

Thursday, February 23, 2017

Attn: Ms. Karron Redfield Fuss & O'Neill EnviroScience, LLC 145 Hartford Road Manchester, CT 06040

Project ID: RECLAMATION YARD Sample ID#s: BX69935 - BX69943

This laboratory is in compliance with the NELAC requirements of procedures used except where indicated.

This report contains results for the parameters tested, under the sampling conditions described on the Chain Of Custody, as received by the laboratory. This report is incomplete unless all pages indicated in the pagination at the bottom of the page are included.

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

A scanned version of the COC form accompanies the analytical report and is an exact duplicate of the original.

If you have any questions concerning this testing, please do not hesitate to contact Phoenix Client Services at ext. 200.

Sincerely yours,

Phyllis/Shiller

**Laboratory Director** 

NELAC - #NY11301 CT Lab Registration #PH-0618 MA Lab Registration #MA-CT-007 ME Lab Registration #CT-007 NH Lab Registration #213693-A,B NJ Lab Registration #CT-003 NY Lab Registration #11301 PA Lab Registration #68-03530 RI Lab Registration #63 VT Lab Registration #VT11301



587 East Middle Turnpike, P.O.Box 370, Manchester, CT 06045 Tel. (860) 645-1102 Fax (860) 645-0823

**Analysis Report** 

February 23, 2017

FOR: Attn: Ms. Karron Redfield

Fuss & O'Neill EnviroScience, LLC

145 Hartford Road Manchester, CT 06040

Matrix: SOIL Collected by: BH 02/16/17

Location Code: F&OENVPCBDAS Received by: B 02/16/17 16:46

Rush Request: 72 Hour Analyzed by: see "By" below

P.O.#: 20161049.A3E Laboratory Data SDG ID: GBX69935

Phoenix ID: BX69935

Project ID: RECLAMATION YARD

Client ID: 20170216BH-A3-H3

RL/

Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Percent Solid	83		%		02/16/17	Q	SW846-%Solid
Extraction for PCB	Completed				02/16/17	BX/IR	SW3540C
PCB (Soxhlet SW3540C)	<u>)</u>						
PCB-1016	ND	0.39	mg/kg	10	02/20/17	AW	SW8082A
PCB-1221	ND	0.39	mg/kg	10	02/20/17	AW	SW8082A
PCB-1232	ND	0.39	mg/kg	10	02/20/17	AW	SW8082A
PCB-1242	ND	0.39	mg/kg	10	02/20/17	AW	SW8082A
PCB-1248	4.6	* 0.39	mg/kg	10	02/20/17	AW	SW8082A
PCB-1254	ND	0.39	mg/kg	10	02/20/17	AW	SW8082A
PCB-1260	*	* 0.39	mg/kg	10	02/20/17	AW	SW8082A
PCB-1262	ND	0.39	mg/kg	10	02/20/17	AW	SW8082A
PCB-1268	ND	0.39	mg/kg	10	02/20/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	53		%	10	02/20/17	AW	30 - 150 %
% TCMX	49		%	10	02/20/17	AW	30 - 150 %

Project ID: RECLAMATION YARD Phoenix I.D.: BX69935

Client ID: 20170216BH-A3-H3

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### Comments:

### PCB Comment:

\* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1260. The PCB is quantitated as a timed group and is reported as the Aroclor 1248.

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Phyllis Shiller, Laboratory Director

February 23, 2017



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**Analysis Report** 

February 23, 2017

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Fuss & O'Neill EnviroScience, LLC

145 Hartford Road Manchester, CT 06040

Matrix: SOIL Collected by: BH 02/16/17

Location Code: F&OENVPCBDAS Received by: B 02/16/17 16:46

Rush Request: 72 Hour Analyzed by: see "By" below

P.O.#: 20161049.A3E Laboratory Data SDG ID: GBX69935

Phoenix ID: BX69936

Project ID: RECLAMATION YARD

Client ID: 20170216BH-A3-H3-D

RL/

Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Percent Solid	87		%		02/16/17	Q	SW846-%Solid
Extraction for PCB	Completed				02/16/17	BX/IR	SW3540C
PCB (Soxhlet SW3540C	<u>:)</u>						
PCB-1016	ND	1.9	mg/kg	50	02/20/17	AW	SW8082A
PCB-1221	ND	1.9	mg/kg	50	02/20/17	AW	SW8082A
PCB-1232	ND	1.9	mg/kg	50	02/20/17	AW	SW8082A
PCB-1242	ND	1.9	mg/kg	50	02/20/17	AW	SW8082A
PCB-1248	4.3	* 1.9	mg/kg	50	02/20/17	AW	SW8082A
PCB-1254	ND	1.9	mg/kg	50	02/20/17	AW	SW8082A
PCB-1260	*	* 1.9	mg/kg	50	02/20/17	AW	SW8082A
PCB-1262	ND	1.9	mg/kg	50	02/20/17	AW	SW8082A
PCB-1268	ND	1.9	mg/kg	50	02/20/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	Diluted Out		%	50	02/20/17	AW	30 - 150 %
% TCMX	Diluted Out		%	50	02/20/17	AW	30 - 150 %

Project ID: RECLAMATION YARD

Client ID: 20170216BH-A3-H3-D

Phoenix I.D.: BX69936

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### Comments:

### PCB Comment:

\* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1260. The PCB is quantitated as a timed group and is reported as the Aroclor 1248.

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Phyllis Shiller, Laboratory Director

February 23, 2017



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**Analysis Report** 

February 23, 2017

FOR: Attn: Ms. Karron Redfield

Fuss & O'Neill EnviroScience, LLC

145 Hartford Road Manchester, CT 06040

Matrix: SOIL Collected by: BH 02/16/17

Location Code: F&OENVPCBDAS Received by: B 02/16/17 16:46

Rush Request: 72 Hour Analyzed by: see "By" below

Diluted Out

P.O.#: 20161049.A3E Laboratory Data SDG ID: GBX69935

Phoenix ID: BX69937

Project ID: RECLAMATION YARD

Client ID: 20170216BH-A3-H2

Parameter	Result	RL/ PQL	Units	Dilution	Date/Time	Ву	Reference
i didilictei	result	I QL	Offits	Dilation	Date/Time	Бу	TOTOTOTO
TCLP Lead	0.83	0.10	mg/L	1	02/20/17	LK	SW6010C
TCLP Metals Digestion	Completed				02/17/17	Q/Q	SW3005A
Percent Solid	87		%		02/16/17	Q	SW846-%Solid
Extraction for PCB	Completed				02/16/17	BX/IR	SW3540C
TCLP Extraction for Metals	Completed				02/16/17	Q	SW1311
PCB (Soxhlet SW3540C	·)						
PCB-1016	ND	1.9	mg/kg	50	02/20/17	AW	SW8082A
PCB-1221	ND	1.9	mg/kg	50	02/20/17	AW	SW8082A
PCB-1232	ND	1.9	mg/kg	50	02/20/17	AW	SW8082A
PCB-1242	ND	1.9	mg/kg	50	02/20/17	AW	SW8082A
PCB-1248	5.5	* 1.9	mg/kg	50	02/20/17	AW	SW8082A
PCB-1254	ND	1.9	mg/kg	50	02/20/17	AW	SW8082A
PCB-1260	*	* 1.9	mg/kg	50	02/20/17	AW	SW8082A
PCB-1262	ND	1.9	mg/kg	50	02/20/17	AW	SW8082A
PCB-1268	ND	1.9	mg/kg	50	02/20/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	Diluted Out		%	50	02/20/17	AW	30 - 150 %

50

02/20/17

AW 30 - 150 %

% TCMX

Project ID: RECLAMATION YARD Phoenix I.D.: BX69937

Client ID: 20170216BH-A3-H2

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### Comments:

### PCB Comment:

\* For PCBs, as per section 11.9.3 of SW846 method 8082, when multiple Aroclor's of PCBs are present and the aroclor is no longer recognizable, quantitation may be performed by comparing the total area of the PCB pattern to that of the aroclor it mostly resembles. The PCB pattern did not resemble any of the standards, but most closely resembles a mixture of the Aroclors 1248 and 1260. The PCB is quantitated as a timed group and is reported as the Aroclor 1248.

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Phyllis Shiller, Laboratory Director

February 23, 2017



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**Analysis Report** 

February 23, 2017

FOR: Attn: Ms. Karron Redfield

Fuss & O'Neill EnviroScience, LLC

145 Hartford Road Manchester, CT 06040

<u>Sample Information</u> <u>Custody Information</u> <u>Date</u> <u>Time</u>

Matrix: SOIL Collected by: BH 02/16/17

Location Code: F&OENVPCBDAS Received by: B 02/16/17 16:46

Rush Request: 72 Hour Analyzed by: see "By" below

**Diluted Out** 

P.O.#: 20161049.A3E Laboratory Data SDG ID: GBX69935

Phoenix ID: BX69938

Project ID: RECLAMATION YARD Client ID: 20170216BH-A3-H1

г

RL/ PQL Parameter Result Units Dilution Date/Time Reference Βy Percent Solid 88 % 02/16/17 Q SW846-%Solid Extraction for PCB Completed 02/17/17 BX/IR SW3540C PCB (Soxhlet SW3540C) PCB-1016 ND 1.9 mg/kg 50 02/21/17 ΑW SW8082A ND 50 02/21/17 ΑW SW8082A PCB-1221 1.9 mg/kg PCB-1232 ND 1.9 mg/kg 50 02/21/17 AW SW8082A PCB-1242 ND 50 02/21/17 SW8082A 1.9 mg/kg AW SW8082A PCB-1248 8.3 1.9 50 02/21/17 AW mg/kg ND 50 02/21/17 ΑW SW8082A PCB-1254 1.9 mg/kg PCB-1260 1.9 mg/kg 50 02/21/17 AW SW8082A SW8082A PCB-1262 ND 1.9 mg/kg 50 02/21/17 AW SW8082A ND 50 02/21/17 PCB-1268 1.9 mg/kg AW **QA/QC Surrogates** % DCBP Diluted Out % 50 02/21/17 AW 30 - 150 %

%

50

02/21/17

ΑW

30 - 150 %

% TCMX

Project ID: RECLAMATION YARD Phoenix I.D.: BX69938

Client ID: 20170216BH-A3-H1

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### Comments:

### PCB Comment:

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Phyllis Shiller, Laboratory Director

February 23, 2017



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**Analysis Report** 

February 23, 2017

FOR: Attn: Ms. Karron Redfield

Fuss & O'Neill EnviroScience, LLC

145 Hartford Road Manchester, CT 06040

Matrix: SOIL Collected by: BH 02/16/17

Location Code: F&OENVPCBDAS Received by: B 02/16/17 16:46

Rush Request: 72 Hour Analyzed by: see "By" below

P.O.#: 20161049.A3E Laboratory Data SDG ID: GBX69935

Phoenix ID: BX69939

Project ID: RECLAMATION YARD

Client ID: 20170216BH-A5-H3

RL/

Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Percent Solid	83		%		02/16/17	Q BX/IR	SW846-%Solid SW3540C
Extraction for PCB	Completed				02/17/17	DAIR	5003540C
PCB (Soxhlet SW3540C	<u>)</u>						
PCB-1016	ND	0.39	mg/kg	10	02/20/17	AW	SW8082A
PCB-1221	ND	0.39	mg/kg	10	02/20/17	AW	SW8082A
PCB-1232	ND	0.39	mg/kg	10	02/20/17	AW	SW8082A
PCB-1242	ND	0.39	mg/kg	10	02/20/17	AW	SW8082A
PCB-1248	ND	0.39	mg/kg	10	02/20/17	AW	SW8082A
PCB-1254	ND	0.39	mg/kg	10	02/20/17	AW	SW8082A
PCB-1260	ND	0.39	mg/kg	10	02/20/17	AW	SW8082A
PCB-1262	ND	0.39	mg/kg	10	02/20/17	AW	SW8082A
PCB-1268	ND	0.39	mg/kg	10	02/20/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	128		%	10	02/20/17	AW	30 - 150 %
% TCMX	118		%	10	02/20/17	AW	30 - 150 %

Project ID: RECLAMATION YARD

Client ID: 20170216BH-A5-H3

Phoenix I.D.: BX69939

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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February 23, 2017



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**Analysis Report** 

February 23, 2017

FOR: Attn: Ms. Karron Redfield

Fuss & O'Neill EnviroScience, LLC

145 Hartford Road Manchester, CT 06040

Matrix: SOIL Collected by: BH 02/16/17

Location Code: F&OENVPCBDAS Received by: B 02/16/17 16:46

Rush Request: 72 Hour Analyzed by: see "By" below

P.O.#: 20161049.A3E Laboratory Data SDG ID: GBX69935

Phoenix ID: BX69940

Project ID: RECLAMATION YARD

Client ID: 20170216BH-A5-H2

		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
TCLP Lead	< 0.10	0.10	mg/L	1	02/20/17	LK	SW6010C
TCLP Metals Digestion	Completed				02/17/17	Q/Q	SW3005A
Percent Solid	92		%		02/16/17	Q	SW846-%Solid
Extraction for PCB	Completed				02/17/17	BX/IR	SW3540C
TCLP Extraction for Metals	Completed				02/16/17	Q	SW1311
PCB (Soxhlet SW3540C	<u>:)</u>						
PCB-1016	ND	0.36	mg/kg	10	02/20/17	AW	SW8082A
PCB-1221	ND	0.36	mg/kg	10	02/20/17	AW	SW8082A
PCB-1232	ND	0.36	mg/kg	10	02/20/17	AW	SW8082A
PCB-1242	ND	0.36	mg/kg	10	02/20/17	AW	SW8082A
PCB-1248	ND	0.36	mg/kg	10	02/20/17	AW	SW8082A
PCB-1254	ND	0.36	mg/kg	10	02/20/17	AW	SW8082A
PCB-1260	ND	0.36	mg/kg	10	02/20/17	AW	SW8082A
PCB-1262	ND	0.36	mg/kg	10	02/20/17	AW	SW8082A
PCB-1268	ND	0.36	mg/kg	10	02/20/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	68		%	10	02/20/17	AW	30 - 150 %
% TCMX	63		%	10	02/20/17	AW	30 - 150 %

Project ID: RECLAMATION YARD

Client ID: 20170216BH-A5-H2

Phoenix I.D.: BX69940

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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February 23, 2017



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**Analysis Report** 

February 23, 2017

FOR: Attn: Ms. Karron Redfield

Fuss & O'Neill EnviroScience, LLC

145 Hartford Road Manchester, CT 06040

Matrix: SOIL Collected by: BH 02/16/17

Location Code: F&OENVPCBDAS Received by: B 02/16/17 16:46

Rush Request: 72 Hour Analyzed by: see "By" below

P.O.#: 20161049.A3E Laboratory Data SDG ID: GBX69935

Phoenix ID: BX69941

Project ID: RECLAMATION YARD

Client ID: 20170216BH-A5-H1

RL/

Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
Percent Solid	93		%		02/16/17	Q	SW846-%Solid
Extraction for PCB	Completed				02/17/17	BX/IR	SW3540C
PCB (Soxhlet SW3540C)	1						
PCB-1016	ND	0.35	mg/kg	10	02/20/17	AW	SW8082A
PCB-1221	ND	0.35	mg/kg	10	02/20/17	AW	SW8082A
PCB-1232	ND	0.35	mg/kg	10	02/20/17	AW	SW8082A
PCB-1242	ND	0.35	mg/kg	10	02/20/17	AW	SW8082A
PCB-1248	ND	0.35	mg/kg	10	02/20/17	AW	SW8082A
PCB-1254	ND	0.35	mg/kg	10	02/20/17	AW	SW8082A
PCB-1260	ND	0.35	mg/kg	10	02/20/17	AW	SW8082A
PCB-1262	ND	0.35	mg/kg	10	02/20/17	AW	SW8082A
PCB-1268	ND	0.35	mg/kg	10	02/20/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	80		%	10	02/20/17	AW	30 - 150 %
% TCMX	76		%	10	02/20/17	AW	30 - 150 %

Project ID: RECLAMATION YARD

Client ID: 20170216BH-A5-H1

Phoenix I.D.: BX69941

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

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February 23, 2017



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**Analysis Report** 

February 23, 2017

FOR: Attn: Ms. Karron Redfield

Fuss & O'Neill EnviroScience, LLC

145 Hartford Road Manchester, CT 06040

Matrix: SOIL Collected by: BH 02/16/17

Location Code: F&OENVPCBDAS Received by: B 02/16/17 16:46

Rush Request: 72 Hour Analyzed by: see "By" below

P.O.#: 20161049.A3E Laboratory Data SDG ID: GBX69935

Phoenix ID: BX69942

Project ID: RECLAMATION YARD

Client ID: WEST PILE BACKGROUND

F

		RL/					
Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
TCLP Lead	< 0.10	0.10	mg/L	1	02/20/17	LK	SW6010C
TCLP Metals Digestion	Completed				02/17/17	Q/Q	SW3005A
Percent Solid	89		%		02/16/17	Q	SW846-%Solid
Extraction for PCB	Completed				02/17/17	BX/IR	SW3540C
TCLP Extraction for Metals	Completed				02/16/17	Q	SW1311
PCB (Soxhlet SW35400	<u>C)</u>						
PCB-1016	 ND	0.37	mg/kg	10	02/20/17	AW	SW8082A
PCB-1221	ND	0.37	mg/kg	10	02/20/17	AW	SW8082A
PCB-1232	ND	0.37	mg/kg	10	02/20/17	AW	SW8082A
PCB-1242	ND	0.37	mg/kg	10	02/20/17	AW	SW8082A
PCB-1248	ND	0.37	mg/kg	10	02/20/17	AW	SW8082A
PCB-1254	ND	0.37	mg/kg	10	02/20/17	AW	SW8082A
PCB-1260	ND	0.37	mg/kg	10	02/20/17	AW	SW8082A
PCB-1262	ND	0.37	mg/kg	10	02/20/17	AW	SW8082A
PCB-1268	ND	0.37	mg/kg	10	02/20/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	59		%	10	02/20/17	AW	30 - 150 %
% TCMX	59		%	10	02/20/17	AW	30 - 150 %

Project ID: RECLAMATION YARD

Client ID: WEST PILE BACKGROUND

Phoenix I.D.: BX69942

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

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February 23, 2017



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**Analysis Report** 

February 23, 2017

FOR: Attn: Ms. Karron Redfield

Fuss & O'Neill EnviroScience, LLC

145 Hartford Road Manchester, CT 06040

Matrix: SOIL Collected by: BH 02/16/17

Location Code: F&OENVPCBDAS Received by: B 02/16/17 16:46

Rush Request: 72 Hour Analyzed by: see "By" below

P.O.#: 20161049.A3E Laboratory Data SDG ID: GBX69935

Phoenix ID: BX69943

Project ID: RECLAMATION YARD

Client ID: NORTH PILE BACKGROUND

RL/

Parameter	Result	PQL	Units	Dilution	Date/Time	Ву	Reference
TCLP Lead	0.99	0.10	mg/L	1	02/20/17	LK	SW6010C
TCLP Metals Digestion	Completed				02/17/17	Q/Q	SW3005A
Percent Solid	88		%		02/16/17	Q	SW846-%Solid
Extraction for PCB	Completed				02/17/17	BX/IR	SW3540C
TCLP Extraction for Metals	Completed				02/16/17	Q	SW1311
PCB (Soxhlet SW3540	<u>(C)</u>						
PCB-1016	ND	3.7	mg/kg	100	02/20/17	AW	SW8082A
PCB-1221	ND	3.7	mg/kg	100	02/20/17	AW	SW8082A
PCB-1232	ND	3.7	mg/kg	100	02/20/17	AW	SW8082A
PCB-1242	ND	3.7	mg/kg	100	02/20/17	AW	SW8082A
PCB-1248	ND	3.7	mg/kg	100	02/20/17	AW	SW8082A
PCB-1254	15	3.7	mg/kg	100	02/20/17	AW	SW8082A
PCB-1260	ND	3.7	mg/kg	100	02/20/17	AW	SW8082A
PCB-1262	ND	3.7	mg/kg	100	02/20/17	AW	SW8082A
PCB-1268	ND	3.7	mg/kg	100	02/20/17	AW	SW8082A
QA/QC Surrogates							
% DCBP	Diluted Out		%	100	02/20/17	AW	30 - 150 %
% TCMX	Diluted Out		%	100	02/20/17	AW	30 - 150 %

Project ID: RECLAMATION YARD Phoenix I.D.: BX69943

Client ID: NORTH PILE BACKGROUND

RL/

Parameter Result PQL Units Dilution Date/Time By Reference

RL/PQL=Reporting/Practical Quantitation Level ND=Not Detected BRL=Below Reporting Level QA/QC Surrogates: Surrogates are compounds (preceeded with a %) added by the lab to determine analysis efficiency. Surrogate results(%) listed in the report are not "detected" compounds.

### **Comments:**

All soils, solids and sludges are reported on a dry weight basis unless otherwise noted in the sample comments.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200. This report must not be reproduced except in full as defined by the attached chain of custody.

Phyllis Shiller, Laboratory Director

February 23, 2017



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# QA/QC Report

February 23, 2017

# QA/QC Data

$\sim$	ı D	GBX69935
<b>\11</b> (-	. (	I-BXhUUKh

Parameter	Blank	Blk RL	Sample Result	Dup Result	Dup RPD	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	% Rec Limits	% RPD Limits
QA/QC Batch 376656 (mg/L), QC Sample No: BX70335 (BX69937, BX69940, BX69942, BX69943)													
ICP Metals - TCLP Extraction													
Lead	BRL	0.010	0.018	0.018	NC	108			107			75 - 125	20



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# QA/QC Report

February 23, 2017

# QA/QC Data

SDG I.D.: GBX69935

%

Parameter	Blank	Blk RL	LCS %	LCSD %	LCS RPD	MS %	MSD %	MS RPD	Rec Limits	RPD Limits	
QA/QC Batch 376612 (ug/Kg),	QC Sam	ple No: BX69937 10X (BX69	9935, BX69	936, BX	(69937)						
Polychlorinated Bipheny	ls - Soil										
PCB-1016	ND	170	54	89	49.0				40 - 140	30	r
PCB-1221	ND	170							40 - 140	30	
PCB-1232	ND	170							40 - 140	30	
PCB-1242	ND	170							40 - 140	30	
PCB-1248	ND	170							40 - 140	30	
PCB-1254	ND	170							40 - 140	30	
PCB-1260	ND	170	100	98	2.0				40 - 140	30	
PCB-1262	ND	170							40 - 140	30	
PCB-1268	ND	170							40 - 140	30	
% DCBP (Surrogate Rec)	114	%	97	99	2.0				30 - 150	30	
% TCMX (Surrogate Rec)	38	%	42	54	25.0				30 - 150	30	
QA/QC Batch 376726 (ug/Kg),	QC Sam	ple No: BX69938 10X (BX69	9938, BX69	939, BX	69940,	BX699	941, BX	69942,	BX6994	43)	
Polychlorinated Bipheny	ls - Soil										
PCB-1016	ND	170	85	79	7.3				40 - 140	30	
PCB-1221	ND	170							40 - 140	30	
PCB-1232	ND	170							40 - 140	30	
PCB-1242	ND	170							40 - 140	30	
PCB-1248	ND	170							40 - 140	30	
PCB-1254	ND	170							40 - 140	30	
PCB-1260	ND	170	95	99	4.1				40 - 140	30	
PCB-1262	ND	170							40 - 140	30	
PCB-1268	ND	170							40 - 140	30	
% DCBP (Surrogate Rec)	113	%	116	119	2.6				30 - 150	30	
% TCMX (Surrogate Rec)	97	%	92	62	39.0				30 - 150	30	r

r = This parameter is outside laboratory RPD specified recovery limits.

If there are any questions regarding this data, please call Phoenix Client Services at extension 200.

RPD - Relative Percent Difference

LCS - Laboratory Control Sample

LCSD - Laboratory Control Sample Duplicate

MS - Matrix Spike

MS Dup - Matrix Spike Duplicate

NC - No Criteria

Intf - Interference

Phyllis/Shiller, Laboratory Director

February 23, 2017

Thursday, February 23, 2017

# Sample Criteria Exceedances Report GBX69935 - FOENVPCBDAS

Criteria: None State: CT

RL Analysis SampNo Acode Phoenix Analyte Criteria Units

Phoenix Laboratories does not assume responsibility for the data contained in this report. It is provided as an additional tool to identify requested criteria exceedences. All efforts are made to ensure the accuracy of the data (obtained from appropriate agencies). A lack of exceedence information does not necessarily suggest conformance to the criteria. It is ultimately the site professional's responsibility to determine appropriate compliance.

<sup>\*\*\*</sup> No Data to Display \*\*\*



# REASONABLE CONFIDENCE PROTOCOL LABORATORY ANALYSIS QA/QC CERTIFICATION FORM

Laboratory Name: Phoenix Environmental Labs, Inc. Client: Fuss & O'Neill EnviroScience, LL

Project Location: RECLAMATION YARD Project Number:

Laboratory Sample ID(s): BX69935-BX69943 Sampling Date(s): 2/16/2017

List RCP Methods Used (e.g., 8260, 8270, et cetera) 1311/1312, 6010, 8082

1	For each analytical method referenced in this laboratory report package, were all specified QA/QC performance criteria followed, including the requirement to explain any criteria falling outside of acceptable guidelines, as specified in the CT DEP method-specific Reasonable Confidence Protocol documents?	✓ Yes □ No
1A	Were the method specified preservation and holding time requirements met?	✓ Yes □ No
1B	<u>VPH and EPH methods only:</u> Was the VPH or EPH method conducted without significant modifications (see section 11.3 of respective RCP methods)	☐ Yes ☐ No ☑ NA
2	Were all samples received by the laboratory in a condition consistent with that described on the associated Chain-of-Custody document(s)?	✓ Yes □ No
3	Were samples received at an appropriate temperature (< 6 Degrees C)?	✓ Yes □ No □ NA
4	Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents acheived? See Section: PCB Narration.	☐ Yes <b>☑</b> No
5	a) Were reporting limits specified or referenced on the chain-of-custody?	✓ Yes □ No
	b) Were these reporting limits met?	✓ Yes □ No
6	For each analytical method referenced in this laboratory report package, were results reported for all constituents identified in the method-specific analyte lists presented in the Reasonable Confidence Protocol documents?	☐ Yes <b>☑</b> No
7	Are project-specific matrix spikes and laboratory duplicates included in the data set?	✓ Yes □ No

Notes: For all questions to which the response was "No" (with the exception of question #7), additional information must be provided in an attached narrative. If the answer to question #1, #1A or 1B is "No", the data package does not meet the requirements for "Reasonable Confidence". This form may not be altered and all questions must be answered.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete.						
Authorized Signature: Hosition: Project Manager						
Printed Name: Ethan Lee Date: Thursday, February 23, 2017						
Name of Laboratory Phoenix Environmental Labs, Inc.						

This certification form is to be used for RCP methods only.



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# RCP Certification Report

February 23, 2017 SDG I.D.: GBX69935

### **SDG Comments**

Metals Analysis:

The client requested a shorter list of elements than the 6010 RCP list. Only Lead is reported as requested on the chain of custody.

### ICP Metals Narration

Were all QA/QC performance criteria specified in the analytical method achieved? Yes.

#### Instrument:

ARCOS 02/20/17 06:27 Laura Kinnin, Chemist 02/20/17

BX69937, BX69940, BX69942, BX69943

The linear range is defined daily by the calibration range.

The following Initial Calibration Verification (ICV) compounds did not meet criteria: None.

The following Continuing Calibration Verification (CCV) compounds did not meet criteria: None.

The following ICP Interference Check (ICSAB) compounds did not meet criteria: None.

### QC (Batch Specific):

### Batch 376656 (BX70335)

BX69937, BX69940, BX69942, BX69943

All LCS recoveries were within 75 - 125 with the following exceptions: None.

### **PCB Narration**

Were all QA/QC performance criteria specified in the Reasonable Confidence Protocol documents achieved? No.

QC Batch 376612 (Samples: BX69935, BX69936, BX69937): -----

The LCS/LCSD RPD exceeds the method criteria for one or more analytes, but these analytes were not reported in the sample(s) so no variability is suspected. (PCB-1016)

QC Batch 376726 (Samples: BX69938, BX69939, BX69940, BX69941, BX69942, BX69943): -----

The LCS/LCSD RPD exceeds the method criteria for one or more surrogates, therefore there may be variability in the reported result. (% TCMX (Surrogate Rec))

#### Instrument:

<u>AU-ECD24 02/20/17-1</u> Adam Werner, Chemist 02/20/17

BX69935, BX69936, BX69937

The initial calibration (PC1228AI) RSD for the compound list was less than 20% except for the following compounds: None. The initial calibration (PC1228BI) RSD for the compound list was less than 20% except for the following compounds: None. The continuing calibration %D for the compound list was less than 15% except for the following compounds: None.

AU-ECD3 02/20/17-1 Adam Werner, Chemist 02/20/17

BX69943

The initial calibration (PC207AI) RSD for the compound list was less than 20% except for the following compounds: None. The initial calibration (PC207BI) RSD for the compound list was less than 20% except for the following compounds: None. The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.



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# **RCP Certification Report**

February 23, 2017 SDG I.D.: GBX69935

### **PCB Narration**

#### AU-ECD5 02/21/17-1

Adam Werner, Chemist 02/21/17

BX69938

The initial calibration (PC0130AI) RSD for the compound list was less than 20% except for the following compounds: None. The initial calibration (PC0130BI) RSD for the compound list was less than 20% except for the following compounds: None. The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

### AU-ECD8 02/20/17-1

Adam Werner, Chemist 02/20/17

BX69939, BX69940, BX69941, BX69942

The initial calibration (PC0216AI) RSD for the compound list was less than 20% except for the following compounds: TCMX SURR (21%)

The initial calibration (PC0216BI) RSD for the compound list was less than 20% except for the following compounds: TCMX SURR (11%)

The continuing calibration %D for the compound list was less than 15% except for the following compounds:None.

### QC (Batch Specific):

### Batch 376612 (BX69937)

BX69935, BX69936, BX69937

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: PCB-1016(49.0%)

### Batch 376726 (BX69938)

BX69938, BX69939, BX69940, BX69941, BX69942, BX69943

All LCS recoveries were within 40 - 140 with the following exceptions: None.

All LCSD recoveries were within 40 - 140 with the following exceptions: None.

All LCS/LCSD RPDs were less than 30% with the following exceptions: % TCMX (Surrogate Rec)(39.0%)

### **Temperature Narration**

The samples were received at 4C with cooling initiated. (Note acceptance criteria is above freezing up to 6°C)



146 Hartford Road, Manchester, CT 06040

**X**56 Quarry Road, Trumbull, CT 06611 □ 317<sup>-</sup> □ 1419 Richland Street, Columbia, SC 29201 □ 80 W

□ 78 Interstate Drive, West Springfield, MA 01089

□ 317 Iron Horse Way, Suite 204, Providence, RI 02908 □ 80 Washington Street, Suite 301, Poughkeepsie, NY

□ Other

osm, th

8/0 1 16 to O both of the Oct \_ (days) 7-10 4. Comments 5-7 14 7-10 ff. o-5 ft. 0-244. 0-24. \*Surcharge Applies 0-5 PA. 574 0-5 Pt. 1w0001 12 005 12 LABORATORY Containers 10 05 CD 10 05 14 - 34 50 16 1 □ Other \_ Phoenix MOSS CI SISY. Turnaround days) ☐ Standard (\_ 72-Hour\* □ 24-Hour\* □ 48-Hour\* PROJECT NUMBER 20161049. A3E 0 5 <u>2</u> 2.8°8/2021 7027 フ ゴ J J T ر 9 J J 9 9 9 9 36587 Request Analysis actuald White Way, Fairfield, CT Time Sampled CHAIN-OF-CUSTODY RECORD Date: 2-16-17 B=Sediment PROJECT LOCATION 2-16-17 Date Sampled S=Soil Ceontrete 20161049. AZE (\* DAS RATES. Source Code T=Treatment Facility
W=Waste A=Air M. Margues / K. Read Freld NORTHPILE-Packapport West-Pile-Background TROT PIT - HATZAN Sample Number Sampler's Signature: 15. Hoffun A3-43-D 20170216BH A5-H3 AS-42 1+1 -SW PW=Potable Water A3- 42 A3. 141 A3-H3 ST=Stormwater S. OWENS Reclamation Yard PROJECT NAME Transfer Check MW=Monitoring Well SW=Surface Water INVOICE TO: Source Codes: P.O. No.: X=Other Item No. 6 8 σ

Date Time Charge Exceptions: □ CT Tax Exempt □ QA/QC □ Other	2/6-14 1400 Reporting and Detection Limit Requirements:   RCP Deliverables   MCP CAM Cert.	2-16-17 1530 5 1 PPW	Course 344. 71/5.32 Additional Comments:	M Silo No yo	
Time	2-16-17 1400 Reporting and Dete	7 2-16-17 1530	Cathe 9-14.715.52 Additional Comme	AAA SILO IIGIUD	
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