')	>70.0
	:		

ELAP ID No.: 10958

Comments:

Approved By:



Client:

SJB Services

Lab Project No.:

09-2283

Client Job Site:

Buffalo Aud Site

Sample Type:

Soil SW846 9095

Client Job No.:

N/A

Method:

Date(s) Sampled: Date Received:

06/24/2009 06/26/2009

Date Analyzed:

06/26/2009

Laboratory Report for Paint Filter Analysis

Lab Sample No.	Field ID No.	Field Location	Paint Filter Test Result (Pass/Fail)
7371	N/A	B-5 (0-16')	Pass
			ELARID No : 10058

ELAP ID No.: 10958

Comments:

Pass = No Free Liquids

Approved By:



Client:

SJB Services

Lab Project No.:

09-2283

Client Job Site:

Buffalo Aud Site

Lab Sample No.: 7371

Soil

Client Job No.:

N/A

Date Sampled:

Sample Type:

06/24/2009

Field Location:

B-5 (0-16')

Date Received:

06/26/2009

Field ID No.:

N/A

Laboratory Report for TAL Metals Analysis in Solid

Parameter	Date Analyzed	Analytical	Result (mg/kg)
		Method	
Aluminum	06/29/2009	SW846 6010	8760
Antimony	06/29/2009	SW846 6010	<5.81
Arsenic	06/29/2009	SW846 6010	5.28
Barium	06/29/2009	SW846 6010	47.9
Beryllium	06/29/2009	SW846 6010	<0.485
Cadmium	06/29/2009	SW846 6010	<0.485
Calcium	06/29/2009	SW846 6010	47100
Chromium	06/29/2009	SW846 6010	21.0
Cobalt	06/29/2009	SW846 6010	5.86
Copper	06/29/2009	SW846 6010	26.4
Iron	06/29/2009	SW846 6010	16200
Lead	06/29/2009	SW846 6010	65.6
Magnesium	06/29/2009	SW846 6010	23600
Manganese	06/29/2009	SW846 6010	366
Mercury	06/29/2009	SW846 7471	0.136
Nickel	06/29/2009	SW846 6010	17.2
Potassium	06/29/2009	SW846 6010	1810
Selenium	06/29/2009	SW846 6010	<0.485
Silver	06/29/2009	SW846 6010	<0.969
Sodium	07/01/2009	SW846 6010	126
Thallium	06/29/2009	SW846 6010	<0.581
Vanadium	06/29/2009	SW846 6010	20.1
Zinc	06/29/2009	SW846 6010	75.0

ELAP ID No.:10958

Comments:

Approved By:



Client:

SJB Services

Lab Project No.: Lab Sample No.:

09-2283

Client Job Site:

Buffalo Aud Site

Sample Type:

Soil

7372

Client Job No.:

N/A

Date Sampled:

06/24/2009

Field Location:

B-4 (0-22')

Date Received:

06/26/2009

Field ID No.:

N/A

Laboratory Report for TAL Metals Analysis in Solid

Parameter	Date Analyzed	Analytical	Result (mg/kg)
		Method	
Aluminum	06/29/2009	SW846 6010	6340
Antimony	06/29/2009	SW846 6010	<5.17
Arsenic	06/29/2009	SW846 6010	5.25
Barium	06/29/2009	SW846 6010	82.2
Beryllium	06/29/2009	SW846 6010	<0.431
Cadmium	06/29/2009	SW846 6010	<0.431
Calcium	06/29/2009	SW846 6010	42800
Chromium	06/29/2009	SW846 6010	9.42
Cobalt	06/29/2009	SW846 6010	4.45
Copper	06/29/2009	SW846 6010	21.4
Iron	06/29/2009	SW846 6010	11000
Lead	06/29/2009	SW846 6010	122
Magnesium	06/29/2009	SW846 6010	10100
Manganese	06/29/2009	SW846 6010	301
Mercury	06/29/2009	SW846 7471	0.327
Nickel	06/29/2009	SW846 6010	9.86
Potassium	06/29/2009	SW846 6010	1080
Selenium	06/29/2009	SW846 6010	<0.431
Silver	06/29/2009	SW846 6010	<0.862
Sodium	07/01/2009	SW846 6010	178
Thallium	06/29/2009	SW846 6010	<0.517
Vanadium	06/29/2009	SW846 6010	15.3
Zinc	06/29/2009	SW846 6010	94.5

ELAP ID No.:10958

Comments:

Approved By:



Client:

SJB Services

Lab Project No.:

09-2283

7371

Client Job Site:

Buffalo Aud Site

Lab Sample No.:

TCLP Extract

Client Job No.:

N/A

Field Location:

B-5 (0-16')

Date Sampled:

Sample Type:

06/24/2009

20,0

Date Received: 06/26/2009

Field ID No.:

N/A

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	06/30/2009	EPA 6010	<0.100	5.0
Barium	06/30/2009	EPA 6010	1.65	100.0
Cadmium	06/30/2009	EPA 6010	<0.025	1.0
Chromium	06/30/2009	EPA 6010	<0.050	5.0
Lead	06/30/2009	EPA 6010	<0.100	5.0
Mercury	06/30/2009	EPA 7470	<0.0020	0.2
Selenium	06/30/2009	EPA 6010	<0.100	1.0
Silver	06/30/2009	EPA 6010	<0.050	5.0
Glivei	00/00/2000			

ELAP ID No.: 10958

Comments:

The LCS and LCS duplicate percent difference was outside QC limits for barium.

Approved By:



Client:

SJB Services

Lab Project No.: Lab Sample No.:

09-2283

Client Job Site:

Buffalo Aud Site

N/A

Sample Type:

Soil

7371

Client Job No.: Field Location:

B-5 (0-16')

Date Sampled:

6/24/2009

Date Received:

6/26/2009

Laboratory Report for Reactivity

Parameter	Date Analyzed	Analytical Method	Results (mg/kg)
Cyanide Reactivity	6/30/2009	SW846, 7.3.3.2	ND<1.0
Sulfide Reactivity	6/30/2009	SW846, 7.3.4.2	16

ELAP ID. No.: 10709

Comments:

ND denotes Non Detect.

Hazardous Waste Regulatory Levels for Reactivity are as follows:

Sulfide - 500 mg/kg, Cyanide - 250 mg/kg.

Approved By Technical Director:



Client:

SJB Services

Lab Project No:

09-2283

Client Job Site:

Buffalo Aud. Site

Lab Sample No: Sample Type:

7371 Soil

Client Job No:

N/A

Date Sampled:

6/24/2009

Field Location:

B-5 (0-16')

Date Received: Date Analyzed:

6/26/2009 7/10/2009

Laboratory Report for Herbicides Analysis

Parameter	Result (ug/kg)	Reporting Limit (ug/kg)
2,4-D	ND	200
Dinoseb	ND	200
Dicamba	ND	200
2,4,5-T	ND	200
2,4,5-TP (Silvex)	ND	200

Analytical Method: SW 8151A

ELAP ID: 10709

Comments:

ND denotes Non Detect.

Approved By Technical Director:

Bruce Hoogesteger

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

File ID: SJB 09-2283



Client:

SJB Services

Lab Project No:

09-2283

Client Job Site:

Buffalo Aud. Site

Lab Sample No: Sample Type:

7372 Soil

Client Job No:

N/A

Date Sampled:

6/24/2009

Field Location:

B-4 (0-22')

Date Received: Date Analyzed:

6/26/2009 7/10/2009

Laboratory Report for Herbicides Analysis

Parameter	Result (ug/kg)	Reporting Limit (ug/kg)	
2,4-D	ND	200	
Dinoseb	ND	200	
Dicamba	ND	200	
2,4,5-T	ND	200	
2,4,5-TP (Silvex)	ND	200	

Analytical Method: SW 8151A

ELAP ID: 10709

Comments:

ND denotes Non Detect.

Approved By Technical Director:

Bruce Moogesteger

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

File ID: SJB 09-2283



Client:

SJB Services

Lab Project No:

09-2283

7371

Client Job Site:

Buffalo Aud. Site

Lab Sample No: Sample Type:

TCLP Extract

Client Job No:

N/A

Date Sampled:

6/24/2009 6/26/2009

Field Location:

B-5 (0-16')

Date Received: Date Analyzed:

7/8/2009

Herbicide Analysis Report for TCLP Extract

Parameter	Result (mg/L)	Regulatory Limit (mg/L)
2,4,5-TP (Silvex)	ND<0.05	1.0
2,4-D	ND<0.50	10.0

Analytical Method: SW1311/8151

ELAP ID: 10709

Comments:

ND denotes Non Detect.

Approved By Technical Director:

Brilce Holgestege



PCB Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2283

Client Job Number:

N/A

Lab Sample Number: 7371

Field Location:

B-5 (0-16')

Date Sampled:

06/24/2009

Field ID Number: Sample Type:

N/A Soil Date Received:

06/26/2009

Date Analyzed:

06/29/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.350
Aroclor 1221	ND< 0.350
Aroclor 1232	ND< 0.350
Aroclor 1242	ND< 0.350
Aroclor 1248	ND< 0.350
Aroclor 1254	ND< 0.350
Aroclor 1260	ND< 0.350
1	

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect

mg / Kg = milligram per Kilogram

Signature:



PCB Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2283

Lab Sample Number: 7372

7372

Client Job Number:

: N/A

B-4 9 (0-22')

Date Sampled:

06/24/2009

Field Location: Field ID Number: Sample Type:

N/A Soil Date Received:

06/26/2009

Date Analyzed:

06/29/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.339
Aroclor 1221	ND< 0.339
Aroclor 1232	ND< 0.339
Aroclor 1242	ND< 0.339
Aroclor 1248	ND< 0.339
Aroclor 1254	ND< 0.339
Aroclor 1260	ND< 0.339
1	· ·

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect mg / Kg = milligram per Kilogram

Signature:



Pesticide Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2283 Lab Sample Number: 7371

Client Job Number:

N/A

Date Sampled:

06/24/2009

Field Location: Field ID Number: B-5 (0-16') N/A

Date Received:

06/26/2009

Sample Type:

Soil

Date Analyzed:

06/29/2009

Destinide Identification	Results in ug / Kg
Pesticide Identification	
Aldrin	ND< 3.31
alpha-BHC	ND< 3.31
beta-BHC	7.94
delta-BHC	ND< 3.31
gamma-BHC	4.30
alpha-Chlordane	ND< 3.31
gamma-Chlordane	ND< 3.31
4,4'-DDD	ND< 3.31
4,4'-DDE	ND< 3.31
4,4'-DDT	ND< 3.31
Dieldrin	ND< 3.31
Endosulfan I	ND< 3.31
Endosulfan II	ND< 3.31
Endosulfan Sulfate	ND< 3.31
Endrin	ND< 3.31
Endrin Aldehyde	ND< 3.31
Heptachlor	ND< 3.31
Heptachlor Epoxide	ND< 3.31
Methoxychlor	ND< 3.31
Toxaphene	ND< 166

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Pesticide Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site: Buffalo Aud Site Lab Project Number: 09-2283

Lab Sample Number: 7372

Client Job Number: N/A

B-4 (0-22') Field Location:

Date Sampled: Date Received: 06/24/2009

Field ID Number: Sample Type:

N/A Soil

06/26/2009

Date Analyzed:

06/29/2009

Pesticide Identification	Results in ug / Kg
Aldrin	ND< 3.24
alpha-BHC	ND< 3.24
beta-BHC	ND< 3.24
delta-BHC	ND< 3.24
gamma-BHC	ND< 3.24
alpha-Chlordane	ND< 3.24
gamma-Chlordane	ND< 3.24
4,4'-DDD	ND< 3.24
4,4'-DDE	ND< 3.24
4,4'-DDT	ND< 3.24
Dieldrin	ND< 3.24
Endosulfan I	ND< 3.24
Endosulfan II	ND< 3.24
Endosulfan Sulfate	ND< 3.24
Endrin	ND< 3.24
Endrin Aldehyde	ND< 3.24
Heptachlor	ND< 3.24
Heptachlor Epoxide	ND< 3.24
Methoxychlor	ND< 3.24
Toxaphene	ND< 162

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Pesticide Analysis Report for TCLP Extract

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2283

Client Job Number:

N/A

Lab Sample Number: 7371

Field Location:

B-5 (0-16')

Date Sampled:

06/24/2009

Field ID Number:

N/A

Date Received:

06/26/2009

Sample Type:

TCLP Extract

Date Analyzed:

06/30/2009

Pesticide Identification	Results in ug / L	Regulatory Limits in ug / L
gamma-BHC	ND< 1.00	400
Chlordane	ND< 1.00	30.0
Endrin	ND< 1.00	20.0
Heptachlor	ND< 1.00	8.00
Heptachlor Epoxide	ND< 1.00	8.00
Methoxychlor	ND< 1.00	10000
Toxaphene	ND< 50.0	500

ELAP Number 10958

Method: EPA 8081

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site: Buffalo Aud Site

Lab Project Number: 09-2283

Lab Sample Number: 7371

Client Job Number: N/A

Field Location: B-5 (0-16') Date Sampled: Field ID Number: N/A Date Received:

06/24/2009 06/26/2009

Sample Type: Soil Date Analyzed:

06/29/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 332	Dibenz (a,h) anthracene	ND< 332
Anthracene	ND< 332	Fluoranthene	ND< 332
Benzo (a) anthracene	ND< 332	Fluorene	ND< 332
Benzo (a) pyrene	ND< 332	Indeno (1,2,3-cd) pyrene	ND< 332
Benzo (b) fluoranthene	ND< 332	Naphthalene	ND< 332
Benzo (g,h,i) perylene	ND< 332	Phenanthrene	ND< 332
Benzo (k) fluoranthene	ND< 332	Pyrene	ND< 332
Chrysene	ND< 332	Acenaphthylene	ND< 332
Diethyl phthalate	ND< 332	1,2-Dichlorobenzene	ND< 332
Dimethyl phthalate	ND< 831	1,3-Dichlorobenzene	ND< 332
Butylbenzylphthalate	ND< 332	1,4-Dichlorobenzene	ND< 332
Di-n-butyl phthalate	ND< 332	1,2,4-Trichlorobenzene	ND< 332
Di-n-octylphthalate	ND< 332	Nitrobenzene	ND< 332
Bis (2-ethylhexyl) phthalate	ND< 332	2,4-Dinitrotoluene	ND< 332
2-Chloronaphthalene	ND< 332	2,6-Dinitrotoluene	ND< 332
Hexachlorobenzene	ND< 332	Bis (2-chloroethyl) ether	ND< 332
Hexachloroethane	ND< 332	Bis (2-chloroisopropyl) ether	ND< 332
Hexachlorocyclopentadiene	ND< 332	Bis (2-chloroethoxy) methan	ND< 332
Hexachlorobutadiene	ND< 332	4-Bromophenyl phenyl ether	ND< 332
N-Nitroso-di-n-propylamine	ND< 332	4-Chlorophenyl phenyl ether	ND< 332
N-Nitrosodiphenylamine	ND< 332	Benzidine	ND< 831
N-Nitrosodimethylamine	ND< 332	3,3'-Dichlorobenzidine	ND< 332
Isophorone	ND< 332	4-Chloroaniline	ND< 332
Benzyl alcohol	ND< 831	2-Nitroaniline	ND< 831
Dibenzofuran	ND< 332	3-Nitroaniline	ND< 831
2-Methylnapthalene	ND< 332	4-Nitroaniline	ND< 831

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 332	2-Methylphenol	ND< 332
2-Chlorophenol	ND< 332	3&4-Methylphenol	ND< 332
2,4-Dichlorophenol	ND< 332	2,4-Dimethylphenol	ND< 332
2,6-Dichlorophenol	ND< 332	2-Nitrophenol	ND< 332
2,4,5-Trichlorophenol	ND< 831	4-Nitrophenol	ND< 831
2,4,6-Trichlorophenol	ND< 332	2,4-Dinitrophenol	ND< 831
Pentachlorophenol	ND< 831	4,6-Dinitro-2-methylphenol	ND< 831
4-Chloro-3-methylphenol	ND< 332	Benzoic acid	ND< 831

ELAP Number 10958 Method: EPA 8270C Data File: S45924.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

092283S2.XLS



Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Buffalo Aud Site Client Job Site:

Lab Project Number: 09-2283

Client Job Number: N/A

Lab Sample Number: 7372

Field Location:

B-4 9 (0-22')

Date Sampled: Date Received: 06/24/2009 06/26/2009

Field ID Number: Sample Type:

N/A Soil

Date Analyzed:

06/29/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	529	Dibenz (a,h) anthracene	608
Anthracene	1,700	Fluoranthene	5,840
Benzo (a) anthracene	2,880	Fluorene	803
Benzo (a) pyrene	2,270	Indeno (1,2,3-cd) pyrene	1,310
Benzo (b) fluoranthene	2,230	Naphthalene	325
Benzo (g,h,i) perylene	1,310	Phenanthrene	4,720
Benzo (k) fluoranthene	2,100	Pyrene	4,290
Chrysene	2,630	Acenaphthylene	ND< 324
Diethyl phthalate	ND< 324	1,2-Dichlorobenzene	ND< 324
Dimethyl phthalate	ND< 810	1,3-Dichlorobenzene	ND< 324
Butylbenzylphthalate	ND< 324	1,4-Dichlorobenzene	ND< 324
Di-n-butyl phthalate	ND< 324	1,2,4-Trichlorobenzene	ND< 324
Di-n-octylphthalate	ND< 324	Nitrobenzene	ND< 324
Bis (2-ethylhexyl) phthalate	ND< 324	2,4-Dinitrotoluene	ND< 324
2-Chloronaphthalene	ND< 324	2,6-Dinitrotoluene	ND< 324
Hexachlorobenzene	ND< 324	Bis (2-chloroethyl) ether	ND< 324
Hexachloroethane	ND< 324	Bis (2-chloroisopropyl) ether	ND< 324
Hexachlorocyclopentadiene	ND< 324	Bis (2-chloroethoxy) methan	ND< 324
Hexachlorobutadiene	ND< 324	4-Bromophenyl phenyl ether	ND< 324
N-Nitroso-di-n-propylamine	ND< 324	4-Chlorophenyl phenyl ether	ND< 324
N-Nitrosodiphenylamine	ND< 324	Benzidine	ND< 810
N-Nitrosodimethylamine	ND< 324	3,3'-Dichlorobenzidine	ND< 324
Isophorone	ND< 324	4-Chloroaniline	ND< 324
Benzyl alcohol	ND< 810	2-Nitroaniline	ND< 810
Dibenzofuran	516	3-Nitroaniline	ND< 810
2-Methylnapthalene	ND< 324	4-Nitroaniline	ND< 810

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 324	2-Methylphenol	ND< 324
2-Chlorophenol	ND< 324	3&4-Methylphenol	ND< 324
2,4-Dichlorophenol	ND< 324	2,4-Dimethylphenol	ND< 324
2,6-Dichlorophenol	ND< 324	2-Nitrophenol	ND< 324
2,4,5-Trichlorophenol	ND< 810	4-Nitrophenol	ND< 810
2,4,6-Trichlorophenol	ND< 324	2,4-Dinitrophenol	ND< 810
Pentachlorophenol	ND< 810	4,6-Dinitro-2-methylphenol	ND< 810
4-Chloro-3-methylphenol	ND< 324	Benzoic acid	ND< 810

ELAP Number 10958

Method: EPA 8270C

Data File: S45925.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Semi-Volatile Analysis Report for TCLP Extract

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2283

Lab Sample Number: 7371

Client Job Number: N/A

Field Location:

B-5 (0-16')

Date Sampled: Date Received: 06/24/2009

Field ID Number:

N/A

06/26/2009

Sample Type:

TCLP Extract

Date Analyzed:

07/01/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pvridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2.4.5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000

ELAP Number 10958

Method: EPA 8270C

Data File: S45958.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:

ical Director Bruce Hoogesteger: Techn



Volatile Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2283

Client Job Number: N/A

Lab Sample Number: 7371

Field Location:

B-5 (0-16')

Date Sampled:

06/24/2009

Field ID Number:

N/A

Date Received:

06/26/2009

Sample Type:

Soil

Date Analyzed:

06/30/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 8.13
Bromomethane	ND< 8.13
Bromoform	ND< 20.3
Carbon Tetrachloride	ND< 20.3
Chloroethane	ND< 8.13
Chloromethane	ND< 8.13
2-Chloroethyl vinyl Ether	ND< 40.7
Chloroform	ND< 8.13
Dibromochloromethane	ND< 8.13
1,1-Dichloroethane	ND< 8.13
1,2-Dichloroethane	ND< 8.13
1,1-Dichloroethene	ND< 8.13
cis-1,2-Dichloroethene	ND< 8.13
trans-1,2-Dichloroethene	ND< 8.13
1,2-Dichloropropane	ND< 8.13
cis-1,3-Dichloropropene	ND< 8.13
trans-1,3-Dichloropropene	ND< 8.13
Methylene chloride	ND< 20.3
1,1,2,2-Tetrachloroethane	ND< 8.13
Tetrachloroethene	ND< 8.13
1,1,1-Trichloroethane	ND< 8.13
1,1,2-Trichloroethane	ND< 8.13
Trichloroethene	ND< 8.13
Trichlorofluoromethane	ND< 8.13
Vinyl chloride	ND< 8.13
ELAD Number 10059	Math

Aromatics	Results in ug / Kg
Benzene	ND< 8.13
Chlorobenzene	ND< 8.13
Ethylbenzene	ND< 8.13
Toluene	ND< 8.13
m,p-Xylene	ND< 8.13
o-Xylene	ND< 8.13
Styrene	ND< 20.3
1,2-Dichlorobenzene	ND< 20.3
1,3-Dichlorobenzene	ND< 20.3
1,4-Dichlorobenzene	ND< 8.13

Ketones	Results in ug / Kg
Acetone	ND< 40.7
2-Butanone	ND< 40.7
2-Hexanone	ND< 20.3
4-Methyl-2-pentanone	ND< 20.3

Results in ug / Kg
ND< 8.13
ND< 20.3

ELAP Number 10958

Method: EPA 8260B

Data File: V66754.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers, indicate probable matrix interference

Signature:



Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2283

Lab Sample Number: 7371

Client Job Number:

N/A B-5 (0-16')

Date Sampled:

06/24/2009

Field Location: Field ID Number:

N/A

Date Received:

06/26/2009

Sample Type:

Soil

Date Analyzed:

06/30/2009

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	ND< 40.7	1,2,4-Trimethylbenzene	ND< 8.13
sec-Butylbenzene	ND< 8.13	1,3,5-Trimethylbenzene	ND< 8.13
tert-Butylbenzene	ND< 20.3		
n-Propylbenzene	ND< 8.13	Miscellaneous	
Isopropylbenzene	ND< 40.7	Methyl tert-butyl Ether	ND< 8.13
p-Isopropyltoluene	ND< 40.7		
Naphthalene	ND< 20.3		

ELAP Number 10958

Method: EPA 8260B

Data File: V66754.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Volatile Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2283 Lab Sample Number: 7372

Client Job Number: N/A

Field Location:

Date Sampled:

06/24/2009

B-4 (0-22') N/A

Date Received:

06/26/2009

Field ID Number:

Sample Type:

Soil

Date Analyzed:

06/30/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 7.30
Bromomethane	ND< 7.30
Bromoform	ND< 18.2
Carbon Tetrachloride	ND< 18.2
Chloroethane	ND< 7.30
Chloromethane	ND< 7.30
2-Chloroethyl vinyl Ether	ND< 36.5
Chloroform	ND< 7.30
Dibromochloromethane	ND< 7.30
1,1-Dichloroethane	ND< 7.30
1,2-Dichloroethane	ND< 7.30
1,1-Dichloroethene	ND< 7.30
cis-1,2-Dichloroethene	ND< 7.30
trans-1,2-Dichloroethene	ND< 7.30
1,2-Dichloropropane	ND< 7.30
cis-1,3-Dichloropropene	ND< 7.30
trans-1,3-Dichloropropene	ND< 7.30
Methylene chloride	ND< 18.2
1,1,2,2-Tetrachloroethane	ND< 7.30
Tetrachloroethene	ND< 7.30
1,1,1-Trichloroethane	ND< 7.30
1,1,2-Trichloroethane	ND< 7.30
Trichloroethene	ND< 7.30
Trichlorofluoromethane	ND< 7.30
4	

Aromatics	Results in ug / Kg
Benzene	ND< 7.30
Chlorobenzene	ND< 7.30
Ethylbenzene	ND< 7.30
Toluene	ND< 7.30
m,p-Xylene	ND< 7.30
o-Xylene	ND< 7.30
Styrene	ND< 18.2
1,2-Dichlorobenzene	ND< 18.2
1,3-Dichlorobenzene	ND< 18.2
1,4-Dichlorobenzene	ND< 7.30

Ketones	Results in ug / Kg
Acetone	ND< 36.5
2-Butanone	ND< 36.5
2-Hexanone	ND< 18.2
4-Methyl-2-pentanone	ND< 18.2

Results in ug / Kg
ND< 7.30
ND< 18.2

ELAP Number 10958

Vinyl chloride

Method: EPA 8260B

ND< 7.30

Data File: V66755.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2283

Client Job Number:

N/A

Lab Sample Number: 7372

Field Location:

B-4 (0-22')

Date Sampled:

06/24/2009

Field ID Number:

N/A

Date Received:

06/26/2009

Sample Type:

Soil

Date Analyzed:

06/30/2009

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	ND< 36.5	1,2,4-Trimethylbenzene	ND< 7.30
sec-Butylbenzene	ND< 7.30	1,3,5-Trimethylbenzene	ND< 7.30
tert-Butylbenzene	ND< 18.2		
n-Propylbenzene	ND< 7.30	Miscellaneous	
Isopropylbenzene	ND< 36.5	Methyl tert-butyl Ether	ND< 7.30
p-Isopropyltoluene	ND< 36.5		
Naphthalene	ND< 18.2		

Method: EPA 8260B Data File: V66755.D ELAP Number 10958

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Volatile Analysis Report for TCLP Extract

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-2283

Lab Sample Number: 7371

Client Job Number: Field Location:

N/A B-5 (0-16')

Date Sampled:

06/24/2009

Field ID Number:

N/A

Date Received:

06/26/2009

Sample Type:

TCLP Extract

Date Analyzed:

06/30/2009

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 7.00	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200

ELAP Number 10958

Method: EPA 8260B

Data File: V66768.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:

PARADIGM ENVIRONMENTAL

CHAIN OF CUSTODY

Sample Condition: Per NELAC/ELAP 210/241/242/243/244 Receipt Parameter NELAC Co Container Type: Y Comments: Preservation: Holding Time: Y Comments: Temperature: 18°C; Ced Y Comments: Temperature:	Day Stant & 716-	8 Any Oberhay Please Cell	162409 0930 X B-S 26.2409 1536 X B. 4	DATE TIME ON A B B	ADDRESS: 16-6 PHONE: 16-6 ATTN: Dave
M Sample B N Relinquished B N Received By Received C La	-8110	CHY	(0-16') Sol 7	SAMPLE LOCATION/FIELD ID SAMPLE LOCATION/FI	CRS OH PAICAJE OH PAICAJE JOH FAX: JOH FAX: JOH TOP TOP TOP TOP TOP TOP TOP T
Recetion to Colo	- TCLP HARACHES - TCLP HARACHES	7776	XX	8 aunce HEQUESTED ANALYSIS	SS: STATE: FAX:
6,24.0(Date/Time 1505 Total Cost:	- PCBs		TCL "Labeled Bottless". Total Arelysis. -TCL YOOS+ STARSYOCS+ mit Be -TCL SYOCS	All tests (TCL list and TCLP list) for \$5. Att tests for \$4: LTCL List EARL ATTER EIST). FARADIGM LAB GOTH, \$64. B4 Jars are same sample Above per Clienthistory EAH 6	AB PROJECT #: CL O



Analytical Report Cover Page

SIB Services

For Lab Project # 09-3635 Issued October 13, 2009 This report contains a total of 9 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

[&]quot;ND" = analyzed for but not detected.

[&]quot;E" = Result has been estimated, calibration limit exceeded.

[&]quot;D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

[&]quot;M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

[&]quot;B" = Method blank contained trace levels of analyte. Refer to included method blank report.



Client: **SJB Services**

Lab Project No.: 09-3635

Lab Sample No.: 11220

Client Job Site: Buffalo Aud Site

Sample Type: Soil

BE-09-094A Client Job No.:

Date Sampled: 10/01/2009 **Date Received:** 10/05/2009

B-7, 0'-8' Field Location:

Field ID No.: N/A

Laboratory Report for TAL Metals Analysis in Solid

Aluminum 10/13/2009 SW846 6010 9640 Antimony 10/13/2009 SW846 6010 <4.45 Arsenic 10/13/2009 SW846 6010 9.32 Barium 10/13/2009 SW846 6010 402 Beryllium 10/13/2009 SW846 6010 0.457 Cadmium 10/13/2009 SW846 6010 2.46 Calcium 10/13/2009 SW846 6010 31200 Chromium 10/13/2009 SW846 6010 25.5 Cobalt 10/13/2009 SW846 6010 5.86 Copper 10/13/2009 SW846 6010 149 Iron 10/13/2009 SW846 6010 19200 Lead 10/13/2009 SW846 6010 1650 Magnesium 10/13/2009 SW846 6010 317 Mercury 10/12/2009 SW846 6010 317 Mercury 10/13/2009 SW846 6010 19.2 Potassium 10/13/2009 SW846 6010 40.74 Selenium 10/13/2009 SW846 6010	Parameter	Date Analyzed	Analytical	Result (mg/kg)
Antimony 10/13/2009 SW846 6010 <4.45			<u>Method</u>	
Arsenic 10/13/2009 SW846 6010 9.32 Barium 10/13/2009 SW846 6010 402 Beryllium 10/13/2009 SW846 6010 0.457 Cadmium 10/13/2009 SW846 6010 2.46 Calcium 10/13/2009 SW846 6010 31200 Chromium 10/13/2009 SW846 6010 25.5 Cobalt 10/13/2009 SW846 6010 5.86 Copper 10/13/2009 SW846 6010 149 Iron 10/13/2009 SW846 6010 19200 Lead 10/13/2009 SW846 6010 8900 Magnesium 10/13/2009 SW846 6010 317 Mercury 10/12/2009 SW846 6010 317 Mickel 10/13/2009 SW846 6010 19.2 Potassium 10/13/2009 SW846 6010 <0.371	Aluminum	10/13/2009	SW846 6010	9640
Barium 10/13/2009 SW846 6010 402 Beryllium 10/13/2009 SW846 6010 0.457 Cadmium 10/13/2009 SW846 6010 2.46 Calcium 10/13/2009 SW846 6010 31200 Chromium 10/13/2009 SW846 6010 25.5 Cobalt 10/13/2009 SW846 6010 149 Iron 10/13/2009 SW846 6010 19200 Lead 10/13/2009 SW846 6010 1650 Magnesium 10/13/2009 SW846 6010 317 Mercury 10/14/2009 SW846 6010 317 Mercury 10/13/2009 SW846 6010 19.2 Potassium 10/13/2009 SW846 6010 1870 Selenium 10/13/2009 SW846 6010 <0.371	Antimony	10/13/2009	SW846 6010	<4.45
Beryllium 10/13/2009 SW846 6010 0.457 Cadmium 10/13/2009 SW846 6010 2.46 Calcium 10/13/2009 SW846 6010 31200 Chromium 10/13/2009 SW846 6010 25.5 Cobalt 10/13/2009 SW846 6010 5.86 Copper 10/13/2009 SW846 6010 149 Iron 10/13/2009 SW846 6010 19200 Lead 10/13/2009 SW846 6010 8900 Magnesium 10/13/2009 SW846 6010 317 Mercury 10/12/2009 SW846 6010 317 Mickel 10/13/2009 SW846 6010 19.2 Potassium 10/13/2009 SW846 6010 1870 Selenium 10/13/2009 SW846 6010 <0.371	Arsenic	10/13/2009	SW846 6010	9.32
Cadmium 10/13/2009 SW846 6010 2.46 Calcium 10/13/2009 SW846 6010 31200 Chromium 10/13/2009 SW846 6010 25.5 Cobalt 10/13/2009 SW846 6010 149 Iron 10/13/2009 SW846 6010 19200 Lead 10/13/2009 SW846 6010 1650 Magnesium 10/13/2009 SW846 6010 8900 Manganese 10/14/2009 SW846 6010 317 Mercury 10/12/2009 SW846 7471 1.52 Nickel 10/13/2009 SW846 6010 19.2 Potassium 10/13/2009 SW846 6010 487 Silver 10/13/2009 SW846 6010 <0.740	Barium	10/13/2009	SW846 6010	402
Calcium 10/13/2009 SW846 6010 31200 Chromium 10/13/2009 SW846 6010 25.5 Cobalt 10/13/2009 SW846 6010 5.86 Copper 10/13/2009 SW846 6010 149 Iron 10/13/2009 SW846 6010 19200 Lead 10/13/2009 SW846 6010 1650 Magnesium 10/13/2009 SW846 6010 8900 Manganese 10/14/2009 SW846 6010 317 Mercury 10/12/2009 SW846 7471 1.52 Nickel 10/13/2009 SW846 6010 19.2 Potassium 10/13/2009 SW846 6010 1870 Selenium 10/13/2009 SW846 6010 <0.371	Beryllium	10/13/2009	SW846 6010	0.457
Chromium 10/13/2009 SW846 6010 25.5 Cobalt 10/13/2009 SW846 6010 5.86 Copper 10/13/2009 SW846 6010 149 Iron 10/13/2009 SW846 6010 19200 Lead 10/13/2009 SW846 6010 1650 Magnesium 10/13/2009 SW846 6010 8900 Manganese 10/14/2009 SW846 6010 317 Mercury 10/12/2009 SW846 7471 1.52 Nickel 10/13/2009 SW846 6010 19.2 Potassium 10/13/2009 SW846 6010 1870 Selenium 10/13/2009 SW846 6010 <0.371	Cadmium	10/13/2009	SW846 6010	2.46
Cobalt 10/13/2009 SW846 6010 5.86 Copper 10/13/2009 SW846 6010 149 Iron 10/13/2009 SW846 6010 19200 Lead 10/13/2009 SW846 6010 1650 Magnesium 10/13/2009 SW846 6010 8900 Manganese 10/14/2009 SW846 6010 317 Mercury 10/12/2009 SW846 7471 1.52 Nickel 10/13/2009 SW846 6010 19.2 Potassium 10/13/2009 SW846 6010 1870 Selenium 10/13/2009 SW846 6010 <0.371	Calcium	10/13/2009	SW846 6010	31200
Copper 10/13/2009 SW846 6010 149 Iron 10/13/2009 SW846 6010 19200 Lead 10/13/2009 SW846 6010 1650 Magnesium 10/13/2009 SW846 6010 8900 Manganese 10/14/2009 SW846 6010 317 Mercury 10/12/2009 SW846 7471 1.52 Nickel 10/13/2009 SW846 6010 19.2 Potassium 10/13/2009 SW846 6010 1870 Selenium 10/13/2009 SW846 6010 <0.371	Chromium	10/13/2009	SW846 6010	25.5
Iron 10/13/2009 SW846 6010 19200 Lead 10/13/2009 SW846 6010 1650 Magnesium 10/13/2009 SW846 6010 8900 Manganese 10/14/2009 SW846 6010 317 Mercury 10/12/2009 SW846 7471 1.52 Nickel 10/13/2009 SW846 6010 19.2 Potassium 10/13/2009 SW846 6010 1870 Selenium 10/13/2009 SW846 6010 <0.371	Cobalt	10/13/2009	SW846 6010	5.86
Lead 10/13/2009 SW846 6010 1650 Magnesium 10/13/2009 SW846 6010 8900 Manganese 10/14/2009 SW846 6010 317 Mercury 10/12/2009 SW846 7471 1.52 Nickel 10/13/2009 SW846 6010 19.2 Potassium 10/13/2009 SW846 6010 1870 Selenium 10/13/2009 SW846 6010 <0.371	Copper	10/13/2009	SW846 6010	149
Magnesium 10/13/2009 SW846 6010 8900 Manganese 10/14/2009 SW846 6010 317 Mercury 10/12/2009 SW846 7471 1.52 Nickel 10/13/2009 SW846 6010 19.2 Potassium 10/13/2009 SW846 6010 1870 Selenium 10/13/2009 SW846 6010 <0.371	Iron	10/13/2009	SW846 6010	19200
Manganese 10/14/2009 SW846 6010 317 Mercury 10/12/2009 SW846 7471 1.52 Nickel 10/13/2009 SW846 6010 19.2 Potassium 10/13/2009 SW846 6010 1870 Selenium 10/13/2009 SW846 6010 <0.371	Lead	10/13/2009	SW846 6010	1650
Mercury 10/12/2009 SW846 7471 1.52 Nickel 10/13/2009 SW846 6010 19.2 Potassium 10/13/2009 SW846 6010 1870 Selenium 10/13/2009 SW846 6010 <0.371	Magnesium	10/13/2009	SW846 6010	8900
Nickel 10/13/2009 SW846 6010 19.2 Potassium 10/13/2009 SW846 6010 1870 Selenium 10/13/2009 SW846 6010 <0.371	Manganese	10/14/2009	SW846 6010	317
Potassium 10/13/2009 SW846 6010 1870 Selenium 10/13/2009 SW846 6010 <0.371	Mercury	10/12/2009	SW846 7471	1.52
Selenium 10/13/2009 SW846 6010 <0.371 Silver 10/13/2009 SW846 6010 <0.740	Nickel	10/13/2009	SW846 6010	19.2
Silver 10/13/2009 SW846 6010 <0.740 Sodium 10/14/2009 SW846 6010 487 Thallium 10/13/2009 SW846 6010 <0.793	Potassium	10/13/2009	SW846 6010	1870
Sodium 10/14/2009 SW846 6010 487 Thallium 10/13/2009 SW846 6010 <0.793	Selenium	10/13/2009	SW846 6010	<0.371
Thallium 10/13/2009 SW846 6010 <0.793	Silver	10/13/2009	SW846 6010	<0.740
	Sodium	10/14/2009	SW846 6010	487
Vanadium 10/13/2009 SW846 6010 23.2	Thallium	10/13/2009	SW846 6010	<0.793
	Vanadium	10/13/2009	SW846 6010	23.2
Zinc 10/14/2009 SW846 6010 1250	Zinc	10/14/2009	SW846 6010	1250

ELAP ID No.:10958

Comments:

Approved By:



Client:

SJB Services

Lab Project No:

09-3635

Client Job Site:

Buffalo Aud Site

Lab Sample No: Sample Type:

11220 Soil

Client Job No:

N/A

Date Sampled: Date Received:

10/1/2009 10/5/2009

Field Location:

B-7 (0'-8')

Date Analyzed:

10/7/2009

Laboratory Report for Herbicides Analysis

Parameter	Result (ug/kg)	Reporting Limit (ug/kg)
2,4-D	ND	272
2,4,5-T	ND	272
2,4,5-TP (Silvex)	ND	272

Analytical Method: 8151

ELAP ID: 10709

Comments:

ND denotes Non Detect.

Approved By Technical Director:

Bruce Hoogesteger



PCB Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud. Site

Lab Project Number: 09-3635

Client Job Number:

BE-09-094A

Lab Sample Number: 11220

Field Location:

B-7, 0'-8'

Date Sampled:

10/01/2009

Field ID Number: Sample Type:

N/A Soil

Date Received:

10/05/2009

Date Analyzed:

10/08/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.348
Aroclor 1221	ND< 0.348
Aroclor 1232	ND< 0.348
Aroclor 1242	ND< 0.348
Aroclor 1248	ND< 0.348
Aroclor 1254	ND< 0.348
Aroclor 1260	ND< 0.348

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect

mg / Kg = milligram per Kilogram

Signature:

Bruce Hoogesteger: Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition 093635P1.XLS requirements upon receipt.



Pesticide Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-3635

Lab Sample Number: 11220

Client Job Number:

BE-09-094A

10/01/2009

Field Location:

B-7. 0'-8'

Date Sampled: Date Received:

10/05/2009

Field ID Number: Sample Type:

N/A Soil

Date Analyzed:

10/07/2009

Pesticide Identification	Results in ug / Kg
Aldrin	ND< 4.50
alpha-BHC	ND< 4.50
beta-BHC	ND< 4.50
delta-BHC	ND< 4.50
gamma-BHC	ND< 4.50
alpha-Chlordane	ND< 4.50
gamma-Chlordane	ND< 4.50
4,4'-DDD	ND< 4.50
4,4'-DDE	ND< 4.50
4,4'-DDT	ND< 4.50
Dieldrin	ND< 4.50
Endosulfan I	ND< 4.50
Endosulfan II	ND< 4.50
Endosulfan Sulfate	ND< 4.50
Endrin	ND< 4.50
Endrin Aldehyde	ND< 4.50
Heptachlor	ND< 4.50
Heptachlor Epoxide	ND< 4.50
Methoxychlor	ND< 23.0
Toxaphene	ND< 230

ELAP Number 10709

Method: EPA 8081

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:

Bruce Hoo Technical Director



Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud. Site

Lab Project Number: 09-3635

Client Job Number:

BE-09-094A

Lab Sample Number: 11220

Field Location:

B-7, 0'-8'

Date Sampled:

10/01/2009

Field ID Number: Sample Type:

N/A Soil **Date Received:**

10/05/2009

Date Analyzed:

10/09/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 330	Dibenz (a,h) anthracene	ND< 330
Anthracene	444	Fluoranthene	2,020
Benzo (a) anthracene	890	Fluorene	ND< 330
Benzo (a) pyrene	812	Indeno (1,2,3-cd) pyrene	623
Benzo (b) fluoranthene	758	Naphthalene	ND< 330
Benzo (g,h,i) perylene	577	Phenanthrene	1,800
Benzo (k) fluoranthene	592	Pyrene	1,640
Chrysene	895	Acenaphthylene	ND< 330
Diethyl phthalate	ND< 330	1,2-Dichlorobenzene	ND< 330
Dimethyl phthalate	ND< 825	1,3-Dichlorobenzene	ND< 330
Butylbenzylphthalate	ND< 330	1,4-Dichlorobenzene	ND< 330
Di-n-butyl phthalate	ND< 330	1,2,4-Trichlorobenzene	ND< 330
Di-n-octylphthalate	ND< 330	Nitrobenzene	ND< 330
Bis (2-ethylhexyl) phthalate	ND< 330	2,4-Dinitrotoluene	ND< 330
2-Chloronaphthalene	ND< 330	2,6-Dinitrotoluene	ND< 330
Hexachlorobenzene	ND< 330	Bis (2-chloroethyl) ether	ND< 330
Hexachloroethane	ND< 330	Bis (2-chloroisopropyl) ether	ND< 330
Hexachlorocyclopentadiene	ND< 330	Bis (2-chloroethoxy) methan	ND< 330
Hexachlorobutadiene	ND< 330	4-Bromophenyl phenyl ether	ND< 330
N-Nitroso-di-n-propylamine	ND< 330	4-Chlorophenyl phenyl ether	ND< 330
N-Nitrosodiphenylamine	ND< 330	Benzidine	ND< 825
N-Nitrosodimethylamine	ND< 330	3,3'-Dichlorobenzidine	ND< 330
Isophorone	ND< 330	4-Chloroaniline	ND< 330
Benzyl alcohol	ND< 825	2-Nitroaniline	ND< 825
Dibenzofuran	ND< 330	3-Nitroaniline	ND< 825
2-Methylnapthalene	ND< 330	4-Nitroaniline	ND< 825

Results in ug / Kg	Acids	Results in ug / Kg
ND< 330	2-Methylphenol	ND< 330
ND< 330	3&4-Methylphenol	ND< 330
ND< 330	2,4-Dimethylphenol	ND< 330
ND< 330	2-Nitrophenol	ND< 330
ND< 825	4-Nitrophenol	ND< 825
ND< 330	2,4-Dinitrophenol	ND< 825
ND< 825	4,6-Dinitro-2-methylphenol	ND< 825
ND< 330	Benzoic acid	ND< 825
	ND< 330 ND< 330 ND< 330 ND< 330 ND< 825 ND< 330 ND< 825	ND 330 2-Methylphenol ND 330 3&4-Methylphenol ND 330 2,4-Dimethylphenol ND 330 2-Nitrophenol ND 825 4-Nitrophenol ND 330 2,4-Dinitrophenol ND 825 4,6-Dinitro-2-methylphenol

ELAP Number 10958

Method: EPA 8270C

Data File: S47143.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Volatile Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-3635 Lab Sample Number: 11220

Client Job Number:

BE-09-094A B-7, 0'-8'

Date Sampled:

10/01/2009

Field Location: Field ID Number:

N/A **Date Received:**

10/05/2009

Sample Type: Soil **Date Analyzed:**

10/08/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 8.10

Bromomethane	ND< 8.10
Bromoform	ND< 20.3
Carbon Tetrachloride	ND< 20.3
Chloroethane	ND< 8.10
Chloromethane	ND< 8.10
2-Chloroethyl vinyl Ether	ND< 40.5
Chloroform	ND< 8.10
Dibromochloromethane	ND< 8.10
1,1-Dichloroethane	ND< 8.10
1,2-Dichloroethane	ND< 8.10
1,1-Dichloroethene	ND< 8.10
cis-1,2-Dichloroethene	ND< 8.10
trans-1,2-Dichloroethene	ND< 8.10
1,2-Dichloropropane	ND< 8.10
cis-1,3-Dichloropropene	ND< 8.10
trans-1,3-Dichloropropene	ND< 8.10
Methylene chloride	ND< 20.3
1,1,2,2-Tetrachloroethane	ND< 8.10

Aromatics	Results in ug / Kg	
Benzene	ND< 8.10	
Chlorobenzene	ND< 8.10	
Ethylbenzene	ND< 8.10	
Toluene	ND< 8.10	
m,p-Xylene	ND< 8.10	
o-Xylene	ND< 8.10	
Styrene	ND< 20.3	
1,2-Dichlorobenzene	ND< 20.3	
1,3-Dichlorobenzene	ND< 20.3	
1,4-Dichlorobenzene	ND< 8.10	

Ketones	Results in ug / Kg	
Acetone	ND< 40.5	
2-Butanone	ND< 40.5	
2-Hexanone	ND< 20.3	
4-Methyl-2-pentanone	ND< 20.3	

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 8.10
Vinyl acetate	ND< 20.3
-	

ELAP Number 10958

Tetrachloroethene

Trichloroethene

Vinyl chloride

1,1,1-Trichloroethane

1,1,2-Trichloroethane

Trichlorofluoromethane

Method: EPA 8260B

Data File: V69323.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference Internal standard outliers indicate probable matrix interference

ND< 8.10

ND< 8.10

ND< 8.10

ND< 8.10

ND< 8.10 ND< 8.10

Signature:



Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number:

09-3635

Client Job Number:

BE-09-094A

Lab Sample Number: 11220

Field Location:

B-7, 0'-8'

Date Sampled:

10/01/2009

Field ID Number: Sample Type:

N/A Soil **Date Received:**

10/05/2009

Date Analyzed:

10/08/2009

Aromatics	Results in ug / Kg	Aromatics	Results in ug / Kg
n-Butylbenzene	ND< 40.5	1,2,4-Trimethylbenzene	ND< 8.10
sec-Butylbenzene	ND< 8.10	1,3,5-Trimethylbenzene	ND< 8.10
tert-Butylbenzene	ND< 20.3		
n-Propylbenzene	ND< 8.10	Miscellaneous	
Isopropylbenzene	ND< 40.5	Methyl tert-butyl Ether	ND< 8.10
p-Isopropyltoluene	ND< 40.5		

Naphthalene ELAP Number 10958

Method: EPA 8260B

ND< 20.3

Data File: V69323.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference Internal standard outliers indicate probable matrix interference

Signature:



179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311 SJB SCYVILOS.

[NOX | D | 12 | D | CHAIN OF CUSTODY]

PARADIGM	COMPANY: C. ON O. C.	COMPANY: Same	LAB PROJECT #: CLIENT PROJECT #:
	ADDRESS: 5167 SOUTH PARE AYE,	ADDRESS:	09.3635 86-09-0944
	7	CITY:	TURNAROUND TIME: (WORKING DAYS)
			STD OTHER
PROJECT NAME/SITE NAME: 70 FBC0 A 0 P SI TE	ATTHE BOCHENEY / DOVE STEINER	ATTN: 15teiner	1 2 3 5 .
ž.	COMMENTS: PLEASE EMAIL RESULTS TO	Ho	Quotation #
		REQUESTED ANALYSIS	
TEO O		- z o c	
DATE TIME O	A SAMPLE LOCATION/FIELD ID B	⊼ m © ≤	REMARKS PARADIGM LAB SAMPLE NUMBER
10-1-09 0950	B-7, 0'-8' SIL	<i>b</i>	TCL 4 STARS VOCS 111220
2		•	&MTBE
3			SVOCS
4		-TAC	TAL METELS & Ha
5		APESTICIDES	ocides
0		ナナモス	HERBICIDES
7		+ PCBs	ß;
8			
9			
10			
LAB USE ONLY BELOW THIS LINE	INE***		
Receipt Parameter NE	NELAC Compliance		
Container Type:	Y X N X Sambled B	10-1-09/0950	Total Cost:
Preservation:	N/A Y U N U Ward	Mini	
Holding Time:	Y N N Relinquished B	ed By Date/Time	
Temperature: 13°/	Land In In In In Indiana	10/2/05 3:00	7
	50,000	O Hanch	730



Analytical Report Cover Page

SIB Services

For Lab Project # 09-3579 Issued October 13, 2009 This report contains a total of 18 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

[&]quot;ND" = analyzed for but not detected.

[&]quot;E" = Result has been estimated, calibration limit exceeded.

[&]quot;D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

[&]quot;M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

[&]quot;B" = Method blank contained trace levels of analyte. Refer to included method blank report.



pH Analysis Report

Client: SJB Services

Client Job Site:

Buffalo Aud. Site

Lab Project Number:

09-3579

Client Job Number:

N/A

Date Sampled:

9/28/2009

Time Sampled:

10:51 AM

Date Received:

10/1/2009

Sample Type:

Location:

Soil

Time Received: Date Analyzed:

3:05 PM

Laboratory

10/6/2009

Time Analyzed:

3:20 PM

Lab Sample Number	Field Number	Field Location	Result (pH)
11058	N/A	B-8 (0-9') TCLP	7.82
and 100 miles (100 mil			

ELAP Number 10958

Method: EPA 9045C

Comments:

Signature:



Client:

SJB Services

N/A

Lab Project No.:

09-3579

Client Job Site:

Client Job No.:

Buffalo Aud. Site

Sample Type:

Soil

Method:

SW846 1010

Date(s) Sampled:

09/28/2009

Date Received:

10/01/2009

Date Analyzed:

10/07/2009

Laboratory Report for Flashpoint Analysis

Lab Sample No.	Field ID No.	Field Location	Flashpoint Results (°C)
11058	N/A	B-8 (0-9') TCLP	>70

ELAP ID No.: 10958

Comments:

Approved By:



Paint Filter Analysis Report

Client: SJB Services

Client Job Site:

Buffalo Aud. Site

Lab Project Number:

09-3579

Client Job Number:

N/A

Date Sampled:

9/28/2009

Date Received:

10/1/2009

Sample Type:

Soil

Date Analyzed:

10/1/2009

Lab Sample Number	Field Number	Field Location	Result
11058	N/A	B-8 (0-9') TCLP	Pass
A CONTRACTOR OF THE PROPERTY O		//*	
	the trade of the second		
1/470 Mark			
1			

ELAP Number 10958

Method: SW846 9095

Comments:

Signature:



Client:

SJB Services

Lab Project No.:

09-3579

Client Job Site:

Buffalo Aud. Site

Lab Sample No.:

11058

Client Job No.:

N/A

Sample Type:

TCLP Extract

Field Location:

B-8 (0-9') TCLP

Date Sampled: Date Received:

09/28/2009 10/01/2009

Field ID No.:

N/A

Laboratory Report for TCLP Metals Analysis

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
TCLP Metal Series				
Arsenic	10/06/2009	EPA 6010	<0.100	5.0
Barium	10/06/2009	EPA 6010	0.512	100.0
Cadmium	10/06/2009	EPA 6010	<0.025	1.0
Chromium	10/06/2009	EPA 6010	<0.050	5.0
Lead	10/06/2009	EPA 6010	<0.100	5.0
Mercury	10/05/2009	EPA 7470	<0.0020	0.2
Selenium	10/06/2009	EPA 6010	<0.100	1.0
Silver	10/06/2009	EPA 6010	<0.050	5.0

ELAP ID No.: 10958

Comments:

Approved By:



Client:

SJB Services

Lab Project No.:

09-3579 11059

Client Job Site:

Buffalo Aud. Site

Lab Sample No.:

Soil

Client Job No.:

N/A

Date Sampled:

Sample Type:

09/28/2009

Field Location:

B-8 (0-9') TCL

Date Received:

10/01/2009

Field ID No.:

N/A

Laboratory Report for TAL Metals Analysis in Solid

Parameter	Date Analyzed	Analytical	Result (mg/kg)
		Method	
Aluminum	10/13/2009	SW846 6010	8170
Antimony	10/07/2009	SW846 6010	<6.60
Arsenic	10/07/2009	SW846 6010	3.83
Barium	10/07/2009	SW846 6010	55.0
Beryllium	10/07/2009	SW846 6010	<0.550
Cadmium	10/07/2009	SW846 6010	<0.550
Calcium	10/13/2009	SW846 6010	64500
Chromium	10/07/2009	SW846 6010	13.0
Cobalt	10/07/2009	SW846 6010	5.07
Copper	10/07/2009	SW846 6010	23.7
Iron	10/07/2009	SW846 6010	13500
Lead	10/07/2009	SW846 6010	66.4
Magnesium	10/07/2009	SW846 6010	11100
Manganese	10/07/2009	SW846 6010	327
Mercury	10/05/2009	SW846 7471	0.109 D,M
Nickel	10/07/2009	SW846 6010	12.1
Potassium	10/12/2009	SW846 6010	1220
Selenium	10/07/2009	SW846 6010	<0.550
Silver	10/07/2009	SW846 6010	<1.10
Sodium	10/07/2009	SW846 6010	461
Thallium	10/07/2009	SW846 6010	<0.660
Vanadium	10/07/2009	SW846 6010	13.3
Zinc	10/07/2009	SW846 6010	53.2

ELAP ID No.:10958

Comments: The laboratory control spike percent difference was outside QC limits for Ba, Cr, Fe, and Zn.

Approved By:



Client:

SJB Services

Lab Project No.: Lab Sample No.: 09-3579 11058

Client Job Site:

Buffalo Aud Site

N/A

Sample Type:

Soil

Client Job No.: Field Location:

B-8 (0-9") TCLP

Date Sampled:

9/28/2009

Date Received:

10/1/2009

Laboratory Report for Reactivity

Parameter	Date Analyzed	Analytical Method	Results (mg/kg)
Cyanide Reactivity	10/7/2009	SW846, 7.3.3.2	ND<1.0
Sulfide Reactivity	10/8/2009	SW846, 7.3.4.2	12

ELAP ID. No.: 10709

Comments:

ND denotes Non Detect.

Hazardous Waste Regulatory Levels for Reactivity are as follows:

Sulfide - 500 mg/kg, Cyanide - 250 mg/kg.

Approved By Technical Director:

Bruce Hoogesteger



Client:

SJB Services

Lab Project No:

09-3579 11058

Client Job Site:

Buffalo Aud Site

Lab Sample No: Sample Type:

TCLP Extract

Client Job No:

N/A

Date Sampled:

9/28/2009

Field Location:

B-8 (0-9") TCLP

Date Received: Date Analyzed:

10/1/2009 10/7/2009

Herbicide Analysis Report for TCLP Extract

Parameter	Result (mg/L)	Regulatory Limit (mg/L)	
2,4,5-TP (Silvex)	ND<1.0	ND<0.05 H	1
2,4-D	ND<10.0	ND<0.50 H	1

Analytical Method: SW1311/8151

ELAP ID: 10709

Comments:

ND denotes Non Detect.

H denotes sample analyzed outside of holding time.

Approved By Technical Director:

Bruce Hoogestege



Client:

SJB Services

Lab Project No:

09-3579

Client Job Site:

Buffalo Aud Site

Lab Sample No: Sample Type:

11059 Soil

Client Job No:

N/A

Date Sampled: Date Received:

9/28/2009 10/1/2009

Field Location:

B-8 (0-9") TCL

Date Analyzed:

10/7/2009

Laboratory Report for Chlorinated Herbicides

Parameter	Result (mg/kg)	Reporting Limit (mg/kg)
2,4-D	ND	200
2,4,5-T	ND	200
2,4,5-TP (Silvex)	ND	200

Analytical Method: 8151

ELAP ID: 10709

Comments:

ND denotes Non Detect.

Approved By Technical Director:

ude Hoogestegei



PCB Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-3579

Client Job Number:

N/A

Lab Sample Number: 11059

Field Location: Field ID Number:

B-8 (0-9') TCL N/A Date Sampled: Date Received:

09/28/2009 10/01/2009

Sample Type:

Soil

Date Analyzed:

10/06/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.329
Aroclor 1221	ND< 0.329
Aroclor 1232	ND< 0.329
Aroclor 1242	ND< 0.329
Aroclor 1248	ND< 0.329
Aroclor 1254	ND< 0.329
Aroclor 1260	ND< 0.329

ELAP Number 10958 Method: EPA 8082

Comments: ND denotes Non Detect

mg / Kg = milligram per Kilogram

Signature:



Pesticide Analysis Report for TCLP Extract

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-3579

Lab Sample Number: 11058

Client Job Number:

N/A

Date Sampled:

09/28/2009

Field Location: Field ID Number:

B-8 (0-9') TCLP N/A

Date Received:

10/01/2009

Sample Type:

TCLP Extract

Date Analyzed:

10/01/2009

Pesticide Identification	Results in ug / L	Regulatory Limits in ug / L
gamma-BHC	ND< 1.00	400
Chlordane	ND< 1.00	30.0
Endrin	ND< 1.00	20.0
Heptachlor	ND< 1.00	8.00
Heptachlor Epoxide	ND< 1.00	8.00
Methoxychlor	ND< 1.00	10000
Toxaphene	ND< 50.0	500

ELAP Number 10709 Method: EPA 8081

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:



Pesticide Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-3579 Lab Sample Number: 11059

Client Job Number:

Field Location:

N/A B-8 (0-9") TCL

Date Sampled:

09/28/2009

Field ID Number: Sample Type:

N/A Soil Date Received:

10/01/2009

Date Analyzed:

10/01/2009

Pesticide Identification	Results in ug / Kg
Aldrin	ND< 1.6
alpha-BHC	ND< 1.6
beta-BHC	ND< 1.6
delta-BHC	ND< 1.6
gamma-BHC	ND< 1.6
alpha-Chlordane	ND< 1.6
gamma-Chlordane	ND< 1.6
4,4'-DDD	ND< 3.2
4.4'-DDE	ND< 3.2
4.4'-DDT	ND< 3.2
Dieldrin	ND< 1.6
Endosulfan I	ND< 1.6
Endosulfan II	ND< 3.2
Endosulfan Sulfate	ND< 3.2
Endrin	ND< 3.2
Endrin Aldehyde	ND< 3.2
Heptachlor	ND< 1.6
Heptachlor Epoxide	ND< 1.6
Methoxychlor	ND< 16
Toxaphene	ND< 160

ELAP Number 10709

Method: SW 8081A

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Semi-Volatile Analysis Report for TCLP Extract

Client: SJB Services

Client Job Site:

Buffalo Aud. Site

Lab Project Number: 09-3579

Lab Sample Number: 11058

Client Job Number: N/A Field Location: B-8

N/A B-8 (0-9') TCLP

Date Sampled:

09/28/2009

Field ID Number:

N/A

Date Received:

10/01/2009

Sample Type:

TCLP Extract

Date Analyzed:

10/05/2009

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	ND< 40.0	7,500
2,4-Dinitrotoluene	ND< 40.0	130
Hexachlorobenzene	ND< 40.0	3000
Hexachlorobutadiene	ND< 40.0	500
Hexachloroethane	ND< 40.0	130
Nitrobenzene	ND< 40.0	2000
Pyridine	ND< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	ND< 80.0	200,000
Pentachlorophenol	ND< 100	100,000
2,4,5-Trichlorophenol	ND< 100	400,000
2,4,6-Trichlorophenol	ND< 40.0	2000

ELAP Number 10958

Method: EPA 8270C

Data File: S47116.D

Comments: ND denotes Non Detect
ug / L = microgram per Liter

Signature:



Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud. Site

Lab Project Number: 09-3579

Lab Sample Number: 11059

Client Job Number:

N/A B-8 (0-9') TCL

Date Sampled:

09/28/2009

Field Location: Field ID Number: Sample Type:

N/A Soil Date Received:

10/01/2009

Date Analyzed:

10/02/2009

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 320	Dibenz (a,h) anthracene	ND< 320
Anthracene	ND< 320	Fluoranthene	409
Benzo (a) anthracene	ND< 320	Fluorene	ND< 320
Benzo (a) pyrene	ND< 320	Indeno (1,2,3-cd) pyrene	ND< 320
Benzo (b) fluoranthene	ND< 320	Naphthalene	ND< 320
Benzo (g,h,i) perylene	ND< 320	Phenanthrene	ND< 320
Benzo (k) fluoranthene	ND< 320	Pyrene	355
Chrysene	ND< 320	Acenaphthylene	ND< 320
Diethyl phthalate	ND< 320	1,2-Dichlorobenzene	ND< 320
Dimethyl phthalate	ND< 800	1,3-Dichlorobenzene	ND< 320
Butylbenzylphthalate	ND< 320	1,4-Dichlorobenzene	ND< 320
Di-n-butyl phthalate	ND< 320	1,2,4-Trichlorobenzene	ND< 320
Di-n-octylphthalate	ND< 320	Nitrobenzene	ND< 320
Bis (2-ethylhexyl) phthalate	822	2,4-Dinitrotoluene	ND< 320
2-Chloronaphthalene	ND< 320	2,6-Dinitrotoluene	ND< 320
Hexachlorobenzene	ND< 320	Bis (2-chloroethyl) ether	ND< 320
Hexachloroethane	ND< 320	Bis (2-chloroisopropyl) ether	ND< 320
Hexachlorocyclopentadiene	ND< 320	Bis (2-chloroethoxy) methan	ND< 320
Hexachlorobutadiene	ND< 320	4-Bromophenyl phenyl ether	ND< 320
N-Nitroso-di-n-propylamine	ND< 320	4-Chlorophenyl phenyl ether	ND< 320
N-Nitrosodiphenylamine	ND< 320	Benzidine	ND< 800
N-Nitrosodimethylamine	ND< 320	3,3'-Dichlorobenzidine	ND< 320
Isophorone	ND< 320	4-Chloroaniline	ND< 320
Benzyl alcohol	ND< 800	2-Nitroaniline	ND< 800
Dibenzofuran	ND< 320	3-Nitroaniline	ND< 800
2-Methylnapthalene	ND< 320	4-Nitroaniline	ND< 800

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 320	2-Methylphenol	ND< 320
2-Chlorophenol	ND< 320	3&4-Methylphenol	ND< 320
2,4-Dichlorophenol	ND< 320	2,4-Dimethylphenol	ND< 320
2,6-Dichlorophenol	ND< 320	2-Nitrophenol	ND< 320
2,4,5-Trichlorophenol	ND< 800	4-Nitrophenol	ND< 800
1 ' '	ND< 320	2,4-Dinitrophenol	ND< 800
2,4,6-Trichlorophenol	ND< 800	4,6-Dinitro-2-methylphenol	ND< 800
Pentachlorophenol	ND< 320	Benzoic acid	ND< 800
4-Chloro-3-methylphenol	ND< 320	Delizoic acid	71D - 000

ELAP Number 10958

Method: EPA 8270C

Data File: S47100.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indigate probable matrix interference

Signature:



Volatile Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-3579

Lab Sample Number: 11059

Client Job Number:

N/A

B-8 (0-9') TCL

Date Sampled:

09/28/2009

Field Location: Field ID Number: Sample Type:

N/A Soil Date Received:

10/01/2009

Date Analyzed:

10/08/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 7.87
Bromomethane	ND< 7.87
Bromoform	ND< 19.7
Carbon Tetrachloride	ND< 19.7
Chloroethane	ND< 7.87
Chloromethane	ND< 7.87
2-Chloroethyl vinyl Ether	ND< 39.3
Chloroform	ND< 7.87
Dibromochloromethane	ND< 7.87
1,1-Dichloroethane	ND< 7.87
1,2-Dichloroethane	ND< 7.87
1,1-Dichloroethene	ND< 7.87
cis-1,2-Dichloroethene	ND< 7.87
trans-1,2-Dichloroethene	ND< 7.87
1,2-Dichloropropane	ND< 7.87
cis-1,3-Dichloropropene	ND< 7.87
trans-1,3-Dichloropropene	ND< 7.87
Methylene chloride	ND< 19.7
1,1,2,2-Tetrachloroethane	ND< 7.87
Tetrachloroethene	ND< 7.87
1,1,1-Trichloroethane	ND< 7.87
1,1,2-Trichloroethane	ND< 7.87
Trichloroethene	ND< 7.87
Trichlorofluoromethane	ND< 7.87
Vinyl chloride	ND< 7.87
ELAP Number 10958	Meth

Aromatics	Results in ug / Kg
Benzene	ND< 7.87
Chlorobenzene	ND< 7.87
Ethylbenzene	ND< 7.87
Toluene	11.9
m,p-Xylene	13.8
o-Xylene	ND< 7.87
Styrene	ND< 19.7
1,2-Dichlorobenzene	ND< 19.7
1,3-Dichlorobenzene	ND< 19.7
1,4-Dichlorobenzene	ND< 7.87

Ketones	Results in ug / Kg
Acetone	ND< 39.3
2-Butanone	ND< 39.3
2-Hexanone	ND< 19.7
4-Methyl-2-pentanone	ND< 19.7

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 7.87
Vinyl acetate	ND< 19.7
•	

ELAP Number 10958

Method: EPA 8260B

Data File: V69293.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Internal Standard outliers indicate probable matrix interference

Signature:

Bruce Hoogest Pechnical Director

This report is part of a multipage document of should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.



Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)

Client: SJB Services

Client Job Site: Buffalo Aud Site Lab Project Number: 09-3579

Lab Sample Number: 11059 Client Job Number: N/A

 Field Location:
 B-8 (0-9') TCL
 Date Sampled:
 09/28/2009

 Field ID Number:
 N/A
 Date Received:
 10/01/2009

 Sample Type:
 Soil
 Date Analyzed:
 10/08/2009

Aromatics	Results in ug / Kg	Aro matics	Results in ug / Kg
n-Butylbenzene	ND< 39.3	1,2,4-Trimethylbenzene	ND< 7.87
sec-Butylbenzene	ND< 7.87	1,3,5-Trimethylbenzene	ND< 7.87
tert-Butylbenzene	ND< 19.7		
n-Propylbenzene	ND< 7.87	Miscellaneous	
Isopropylbenzene	ND< 39.3	Methyl tert-butyl Ether	ND< 7.87
p-Isopropyltoluene	ND< 39.3	•	
Naphthalene	ND< 19.7		

ELAP Number 10958 Method: EPA 8260B Data File: V69293.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference Internal Standard outliers indicate probable matrix interference

Signature:



Volatile Analysis Report for TCLP Extract

Client: SJB Services

Client Job Site:

Buffalo Aud. Site

Lab Project Number: 09-3579

Client Job Number:

N/A

Lab Sample Number: 11058

Field Location:

B-8 (0-9') TCLP

Date Sampled:

09/28/2009

Field ID Number:

N/A

Date Received:

10/01/2009

Sample Type:

TCLP Extract

Date Analyzed:

10/05/2009

Compounds	Results in ug / L	Regulatory Limits in ug / L
Benzene	ND< 20.0	500
2-Butanone	ND< 100	200,000
Carbon Tetrachloride	ND< 20.0	500
Chlorobenzene	ND< 20.0	100,000
Chloroform	ND< 20.0	6,000
1,2-Dichloroethane	ND< 20.0	500
1,1-Dichloroethene	ND< 20.0	700
Tetrachloroethene	ND< 20.0	700
Trichloroethene	ND< 20.0	500
Vinyl chloride	ND< 20.0	200
	· · · · · · · · · · · · · · · · · · ·	D 4 E1 1/004

ELAP Number 10958

Method: EPA 8260B

Data File: V69180.D

Comments: ND denotes Non Detect ug / L = microgram per Liter

Signature:

PARADIGM

CHAIN OF CUSTODY

Comments: Temperature:	Holding Time:	Preservation:	Container Type: Comments:	Receipt Parameter	Sample Condition: Per NELAC/ELAP 210/241/242/243/244	**LAB USE ONLY BELOW THIS LINE**	10	9	8	7	σ	OI.	4	3	2 + + +	19128109 1051 X	DATE TIME O		COTTO POD		Rochester, NY 14608 (585) 647-2530 • (800) 724-1997		SERVICES, INC.
~	z []	N/0 Y	Y Z	NELAC Compliance	110/241/242/243/244	HIS LINE**		Filter Trest	Reach why a Pant	Ignitibility; Corresion	TCLP Herbuides:	100	TCLP YOCS TCLPSVOS	TOLP "Labeled" BOHHES	↓	B-80-9") TUP	G R SAMPLE LOCATION/FIELD ID B	I KESUTS 10: CI	 	الّــا	7 ST	770	COMPANY:
Received @ Lab By		water Cab	Sampled BO							Q ₂		Restrictes,	ias	麦	← ×	Sol 4 X	X-N-X N N N N N N N N N N N N N N N N N N N	GENEROUS REQUESTED AN		PHONE: FAX:	ZIP: OITY:	ADDRESS:	COMPANY: INVOICE TO:
10/1/09 1505 Date/Time		00	7 - 28 - Ο) Date/Time / Total	0.000			PCB5	Herbicides	Post or des	TALMetels + Ho	TCL SVOCS	TCL NOCS+STARS NOG+	Total Palysis:	TCL"Labeled Bottle			REMARKS	Con	1 2 QUOTE#:]	STATE: ZIP: TURNAROUND TIME: (WORKING DAYS)	09-3579	E TO: (LAB PROJECT #:
~		lotal Cost.	Ost:							Í		NOCS + M TISE		STE STE	11059	11058	PARADIGM LAB SAMPLE NUMBER		3 🔀 5	STD OTHER	(WORKING DAYS)		CLIENT PROJECT #:



Analytical Report Cover Page

SIB Services

For Lab Project # 09-3634 Issued October 13, 2009 This report contains a total of 9 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

[&]quot;ND" = analyzed for but not detected.

[&]quot;E" = Result has been estimated, calibration limit exceeded.

[&]quot;D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

[&]quot;M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

[&]quot;B" = Method blank contained trace levels of analyte. Refer to included method blank report.



Client:

SJB Services

Lab Project No.:

09-3634

Client Job Site:

Buffalo Aud Site

Lab Sample No.:

11219

Soil

Client Job No.:

N/A

Sample Type:

Field Location:

B-10 (0-8')

Date Sampled: Date Received:

09/29/2009 10/05/2009

Field ID No.:

N/A

Laboratory Report for TAL Metals Analysis in Solid

	Date Analyzed	Analytical	Result (mg/kg)			
		Method				
Aluminum	10/13/2009	SW846 6010	13900			
Antimony	10/13/2009	SW846 6010	<5.56			
Arsenic	10/13/2009	SW846 6010	4.66			
Barium	10/13/2009	SW846 6010	106			
Beryllium	10/13/2009	SW846 6010	0.689			
Cadmium	10/13/2009	SW846 6010	0.697			
Calcium	10/13/2009	SW846 6010	64200			
Chromium	10/13/2009	SW846 6010	20.0			
Cobalt	10/13/2009	SW846 6010	8.38			
Copper	10/13/2009	SW846 6010	31.3			
Iron	10/13/2009	SW846 6010	21500			
Lead	10/13/2009	SW846 6010	161			
Magnesium	10/13/2009	SW846 6010	16600			
Manganese	10/14/2009	SW846 6010	288			
Mercury	10/12/2009	SW846 7471	0.388			
Nickel	10/13/2009	SW846 6010	19.7			
Potassium	10/13/2009	SW846 6010	3440			
Selenium	10/13/2009	SW846 6010	<0.463			
Silver	10/13/2009	SW846 6010	<0.927			
Sodium	10/14/2009	SW846 6010	886			
Thallium	10/13/2009	SW846 6010	<0.556			
Vanadium	10/13/2009	SW846 6010	29.1			
Zinc	10/13/2009	SW846 6010	102			

ELAP ID No.:10958

Comments:

Approved By:



Client:

SJB Services

Lab Project No:

09-3634

Client Job Site:

Buffalo Aud Site

Lab Sample No: Sample Type:

11219 Soil

Client Job No:

N/A

Date Sampled: Date Received:

9/29/2009 10/5/2009

Field Location:

B-10 (0-8')

Date Analyzed:

10/7/2009

Laboratory Report for Herbicides Analysis

Parameter	Result (ug/kg)	Reporting Limit (ug/kg)			
2,4-D	ND	260			
2,4,5-T	ND	260			
2,4,5-TP (Silvex)	ND	260			

Analytical Method: 8151

ELAP ID: 10709

Comments:

ND denotes Non Detect.

Approved By Technical Director:

Bruce Hoogestege



PCB Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud. Site

Lab Project Number: 09-3634

Client Job Number: N/A

Lab Sample Number: 11219

Field Location:

B-10 (0-8')

Date Sampled:

09/29/2009

Field ID Number: Sample Type:

N/A Soil

Date Received:

10/05/2009

Date Analyzed:

10/08/2009

PCB Identification	Results in mg / Kg
Aroclor 1016	ND< 0.368
Aroclor 1221	ND< 0.368
Aroclor 1232	ND< 0.368
Aroclor 1242	ND< 0.368
Aroclor 1248	ND< 0.368
Aroclor 1254	ND< 0.368
Aroclor 1260	ND< 0.368

ELAP Number 10958

Method: EPA 8082

Comments: ND denotes Non Detect

mg / Kg = milligram per Kilogram

Signature:



Pesticide Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-3634

Lab Sample Number: 11219

3-3034 4040

Client Job Number:

N/A

B-10 (0-8')

Date Sampled:

09/29/2009

Field Location: Field ID Number:

N/A

Date Received:

10/05/2009

Sample Type:

Soil

Date Analyzed:

10/07/2009

Pesticide Identification	Results in ug / Kg
Aldrin	ND< 4.30
alpha-BHC	ND< 4.30
beta-BHC	ND< 4.30
delta-BHC	ND< 4.30
gamma-BHC	ND< 4.30
alpha-Chlordane	ND< 4.30
gamma-Chlordane	ND< 4.30
4,4'-DDD	ND< 4.30
4,4'-DDE	ND< 4.30
4,4'-DDT	ND< 4.30
Dieldrin	ND< 4.30
Endosulfan I	ND< 4.30
Endosulfan II	ND< 4.30
Endosulfan Sulfate	ND< 4.30
Endrin	ND< 4.30
Endrin Aldehyde	ND< 4.30
Heptachlor	ND< 4.30
Heptachlor Epoxide	ND< 4.30
Methoxychlor	ND< 22.0
Toxaphene	ND< 220

ELAP Number 10709

Method: EPA 8081

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Signature:



Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud. Site

Lab Project Number: 09-3634

Client Job Number:

N/A

Lab Sample Number: 11219

Field Location:

B-10 (0-8')

Date Sampled: **Date Received:** 09/29/2009 10/05/2009

Field ID Number: Sample Type:

N/A Soil

10/09/2009

Date Analyzed:

			Deculto in us / //s
Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	ND< 349	Dibenz (a,h) anthracene	ND< 349
Anthracene	ND< 349	Fluoranthene	722
Benzo (a) anthracene	ND< 349	Fluorene	ND< 349
Benzo (a) pyrene	ND< 349	Indeno (1,2,3-cd) pyrene	ND< 349
Benzo (b) fluoranthene	ND< 349	Naphthalene	ND< 349
Benzo (g,h,i) perylene	ND< 349	Phenanthrene	607
Benzo (k) fluoranthene	ND< 349	Pyrene	533
Chrysene	ND< 349	Acenaphthylene	ND< 349
Diethyl phthalate	ND< 349	1,2-Dichlorobenzene	ND< 349
Dimethyl phthalate	ND< 872	1,3-Dichlorobenzene	ND< 349
Butylbenzylphthalate	ND< 349	1,4-Dichlorobenzene	ND< 349
Di-n-butyl phthalate	ND< 349	1,2,4-Trichlorobenzene	ND< 349
Di-n-octylphthalate	ND< 349	Nitrobenzene	ND< 349
Bis (2-ethylhexyl) phthalate	ND< 349	2,4-Dinitrotoluene	ND< 349
2-Chloronaphthalene	ND< 349	2,6-Dinitrotoluene	ND< 349
Hexachlorobenzene	ND< 349	Bis (2-chloroethyl) ether	ND< 349
Hexachloroethane	ND< 349	Bis (2-chloroisopropyl) ether	ND< 349
Hexachlorocyclopentadiene	ND< 349	Bis (2-chloroethoxy) methan	ND< 349
Hexachlorobutadiene	ND< 349	4-Bromophenyl phenyl ether	ND< 349
N-Nitroso-di-n-propylamine	ND< 349	4-Chlorophenyl phenyl ether	ND< 349
N-Nitrosodiphenylamine	ND< 349	Benzidine	ND< 872
N-Nitrosodimethylamine	ND< 349	3,3'-Dichlorobenzidine	ND< 349
Isophorone	ND< 349	4-Chloroaniline	ND< 349
Benzyl alcohol	ND< 872	2-Nitroaniline	ND< 872
Dibenzofuran	ND< 349	3-Nitroaniline	ND< 872
2-Methylnapthalene	ND< 349	4-Nitroaniline	ND< 872

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	ND< 349	2-Methylphenol	ND< 349
2-Chlorophenol	ND< 349	3&4-Methylphenol	ND< 349
2,4-Dichlorophenol	ND< 349	2,4-Dimethylphenol	ND< 349
2,6-Dichlorophenol	ND< 349	2-Nitrophenol	ND< 349
2,4,5-Trichlorophenol	ND< 872	4-Nitrophenol	ND< 872
2,4,6-Trichlorophenol	ND< 349	2,4-Dinitrophenol	ND< 872
Pentachlorophenol	ND< 872	4,6-Dinitro-2-methylphenol	ND< 872
4-Chloro-3-methylphenol	ND< 349	Benzoic acid	ND< 872

ELAP Number 10958

Method: EPA 8270C

Data File: S47142.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Volatile Analysis Report for Soils/Solids/Sludges

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-3634

Lab Sample Number: 11219

Client Job Number: N/A Field Location:

B-10 (0-8')

Date Sampled:

09/29/2009

Field ID Number: Sample Type:

N/A Soil Date Received:

10/05/2009

Date Analyzed:

10/08/2009

Halocarbons	Results in ug / Kg
Bromodichloromethane	ND< 9.11
Bromomethane	ND< 9.11
Bromoform	ND< 22.8
Carbon Tetrachloride	ND< 22.8
Chloroethane	ND< 9.11
Chloromethane	ND< 9.11
2-Chloroethyl vinyl Ether	ND< 45.6
Chloroform	ND< 9.11
Dibromochloromethane	ND< 9.11
1,1-Dichloroethane	ND< 9.11
1,2-Dichloroethane	ND< 9.11
1,1-Dichloroethene	ND< 9.11
cis-1,2-Dichloroethene	ND< 9.11
trans-1,2-Dichloroethene	ND< 9.11
1,2-Dichloropropane	ND< 9.11
cis-1,3-Dichloropropene	ND< 9.11
trans-1,3-Dichloropropene	ND< 9.11
Methylene chloride	ND< 22.8
1,1,2,2-Tetrachloroethane	ND< 9.11
Tetrachloroethene	ND< 9.11
1,1,1-Trichloroethane	ND< 9.11
1,1,2-Trichloroethane	ND< 9.11
Trichloroethene	ND< 9.11
Trichlorofluoromethane	ND< 9.11
Vinyl chloride	ND< 9.11
ELAD N 40050	Matha

Aromatics	Results in ug / Kg
Benzene	ND< 9.11
Chlorobenzene	ND< 9.11
Ethylbenzene	ND< 9.11
Toluene	ND< 9.11
m,p-Xylene	ND< 9.11
o-Xylene	ND< 9.11
Styrene	ND< 22.8
1,2-Dichlorobenzene	ND< 22.8
1,3-Dichlorobenzene	ND< 22.8
1,4-Dichlorobenzene	ND< 9.11

Ketones	Results in ug / Kg
Acetone	ND< 45.6
2-Butanone	ND< 45.6
2-Hexanone	ND< 22.8
4-Methyl-2-pentanone	ND< 22.8

Miscellaneous	Results in ug / Kg
Carbon disulfide	ND< 9.11
Vinyl acetate	ND< 22.8

ELAP Number 10958

Method: EPA 8260B

Data File: V69322.D

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:



Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)

Client: SJB Services

Client Job Site:

Buffalo Aud Site

Lab Project Number: 09-3634

Lab Sample Number: 11219

Client Job Number:

N/A

B-10 (0-8')

Date Sampled:

09/29/2009

Field Location: Field ID Number: Sample Type:

N/A Soil Date Received:

10/05/2009

Date Analyzed:

10/08/2009

Aromatics	Results in ug / Kg	Aromatics Aromatics	Results in ug / Kg
n-Butylbenzene	ND< 45.6	1,2,4-Trimethylbenzene	ND< 9.11
sec-Butylbenzene	ND< 9.11	1,3,5-Trimethylbenzene	ND< 9.11
tert-Butylbenzene	ND< 22.8		
n-Propylbenzene	ND< 9.11	Miscellaneous	
Isopropylbenzene	ND< 45.6	Methyl tert-butyl Ether	ND< 9.11
p-Isopropyltoluene	ND< 45.6	· ·	
Naphthalene	ND< 22.8		

Data File: V69322.D Method: EPA 8260B ELAP Number 10958

Comments: ND denotes Non Detect

ug / Kg = microgram per Kilogram

Surrogate outliers indicate probable matrix interference

Signature:

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition 093634V1.XLS requirements upon receipt.

PARADIGM

CHAIN OF CUSTODY

	Temperature: リゑってってんと	Holding Time:	Preservation:	Container Type:	Receipt Parameter	Sample Condition: Per NELAC/ELAP 210/241/242/243/244	9	CO	7	о	O	4	3	┝──	19:29:05 165 X	DATE TIME O	BARLOANSH	PROJECT NAME/SITE NAME:	(585) 647-2530 • (800) 724-1997 FAX: (585) 647-3311	179 Lake Avenue Boohester NY 14608	SERVICES, INC.
	red		Z			AP 210/24										พ > ม ด	T T	ATTN: S.	PHONE:	ADDRESS:	COMPANY
	~ []	z []	z	z []	NELAC Compliance	LINE 11/242/243/244									B-10(0-8')	SAMPLE LOCATION/FIELD ID	Please Encul Results	Bochenek	7/6-649-8110 Thember 24	5167	TOTA SEPORT TO:
	ab By	Resement BV	Relinguished By	Sample BY) \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \										501 2	X - Z - Z - Z - Z - Z - Z - Z - Z - Z -	TO Stadyonat OSIVO	ATTN:	14075 PHONE:		COMPANY:
1100 10101 110	11/3/65 3 3 Date/Time	. Date/Time	Date/Time	9.7.07 Date/Time	(R	Ta.	To T	TAL	4	+	701	Total		PESS. COM		FAX:		INVOICE IO:
č				Total Cost:				BS	abcries	Acides	FALMAKIS+RA	EL SVOCS	+MTBE	TCL NOCS + STARS	Total Analysis.	REMARKS		1 2 3	STD	09.3634	
															11219	PARADIGM LAB SAMPLE NUMBER		X ₅	D OTHER		CLIENT PROJECT #:



A SUBSIDIARY OF SJB SERVICES, INC.

CORPORATE/ BUFFALO OFFICE

5167 South Park Avenue Hamburg, NY 14075 Phone: (716) 649-8110 Fax: (716) 649-8051

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ROCHESTER OFFICE 535 Summit Point Drive Henrietta, NY 14467 Phone: (585) 359-2730 Fax: (585) 359-9668

MEMBER

ACEC New York

Supplemental Environmental Data Report for Inner Harbor Development, Phase 3A - Canal Side Public Canal Environments Project Buffalo, New York

Prepared For:

Erie Canal Harbor Development Corporation

c/o C&S Companies 90 Broadway Street Buffalo, New York, 14203

Prepared By:

Empire Geo-Services, Inc. 5167 South Park Avenue Hamburg, New York, 14075

> Project No. BE-11-055 August 2011



A SUBSIDIARY OF SJB SERVICES, INC.

August 10, 2011 Project No. BE-11-055

Erie Canal Harbor Development Corporation

BUFFALO OFFICE 5167 South Park Avenue Hamburg, NY 14075 Phone: (716) 649-8110 Fax: (716) 649-8051

CORPORATE/

c/o Mr. Darryl C. Murszewski, Senior Project Engineer C&S Companies 90 Broadway Street Buffalo, New York, 14203

Re: Supplemental Environmental Data Report for Inner Harbor Development, Phase 3A - Canal Side Public Canal Environments Project Buffalo, New York

ALBANY OFFICE PO Box 2199 Ballston Spa, NY 12020

5 Knabner Road Mechanicville, NY 12118 Phone: (518) 899-7491 Fax: (518) 899-7496 Dear Mr. Murszewski:

Empire Geo-Services, Inc. is pleased to submit three (3) copies of the enclosed Supplemental Environmental Data Report for the Inner Harbor Development, Phase 3A - Canal Side, Public Canal Environments Project (Public Canal Environments Project). We have also included a pdf electronic file copy of this report for use by the project team.

This supplemental report includes the results of additional field explorations, field environmental screening and laboratory environmental analyses, which supplement our November 6, 2009 "Environmental Soil Data Report for the Former Buffalo Memorial Auditorium Site, Proposed Buffalo Canal Side Development". C&S Companies (C&S), on behalf of the Erie Canal Harbor Development Corporation (ECHDC), retained Empire to complete this additional exploration work and supplemental report.

This investigation included a supplemental geotechnical evaluation and environmental field screening of the soil samples recovered from the additional explorations and environmental laboratory analysis of selected soil samples collected from supplemental test boring B-15. This letter report summarizes the environmental field screening and laboratory data. This report also presents the supplemental subsurface exploration logs (Appendix A), and an updated subsurface exploration location plan (Figure 1). Empire will submit the supplemental geotechnical evaluation report to C&S under a separate cover.

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MEMBER



SUPPLEMENTAL SUBSURFACE INVESTIGATION

Four (4) additional test borings, designated as borings B-15, B-16, B-17 and B-18/18A and the installation of groundwater observation well B-16 were completed by Empire / SJB in the area of the proposed Public Canal Environments Project. These explorations were completed between June 2nd and 7th, 2011 and their locations are shown on Figure 2.

The test boring locations were established in the field jointly by Empire and C&S, at mutually agreed upon locations. Following completion of the drilling, Foit Albert Associates obtained the "as-drilled" locations of the test borings and monitoring well, and determined the ground surface elevations. This data was provided to Empire for inclusion with this report.

The test borings were made using a Central Mine Equipment (CME) model 75 truck mounted drill rig. The test borings were advanced in the overburden soils using hollow stem auger and split spoon sampling techniques. If significant running sands were encountered during the advancement of the test borings, the augers were replaced with three-inch casing.

Split spoon samples and Standard Penetration Tests (SPTs) were taken continuously from the ground surface to a depth of 30 to 32 feet and in intervals of five feet or less below the zone of continuous sampling. The split spoon sampling and SPTs were completed in general accordance with ASTM D 1586 - "Standard Test Method for Penetration Test and Split-Barrel Sampling of Soils".

Each of these test borings were advanced through the overburden until encountering auger refusal conditions (top of bedrock), which was encountered at depths ranging from about 38.0 feet (B-15) to 46.6 feet (B-18A). After auger refusal was met, approximately 10 feet bedrock was cored in general accordance with ASTM D 2113 – "Standard Practice for Rock core Drilling and Sampling of Rock for Site Investigation".

A Geologist from SJB was present on site during this exploration work and prepared the test boring logs based on visual observation of the recovered soil and bedrock samples and a review of the driller's field notes. The test boring logs are presented in Appendix A, along with general information and a key of terms and symbols used to prepare the logs.

ENVIRONMENTAL FIELD SCREENING

The recovered soil samples were screened by Empire's field geologist for volatile organic compound (VOC) vapors using an Ion Science PhoCheck 1000 Photoionization Detector (PID) equipped with a 10.6 eV lamp. The PID will detect, if present, the aggregate concentration of many VOCs at a practical threshold of approximately 1-2 parts per million (ppm). In addition, the soils were visually inspected for evidence of environmental degradation (i.e. discoloration, odors, etc.).

In general, the PID readings were at ambient/background levels for the recovered soil samples collected at test borings B-16, B-17 and B-18. Elevated measurements were detected on the soils samples recovered from test boring B-15 from 12 to 26 feet below grade. Generally, the measurements were less than or equal to 2 parts per million (ppm). A detection of 17.2 ppm and 9.8 ppm were recorded at a depth of 16 to 18 feet and 14 to 16 feet, respectively. Staining was also observed on the soil samples collected from 14 to 18 feet below grade in test boring B-15. However, olfactory evidence of petroleum or chemical impacts was not associated with the staining. The results of the PID screenings and noted observations are presented on the subsurface logs in Appendix A.

SAMPLE COLLECTION AND ENVIRONMENTAL LABORATORY ANALYSIS

A soil sample was collected from test boring B-15 for laboratory analysis as requested by C&S. The sample was composited from ground surface to a depth 14 feet. The soil sample was placed into pre-cleaned containers, labeled with the date, time and location of project and placed in an iced cooler at approximately 4-degrees Celsius for transport to Paradigm Environmental Services, Inc. (Paradigm) in Rochester, New York. Paradigm is a New York State Department of Health (NYSDOH) certified analytical testing laboratory. Chain-of-custody documentation accompanied the samples. Paradigm's analytical reports are presented in Appendix B.

The submitted soil sample was analyzed for Target Compound List (TCL) Volatile Organic Compounds (VOCs) including NYSDEC Spill Technology and Remediation Series (STARS) VOCs and Methyl tert-butyl Ether (MTBE), TCL Semi-Volatile Organic Compounds (SVOCs), Target Analyte List (TAL) Metals including Mercury, Pesticide Compounds, Herbicide Compounds, and Polychlorinated Biphenyls (PCBs). In addition, a second set of soil samples was collected and was analyzed for Toxicity Characteristic Leaching Procedure

(TCLP) VOCS, TCLP SVOCs, TCLP Metals, TCLP Pesticide Compounds, TCLP Herbicide Compounds, ignitability, corrosivity, reactivity, and paint filter analysis.

LABORATORY ANALTYCAL RESULTS

Analysis for Total Concentrations

The analytical results for the soil samples were compared to the New York State Department of Environmental Conservation (NYSDEC) Restricted Use Soil Cleanup Objectives (RUSCOs) for Commercial use presented in the NYSDEC 6 New York Code, Rules and Regulations (6NYCRR) Part 375 Environmental Remediation Programs, effective December 2006.

Volatile Organic Compounds: Volatile organic compounds were not detected above the test method limits for the submitted soil sample.

Semi-Volatile Organic Compounds: Semi-volatile organic compounds were not detected above the test method limits for the submitted soil sample.

Metals: Fifteen metals were detected in the collected soil sample. Of these detections, RUSCOs were not issued by the NYSDEC for aluminum, calcium, iron, magnesium, potassium, sodium and vanadium. Arsenic, barium, chromium, copper, lead, manganese, nickel and zinc were detected in the submitted samples at concentration levels well below their respective RUSCOs.

Pesticide Compounds: Pesticide compounds were not detected above the test method limits for the submitted soil sample.

Herbicide Compounds: Herbicide compounds were not detected above the test method limits for the submitted soil sample.

Polychlorinated Biphenyls: Polychlorinated biphenyls were not detected above the test method limits for the submitted soil sample.

Analysis for Leachable Concentrations and Hazardous Waste Testing

The laboratory data resulting from the Toxicity Characteristic Leaching Procedure (TCLP) analysis were compared to the Regulatory Levels included in Table 1, "Contaminant Concentration for Toxicity," of NYSDEC Part 371.2 regarding hazardous waste criteria.

Volatile Organic Compounds: The analysis of the TCLP extract did not detect volatile organic compounds above the method detection limits.

Semi-Volatile Organic Compounds: The analysis of the TCLP extract did not detect semi-volatile organic compounds above the method detection limits.

Metal/Inorganic Compounds: Barium was detected in the TCLP extract at concentration level of 1.52 ppm which is well below the Part 371.2 level 0f 100 ppm.

Pesticide Compounds: The analysis of the TCLP extract did not detect pesticide compounds above the method detection limits.

Herbicide Compounds: The analysis of the TCLP extract did not detect herbicide compounds above the method detection limits.

Ignitability: The submitted soil sample did not exhibit a flashpoint greater than 70 degrees Celsius and therefore is considered nonhazardous for ignitability.

Reactivity: The submitted soil sample did not exhibit cyanide and sulfide reactivity levels that exceeded regulatory limits and therefore is considered nonhazardous for reactivity.

Corrosivity: The submitted soil sample exhibited pH result of 7.88 standard units and therefore is considered nonhazardous for corrosivity.

Paint Filter Test: The submitted soil samples had acceptable results for the paint filter test.

Erie Canal Harbor Development Corporation c/o C&S Companies August 10, 2011 Page 6 of 6

This report has been prepared for the exclusive use of Erie Canal Harbor Development Corporation c/o C&S Companies for specific application to the Public Canal Environments Project at the Former Buffalo Memorial Auditorium Site in accordance with generally accepted environmental practices. If you have any questions or require further assistance, please contact us.

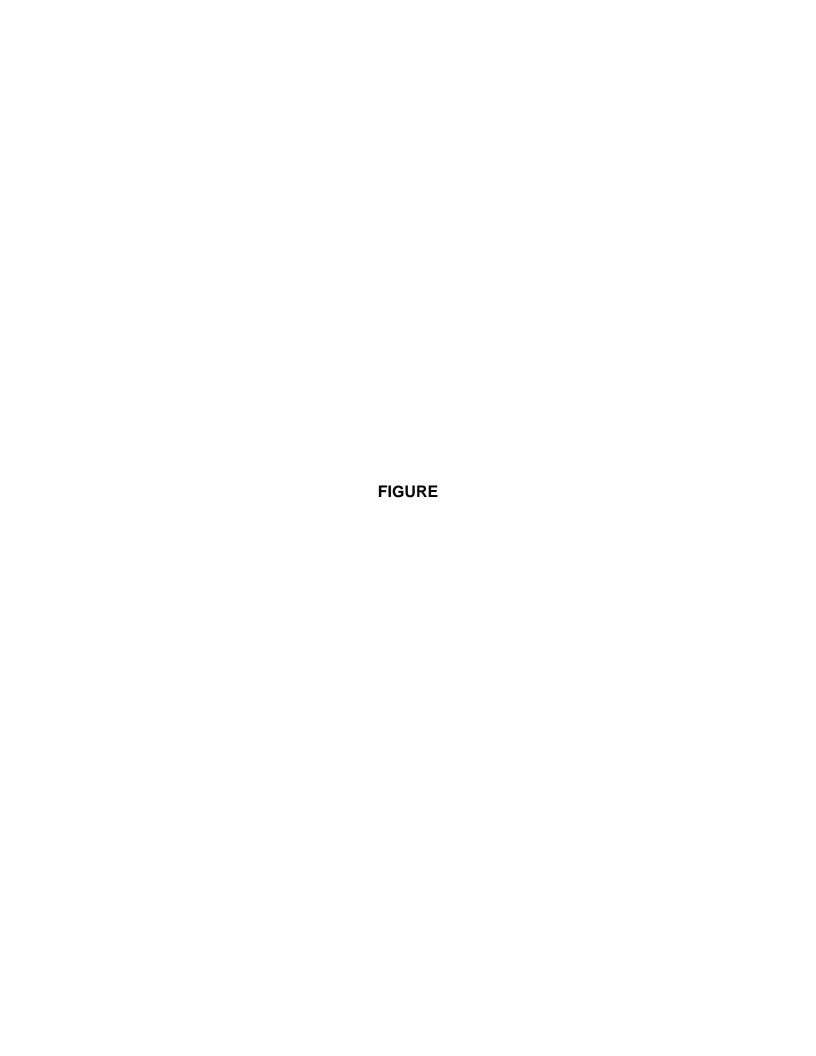
Respectfully submitted,

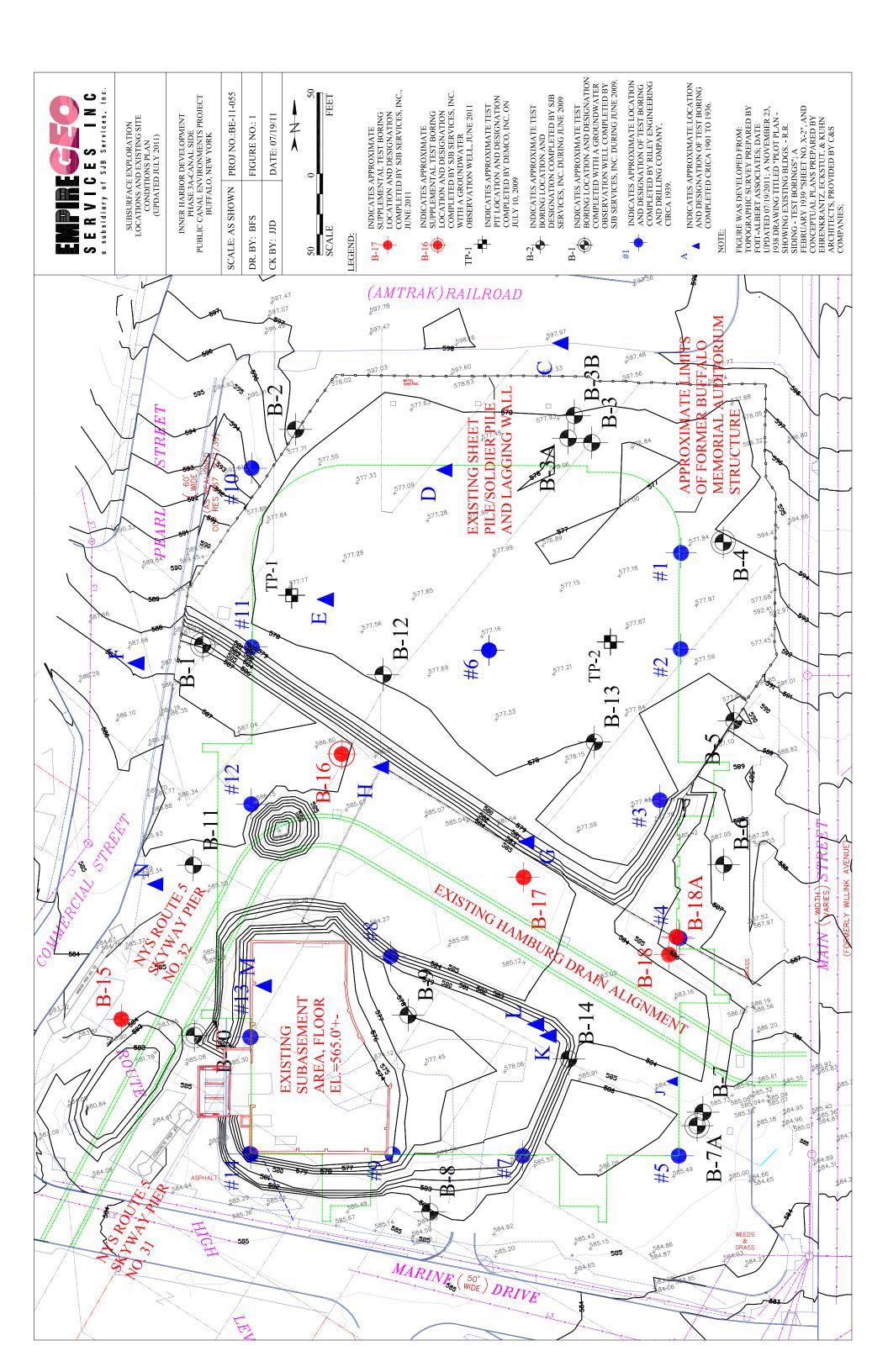
EMPIRE GEOSERVICES, INC.

Stephen J. Bochenek Engineering Geologist David R. Steiner

Environmental Services Manager

Attachments as Noted





APPENDIX A

SUBSURFACE LOGS 2011 SUPPLEMENTAL TEST BORINGS (BORINGS B-15, B-16, B-17 AND B-18/18A)

DATE STARTED FINISHED SHEET OF SE	SJB SERVICES, INC. SUBSURFACE LOG	PROJ. No. HOLE No. SURF. ELEV. G.W. DEPTH										
PROJECT LOCATION												
beau ameri ana enadepose 20110 : atizoneo ve X ati no awoni ziarida	o by quanties protessionals. The removing information defines some	egisted to state and set of persong										
SAMPLES SAMPLER SAMPLE NO O D D D D D D D D D D D D D D D D D	SOIL OR ROCK CLASSIFICATION	NOTES										
0 1 3 3 4 8 7 10	3" TOPSOIL	Groundwater at 10'										
15	Brown SILT, some Sand, trace clay, ML (Moist-Loose)	upon completion, and_ 5' 24 hrs. after										
123 4 5	Gray SHALE, medium hard, weathered, thin bedded, some fractures (numbered features explained on reverse)	completion Run#1, 2.5'-5.0' 95% Recovery 50% RQD										
TABLE I TABLE	II TABLE III	5. Blows on Casing - learness verient an										

Split Spoon Sample









Identification of soil type is made on basis of an estimate of particle sizes, and in the case of fine grained soils also on basis of plasticity.

Soil Type	Soil Particle Size	
Boulder	>12"	the Japonstony by
Cobble	3" - 12"	O DESTRUCTION OF THE CO.
Gravel - Coarse	3" - 3/4"	Coarse Grained
- Fine	3/4" - #4	(Granular)
Sand - Coarse	#4 - #10	sor meanifed by
- Medium	#10 - #40	The State of the S
- Fine	#40 - #200	the synday soll
Silt - Non Plastic (Col		Fine Grained

The following terms are used in classifying soils consisting of mixtures of two or more soil types. The estimate is based on weight of total sample.

Term	Percent of Total Sample				
"and"	35 - 50				
"some"	20 - 35				
"little"	10 - 20				
"trace"	less than 10				

(When sampling gravelly soils with a standard split spoon, the true percentage of gravel is often not recovered due to the relatively small sampler diameter.)

TABLE IV

The relative compactness or consistency is described in accordance with the following terms:

Granular Soi	ls	Cohesive S	Soils
Term	Blows per Foot, N	Term	Blows per Foot, N
Very Loose	0 - 4	Very Soft	0 - 2
Loose	4 - 10	Soft Medium	2 - 4 4 - 8
Firm Compact	10 - 30 30 - 50	Stiff	8 - 15
Very Compact	>50	Very Stiff Hard	15 - 30 >30

(Large particles in the soils will often significantly influence the blows per foot recorded during the penetration test)

TABLE V

Varved	Horizontal uniform layers or seams of soil(s).
Layer	Soil deposit more than 6" thick.
Seam	Soil deposit less than 6" thick.
Parting	Soil deposit less than 1/8" thick.
Laminated	Irregular, horizontal and angled seams and partings of soil(s).

TABLE VI

Rock Class	sification Term	Meaning	Rock Cla	ssification Term	Meaning	ofie
Hardness	- Soft	Scratched by fingernail	Bedding	- Laminated	(<1")	
	- Medium Hard	Scratched easily by penknife	e iength of pend	- Thin Bedded	(1" - 4")	
	- Hard	Scratched with difficulty by penknife	ock Quanty Lit	- Bedded	(4" - 12")	Natural breaks
	- Very Hard	Cannot be scratched by penknife	e el docu lotico	- Thick Bedded	(12" - 36")	in Rock Layers
Weathering	- Very Weathered	Judged from the relative amounts of		- Massive	(>36")	
	- Weathered - Sound	disintegration, iron staining, core recovery, clay seams, etc.	(Fracturing refers to natural breaks in the rock oriented at some angle to the rock layers)			

GENERAL INFORMATION & KEY TO SUBSURFACE LOGS

The Subsurface Logs attached to this report present the observations and mechanical data collected by the driller at the site, supplemented by classification of the material removed from the borings as determined through visual identification by technicians in the laboratory. It is cautioned that the materials removed from the borings represent only a fraction of the total volume of the deposits at the site and may not necessarily be representative of the subsurface conditions between adjacent borings or between the sampled intervals. The data presented on the Subsurface Logs together with the recovered samples provide a basis for evaluating the character of the subsurface conditions relative to the project. The evaluation must consider all the recorded details and their significance relative to each other. Often analyses of standard boring data indicate the need for additional testing or sampling procedures to more accurately evaluate the subsurface conditions. Any evaluation of the contents of this report and recovered samples must be performed by qualified professionals. The following information defines some of the procedures and terms used on the Subsurface Logs to describe the conditions encountered, consistent with the numbered identifiers shown on the Key opposite this page.

- 1. The figures in the Depth column define the scale of the Subsurface Log.
- 2. The Samples column shows, graphically, the depth range from which a sample was recovered. See Table I for descriptions of the symbols used to represent the various types of samples.
- 3. The Sample No. is used for identification on sample containers and/or Laboratory Test Reports.
- 4. Blows on Sampler shows the results of the "Penetration Test", recording the number of blows required to drive a split spoon sampler into the soil. The number of blows required for each six inches is recorded. The first 6 inches of penetration is considered a seating drive. The number of blows required for the second and third 6 inches of penetration is termed the penetration resistance, N.
- 5. Blows on Casing Shows the number of blows required to advance the casing a distance of 12 inches. The casing size, harmner weight, and length of drop are noted at the bottom of the Subsurface Log. If the casing is advanced by means other than driving, the method of advancement will be indicated in the Notes column or under the Method of Investigation at the bottom of the Subsurface Log. Alternatively, sample recovery may be shown in this column, or other data consistent with the column heading.
- 6. All recovered soil samples are reviewed in the laboratory by an engineering technician, geologist or geotechnical engineer, unless noted otherwise. Visual descriptions are made on the basis of a combination of the driller's field descriptions and noted observations together with the sample as received in the laboratory. The method of visual classification is based primarily on the Unified Soil Classification System (ASTM D 2487) with regard to the particle size and plasticity (See Table No. II), and the Unified Soil Classification System group symbols for the soil types are sometimes included with the soil classification. Additionally, the relative portion, by weight, of two or more soil types is described for granular soils in accordance with "Suggested Methods of Test for Identification of Soils" by D.M. Burmister, ASTM Special Technical Publication 479, June 1970. (See Table No. III). Description of the relative soil density or consistency is based upon the penetration records as defined in Table No. IV. The description of the soil moisture is based upon the relative wetness of the soil as recovered and is described as dry, moist, wet and saturated. Water introduced into the boring either naturally or during drilling may have affected the moisture condition of the recovered sample. Special terms are used as required to describe soil deposition in greater detail; several such terms are listed in Table V. When sampling gravelly soils with a standard two inch diameter split spoon, the true percentage of gravel is often not recovered due to the relatively small sampler diameter. The presence of boulders and large gravel is sometimes, but not necessarily, detected by an evaluation of the casing and sampler blows or through the "action" of the drill rig as reported by the driller.
- 7. Rock description is based on review of the recovered rock core and the driller's notes. Frequently used rock classification terms are included in Table VI.
- 8. The stratification lines represent the approximate boundary between soil types and the transition may be gradual. Solid stratification lines delineate apparent changes in soil type, based upon review of recovered soil samples and the driller's notes. Dashed lines convey a lesser degree of certainty with respect to either a change in soil type or where such change may occur.
- 9. Miscellaneous observations and procedures noted by the driller are shown in this column, including water level observations. It is important to realize the reliability of the water level observations depends upon the soil type (water does not readily stabilize in a hole through fine grained soils), and that any drill water used to advance the boring may have influenced the observations. The ground water level will fluctuate seasonally, typically. One or more perched or trapped water levels may exist in the ground seasonally. All the available readings should be evaluated. If definite conclusions cannot be made, it is often prudent to examine the conditions more thoroughly through test pit excavations or groundwater observation wells.
- 10. The length of core run is defined as the length of penetration of the core barrel. Core recovery is the length of core recovered divided by the core run. The RQD (Rock Quality Designation) is the total length of pieces of NX core exceeding 4 inches divided by the core run. The size core barrel used is also noted in the Method of Investigation at the bottom of the Subsurface Log.

START 6/2/2011 FINISH 6/3/2011

SHEET 1 OF 2

SJB SERVICES, INC. SUBSURFACE LOG



HOLE NO. <u>B-15</u>
SURF. ELEV <u>584.4' +/-</u>
G.W. DEPTH See Notes

PRO			Proposed Buffalo Canal Side Development LOCATION: Former Buffalo Memorial Auditorium Site							
PRO	J. N	1O.:	BE-	11-05	55	⁄ork				
DEPTH		SMPL	BLOWS ON SAMPLER			AMPLER		SOIL OR ROCK	NOTES	
FT.		NO.	0/6	6/12	12/18	N	PID	CLASSIFICATION		
	/	1	1	2				Brown Fine SAND, little Silt, tr.gravel, tr.brick,	PID = Photoionization	
	/		4	7		6	BG	tr.cinders (moist, FILL)	Detector, measures in	
	7	2	14	7				Brown Clayey SILT, some f-c Sand, tr.gravel, tr.coal	parts per million	
	VΙ		7	4		14	BG	(moist, FILL)	_	
5		3	2	2				Red-Brown Clayey SILT, tr.gravel, tr.sand	BG = Background	
	V		2	3		4	BG	(moist, FILL)		
		4	4	3				Contains little f-c Sand, tr.brick	_	
	V		3	4		6	BG		WOH = Weight of	
	7	5	2	2				Red-Brown Clayey SILT, some f-c Sand	Hammer and Rods	
10	V		1	2		3	BG	(moist, FILL, possible canal deposit)		
	7	6	WOH	WOH					Collect Composite Soil	
	 /		1	6		1	BG	Contains occasional Cinder seams	from 0' - 14' for analytical	
		7	4	2					testing	
	/	,	4	9		6	3.8	Contains little f-m sand size Cinders (compact)		
15	1	8	4	6			0.0	Dark Grey to Grey f-m SAND, some Silt	Poor Recovery Sample #8	
_ ` _	1/1	-	4	3		10	9.8	(wet, FILL, possible canal deposit)		
		9	3	2		10	0.0	(wet, Fiel, possible earlar deposit)	Black staining noted on	
	1/1	- 3	3	3		5	17.2	Becomes Black f-c Sand, little Silt, tr.gravel, tr.brick	Sample #9	
		10	1	1			17.2	Grey SILT, tr.sand, tr.wood		
20	1/1	10	1	2		2	1.4	(wet, FILL, possible canal deposit)	_	
_ 20 _	۲,	4.4	_				1.4		-	
	1/	11	3	3		-	4.0	Grey Clayey SILT, trsand (wet, medium, ML)		
_	/ /	40	3	2		6	1.8	Contains associated to Convolutions		
_	1/1	12	2	2		4	0.0	Contains occasional f-m Gravel seam		
	γ,	40	2	6		4	2.0	Light Days to Coast or CAND little City to accord		
25	1/	13	3	3				Light Brown to Grey f-m SAND, little Silt, tr.gravel	tr.staining - Sample #13	
	Y,		2	5		5	1.7	(wet, loose, SM)		
_	1/	14	7	10						
_	Ζ,		9	10		19	BG	Becomes Light Brown, contains some Silt (firm)		
	1/	15	2	2						
30	Ľ,		2	3		4	BG	Contains little Silt (loose)	<u> </u>	
	/	16	1	1					Driller notes Auger	
			3	6		4	BG		Refusal at 38'	
									_	
									Due to "Running Sands",	
35									and	
	/	17	3	3				Becomes Brown	Installed 3" Casing prior to	
	\angle		5	6		8	BG		Rock coring	
								Light Grey to Grey LIMESTONE, sound, laminated to	NQ '2' Size Rock Core	
40								thickly bedded, v.hard, occasional horizontal fractures,		
	N =	NO. BL	OWS T				ON 12-II		ASSIFIED BY: Geologist	
	DR	ILLER:		А	. KOS	SKE		DRILL RIG TYPE : CME-75		
	ME	THOD O	F INVE	STIGAT	TION	ASTM I	D-1586 I	JSING HOLLOW STEM AUGERS		

START 6/2/2011 FINISH 6/3/2011

SHEET 2 OF 2

SJB SERVICES, INC. SUBSURFACE LOG



HOLE NO. B-15

SURF. ELEV 584.4' +/
G.W. DEPTH See Notes

PROJECT: Proposed Buffalo Canal Side Development LOCATION: Former Buffalo Memorial Auditorium Site PROJ. NO.: BE-11-055 Buffalo, New York SOIL OR ROCK **NOTES** DEPTH BLOWS ON SAMPLER CLASSIFICATION 12/18 Ν FT. NO Run #1: 38.0' - 43.0' styolites and fossils REC = 100%**RQD = 100%** Run #2: 43.0' - 48.0' **REC = 100%** RQD = 93%Driller notes 100% Water Loss at 40' Boring Complete at 48.0' Free standing water measured at 10' after coring. N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW CLASSIFIED BY: Geologist A. KOSKE DRILL RIG TYPE : CME-75 METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

START 6/1/2011 FINISH 6/2/2011

SHEET 1 OF 2

SJB SERVICES, INC. SUBSURFACE LOG



HOLE NO. <u>B-16</u>
SURF. ELEV <u>586.3' +/-</u>
G.W. DEPTH See Notes

PRO-			Prop BE-1			falo C	anal S	Side Development LOCATION: Former Buffalo Buffalo, New Y	
	J. 1	1	<u>רקר</u>						
DEPTH FT.		SMPL NO.	0/6	6/12	WS ON S.	AMPLER N	PID	SOIL OR ROCK CLASSIFICATION	NOTES
FI.		1	4	8	12/16	IN	FID	Brown f-c SAND, little Silt, tr.gravel, tr.cinders, tr.brick	PID – Photoionization
_	//	•	12	12		20	BG	(moist, FILL)	Detector, measures in
		2	11	6				(s.s., <u></u>)	parts per million
	/ /		7	14		13	BG		
5	7	3	6	3				Becomes Dark Brown to Dark Grey, contains little	BG = Background —
	V I		3	5		6	BG	Clayey Silt	Poor Recovery Sample #2
		4	4	4				Contains tr.organics, tr.coal, occassional Silty Clay	
	V I		4	17		8	BG	partings (wet)	_
	7	5	17	9				Red-Brown Silty CLAY, some f-c Sand, little Fine	-
10	V I		8	12		17	BG	Gravel size Coal, little f-c Sand size Coal, tr.gravel	_
		6	13	8				(moist, FILL)	Poor Recovery Sample #6
	V I		6	3		14	BG	Becomes Red-Brown to Brown Silty Clay, tr.cinders	
		7	3	4				Orange BRICK fragments (moist, FILL)	-
	VΙ		6	19		10	BG		_
15	7	8	4	5				Contains little f-c Sand, tr.silt (wet)	Poor Recovery Sample #8
	VΙ		2	3		7	BG	· ·	_
	7	9	1	2				Black f-m GRAVEL, some f-c Sand, little Silt, little Brick	-
	VΙ		3	2		5	BG	fragments (wet, FILL)	_
		10	WOH	2					WOH = Weight of
20	V I		1	1		3	BG	Contains "and" f-c Sand, tr.slag	Hammer and Rods
	7	11	3	3				Dark Brown to Black f-c SAND, little f-m Gravel,	†
	V I		4	11		7	BG	tr.brick (wet, FILL)	_
	7	12	7	6					_
	VΙ		5	6		11	BG	Contains little Wood	_
25		13	1	2				Brown f-m SAND, tr.silt (wet, v.loose, SP)	-
	V I		1	3		3	BG		_
	7	14	3	4				Contains little f-m Gravel (loose)	_
	VΙ		4	5		8	BG	, , ,	Driller notes "Running
		15	3	5				Becomes Brown f-c Sand, tr.gravel (firm, SW)	Sands" at 30'
30	VΙ		6	7		11	BG		_
	7	16	2	4					
	VΙ		7	4		11	BG		_
									_
35									_
	7	17	3	4				Becomes Light Brown Fine Sand, some Silt	_
_	 /		5	7		9	BG	(wet, loose, SM)	Due to presence of
									"Running Sands", Driller
_									installed 3" casing prior to
40									rock coring
	DRI	ILLER:		Α	. KOS	SKE		NCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW CL DRILL RIG TYPE : CME-75 USING HOLLOW STEM AUGERS	ASSIFIED BY: Geologist

START 6/1/2011 FINISH 6/2/2011

SHEET 2 OF 2

SJB SERVICES, INC. SUBSURFACE LOG



HOLE NO. <u>B-16</u>
SURF. ELEV <u>586.3' +/-</u>
G.W. DEPTH See Notes

PROJECT: Proposed Buffalo Canal Side Development LOCATION: Former Buffalo Memorial Auditorium Site PROJ. NO.: BE-11-055 Buffalo, New York SOIL OR ROCK **NOTES** DEPTH BLOWS ON SAMPLER PID 12/18 Ν CLASSIFICATION FT. NΩ Becomes Brown f-m Sand, tr.gravel, tr.silt Driller notes Auger 18 3 8 14 7 22 BG (wet, firm, SP) Refusal at 43.6' Unable to obtain water level NQ '2' Size Rock Core Light Grey LIMESTONE, sound, hard to v.hard, laminated to thickly bedded, occasional styolites and Run #1: 43.6' - 48.6' fossils REC = 89%RQD = 86%Becomes Light Grey to Grey, contains frequent Run #2: 48.6' - 53.6' styolites (soft) REC = 95%RQD = 91%2" PVC Monitoring Well Boring Complete at 53.6' Installed at Completion See Monitoring Well Completion Record for Well Installation details. N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW CLASSIFIED BY: Geologist A. KOSKE DRILL RIG TYPE: CME-75

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

MONITORING WELL COMPLETION RECORD



2.6'

PROJECT: PROPOSED BUFFALO CANA	SERVICES, INC.	
PROJECT NUMBER: BE-11-055	DRILLING METHOD:	ASTM D-1586
WELL NUMBER: B-16	GEOLOGIST:	S. BOCHENEK
DRILLER: A. KOSKE	INSTALLATION DATI	E(S): 6/2/2011

GROUND ELEV	ATION	4	7	E
EL. 586.	3' _	$\exists \vdash$		E
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ELEVATIONS/ TOP OF SURFACE CASING: EL. 588.85' STICK- UP/ TOP OF SURFACE CASING:

ELEVATION/ TOP OF RISER PIPE: EL 588.71' STICK- UP/ TOP OF RISER PIPE: 2.4' TYPE OF SURFACE SEAL: CONCRETE

I.D. OF SURFACE CASING: 4.0" TYPE OF SURFACE CASING: **LOCKING STEEL CASING**

TYPE OF BACKFILL: **AUGER CUTTINGS BOREHOLE DIAMETER:** 9" +/-I.D. OF RISER PIPE: 2.0" TYPE OF RISER PIPE: PVC DEPTH OF SEAL: 11.0' EL. 575.3'

TYPE OF SEAL: **BENTONITE CHIPS**

DEPTH OF SAND PACK: 14.0' EL. 572.3' **DEPTH TOP OF SCREEN:** 37.2' EL. 548.4' TYPE OF SCREEN: PVC SLOT SIZE X LENGTH: 0.10" X 15' I.D. OF SCREEN: 2.0" TYPE OF SAND PACK: No. 1 SILICA SAND

DEPTH BOTTOM OF SCREEN: 52.9' EL. 533.4' DEPTH BOTTOM OF SAND PACK: 52.9' EL. 533.4' TYPE OF BACKFILL BELOW OBSERVATION WELL:

Bedrock Fragments ELEVATION/ DEPTH OF HOLE: 53.6' EL. 532.7'

START 6/3/2011 FINISH 6/3/2011

SHEET 1 OF 2

SJB SERVICES, INC. SUBSURFACE LOG



HOLE NO. B-17
SURF. ELEV 585.3' +/G.W. DEPTH See Notes

	ROJECT: Proposed Buffalo Canal Side Development LOCATION: Former Buffalo Memorial Auditorium											
PRO	J. N	10.:	BE-11-055 Buffalo, New York									
DEPTH		SMPL	BLOWS ON SAMPLER			SOIL OR ROCK	NOTES					
FT.		NO.	0/6	0/6 6/12 12/18 N PID		PID	CLASSIFICATION					
		1	6	8				Dark Brown f-c SAND, some Silt, little f-m Gravel,	PID = Photoionization			
	VΙ		5	5		13	BG	tr.cinders (moist, FILL)	Detector, measures in			
		2	6	6					parts per million			
	V		10	17		16	BG	Contains little Brick, tr.ash, tr.coal	BG = Background —			
5		3	10	18					BG = Background —			
_	V		17	10		35	BG	Contains some f-m Gravel, little Silt, tr.clay, tr.brick				
		4	11	10								
			14	12		24	BG					
		5	5	7				Dark Brown Silty CLAY, little f-m Gravel, tr.sand,	_			
10			6	8		13	BG	tr.ash, tr.glass (moist, FILL)	<u> </u>			
		6	4	4								
			4	5		8	BG	Contains tr.brick	_			
		7	4	6					WOH = Weight of			
			4	5		10	BG	Contains tr.gravel	Hammer and Rods			
15		8	WOH	1/1.0				Grey to Brown Fine SAND, some Silt	1 =			
	V I		1			1	BG	(wet, FILL, possible canal deposit)	_			
		9	1	3				Dark Grey to Black f-m Gravel size SLAG, little f-c	_			
	VΙ		3	4		6	BG	Sand, little Silt, tr.wood (wet, FILL)	_			
-		10	4	20				Contains tr.glass, tr.metal	_			
20	VΙ		5	4		25	BG		_			
	7	11	5	3				Contains little Wood	Poor Recovery Sample #11			
	VΙ		3	7		6	BG	Brown Fine SAND, little Silt (wet, loose, SM)	1 ' -			
	7	12	4	6					_			
	VΙ		8	7		14	BG	Contains some Silt (firm)	_			
25		13	3	4				, ,	_			
	V I		5	9		9	BG	Contains little Silt (loose)	_			
	7	14	7	7				,	_			
	VΙ		8	10		15	BG	Contains some Silt (firm)	Driller notes "Running			
	7	15	3	1				, ,	Sands" at 26'			
30	V I		1	1		2	BG	Becomes f-c Sand, tr.silt (wet, v.loose, SW)	_			
									_			
									_			
_									_			
	\Box	16	4	5				Becomes f-m Sand, iron staining present (loose)	_			
35	/		4	6		9	BG	31 (333)	_			
									_			
_	1								Due to presence of			
_	1								"Running Sands", Driller			
_	\forall	17	1	4				Becomes Fine Sand, some Silt, occasional Clayey	installed 3" casing prior to			
40	/		8	12		12	BG	Silt seams	rock coring			
	,							-	<u> </u>			
	N =	NO. BLO	OWS TO	O DRIV	/E 2-IN0	CH SPO	ON 12-II	NCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW C	CLASSIFIED BY: Geologist			
		LLER:			. KOS		·= "	DRILL RIG TYPE : CME-75				
			F INVE				D-1586 l	JSING HOLLOW STEM AUGERS				

START 6/3/2011 FINISH 6/3/2011

SHEET 2 OF 2

SJB SERVICES, INC. SUBSURFACE LOG



HOLE NO. B-17
SURF. ELEV 585.3' +/G.W. DEPTH See Notes

PROJ	ECT:				falo C	anal S	Side Development LOCATION: Former Buffalo						
PROJ.	. NO.:	BE-1	11-05	55			Buffalo, New York						
DEPTH	SMPL		BLO	WS ON S	AMPLER		SOIL OR ROCK	NOTES					
FT.	NO.	0/6	6/12	12/18	N	PID	CLASSIFICATION						
_								Driller notes Casing					
-	18	2	50/0.4		REF	BG	Contains little Silt, occasional Silt (wet)	Refusal at 43.6'					
_		_	30/0.4		I (L)		Contains into one, occasional one (wor)	—					
45							Light Grey to Grey LIMESTONE, sound, hard to v.hard	NQ '2' Size Rock Core —					
_							thickly bedded, occasional horizontal fractures,	Run #1: 43.6' - 48.5'					
							occasional styolites and fossils, occasional calcite	REC = 100%					
_							partings	RQD = 98%					
50							Becomes massively bedded	Run #2: 48.5' - 53.5'					
								REC = 100%					
								RQD = 100%					
_								_					
55 								_					
- " -							Boring Complete at 53.5'	Free standing water					
								measured at 14.2' after					
								spinning casing.					
	<u> </u>												
60	-							Free standing water measured at 10.9' after					
-								coring.					
								_					
								Water Loss at 46'					
65								_					
_								REF = Sample Spoon Refusal					
-													
								_					
70													
								_					
4								_					
\dashv								_					
75								_					
								_					
								_					
_								_					
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OU		<u> </u>					1	L					
١	N = NO. BL	OWS T	O DRIV	'E 2-IN(CH SPO	ON 12-II	NCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW CL	ASSIFIED BY: Geologist					
	ORILLER:		Α	. KOS	SKE		DRILL RIG TYPE : CME-75						
N	METHOD C	F INVE	STIGAT	TION	ASTM I	D-1586 I	USING HOLLOW STEM AUGERS						

START 6/6/2011 FINISH 6/6/2011

SHEET 1 OF 1

SJB SERVICES, INC. SUBSURFACE LOG



HOLE NO. B-18

SURF. ELEV 586.0' +/
G.W. DEPTH See Notes

PROJECT:		Proposed Buffalo Cana		anal S	I Side Development LOCATION: Former Buffalo Memorial Auditorium S					
PRO	J. N	10.:	BE-11-055					Buffalo, New York		
DEPTH		SMPL		BLO	WS ON S	AMPLER		SOIL OR ROCK	NOTES	
FT.		NO.	0/6	6/12	12/18	N	PID	CLASSIFICATION		
_	I/I	1	5	5				Brown to Dark Brown f-c SAND, some Silt, little f-m	PID = Photoionization	
_	Z,		4	6		9	BG	Gravel, tr.slag, tr.cinders, tr.wood (moist, FILL)	Detector, measures in	
	1/1	2	5	6					parts per million	
	Z,		9	4		15	BG	Contains tr.clay, tr.brick	BG = Background —	
5	1/1	3	11	10						
	Z,		7	10		17	BG		REF = Sample Spoon	
_	1/1	4	11	9					Refusal	
_	Z,		9	12		18	BG		<u> </u>	
	1/	5	7	4				Brown Silty CLAY, tr.sand, tr.gravel, tr.brick		
10	Z		4	4		8	BG	(moist, FILL)	<u> </u>	
_	1/1	6	6	5					<u> </u>	
_	Z		4	6		9	BG	Contains some f-c Sand	<u> </u>	
_	1/1	7	8	9					No Recovery Sample #7	
	L		7	7		16				
15	1/[8	20	16				Black f-m,Gravel size CINDERS, some f-c Sand size		
			7	9		23	BG	Cinders, tr.silt, tr.wood (wet, FILL)		
	1/1	9	2	2						
	Z		3	2		5	BG		<u> </u>	
	1/1	10	6	4					No Recovery Sample #10	
20	/		7	7		11			Pushed Gravel	
	1/[11	13	6				Black Clayey SILT, little f-c Sand, tr.gravel, little wood	Poor Recovery Sample #11	
			4	2		6	BG	(moist, FILL, possible canal deposits)	Slow Drilling noted at	
	ΙΛ	12	4	3					20' - 24'; Weld broke left	
	\angle		5	8		14	BG	Contains tr.sand	10' of Augers.	
25									Moved location 6.5' North,	
								Boring Terminated at 24.0'	Auger Refusal @ 10.5'	
								After Augers Broke Off	Moved location 4' North,	
									Resumed Sampling at 24'	
									See Boring B-18A	
30] [_	
_] [_	
] [_	
] [
] [_	
35] [
] [_	
_] [_	
] [_	
_] [_	
40										
			OWS T				ON 12-II	NCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW CL	ASSIFIED BY: Geologist	

START 6/6/2011 FINISH 6/7/2011

SHEET 1 OF 2

SJB SERVICES, INC. SUBSURFACE LOG



HOLE NO. B-18A
SURF. ELEV 587.0' +/G.W. DEPTH See Notes

PROJECT:
DEPTH SMPL BLOWS ON SAMPLER SOIL OR ROCK CLASSIFICATION PID = Photoionization Detector, measures in parts per million Augered to 24 Feet (No Soil Samples Taken) To Resume Boring B-18 Refusal
FT. NO. 0/6 6/12 12/18 N PID CLASSIFICATION PID = Photoionization Detector, measures in parts per million Augered to 24 Feet (No Soil Samples Taken) To Resume Boring B-18 REF = Sample Spoon Refusal
Augered to 24 Feet (No Soil Samples Taken) To Resume Boring B-18 PID = Photoionization Detector, measures in parts per million BG = Background REF = Sample Spoon Refusal
Augered to 24 Feet (No Soil Samples Taken) To Resume Boring B-18 Detector, measures in parts per million BG = Background REF = Sample Spoon Refusal
Augered to 24 Feet (No Soil Samples Taken) To Resume Boring B-18 parts per million BG = Background REF = Sample Spoon Refusal
Augered to 24 Feet (No Soil Samples Taken) To Resume Boring B-18 REF = Sample Spoon Refusal
(No Soil Samples Taken) To Resume Boring B-18 REF = Sample Spoon Refusal
To Resume Boring B-18 REF = Sample Spoon Refusal
Refusal
<u> </u>
15
-~-
<u> </u>
20
- - - - -
- - - -
$ \psi $ $ \psi $ $+$ $ \psi $ $+$ $ \psi $
25 13 50/0.3 REF BG Brown f-c SAND, little f-c Gravel, little Silt (wet, FILL) Resumed Sampling at 24'
14 11 9
8 9 17 Brown f-c SAND, tr.silt (wet, firm, SW)
30 8 12 16 BG No Recovery Sample #14
V 7 6 14 BG Driller notes significant
"Running Sands" at 35'
35
17 1 4 Becomes Brown Fine Sand, little Silt (loose, SM) Removed Augers after
5 8 9 Sample 17; installed 3"
Casing
$\frac{1}{18} \frac{18}{8} \frac{8}{7} \frac{7}{100} \frac{1}{100} \frac{1}{100$
40 / 6 9 13 (firm)
N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW CLASSIFIED BY: Geologist
DRILLER: A. KOSKE DRILL RIG TYPE: CME-75
METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

START FINISH 6/6/2011 6/7/2011

SHEET 2 OF 2

SJB SERVICES, INC. SUBSURFACE LOG



HOLE NO. B-18A

SURF. ELEV 587.0' +/
G.W. DEPTH See Notes

PROJECT: Proposed Buffalo Canal Side Development LOCATION: Former Buffalo Memorial Auditorium Site PROJ. NO.: BE-11-055 Buffalo, New York SOIL OR ROCK **NOTES** DEPTH BLOWS ON SAMPLER 6/12 12/18 Ν PID **CLASSIFICATION** FT. NΩ Driller notes Casing Refusal at 47.4' Contains little Silt, occasional Silt (wet) 19 3 9 14 BG 12 21 NQ '2' Size Rock Core Light Grey to Grey LIMESTONE, v.hard, slightly Run #1: 46.6' - 51.8' weathered to sound, thinly bedded to thickly bedded, REC = 94%RQD = 83%occasional horizontal fractures, occasional styolites and fossils Driller notes small void at 49.2' below ground surface 46.8' - 47.0' Zone of broken core Becomes massively bedded, approx. 51' Run #2: 51.8' - 56.8' REC = 102% RQD = 100%Recovered part of core from previous run Boring Complete at 56.8' Free standing water encountered at 20.4' after 60 spinning casing. Free standing water reading at 13.5' after casing removed. N = NO. BLOWS TO DRIVE 2-INCH SPOON 12-INCHES WITH A 140 LB. PIN WT. FALLING 30-INCHES PER BLOW Geologist CLASSIFIED BY: A. KOSKE DRILL RIG TYPE: CME-75

METHOD OF INVESTIGATION ASTM D-1586 USING HOLLOW STEM AUGERS

APPENDIX B

ENVIRONMENTAL LABORATORY TEST RESULTS



Analytical Report Cover Page

Empire Geo-Services

For Lab Project # 11-2246
Issued June 20, 2011
This report contains a total of 20 pages

The reported results relate only to the samples as they have been received by the laboratory.

Any noncompliant QC parameters having impact on the data are flagged or documented on the final report.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

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The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of frequently used data flags and their meaning:

[&]quot;<" = analyzed for but not detected at or above the reporting limit.

[&]quot;E" = Result has been estimated, calibration limit exceeded.

[&]quot;Z" = See case narrative.

[&]quot;D" = Duplicate results outside QC limits. May indicate a non-homogenous matrix.

[&]quot;M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.

[&]quot;B" = Method blank contained trace levels of analyte. Refer to included method blank report.

179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

LAB REPORT FOR SOIL/SOLID/SLUDGE pH MEASURED IN WATER

Client:

Empire Geo-Services

Lab Project No.:

11-2246

Client Job Site:

Proposed Canal Side Development

Sample Type: Method:

Soil SW846 9045C

Client Job No.:

112196

Date Sampled:

06/02/2011

Date Received:

06/06/2011

Date Analyzed: 06/0

06/07/2011

Lab Sample No.	Field ID No.	Field Location	pH Results (S.U.)
7516	N/A	B-15	7.88 @ 23.5 °C

ELAP ID No.:10958

Comments:	
	1
	V. 1444H
	1/21/ 41/4/11/1
Approved Ry.	MIN IIII I



179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

LAB REPORT FOR FLASHPOINT ANALYSIS

Client:

Empire Geo-Services

Lab Project No.:

11-2246

Client Job Site:

Proposed Canal Side Development

Sample Type: Method:

Soil SW846 1010

Client Job No.:

112196

Date Sampled:

06/02/2011

Date Received:

06/06/2011

Date Analyzed:

06/09/2011

Lab Sample No.	Field ID No.	Field Location	Flashpoint Results (°C)
7516	N/A	B-15	>70.0

ELAP ID No.:10958

Comments:		
Approved By:		
	Bruce Hoogesteger, Technical Director	

LAB REPORT FOR PAINT FILTER ANALYSIS

Client:

Empire Geo-Services

Lab Project No.:

11-2246

Client Job Site:

Proposed Canal Side Development

Sample Type:

Method:

Soil SW846 9095

Client Job No.:

112196

Date Sampled:

06/02/2011

Date Received:

06/06/2011

Date Analyzed:

06/07/2011

Lab Sample No.	Field ID No.	Field Location	Paint Filter Test Results (Pass/Fail)
7516	N/A	B-15	Pass

ELAP ID No.:10958

Comments:	

Approved By:

LABORATORY REPORT FOR REACTIVITY

Client:

Empire Geo-Services

Lab Project No.: 11-2246

Lab Sample No.: 7516

Client Job Site:

Proposed Canal Side Development

Sample Type:

Soil

Client Job No.:

112196

Date Sampled: 6/2/2011

Field Location:

B-15

Date Received: 6/6/2011

Parameter	Date Analyzed	Method Reference	Results (mg/kg)
Reactive Cyanide	6/10/2011	SW 7.3.3.2	<100
Reactive Sulfide	6/10/2011	SW 7.3.4.2	<100

ELAP ID.No.: 10478

Comments:

Reactivity results are reported as received.

Approved By:

179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

LAB REPORT FOR TAL METALS ANALYSIS IN SOLIDS

Client:

Empire Geo-Service

Lab Project No.:

11-2246

Client Job Site:

Proposed Canal Side Development

Lab Sample No.: 7

7516

Client Job No.:

112196

Sample Type:

Soil

Field Location:

B-15

Date Sampled: Date Received: 06/02/2011 06/03/2011

Field ID No.:

N/A

Parameter	Date Analyzed	Analytical Method	Result (mg/kg)
Aluminum	06/10/2011	SW846 3050/6010	6570
Antimony	06/10/2011	SW846 3050/6010	< 6.47
Arsenic	06/10/2011	SW846 3050/6010	2.72
Barium	06/10/2011	SW846 3050/6010	50.2
Beryllium	06/10/2011	SW846 3050/6010	< 0.540
Cadmium	06/10/2011	SW846 3050/6010	< 0.540
Calcium	06/10/2011	SW846 3050/6010	30700
Chromium	06/10/2011	SW846 3050/6010	8.44
Cobalt	06/10/2011	SW846 3050/6010	< 5.40
Copper	06/10/2011	SW846 3050/6010	11.2
Iron	06/10/2011	SW846 3050/6010	11200
Lead	06/10/2011	SW846 3050/6010	57.8
Magnesium	06/10/2011	SW846 3050/6010	15100
Manganese	06/10/2011	SW846 3050/6010	417
Mercury	06/09/2011	SW846 7471	< 0.0083
Nickel	06/10/2011	SW846 3050/6010	8.90
Potassium	06/10/2011	SW846 3050/6010	1270
Selenium	06/10/2011	SW846 3050/6010	< 1.08
Silver	06/10/2011	SW846 3050/6010	< 1.08
Sodium	06/10/2011	SW846 3050/6010	425
Thallium	06/10/2011	SW846 3050/6010	< 2.70
Vanadium	06/10/2011	SW846 3050/6010	17.5
Zinc	06/10/2011	SW846 3050/6010	70.6

ELAP ID No.:10958

Comments:

Approved By:

Bruce Hoogesteger, Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.



179 Lake Avenue, Rochester, NY 14608 Office: (585) 647-2530 Fax: (585) 647-3311

LAB REPORT FOR TCLP RCRA METALS ANALYSIS

Client:

Empire Geo-Services

Lab Project No.: Lab Sample No.: 11-2246

7516

Client Job Site:

Proposed Canal Side Development

TCLP Extract

Client Job No.:

112196

Sample Type:
Date Sampled:

06/02/2011

Field Location:

B-15

Date Received:

06/06/2011

rieia	Location:	B-T
Field	ID No.:	N/A

Parameter	Date Analyzed	Analytical Method	Result (mg/L)	Regulatory Limit (mg/L)
Arsenic	06/09/2011	SW846 3005/6010	<0.100	5.0
Barium	06/09/2011	SW846 3005/6010	1.52	100
Cadmium	06/09/2011	SW846 3005/6010	<0.025	1.0
Chromium	06/09/2011	SW846 3005/6010	<0.050	5.0
Lead	06/09/2011	SW846 3005/6010	<0.100	5.0
Mercury	06/09/2011	SW846 7470	<0.0020	0.2
Selenium	06/09/2011	SW846 3005/6010	<0.100	1.0
Silver	06/09/2011	SW846 3005/6010	<0.050	5.0

ELAP ID No.:10958

Comments: The laboratory control spike duplicate was outside QC limits for Ag and Cd.

Approved By:



LABORATORY REPORT FOR CHLORINATED HERBICIDES

Client:

Empire Geo-Services

Lab Project No.: 11-2246

Lab Sample No.: 7516

Client Job Site:

Proposed Canal Side Development

Sample Type:

Soil

Client Job No.:

112196

Date Sampled:

6/2/2011

Field Location:

B-15

Date Received: 6/6/2011

Parameter	Date Analyzed	Analytical Method	Herbicides (ug/kg)
Dicamba	6/17/2011	SW8151	<3.6
2,4-D	6/17/2011	SW8151	<12
2,4,5-T	6/17/2011	SW8151	<6.1
2,4,5-TP (Silvex)	6/17/2011	SW8151	<6.1

ELAP ID.No.: 10478

Comments:

Approved By:



179 Lake Avenue Rochester, New York 14608 (585) 647-2530 FAX (585) 647-3311

LABORATORY ANALYSIS REPORT FOR TCLP HERBICIDES

Client:

Empire Geo-Services

Lab Project No:

11-2246

Lab Sample No:

7516

Client Job Site:

Proposed Canal Side Development

Sample Type:

TCLP Extract

Client Job No:

112196

Date Sampled:

6/2/2011 6/6/2011

Field Location:

B-15

Date Received: Date Analyzed:

6/14/2011

Parameter	Result (mg/L)	Regulatory Limit (mg/L)
2,4,5-TP (Silvex)	<0.0025	1.0
2,4-D	< 0.0050	10.0

Analytical Method: SW1311/8151

ELAP ID: 10478

Comments:

Approved By:

Bruce Høggestegel (Technical Director

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

File ID: Empire Geo 11-2246



PCB Analysis Report for Soils/Solids/Sludges

Client: Empire Geo-Services

Client Job Site:

Proposed Canal Side

Lab Project Number:

11-2246

Development

Lab Sample Number:

7516

Client Job Number: Field Location:

112196 B-15

Date Sampled:

06/02/2011

Field ID Number:

N/A

Date Received:

06/06/2011

Sample Type:

Soil

Date Analyzed:

06/13/2011

PCB Identification	Results in mg / Kg
Aroclor 1016	< 0.462
Aroclor 1221	< 0.462
Aroclor 1232	< 0.462
Aroclor 1242	< 0.462
Aroclor 1248	< 0.462
Aroclor 1254	< 0.462

ELAP Number 10958

Aroclor 1260

Analytical Method: EPA 8082A

< 0.462

Prep Method: EPA 3550C

Comments: mg / Kg = milligram per Kilogram

Signature:

Bruce Hoogesteger: Technical Director
This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. 112246P1.XLS



Pesticide Analysis Report for Soils/Solids/Sludges

Client: Empire Geoservices

Client Job Site: Proposed Canal Side Development Lab Project Number: Lab Sample Number: 11-2246

7516

Client Job Number: 112196

Field Location:

Date Sampled:

06/02/2011

Field ID Number:

B-15 N/A

Date Received:

06/06/2011

Date Analyzed:

Sample Type: Soil

06/13/2011

Pesticide Identification	Results in ug / Kg
Aldrin	< 3.38
alpha-BHC	< 3.38
beta-BHC	< 3.38
delta-BHC	< 3.38
gamma-BHC	< 3.38
gamma-Chlordane	< 3.38
alpha-Chlordane	< 3.38
4,4'-DDD	< 3.38
4,4'-DDE	< 3.38
4,4'-DDT	< 3.38
Dieldrin	< 3.38
Endosulfan i	< 3.38
Endosulfan II	< 3.38
Endosulfan Sulfate	< 3.38
Endrin	< 3.38
Endrin Aldehyde	< 3.38
Endrin Ketone	< 3.38
Heptachlor	< 3.38
Heptachlor Epoxide	< 3.38
Methoxychlor	< 3.38
Toxaphene	< 16.9

ELAP Number 10958

Analytical Method: EPA 8081B

Prep Method: EPA 3550C

Comments: ug / Kg = microgram per Kilogram

Signature:

Bruce Hoogesteger: Technica Director
This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. 112246C1.XLS



Pesticide Report for TCLP Extract

Client: Empire Geoservices

Client Job Site: Proposed Canal Side Development

Lab Project Number:

11-2246

Client Job Number:

112196

Lab Sample Number:

7516

Field Location:

B-15

Date Sampled:

06/02/2011

Field ID Number:

N/A

Date Received:

06/06/2011

Sample Type:

TCLP Extract

Date Analyzed:

06/13/2011

Pesticide Identification	Results in ug / L	Regulatory Limits in ug / L
gamma-BHC	< 1.00	400
Chlordane	< 1.00	30.0
Endrin	< 1.00	20.0
Heptachlor	< 1.00	8.00
Heptachlor Epoxide	< 1.00	8.00
Methoxychlor	< 1.00	10000
Toxaphene	< 5.00	500

ELAP Number 10958

Analytical Method: EPA 8081B Prep Method: EPA 1311 & 3510C

Comments: ug / L = microgram per Liter

Signature:



Semi-Volatile Analysis Report for Soils/Solids/Sludges

Client: Empire Geo-Services

Client Job Site:

Proposed Canal Side Development

Lab Project Number:

11-2246

Client Job Number:

112196

Lab Sample Number:

7516

Field Location:

B-15

Date Sampled:

06/02/2011

Field ID Number:

N/A

Date Received:

06/06/2011

Sample Type:

Soil

Date Analyzed:

06/08/2011

Base / Neutrals	Results in ug / Kg	Base / Neutrals	Results in ug / Kg
Acenaphthene	< 337	Dibenz (a,h) anthracene	< 337
Anthracene	< 337	Fluoranthene	< 337
Benzo (a) anthracene	< 337	Fluorene	< 337
Benzo (a) pyrene	< 337	Indeno (1,2,3-cd) pyrene	< 337
Benzo (b) fluoranthene	< 337	Naphthalene	< 337
Benzo (g,h,i) perylene	< 337	Phenanthrene	< 337
Benzo (k) fluoranthene	< 337	Pyrene	< 337
Chrysene	< 337	Acenaphthylene	< 337
Diethyl phthalate	< 337	1,2-Dichlorobenzene	< 337
Dimethyl phthalate	< 842	1,3-Dichlorobenzene	< 337
Butylbenzylphthalate	< 337	1,4-Dichlorobenzene	< 337
Di-n-butyl phthalate	< 337	1,2,4-Trichlorobenzene	< 337
Di-n-octylphthalate	< 337	Nitrobenzene	< 337
Bis (2-ethylhexyl) phthalate	< 337	2,4-Dinitrotoluene	< 337
2-Chloronaphthalene	< 337	2,6-Dinitrotoluene	< 337
Hexachlorobenzene	< 337	Bis (2-chloroethyl) ether	< 337
Hexachloroethane	< 337	Bis (2-chloroisopropyl) ether	< 337
Hexachlorocyclopentadiene	< 337	Bis (2-chloroethoxy) methane	< 337
Hexachlorobutadiene	< 337	4-Bromophenyl phenyl ether	< 337
N-Nitroso-di-n-propylamine	< 337	4-Chlorophenyl phenyl ether	< 337
N-Nitrosodiphenylamine	< 337	Benzidine	< 842
N-Nitrosodimethylamine	< 337	3,3'-Dichlorobenzidine	< 337
Isophorone	< 337	4-Chloroaniline	< 337
Benzyl alcohol	< 842	2-Nitroaniline	< 842
Dibenzofuran	< 337	3-Nitroaniline	< 842
2-Methylnapthalene	< 337	4-Nitroaniline	< 842

Acids	Results in ug / Kg	Acids	Results in ug / Kg
Phenol	< 337	2-Methylphenol	< 337
2-Chlorophenol	< 337	3&4-Methylphenol	< 337
2,4-Dichlorophenol	< 337	2,4-Dimethylphenol	< 337
2,6-Dichlorophenol	< 337	2-Nitrophenol	< 337
2,4,5-Trichlorophenol	< 842	4-Nitrophenol	< 842
2,4,6-Trichlorophenol	< 337	2,4-Dinitrophenol	< 842
Pentachlorophenol	< 842	4,6-Dinitro-2-methylphenol	< 842
4-Chloro-3-methylphenol	< 337	Benzoic acid	< 842

ELAP Number 10958

Analytical Method: EPA 8270C Prep Method: EPA 3550C

Comments: ug / Kg = microgram per Kilogram

Signature:

Bruce Hoogesteger: Technical Birector

This report is part of a multipage document and should only be evaluated in its entirety. Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt.

Data File: S57107.D



Semi-Volatile Analysis Report for TCLP Extract

Client: Empire Geo-Services

Proposed Canal Side Development **Client Job Site:**

Lab Project Number:

11-2246

112196

Lab Sample Number:

7516

Client Job Number: Field Location:

B-15

Date Sampled:

06/02/2011

Field ID Number:

N/A

Date Received:

06/06/2011

Sample Type:

TCLP Extract

Date Analyzed:

06/08/2011

Base / Neutrals	Results in ug / L	Regulatory Limits in ug / L
1,4-Dichlorobenzene	< 40.0	7,500
2,4-Dinitrotoluene	< 40.0	130
Hexachlorobenzene	< 40.0	130
Hexachlorobutadiene	< 40.0	500
Hexachloroethane	< 40.0	3000
Nitrobenzene	< 40.0	2000
Pvridine	< 40.0	5000

Acids	Results in ug / L	Regulatory Limits in ug / L
Cresols (as m,p,o-Cresol)	< 40.0	200,000
Pentachlorophenol	< 100	100,000
2,4,5-Trichlorophenol	< 100	400,000
2,4,6-Trichlorophenol	< 40.0	2000

ELAP Number 10958

Analytical Method: EPA 8270C Prep Method: EPA 1311 & 3510C Data File: S57104.D

Comments: ug / L = microgram per Liter

Signature:



Volatile Analysis Report for Soils/Solids/Sludges

Client: Empire Geo-Services

Client Job Site: Proposed Canal Side Development

Lab Project Number: 11-2246

Lab Sample Number: 7516

Client Job Number: 112196 Field Location: B-15

Date Sampled:

06/02/2011

Field ID Number:

N/A

Date Received:

06/06/2011

Sample Type: Soil

Date Analyzed:

06/08/2011

Halocarbons	Results in ug / Kg
Bromodichloromethane	< 6.31
Bromomethane	< 6.31
Bromoform	< 15.8
Carbon Tetrachloride	< 6.31
Chloroethane	< 6.31
Chloromethane	< 6.31
2-Chloroethyl vinyl Ether	< 31.5
Chloroform	< 6.31
Dibromochloromethane	< 6.31
1,1-Dichloroethane	< 6.31
1,2-Dichloroethane	< 6.31
1,1-Dichloroethene	< 6.31
cis-1,2-Dichloroethene	< 6.31
trans-1,2-Dichloroethene	< 6.31
1,2-Dichloropropane	< 6.31
cis-1,3-Dichloropropene	< 6.31
trans-1,3-Dichloropropene	< 6.31
Methylene chloride	< 15.8
1,1,2,2-Tetrachloroethane	< 6.31
Tetrachloroethene	< 6.31
1,1,1-Trichloroethane	< 6.31
1,1,2-Trichloroethane	< 6.31
Trichloroethene	< 6.31
Trichlorofluoromethane	< 6.31
Vinyl chloride	< 6.31
	Mothos

Aromatics	Results in ug / Kg
Benzene	< 6.31
Chlorobenzene	< 6.31
Ethylbenzene	< 6.31
Toluene	< 6.31
m,p-Xylene	< 6.31
o-Xylene	< 6.31
Styrene	< 15.8
1,2-Dichlorobenzene	< 6.31
1,3-Dichlorobenzene	< 6.31
1,4-Dichlorobenzene	< 6.31

Ketones	Results in ug / Kg
Acetone	< 31.5
2-Butanone	< 31.5
2-Hexanone	< 15.8
4-Methyl-2-pentanone	< 15.8

Results in ug / Kg
< 6.31
< 15.8

ELAP Number 10958

Method: EPA 8260B

Data File: V85372.D

Comments: ug / Kg = microgram per Kilogram

Signature:



Volatile Analysis Report for Soils/Solids/Sludges (Additional STARS Compounds)

Client: Empire Geo-Services

Client Job Site: Proposed Canal Side Development

Lab Project Number: 11-2246

Lab Sample Number: 7516

Client Job Number: 112196 Field Location: B-15

Date Sampled:

06/02/2011

Field ID Number: Sample Type:

N/A Soil Date Received:

06/06/2011

Date Analyzed:

06/08/2011

Compound	Results in ug / Kg	Compound	Results in ug / Kg
n-Butylbenzene	< 6.31	1,2,4-Trimethylbenzene	< 6.31
sec-Butylbenzene	< 6.31	1,3,5-Trimethylbenzene	< 6.31
tert-Butylbenzene	< 6.31		
n-Propylbenzene	< 6.31	Miscellaneous	
Isopropylbenzene	< 6.31	Methyl tert-butyl Ether	< 6.31
p-Isopropyltoluene	< 6.31		
Naphthalene	< 15.8		

ELAP Number 10958 Method: EPA 8260B Data File: V85372.D

Comments: ug / Kg = microgram per Kilogram

Signature:



Volatile Analysis Report for TCLP Extract

Client: Empire Geo-Services

Client Job Site: Proposed Canal Side Development

Lab Project Number: 11-2246

Lab Sample Number: 7516

Client Job Number: 112196 Field Location: B-15

Date Sampled:

06/02/2011

Field ID Number:

B-15 N/A

Date Received:

06/06/2011

Sample Type:

TCLP Extract

Date Analyzed:

06/08/2011

Compound	Results in ug / L	Regulatory Limits in ug / L
Benzene	< 20.0	500
2-Butanone	< 100	200,000
Carbon Tetrachloride	< 20.0	500
Chlorobenzene	< 20.0	100,000
Chloroform	< 20.0	6,000
1,2-Dichloroethane	< 20.0	500
1,1-Dichloroethene	< 20.0	700
Tetrachloroethene	< 20.0	700
Trichloroethene	< 20.0	500
Vinyl chloride	< 20.0	200

ELAP Number 10958

Method: EPA 8260B

Data File: V85343.D

Comments: ug / L = microgram per Liter

Signature:

Please Ence (Results To: Shochenek @ S) beg. S. Compositified with Teleport; CANARY - Stays with the Sample; PINK - Field Copy 2. Reinquished B TAL-4124 (1007) Client Relinquished By (Containers for each sample may be combined on one line) Custody Record Chain of 24 Hours Non-Hazard
 Sontracl/Purchase Order/Quote No. Project Name and Location (State) Empire Geosenices Possible Hazard Identification Toposed Canal Side Development Relinquished By Turn Around Time Required SIBT SOUTH PORK PURSUE Sample I.D. No. and Description ☐ 48 Hours ☐ Flammable ☐ 7 Days ☐ Skin Irritant ズ State ☐ 14 Days 14078 Zip Code ☐ Poison B Date ☐ 21 Days Unknown Soc Time Date Date Date Mother 5day Drinking Water? Yes □ No 💢 Temperature on Receipt 12°Ciced 716-645-8110 Site Contact La Telephone Number (Area Code)/Fax Number Carrier/Waybill Number Project Manager Air ☐ Return To Client Sample Disposal Agueous Matrix Time Time Time 927 34/ QC Requirements (Specify) CAN WIT Received Lab Contact Unpres. Disposal By Lab Received By H2SO4 Preservatives Containers & ниоз HCI のころろ ZnAc/ NaOH ☐ Archive For のよってられ malysis (Attach list if more space is needed) Date Lab Number (A fee may be assessed if samples are retained Months longer than 1 month) 6/6/11 5.00 1340 Special Instructions/ Page client Job # Chain of Custody Number Date Date Date Recidin glass jars 11. 2246 7516 9 Time Time Time ð



CHAIN OF CUSTODY H2M 10分

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179 Lake Avenue, Rochester, NY 14608 Office (585) 647-2530 Fax (585) 647-3311

CHAIN OF CUSTODY

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