



January 30, 2018

Karen A. Cahill
Division of Environmental Remediation
New York State Department of Environmental Conservation
Region 7
615 Erie Boulevard West
Syracuse, NY 13204-2400

**Subject: Phase I IRM Completion Report – Sanitary Sewers
Former Emerson Power Transmission, Ithaca, New York**

Dear Karen:

On behalf of Emerson, WSP has prepared this Phase I Interim Remedial Measures (IRM) Completion Report to document the procedures and findings associated with the sanitary sewer manhole cleanout activities conducted in March 2017 at the former Emerson Power Transmission facility in Ithaca, New York. The scope of work for the sanitary sewer investigation was included in the IRM Work Plan for the site and was divided into two phases; manhole cleanout (Phase I) and sewer line condition evaluations (Phase II). This Phase I Completion Report only describes the manhole cleanout activities and results. The sewer line condition evaluation will be conducted upon approval of the IRM Work Plan by the New York State Department of Environmental Conservation (NYSDEC).

BACKGROUND

Based on a request from the NYSDEC, portions of the sanitary sewer system were evaluated during investigations conducted at the site as part of the Phase II Supplemental Remedial Investigation (SRI) in 2015-2016. These manholes were located within former manufacturing areas of the following onsite buildings: Buildings 4, 5, 6, 6A, 8, 9, 10, 10A, 11A, 13A, 13B, 14, 15, 34, and 35. Samples of water and residuals, where present, were collected from the manholes and two trench lines for characterization purposes.

Details of sample results are included in the following report: *Phase II Supplemental Remedial Investigation Report, Former Emerson Power Transmission Facility, Ithaca, New York, Site No. 7-55-010* dated November 14, 2017. In summary, arsenic, barium, cadmium, chromium, and lead were detected in all residual samples and cyanide was detected in most of the samples. Mercury was detected at trace levels; selenium and silver were not detected or were present at trace levels. TPH-DRO (diesel-range organics) was detected in six residuals samples. In addition, two manholes contained residuals that failed TCLP analysis for either barium (MH-A20) or cadmium (MH-D1). Barium, chromium, lead, and cyanide were the most commonly detected constituents in the aqueous samples. Upon review of the data, the NYSDEC approved moving forward with the Phase I portion of the sanitary sewer investigation as an IRM.

MANHOLE CLEANOUT

Selected manholes shown on Figure 1 were cleaned during the time of March 13, 2017 through March 17, 2017. The specific manholes cleaned include MH-A1, MH-A20, MH-A2, MH-A3, MH-A4, MH-A5, MH-03, MH-21, MH-23, MH-C1, MH-C2, MH-C3, MH-08, MH-D1, MH-10, MH-35, and MH-36. Manhole residuals were removed by physical means (shovel, breaker bars, scrapers, etc.) followed by final removal by high vacuum. The use of water to remove solid residuals from manholes was minimized to the extent practical; however, all lines in the manholes were temporarily plugged to prevent solid residuals and wash water from being discharged to the municipal sewer system during cleanout. In addition, residuals were removed from trench drains near MH-03 and MH-07.



FINDINGS

The majority of the sediment identified was heavily consolidated and very compacted into the bottoms of the manholes. A brief description of the contents of each manhole is shown on Table 1. Water was observed flowing in from the sides and/or bottom of manholes MH-A2, MH-A4, and MH-A20. Water was observed flowing into manholes MH-35 and MH-36 through a pipe connected to the manholes. The remaining manholes that were cleaned did not have flowing water at the time the work was conducted. The two trench networks were dry. A photograph log depicting views before and after cleaning is included as Enclosure A.

TRANSPORTATION AND DISPOSAL

The solid and liquid materials were transferred to nine drums, characterized, and shipped offsite for disposal. Residual solids removed from MH-D1 and MH-A20 were managed and characterized separately from solids generated at other locations based on pre-existing discrete sampling data that indicated the presence of cadmium and barium, respectively, at concentrations above the toxicity characteristic leaching procedure (TCLP) limits. Composite sampling was conducted for disposal characterization purposes. Results indicated that the residuals exhibit non-hazardous characteristics (Enclosure B). On May 2, 2017, the nine drums were shipped to Covanta Environmental Solutions in Niagara Falls, New York. The Waste Profile and Manifest are provided as Enclosure C.

If you any questions or require additional information, please do not hesitate to contact me at (412-375-0280) or Lisa Bryda at (212) 465-5334.

Sincerely,

A handwritten signature in black ink, appearing to read 'Glen E Rieger'.

Glen Rieger
Area Manager

A handwritten signature in black ink, appearing to read 'Lisa K. Bryda'.

Lisa K. Bryda
Assistant Vice President

GER:lkb:paw

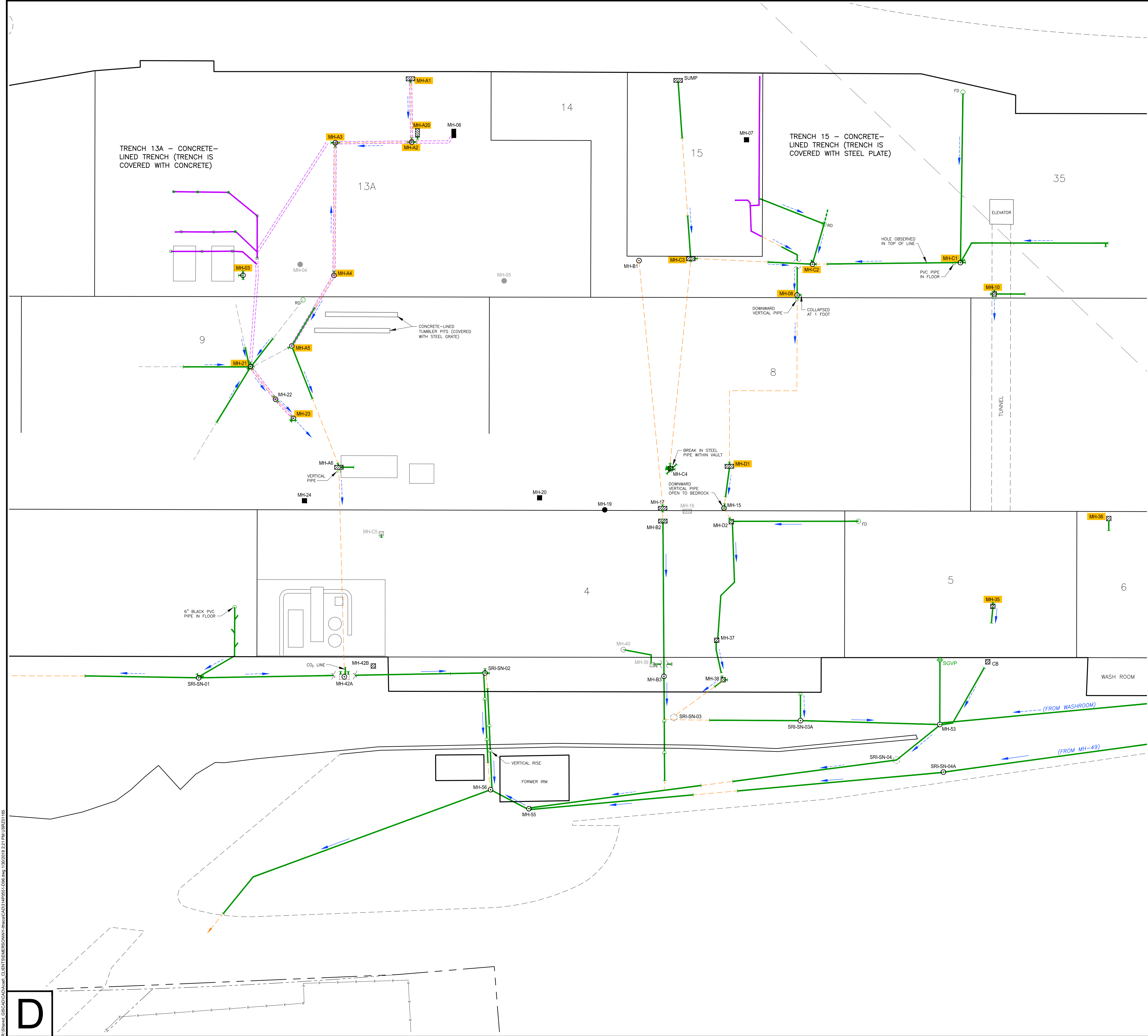
\\Ushrn1ser01\es\Clients\Emerson\ITHACA\Sewerline Investigation\2017 Sewer Eval\Manhole Cleanout\Manhole Cleanout Report to
NYSDEC\Report.hw755010.2018-01-30.EPT Manhole IRM Phase I.docx

Enclosures

cc:\encl.

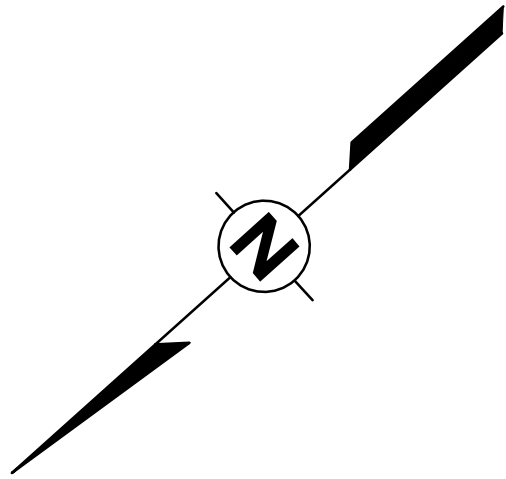
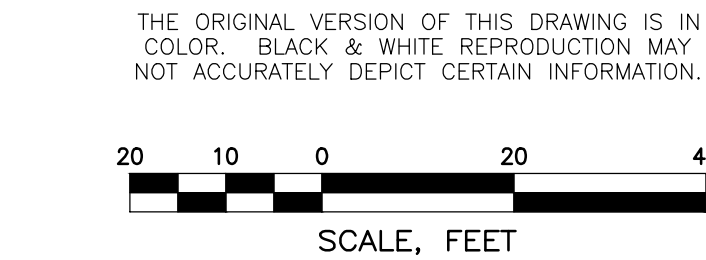
Stephen L. Clarke, Emerson
Steven Karpinski, NYSDOH

FIGURE



- LEGEND**
- MH-D2 [Symbol] SANITARY MANHOLE/MANWAY
 - MH-C1 [Symbol] CLEANED SANITARY MANHOLE/MANWAY
 - [Symbol] NON-SANITARY MANHOLE/MANWAY
 - [Symbol] SEALED MANHOLE/MANWAY
 - [Line] CLEANED TRENCH
 - [Line] VIDEO SURVEYED
 - [Line] LINE ADVANCEMENT LIMITED DUE TO BUILD UP OF RESIDUAL MATERIAL
 - [Symbol] VERTICAL TRANSITION IN LINE
 - [Line] SAW CUT/REPAIRED CONCRETE FLOOR
 - [Line] CONNECTIONS BASED ON FACILITY DRAWINGS
 - [Arrow] OBSERVED DIRECTION OF FLOW
 - [Arrow] PRESUMED DIRECTION OF FLOW
 - [Symbol] FLOOR DRAIN/ROOF DRAIN
 - [Symbol] SGVP SEWER GAS VENT
 - [Symbol] CB CATCH BASIN
 - [Line] 35 BUILDING NUMBER
 - [Line] PROPERTY BOUNDARY

NOTE:
THE PRESUMED DIRECTIONS OF FLOW ARE BASED ON THE INVERT ELEVATIONS OF THE PIPES OBSERVED IN EACH OF THE MANHOLES.



REVISIONS		DESCRIPTION
REV	DATE	

DRAWN BY	CHECKED	APPROVED
RAJAN	GER	GER

MANHOLE CLEANOUT

FORMER EMERSON POWER TRANSMISSION
ITHACA, NEW YORK

PREPARED FOR
EMERSON
ST. LOUIS, MISSOURI

FIGURE 1

Drawing Number
314P0551-D96

WSP USA INC.
13530 DUILLES TECHNOLOGY DR, SUITE 300
HERNDON, VA 20171
TEL: +1 703.709.6500

TABLE

Table 1
Manhole Cleanout Findings
Former Emerson Power Transmission
Ithaca, New York

Manhole (a,b)	Contents Description	Flow into Manhole Sides / Bottom (yes/no)	Flow into Manhole Through Pipes (yes/no)
MH-A1	Approximately 1 inch of debris at bottom of manhole	No	No
MH-A2	Bottom of manhole appears to be bedrock. Less than 1 gpm trickling into manhole from manhole walls.	Yes	No
MH-A4	Approximately 6 inches of very black cementitious material. Small flow of water coming into manhole around perimeter/alongside of pipes.	Yes	No
MH-A3	Very black cementitious material coating bottom of the manhole. Moderate odor, PID 0.0 ppm.	No	No
MH-03	Minimal material	No	No
Trench Network near MH-03	Dry vacuum only through access holes.	No	No
MH-A20	Minimal flow infiltrating from sidewalls of manhole.	Yes	No
MH-21	Black sludge. Strong petroleum odor. PID 0.0 ppm. Room ventilated prior to work. Prior sampling indicates odor is from diesel range TPH cutting fluids.	No	No
MH-23	Approximately 2 inches of standing water and 8 inches of soupy black sediment in bottom of manhole. Approximately 3 inches of very dense clay on the bottom required repeated pressure washing and hand tool cleaning to remove. Some cutting fluid odor, and a slight sheen on black sediment. Room ventilated prior to work. Manhole bottom is very rough, uneven concrete, an open 4 inch clay pipe runs the length of the bottom of the manhole, lines are plugged with dense clay. No flow, standing water is from the leaking roof.	No	No
MH-A5	Approximately 2 inches of standing water and 2 inches of soupy sediment with oil sheen. No flow, standing water from the leaking roof.	No	No
BLDG 15 Trenches	Hard clay present in the trench bottom. No flow, dry.	No	No
MH-C3	Approximately 6 inches of rusty debris in manhole bottom. No flow. Manhole bottom is rough concrete.	No	No
MH-08	Less than 1 inch of rusty debris. No flow, dry.	No	No
MH-C2	Approximately 2 inches of black clay coating bottom of manhole/pipe run. Thin coating of black greasy material on brick manhole walls.	No	No
MH-C1	Approximately 4 inches of rusty debris at the bottom of the manhole. Visible yellow crystallization growing on manhole sidewalls.	No	No
MH-10	10-14 inches of loose loamy sediment with some rusty debris.	No	No
MH-36	2-4 inches of loose wet sediment and rusty debris. Steady flow in/out of manhole. Bottom of manhole is very rough concrete.	No	Yes
MH-35	2-4 inches of black sludge and rusty debris at the bottom of the manhole. 6 inches of water present with 0.5 gpm flow in/out of manhole.	No	Yes
MH-D1	Approximately 8 inches of rusty metal fragments fused together at bottom of manhole.	No	No

Notes:

- a\ All pipes plugged as necessary before cleanout
- b\ Minimal water used as necessary to remove residue/debris in manholes

ENCLOSURE A

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
1	3/14/2017	
MH-A1 before cleaning		

Photo No.	Date	
2	3/14/2017	
MH-A1 after cleaning		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
3	3/14/2017	
MH-A2 before cleaning		

Photo No.	Date	
4	3/14/2017	
MH-A2 after cleaning		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
5	3/14/2017	
MH-A3 before cleaning		

Photo No.	Date	
6	3/14/2017	
MH-A3 after cleaning		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
7	3/14/2017	
MH-A4 before cleaning		

Photo No.	Date	
8	3/14/2017	
MH-A4 after cleaning		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
9	3/15/2017	
MH-03 before cleaning		

Photo No.	Date	
10	3/15/2017	
MH-03 after cleaning		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
11	3/15/2017	
Trench Network near MH-03 cleaning process		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
12	3/15/2017	
MH-A20 before cleaning		

Photo No.	Date	
13	3/15/2017	
MH-A20 after cleaning		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
14	3/15/2017	
MH-21 before cleaning		

Photo No.	Date	
15	3/15/2017	
MH-21 after cleaning		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
16	3/16/2017	
MH-23 before cleaning		

Photo No.	Date	
17	3/16/2017	
MH-23 after cleaning		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
18	3/16/2017	
MH-A5 before cleaning		

Photo No.	Date	
19	3/16/2017	
MH-A5 after cleaning		

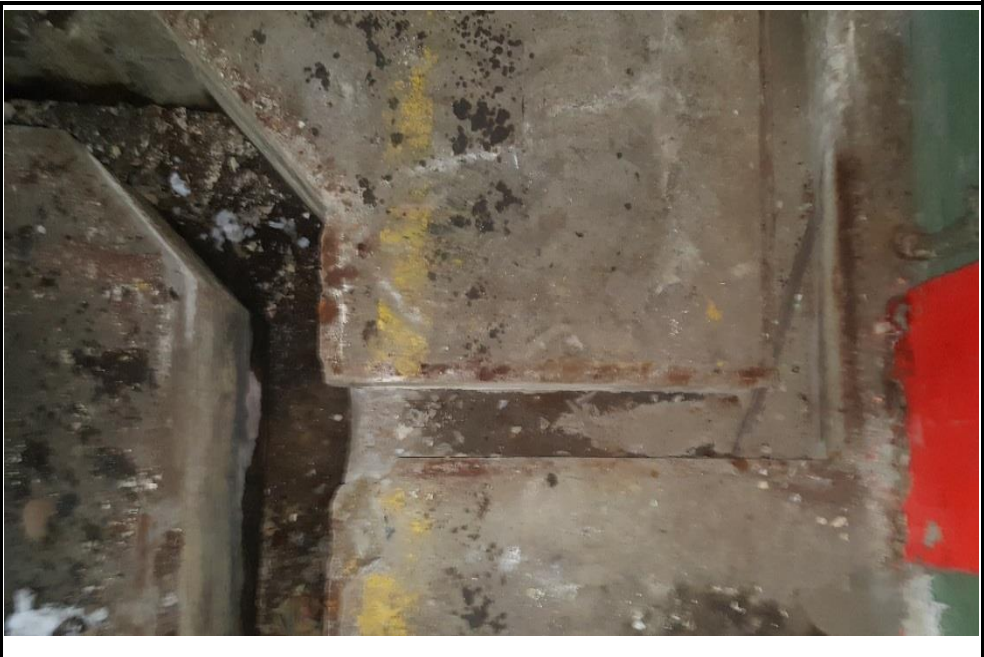
PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
20	3/16/2017	
BD 15 Trenches before cleanout		

Photo No.	Date	
21	3/16/2017	
BD 15 Trenches before cleanout		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
22	3/16/2017	
BD 15 Trenches before cleanout		

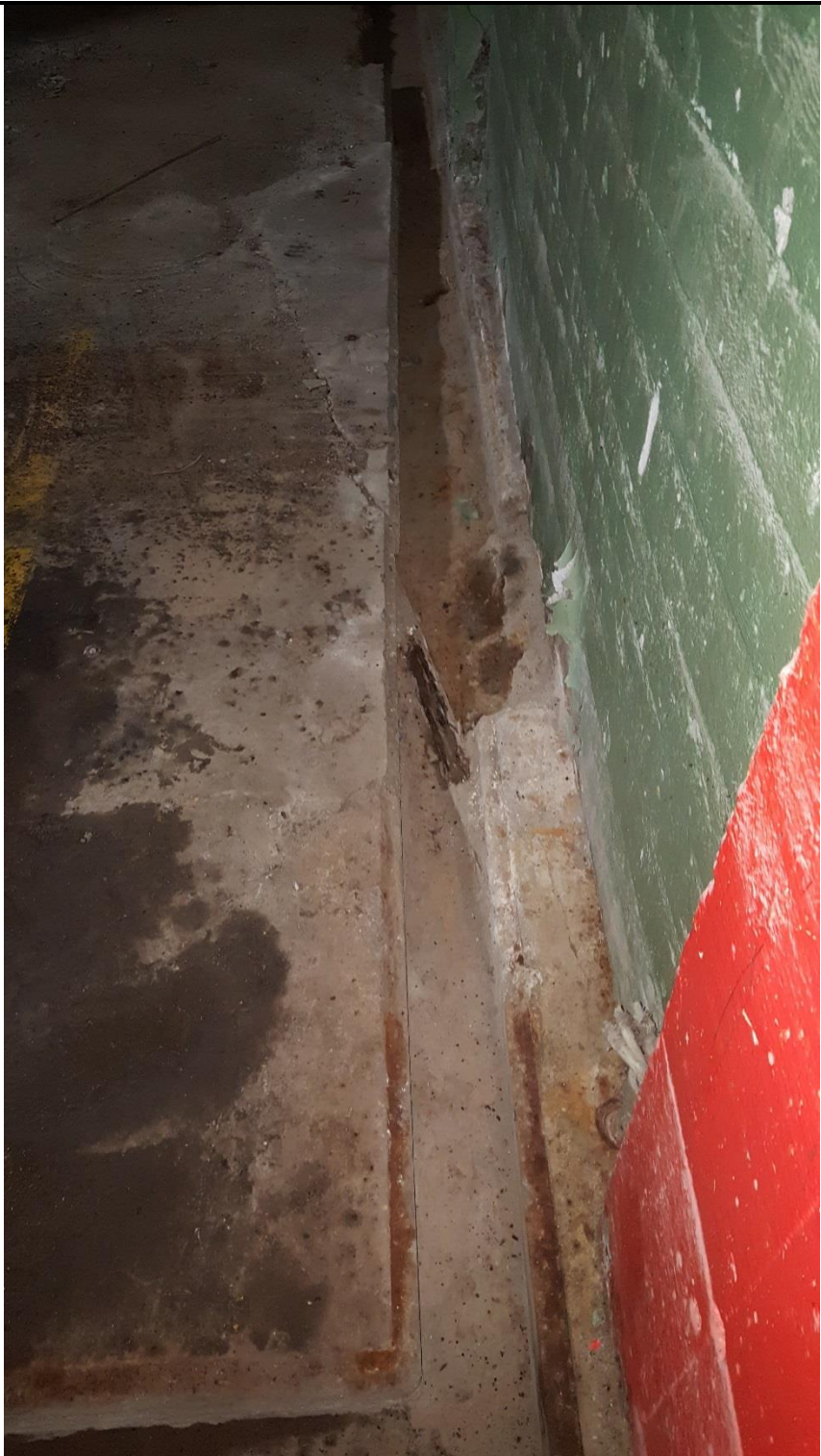
Photo No.	Date	
23	3/16/2017	
BD 15 Trenches before cleanout		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
24	3/16/2017	
BD 15 Trenches after cleanout		

Photo No.	Date	
25	3/16/2017	
BD 15 Trenches after cleanout		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
26	3/16/2017	
BD 15 Trenches after cleanout		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
27	3/16/2017	
MH-C3 Before cleanout		

Photo No.	Date	
28	3/16/2017	
MH-C3 after cleaning		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
29	3/16/2017	
MH-08 Before cleanout		

Photo No.	Date	
30	3/16/2017	
MH-08 after cleanout		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
31	3/16/2017	
MH-C2 Before cleanout		

Photo No.	Date	
32	3/16/2017	
MH-C2 after cleanout		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
33	3/16/2017	
MH-C1 Before cleanout		

Photo No.	Date	
34	3/16/2017	
MH-C1 before cleanout		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
35	3/16/2017	
MH-C1 after cleanout		

Photo No.	Date	
36	3/16/2017	
MH-C1 after cleanout		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
37	3/16/2017	
MH-10 Before Cleanout		

Photo No.	Date	
38	3/16/2017	
MH-10 After cleanout		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
39	3/17/2017	
MH-36 before cleanout		

Photo No.	Date	
40	3/17/2017	
MH-36 after cleanout		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
41	3/17/2017	
MH-35 before cleanout		

Photo No.	Date	
42	3/17/2017	
MH-35 after cleanout		

PHOTOGRAPHIC LOG		
Emerson	Former Emerson Power Transmission Ithaca, New York	31400551

Photo No.	Date	
43	3/17/2017	
MH-D1 before cleanout		

Photo No.	Date	
44	3/17/2017	
MH-D1 after cleanout		

ENCLOSURE B



Experience is the solution

314 North Pearl Street ♦ Albany, New York 12207
(800) 848-4983 ♦ (518) 434-4546 ♦ Fax (518) 434-0891

April 04, 2017

Dan Flanigan
OSC Inc
333 Ganson Street
Buffalo, NY 14203

Work Order No: 170322006

TEL: (716) 856-3333
FAX:

RE: Ithaca
EMERSUB15, LLC

Dear Dan Flanigan:

Adirondack Environmental Services, Inc received 2 samples on 3/21/2017 for the analyses presented in the following report.

Please see case narrative for specifics on analysis.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

ELAP#: 10709

Tara Daniels
Laboratory Director

Adirondack Environmental Services, Inc

CASE NARRATIVE

CLIENT: OSC Inc

Date: 04-Apr-17

Project: Ithaca

Lab Order: 170322006

Sample containers were supplied by Adirondack Environmental Services.

Qualifiers:	ND - Not Detected at reporting limit	C - Details are above in Case Narrative
	J - Analyte detected below quantitation limit	S - LCS Spike recovery outside acceptable limits(+ is over - is under)
	B - Analyte detected in Blank	R - Duplication outside acceptable limits
	X - Exceeds maximum contamination limit	T - Tentatively Identified Compound-Estimated
	H - Hold time exceeded	E -Above quantitation range-Estimated
		M - Matrix Spike outside acceptable limits(+ is over - is under)

Note : All Results are reported as wet weight unless noted

The results relate only to the items tested. Information supplied by the client is assumed to be correct.

Adirondack Environmental Services, Inc

Date: 04-Apr-17

CLIENT: OSC Inc
Work Order: 170322006
Reference: Ithaca / EMERSUB15, LLC
PO#:

Client Sample ID: Sewer Sed Non Haz
Collection Date: 3/17/2017
Lab Sample ID: 170322006-001
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS - EPA 8082A						Analyst: KF
(Prep: SW3545A - 3/24/2017)						
Aroclor 1016	ND	58		µg/Kg-dry	1	3/30/2017 8:45:57 PM
Aroclor 1221	ND	58		µg/Kg-dry	1	3/30/2017 8:45:57 PM
Aroclor 1232	ND	58		µg/Kg-dry	1	3/30/2017 8:45:57 PM
Aroclor 1242	ND	58		µg/Kg-dry	1	3/30/2017 8:45:57 PM
Aroclor 1248	ND	58		µg/Kg-dry	1	3/30/2017 8:45:57 PM
Aroclor 1254	1100	58		µg/Kg-dry	1	3/30/2017 8:45:57 PM
Aroclor 1260	ND	58		µg/Kg-dry	1	3/30/2017 8:45:57 PM
Aroclor 1262	ND	58		µg/Kg-dry	1	3/30/2017 8:45:57 PM
Aroclor 1268	ND	58		µg/Kg-dry	1	3/30/2017 8:45:57 PM
Surr: Decachlorobiphenyl	71.6	48.1-152		%REC	1	3/30/2017 8:45:57 PM
ICP METALS-EPA 6010C						Analyst: WB
(Prep: SW3050B - 3/23/2017)						
Lead	192	0.440		µg/g-dry	1	3/27/2017 2:11:08 PM
TCLP MERCURY - SW1311/7470A						Analyst: AVB
(Prep: SW7470A - 3/24/2017)						
Mercury-TCLP	ND	0.002		mg/L	1	3/24/2017 3:18:18 PM
TCLP METALS - SW1311/6010C						Analyst: WB
(Prep: SW1311 - 3/22/2017)						
Arsenic-TCLP	ND	0.05		mg/L	1	3/23/2017 2:02:58 PM
Barium-TCLP	24.5	1.00		mg/L	10	3/23/2017 2:07:03 PM
Cadmium-TCLP	ND	0.05		mg/L	1	3/23/2017 2:02:58 PM
Chromium-TCLP	ND	0.05		mg/L	1	3/23/2017 2:02:58 PM
Lead-TCLP	0.08	0.05		mg/L	1	3/23/2017 2:02:58 PM
Selenium-TCLP	ND	0.05		mg/L	1	3/23/2017 2:02:58 PM
Silver-TCLP	ND	0.10		mg/L	1	3/23/2017 2:02:58 PM
MOISTURE CONTENT - ASTM D2216						Analyst: SMD
Percent Moisture	43.5	0.1		wt%	1	3/23/2017
TOTAL HALOGENS - SW 9075						Analyst: PL
Total Halogens	0.22	0.02		wt%-dry	1	4/4/2017

Adirondack Environmental Services, Inc

Date: 04-Apr-17

CLIENT: OSC Inc
Work Order: 170322006
Reference: Ithaca / EMERSUB15, LLC
PO#:

Client Sample ID: Haz Sewer Sed
Collection Date: 3/17/2017
Lab Sample ID: 170322006-002
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
POLYCHLORINATED BIPHENYLS - EPA 8082A						Analyst: KF
(Prep: SW3545A - 3/24/2017)						
Aroclor 1016	ND	77		µg/Kg-dry	1	3/27/2017 2:44:54 PM
Aroclor 1221	ND	77		µg/Kg-dry	1	3/27/2017 2:44:54 PM
Aroclor 1232	ND	77		µg/Kg-dry	1	3/27/2017 2:44:54 PM
Aroclor 1242	ND	77		µg/Kg-dry	1	3/27/2017 2:44:54 PM
Aroclor 1248	ND	77		µg/Kg-dry	1	3/27/2017 2:44:54 PM
Aroclor 1254	460	77		µg/Kg-dry	1	3/27/2017 2:44:54 PM
Aroclor 1260	ND	77		µg/Kg-dry	1	3/27/2017 2:44:54 PM
Aroclor 1262	ND	77		µg/Kg-dry	1	3/27/2017 2:44:54 PM
Aroclor 1268	ND	77		µg/Kg-dry	1	3/27/2017 2:44:54 PM
Surr: Decachlorobiphenyl	93.0	48.1-152		%REC	1	3/27/2017 2:44:54 PM
ICP METALS-EPA 6010C						Analyst: WB
(Prep: SW3050B - 3/23/2017)						
Lead	186	0.590		µg/g-dry	1	3/27/2017 2:22:43 PM
TCLP MERCURY - SW1311/7470A						Analyst: AVB
(Prep: SW7470A - 3/24/2017)						
Mercury-TCLP	ND	0.002		mg/L	1	3/24/2017 3:19:49 PM
TCLP METALS - SW1311/6010C						Analyst: WB
(Prep: SW1311 - 3/22/2017)						
Arsenic-TCLP	ND	0.05		mg/L	1	3/23/2017 2:11:08 PM
Barium-TCLP	0.80	0.10		mg/L	1	3/23/2017 2:11:08 PM
Cadmium-TCLP	ND	0.05	M-	mg/L	1	3/23/2017 2:11:08 PM
Chromium-TCLP	ND	0.05		mg/L	1	3/23/2017 2:11:08 PM
Lead-TCLP	0.06	0.05		mg/L	1	3/23/2017 2:11:08 PM
Selenium-TCLP	ND	0.05		mg/L	1	3/23/2017 2:11:08 PM
Silver-TCLP	ND	0.10		mg/L	1	3/23/2017 2:11:08 PM
SEMI-VOLATILE ORGANICS - EPA 8270D						Analyst: MT
(Prep: SW3545A - 3/31/2017)						
Phenol	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Bis(2-chloroethyl)ether	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
2-Chlorophenol	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
1,3-Dichlorobenzene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
1,4-Dichlorobenzene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
1,2-Dichlorobenzene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
2-Methylphenol	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Bis(2-chloroisopropyl)ether	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
4-Methylphenol	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM

Adirondack Environmental Services, Inc

Date: 04-Apr-17

CLIENT: OSC Inc
Work Order: 170322006
Reference: Ithaca / EMERSUB15, LLC
PO#:

Client Sample ID: Haz Sewer Sed
Collection Date: 3/17/2017
Lab Sample ID: 170322006-002
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SEMI-VOLATILE ORGANICS - EPA 8270D						Analyst: MT
(Prep: SW3545A - 3/31/2017)						
N-Nitrosodi-n-propylamine	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Hexachloroethane	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Nitrobenzene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Isophorone	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
2-Nitrophenol	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
2,4-Dimethylphenol	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Bis(2-chloroethoxy)methane	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
2,4-Dichlorophenol	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
1,2,4-Trichlorobenzene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Naphthalene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
4-Chloroaniline	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Hexachlorobutadiene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
4-Chloro-3-methylphenol	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
2-Methylnaphthalene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Hexachlorocyclopentadiene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
2,4,6-Trichlorophenol	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
2,4,5-Trichlorophenol	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
2-Chloronaphthalene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
2-Nitroaniline	ND	20000		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Dimethyl phthalate	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Acenaphthylene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
2,6-Dinitrotoluene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
3-Nitroaniline	ND	20000		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Acenaphthene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
2,4-Dinitrophenol	ND	20000		µg/Kg-dry	5	4/3/2017 3:08:00 PM
4-Nitrophenol	ND	20000		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Dibenzofuran	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
2,4-Dinitrotoluene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Diethyl phthalate	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
4-Chlorophenyl phenyl ether	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Fluorene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
4-Nitroaniline	ND	20000		µg/Kg-dry	5	4/3/2017 3:08:00 PM
4,6-Dinitro-2-methylphenol	ND	20000		µg/Kg-dry	5	4/3/2017 3:08:00 PM
N-Nitrosodiphenylamine	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
4-Bromophenyl phenyl ether	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Hexachlorobenzene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Pentachlorophenol	ND	20000		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Phenanthrene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Anthracene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Carbazole	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM

Adirondack Environmental Services, Inc

Date: 04-Apr-17

CLIENT: OSC Inc
Work Order: 170322006
Reference: Ithaca / EMERSUB15, LLC
PO#:

Client Sample ID: Haz Sewer Sed
Collection Date: 3/17/2017
Lab Sample ID: 170322006-002
Matrix: SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
SEMI-VOLATILE ORGANICS - EPA 8270D						Analyst: MT
(Prep: SW3545A - 3/31/2017)						
Di-n-butyl phthalate	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Fluoranthene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Pyrene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Butyl benzyl phthalate	9600	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
3,3'-Dichlorobenzidine	ND	7700		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Benzo(a)anthracene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Chrysene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Bis(2-ethylhexyl)phthalate	4800	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Di-n-octyl phthalate	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Benzo(b)fluoranthene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Benzo(k)fluoranthene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Benzo(a)pyrene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Indeno(1,2,3-cd)pyrene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Dibenz(a,h)anthracene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Benzo(g,h,i)perylene	ND	3900		µg/Kg-dry	5	4/3/2017 3:08:00 PM
Surr: 2,4,6-Tribromophenol	63.0	21.9-99.8		%REC	5	4/3/2017 3:08:00 PM
Surr: 2-Fluorobiphenyl	93.8	14.1-127		%REC	5	4/3/2017 3:08:00 PM
Surr: 2-Fluorophenol	39.7	25.6-95.3		%REC	5	4/3/2017 3:08:00 PM
Surr: 4-Terphenyl-d14	83.7	20-127		%REC	5	4/3/2017 3:08:00 PM
Surr: Nitrobenzene-d5	70.7	6.14-116		%REC	5	4/3/2017 3:08:00 PM
Surr: Phenol-d5	46.1	20.2-92.4		%REC	5	4/3/2017 3:08:00 PM
MOISTURE CONTENT - ASTM D2216						Analyst: SMD
Percent Moisture	57.4	0.1		wt%	1	3/23/2017
TOTAL HALOGENS - SW 9075						Analyst: PL
Total Halogens	ND	0.02		wt%-dry	1	4/4/2017



CHAIN OF CUSTODY RECORD

AES Work Order #

ES Work Order # 170322006

A full service analytical research laboratory offering solutions to environmental concerns

Shipment Arrived Via:FedEx UPS Client AES Other:**Turnaround Time Request:**

☐ 1 Day ☐ 3 Day ☒ Normal
☐ 2 Day ☐ 5 Day

Note: Samples received after 3:30 pm are considered next business day

CC Report To / Special Instructions/Remarks:

Relinquished by: (Signature)

Received By: (Signature)

Date/Time

3/17/17 1515

Relinquished by: (Signature)

Received by: (Signature)

Date/Time

3/21/17 1245

Relinquished by: (Signature)

Received for Laboratory by:

Date/Time

3/22/17 9:02A

TEMPERATURE Ambient or <u>Chilled</u> Notes: <u>60°C</u>	AES Bottles	Y N ☒ ☐	PROPERLY PRESERVED <u>Y</u> N Notes: _____	RECEIVED WITHIN HOLDING TIMES <u>Y</u> N Notes: _____
---	------------------------	--	---	--

WHITE - Lab Copy

YELLOW - Sampler Copy

Adirondack Environmental Series



170322006



Experience is the solution

314 North Pearl Street • Albany, New York 12207 • (518) 434-4546 • Fax (518) 434-0891

TERMS, CONDITIONS & LIMITATIONS

All service rendered by the **Adirondack Environmental Services, Inc.** are undertaken and all rates are based upon the following terms:

- (a) Neither **Adirondack Environmental Services, Inc.**, nor any of its employees, agents or sub-contractors shall be liable for any loss or damage arising out of **Adirondack Environmental Services, Inc.**'s performance or nonperformance, whether by way of negligence or breach of contract, or otherwise, in any amount greater than twice the amount billed to the customer for the work leading to the claim of the customer. Said remedy shall be the sole and exclusive remedy against **Adirondack Environmental Services, Inc.** arising out of its work.
- (b) All claims made must be in writing within forty-five (45) days after delivery of the **Adirondack Environmental Services, Inc.** report regarding said work or such claim shall be deemed or irrevocably waived.
- (c) **Adirondack Environmental Services, Inc.** reports are submitted in writing and are for our customers only. Our customers are considered to be only those entities being billed for our services. Acquisition of an **Adirondack Environmental Services, Inc.** report by other than our customer does not constitute a representation of **Adirondack Environmental Services, Inc.** as to the accuracy of the contents thereof.
- (d) In no event shall **Adirondack Environmental Services, Inc.**, its employees, agents or sub-contractors be responsible for consequential or special damages of any kind or in any amount.
- (e) No deviation from the terms set forth herein shall bind **Adirondack Environmental Services, Inc.** unless in writing and signed by a Director of **Adirondack Environmental Services, Inc.**
- (f) Results pertain only to items analyzed. Information supplied by client is assumed to be correct. This information may be used on reports and in calculations and **Adirondack Environmental Services, Inc.** is not responsible for the accuracy of this information.
- (g) Payments by Credit Card/Purchase Cards are subject to a 3% additional charge.

ENCLOSURE C

Covanta Environmental Solutions, LLC.

LOCATION: NIAGARA

NON-HAZARDOUS WASTE PROFILE

8335 Quarry Rd.
Niagara Falls, NY 14304
Phone: (716) 298-5297
Fax: (716) 298-5754

DIRECT GENERATOR INFORMATION

Company: Emersub 15, LLC
Address: c/o WSP 5 Sullivan St
City: Cazenovia State: NY Zip: 13035
Contact: Glen Rieger, PE Phone: Email: glen.rieger@wspgroup.com

DIRECT CUSTOMER/SERVICE COMPANY CONTACT

Name: -
Title:
Phone: 315-655-3900 Fax:
Email:

BILLING INFORMATION ☐ Same as Customer information

Company: Earthwatch Waste Systems
Address: 464 Franklin St
City: Buffalo State: NY Zip: 14202
Phone: 716-681-6433 Fax: 716-681-6557

BILLING CONTACT ☐ Same as Customer contact

Name: Chris McCune
Title:
Phone: 716-681-6433 Fax:
Email: chris@earthwatchwaste.com

Physical Characteristics

Physical State: ☐ Liquid ☒ Semi-Solid ☐ Solid ☐ Other
Layers: ☒ None ☐ Bi-Layer ☐ Multi-Layer
Free Liquids: ☒ Yes ☐ No
Pumpable: ☒ Yes ☐ No
Viscosity: ☐ Low ☒ Medium ☐ High
Color: brown
Flash Point: N/A
pH: 5-9

Odor: mild
BTU/Lb: N/A
Reactive with: N/A

Is this waste considered explosive? ☐ Yes ☒ No
Is this waste considered infectious? ☐ Yes ☒ No
Does this waste contain dioxin, pesticides or PCBs? ☒ Yes ☐ No
Does this waste contain spent solvents? ☐ Yes ☒ No
Is this waste petroleum related? ☐ Yes ☒ No
Is this shipped in drums? ☒ Yes ☐ No
Is this shipped as bulk? ☐ Yes ☒ No
Anticipated Volume/Frequency: 9 drums

Physical/Chemical Constituents		
water	43.5	%
solids	56.5	%
		%
		%
		%
		%
		%
		%
		%
Total	100	%

Analytical Information: ☒ See Attached ☐ None Currently Available
Special Handling Information: None
Applicable RCRA Waste Codes:
DOT Shipping Name:
Hazard Class: UN/NA Packing Group:

Generator's Certification:

I hereby certify that the above and attached description is complete and accurate to the best of my knowledge and ability to determine that no deliberate or willful omissions of composition properties exist and that all known or suspected hazards have been disclosed. I certify that the materials tested are representative of all materials described by this profile, also, I certify that the material described above is not a hazardous waste as defined by RCRA (title 40) or 6 NYCRR parts 370-374.

Glen Rieger on behalf of EMERSUB 15 LLC

Generator's Signature

Printed Name

Date

Covanta Environmental
Solutions Acceptance

Covanta Environmental Solutions Management

SUB-D

EFW

WWT

REC

4-20-17

Earthwatch

WASTE SYSTEMS

484 Franklin Street
Buffalo, NY 14202
(716) 681-6433
FAX (716) 681-6165

482054

NON-HAZARDOUS WASTE SOLID WASTE MANIFEST

TRANSPORTER Sun Environmental, Liverpool, NY	DATE	TIME IN / OUT	
	5-2-17	7:10	7:10
	EWS# 8842		
TRUCK# 302	TRAILER# N/A		

CONSIGNEE: Covanta Environmental Solutio 8335 Quarry Road Niagara Falls, NY 14304 (862) 217-3773		SHIPPER Emersub 15, LLC 620 S. Aurora Street Ithaca, NY, NY 14850	
PHONE#			
NO. PIECES	ARTICLES OR DESCRIPTION	WEIGHT IN	WEIGHT
9 Drums	Drums of Non Hazardous Sediment	WEIGHT IN	5000 lbs
		WEIGHT OUT	
		BILLED WEIGHT	

SHIPPER SIGNATURE [Signature] ON BEHALF OF EMERSUB 15, LLC PRINT NAME NATHANIEL WINSTON

DRIVER SIGNATURE [Signature] PRINT NAME Nate Clear

SPECIAL INSTRUCTIONS:

Approval # COV170421A

FOR APPROVAL:		Solid waste being interpreted to mean only solid waste or waste containing animal and vegetable matter, rubbish, trash, debris, ashes and non-toxic sludge and other waste materials which is not a radioactive volatile, highly flammable explosive toxic or hazardous nature as listed. The transporter herein named agrees to hold harmless and to indemnify EWS against all losses and claims as a result of shipment of any material. This shipment is to be delivered to the consignee without recourse on Earthwatch, shipper or consignee. The transporter shall not make delivery of this shipment without payment of freight and all other lawful charges.
CONSIGNEE PRINT NAME _____		
CONSIGNEE SIGN HERE _____ (NO INITIALS)		
RECEIVED ABOVE MATERIAL IN GOOD CONDITION	FIRM: _____ DATE _____ BY _____ TIME _____ QAM _____ OPM _____	