Preparation Information Benchsheets

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

Preparation Information Benchsheet

Prep Run#: 408313 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped
Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 10/18/22 11:44

#	Lab Code	Client ID	B#	Method /Test	pH	Cl	Matrix	Amt. Ext.	Sample Description
1	E2200953-001	3265886-001 (Port Ewen 2A)	.01	8290A/PCDD PCDF			Soil	10.344g	brown mud
2	E2200953-002	3265886-002 (Port Ewen 2B)	.01	8290A/PCDD PCDF			Soil	10.057g	brown mud
3	E2200953-003	3265886-003 (Port Ewen 3A)	.01	8290A/PCDD PCDF			Soil	10.067g	brown mud
4	E2200953-004	3265886-004 (Port Ewen 3B)	.01	8290A/PCDD PCDF			Soil	10.280g	brown mud
5	E2200953-005	3265886-005 (Port Ewen 4A)	.01	8290A/PCDD PCDF			Soil	10.331g	brown mud
6	E2200953-006	3265886-006 (Port Ewen 4B)	.01	8290A/PCDD PCDF			Soil	10.187g	brown mud
7	E2200953-007	3265886-007 (Port Ewen 5A)	.01	8290A/PCDD PCDF			Soil	10.242g	brown mud
8	E2200953-008	3265886-008 (Port Ewen 5B)	.01	8290A/PCDD PCDF			Soil	10.315g	brown mud
9	E2200954-001	3265452-001 (Pough 3A)	.01	8290A/PCDD PCDF			Soil	10.046g	brown mud
10	E2200954-002	3265452-002 (Pough 3B)	.01	8290A/PCDD PCDF			Soil	10.308g	brown mud
11	E2200954-003	3265452-003 (Pough 4A)	.01	8290A/PCDD PCDF			Soil	10.137g	brown mud
12	E2200954-004	3265452-004 (Pough 4B)	.01	8290A/PCDD PCDF			Soil	10.193g	brown mud
13	E2200954-005	3265452-005 (Pough 5A)	.01	8290A/PCDD PCDF			Soil	10.318g	brown mud
14	E2200954-006	3265452-006 (Pough 5B)	.01	8290A/PCDD PCDF			Soil	10.256g	brown mud
15	E2200955-001	3265451-001	.01	8290A/PCDD PCDF			Soil	10.003g	brown mud
16	E2200955-002	3265451-002	.01	8290A/PCDD PCDF			Soil	10.377g	brown mud
17	E2200955-003	3265451-003	.01	8290A/PCDD PCDF			Soil	10.329g	brown mud
18	E2200955-004	3265451-004	.01	8290A/PCDD PCDF			Soil	10.075g	brown mud
19	EQ2200474-01	MB		8290A/PCDD PCDF			Solid	10.199g	
20	EQ2200474-02	LCS		8290A/PCDD PCDF			Solid	10.137g	
21	EQ2200474-03	DLCS		8290A/PCDD PCDF			Solid	10.135g	

Spiking Solutions

Name: 1613B Matrix Working Standard Inventory ID 225447 Logbook Ref: tw 10/12/22 225447 Expires On: 04/10/2023

EQ2200474-02	100.00µL	EQ2200474-03	100.00µL

Name: 8290/1613B Cleanup Working Standard Inventory ID 225486 Logbook Ref: tw 10/14/22 225486 Expires On: 02/28/2023

E2200953-001	100.00µL	E2200953-002	100.00µL	E2200953-003	100.00µL	E2200953-004	100.00µL	E2200953-005	100.00µL	E2200953-006	100.00µL
E2200953-007	100.00µL	E2200953-008	100.00µL	E2200954-001	100.00µL	E2200954-002	100.00µL	E2200954-003	100.00µL	E2200954-004	100.00µL
E2200954-005	100.00µL	E2200954-006	100.00µL	E2200955-001	100.00µL	E2200955-002	100.00µL	E2200955-003	100.00µL	E2200955-004	100.00µL
EQ2200474-01	100.00µL	EQ2200474-02	100.00µL	EQ2200474-03	100.00µL						

Name: 1613B Labeled Working Standard Inventory ID 225489 Logbook Ref: NB 10/14/2022 225489 ng/mL Expires On: 04/10/2023

Preparation Information Benchsheet

Prep Run#: 408313 **Prep WorkFlow:** OrgExtDioxS(30) **Status:** Prepped

Team: Semivoa GCMS/TWOODS **Prep Method:** Method **Prep Date/Time:** 10/18/22 11:44

E2200953-001	1,000.00µL	E2200953-002	1,000.00µL	E2200953-003	1,000.00µL	E2200953-004	1,000.00µL	E2200953-005	1,000.00µL	E2200953-006	1,000.00µL
E2200953-007	1,000.00µL	E2200953-008	1,000.00µL	E2200954-001	1,000.00µL	E2200954-002	1,000.00µL	E2200954-003	1,000.00µL	E2200954-004	1,000.00µL
E2200954-005	1,000.00µL	E2200954-006	1,000.00µL	E2200955-001	1,000.00µL	E2200955-002	1,000.00µL	E2200955-003	1,000.00µL	E2200955-004	1,000.00µL
EQ2200474-01	1,000.00µL	EQ2200474-02	1,000.00µL	EQ2200474-03	1,000.00µL						

Preparation Materials

Carbon, High Purity	tw 08/15/22 (224550)	Ethyl Acetate 99.9% Minimum EtOAc	Ethyl Acetate 6/30/22 (223782)	Glass Wool	TW 5/20/22 (225628)
Hexanes 95%	tw 10/18/22 hexane (225613)	Dichloromethane (Methylene Chloride) 99.9% MeCl2	tw 10/04/22 (225325)	Sodium Hydroxide 1N NaOH	SN 4/26/22 (222726)
Sodium Sulfate Anhydrous Reagent Grade Na2SO4	SN 5/18/22 (223143)	Tridecane (n-Tridecane)	tw 08/15/22 (224552)	Silica Gel	tw 10/17/22 (225501)
sulfuric acid	tw 09/09/22 sulfuric (224982)	Toluene 99.9% Minimum	tw 10/03/22 (225319)		

Preparation Steps

Step:	Extraction	Step:	Acid Clean	Step:	Silica Gel Clean	Step:	Final Volume
Started:	10/18/22 11:44	Started:	10/20/22 12:00	Started:	10/20/22 13:00	Started:	10/21/22 13:00
Finished:	10/19/22 09:00	Finished:	10/20/22 13:00	Finished:	10/20/22 16:00	Finished:	10/21/22 16:00
By:	TWOODS	By:	TWOODS	By:	TWOODS	By:	TWOODS
Comments		Comments		Comments		Comments	

Comments: _____

Reviewed By: _____ Date: _____

Chain of Custody

Relinquished By: _____ Date: _____

Received By: _____ Date: _____

Extracts Examined

Yes No

Analytical Results

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston, TX 77099
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Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-001 (Port Ewen 2A)	**Units:**	ng/Kg
Lab Code:	E2200953-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 22:24
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.344g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540005	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0842	0.753			1
1,2,3,7,8-PeCDD	0.108**J**		0.0461	3.76	1.59	1.001	1
1,2,3,6,7,8-HxCDD	0.230**J**		0.0162	3.76	1.17	1.001	1
1,2,3,4,7,8-HxCDD	0.430**BJ**		0.0178	3.76	1.22	1.000	1
1,2,3,7,8,9-HxCDD	0.220**BJ**		0.0171	3.76	1.39	1.007	1
1,2,3,4,6,7,8-HpCDD	8.60		0.136	3.76	1.01	1.000	1
OCDD	83.4		0.560	7.53	0.89	1.000	1
2,3,7,8-TCDF	ND	U	0.0756	0.753			1
1,2,3,7,8-PeCDF	ND	U	0.0809	3.76			1
2,3,4,7,8-PeCDF	ND	U	0.0827	3.76			1
1,2,3,6,7,8-HxCDF	ND	U	0.0294	3.76			1
1,2,3,7,8,9-HxCDF	0.106**BJK**		0.0336	3.76	0.61	1.000	1
1,2,3,4,7,8-HxCDF	0.0672**BJK**		0.0260	3.76	0.70	1.000	1
2,3,4,6,7,8-HxCDF	0.0583**BJK**		0.0243	3.76	2.18	1.000	1
1,2,3,4,6,7,8-HpCDF	0.442**BJ**		0.0320	3.76	0.94	1.001	1
1,2,3,4,7,8,9-HpCDF	0.112**BJK**		0.0342	3.76	1.24	1.000	1
OCDF	1.57**BJ**		0.0690	7.53	0.87	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-001 (Port Ewen 2A)	**Units:**	ng/Kg
Lab Code:	E2200953-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 22:24
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.344g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540005	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.0842	0.753			1
Total Penta-Dioxins	0.145**J**		0.0461	3.76	1.59		1
Total Hexa-Dioxins	3.61**J**		0.0169	3.76	1.27		1
Total Hepta-Dioxins	26.0		0.136	3.76	1.02		1
Total Tetra-Furans	ND	U	0.0756	0.753			1
Total Penta-Furans	ND	U	0.0818	3.76			1
Total Hexa-Furans	0.199**J**		0.0281	3.76	1.06		1
Total Hepta-Furans	0.442**J**		0.0330	3.76	0.94		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-001 (Port Ewen 2A)	**Units:**	Percent
Lab Code:	E2200953-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 22:24
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.344g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540005	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1655.251	83		40-135	0.80	1.024
13C-1,2,3,7,8-PeCDD	2000	1644.592	82		40-135	1.58	1.206
13C-1,2,3,4,7,8-HxCDD	2000	1360.683	68		40-135	1.32	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1526.470	76		40-135	1.22	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1583.921	79		40-135	1.05	1.068
13C-OCDD	4000	2493.995	62		40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	1405.219	70		40-135	0.79	0.992
13C-1,2,3,7,8-PeCDF	2000	1580.003	79		40-135	1.59	1.160
13C-2,3,4,7,8-PeCDF	2000	1517.388	76		40-135	1.60	1.196
13C-1,2,3,4,7,8-HxCDF	2000	1465.684	73		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1287.228	64		40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1424.868	71		40-135	0.52	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1647.136	82		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1254.424	63		40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1496.104	75		40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	507.810	63		40-135	NA	1.024

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-001 (Port Ewen 2A)	**Units:**	ng/Kg
Lab Code:	E2200953-001	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.0842	0.753	1	1	
1,2,3,7,8-PeCDD	**0.108**	0.0461	3.76	1	1	0.108
1,2,3,6,7,8-HxCDD	**0.230**	0.0162	3.76	1	0.1	0.0230
1,2,3,4,7,8-HxCDD	**0.430**	0.0178	3.76	1	0.1	0.0430
1,2,3,7,8,9-HxCDD	**0.220**	0.0171	3.76	1	0.1	0.0220
1,2,3,4,6,7,8-HpCDD	**8.60**	0.136	3.76	1	0.01	0.0860
OCDD	**83.4**	0.560	7.53	1	0.0003	0.0250
2,3,7,8-TCDF	ND	0.0756	0.753	1	0.1	
1,2,3,7,8-PeCDF	ND	0.0809	3.76	1	0.03	
2,3,4,7,8-PeCDF	ND	0.0827	3.76	1	0.3	
1,2,3,6,7,8-HxCDF	ND	0.0294	3.76	1	0.1	
1,2,3,7,8,9-HxCDF	**0.106**	0.0336	3.76	1	0.1	0.0106
1,2,3,4,7,8-HxCDF	**0.0672**	0.0260	3.76	1	0.1	0.00672
2,3,4,6,7,8-HxCDF	**0.0583**	0.0243	3.76	1	0.1	0.00583
1,2,3,4,6,7,8-HpCDF	**0.442**	0.0320	3.76	1	0.01	0.00442
1,2,3,4,7,8,9-HpCDF	**0.112**	0.0342	3.76	1	0.01	0.00112
OCDF	**1.57**	0.0690	7.53	1	0.0003	0.000471
		Total TEQ				0.336

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-001 (Port Ewen 2A)	**Units:**	Percent
Lab Code:	E2200953-001	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	6.1262g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	64.2		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-002 (Port Ewen 2B)	**Units:**	ng/Kg
Lab Code:	E2200953-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 23:12
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.057g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540006	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.173	0.768			1
1,2,3,7,8-PeCDD	0.408**J**		0.105	3.84	1.44	1.001	1
1,2,3,6,7,8-HxCDD	0.454**J**		0.0429	3.84	1.19	1.001	1
1,2,3,4,7,8-HxCDD	0.385**BJ**		0.0475	3.84	1.20	1.000	1
1,2,3,7,8,9-HxCDD	0.422**J**		0.0451	3.84	1.12	1.007	1
1,2,3,4,6,7,8-HpCDD	6.37**K**		0.00969	3.84	0.87	1.000	1
OCDD	101		0.848	7.68	0.93	1.000	1
2,3,7,8-TCDF	0.215**JK**		0.162	0.768	0.98	1.001	1
1,2,3,7,8-PeCDF	0.633**J**		0.305	3.84	1.35	1.000	1
2,3,4,7,8-PeCDF	ND	U	0.290	3.84			1
1,2,3,6,7,8-HxCDF	0.936**JK**		0.0916	3.84	0.93	1.000	1
1,2,3,7,8,9-HxCDF	0.311**J**		0.109	3.84	1.11	1.001	1
1,2,3,4,7,8-HxCDF	1.33**J**		0.0841	3.84	1.10	1.000	1
2,3,4,6,7,8-HxCDF	0.636**J**		0.0707	3.84	1.30	1.000	1
1,2,3,4,6,7,8-HpCDF	4.19		0.105	3.84	0.88	1.000	1
1,2,3,4,7,8,9-HpCDF	0.496**BJ**		0.111	3.84	1.18	1.000	1
OCDF	4.10**J**		0.176	7.68	0.76	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-002 (Port Ewen 2B)	**Units:**	ng/Kg
Lab Code:	E2200953-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 23:12
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.057g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540006	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.173	0.768			1
Total Penta-Dioxins	1.28**J**		0.105	3.84	1.38		1
Total Hexa-Dioxins	3.00**J**		0.0451	3.84	1.41		1
Total Hepta-Dioxins	ND	U	0.00969	3.84			1
Total Tetra-Furans	0.488**J**		0.162	0.768	0.67		1
Total Penta-Furans	1.98**J**		0.0963	3.84	1.35		1
Total Hexa-Furans	6.36		0.0869	3.84	1.18		1
Total Hepta-Furans	3.16**J**		0.108	3.84	0.96		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-002 (Port Ewen 2B)	**Units:**	Percent
Lab Code:	E2200953-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 23:12
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.057g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540006	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	707.971	35	**Y**	40-135	0.79	1.024
13C-1,2,3,7,8-PeCDD	2000	675.684	34	**Y**	40-135	1.59	1.206
13C-1,2,3,4,7,8-HxCDD	2000	560.210	28	**Y**	40-135	1.32	0.991
13C-1,2,3,6,7,8-HxCDD	2000	627.909	31	**Y**	40-135	1.22	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	604.471	30	**Y**	40-135	1.07	1.068
13C-OCDD	4000	873.978	22	**Y**	40-135	0.89	1.139
13C-2,3,7,8-TCDF	2000	624.723	31	**Y**	40-135	0.80	0.992
13C-1,2,3,7,8-PeCDF	2000	632.767	32	**Y**	40-135	1.59	1.160
13C-2,3,4,7,8-PeCDF	2000	653.957	33	**Y**	40-135	1.58	1.196
13C-1,2,3,4,7,8-HxCDF	2000	574.779	29	**Y**	40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	518.344	26	**Y**	40-135	0.52	0.973
13C-1,2,3,7,8,9-HxCDF	2000	550.326	28	**Y**	40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	715.087	36	**Y**	40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	459.654	23	**Y**	40-135	0.41	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	561.260	28	**Y**	40-135	0.42	1.080
37Cl-2,3,7,8-TCDD	800	361.747	45		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-002 (Port Ewen 2B)	**Units:**	ng/Kg
Lab Code:	E2200953-002	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.173	0.768	1	1	
1,2,3,7,8-PeCDD	**0.408**	0.105	3.84	1	1	0.408
1,2,3,6,7,8-HxCDD	**0.454**	0.0429	3.84	1	0.1	0.0454
1,2,3,4,7,8-HxCDD	**0.385**	0.0475	3.84	1	0.1	0.0385
1,2,3,7,8,9-HxCDD	**0.422**	0.0451	3.84	1	0.1	0.0422
1,2,3,4,6,7,8-HpCDD	**6.37**	0.00969	3.84	1	0.01	0.0637
OCDD	**101**	0.848	7.68	1	0.0003	0.0303
2,3,7,8-TCDF	**0.215**	0.162	0.768	1	0.1	0.0215
1,2,3,7,8-PeCDF	**0.633**	0.305	3.84	1	0.03	0.0190
2,3,4,7,8-PeCDF	ND	0.290	3.84	1	0.3	
1,2,3,6,7,8-HxCDF	**0.936**	0.0916	3.84	1	0.1	0.0936
1,2,3,7,8,9-HxCDF	**0.311**	0.109	3.84	1	0.1	0.0311
1,2,3,4,7,8-HxCDF	**1.33**	0.0841	3.84	1	0.1	0.133
2,3,4,6,7,8-HxCDF	**0.636**	0.0707	3.84	1	0.1	0.0636
1,2,3,4,6,7,8-HpCDF	**4.19**	0.105	3.84	1	0.01	0.0419
1,2,3,4,7,8,9-HpCDF	**0.496**	0.111	3.84	1	0.01	0.00496
OCDF	**4.10**	0.176	7.68	1	0.0003	0.00123
		Total TEQ				1.04

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 10:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-002 (Port Ewen 2B)	**Units:**	Percent
Lab Code:	E2200953-002	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	8.0742g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	64.7		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-003 (Port Ewen 3A)	**Units:**	ng/Kg
Lab Code:	E2200953-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 00:01
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.067g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540007	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.157	0.818			1
1,2,3,7,8-PeCDD	0.139**JK**		0.0752	4.09	2.69	1.000	1
1,2,3,6,7,8-HxCDD	0.274**J**		0.00802	4.09	1.27	1.000	1
1,2,3,4,7,8-HxCDD	0.348**BJK**		0.00901	4.09	2.37	1.000	1
1,2,3,7,8,9-HxCDD	0.168**BJK**		0.00851	4.09	1.79	1.007	1
1,2,3,4,6,7,8-HpCDD	3.88**JK**		0.0779	4.09	1.22	1.000	1
OCDD	177		1.45	8.18	0.87	1.000	1
2,3,7,8-TCDF	0.712**JK**		0.192	0.818	0.90	1.001	1
1,2,3,7,8-PeCDF	0.348**JK**		0.170	4.09	0.93	1.001	1
2,3,4,7,8-PeCDF	ND	U	0.152	4.09			1
1,2,3,6,7,8-HxCDF	0.362**J**		0.0770	4.09	1.09	1.000	1
1,2,3,7,8,9-HxCDF	0.253**BJK**		0.0910	4.09	0.57	1.001	1
1,2,3,4,7,8-HxCDF	0.477**J**		0.0696	4.09	1.26	1.000	1
2,3,4,6,7,8-HxCDF	0.240**J**		0.0586	4.09	1.25	1.000	1
1,2,3,4,6,7,8-HpCDF	1.90**J**		0.0244	4.09	1.00	1.000	1
1,2,3,4,7,8,9-HpCDF	0.214**BJK**		0.0254	4.09	2.91	1.000	1
OCDF	6.56**J**		0.380	8.18	0.91	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-003 (Port Ewen 3A)	**Units:**	ng/Kg
Lab Code:	E2200953-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 00:01
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.067g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540007	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.157	0.818			1
Total Penta-Dioxins	ND	U	0.0752	4.09			1
Total Hexa-Dioxins	0.983**J**		0.00851	4.09	1.21		1
Total Hepta-Dioxins	6.75		0.0779	4.09	1.02		1
Total Tetra-Furans	ND	U	0.192	0.818			1
Total Penta-Furans	ND	U	0.161	4.09			1
Total Hexa-Furans	1.33**J**		0.0724	4.09	1.17		1
Total Hepta-Furans	1.90**J**		0.0249	4.09	1.00		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-003 (Port Ewen 3A)	**Units:**	Percent
Lab Code:	E2200953-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 00:01
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.067g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540007	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	726.080	36	**Y**	40-135	0.78	1.024
13C-1,2,3,7,8-PeCDD	2000	561.708	28	**Y**	40-135	1.60	1.206
13C-1,2,3,4,7,8-HxCDD	2000	394.660	20	**Y**	40-135	1.29	0.991
13C-1,2,3,6,7,8-HxCDD	2000	439.228	22	**Y**	40-135	1.23	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	346.928	17	**Y**	40-135	1.06	1.068
13C-OCDD	4000	425.098	11	**Y**	40-135	0.91	1.140
13C-2,3,7,8-TCDF	2000	679.812	34	**Y**	40-135	0.79	0.992
13C-1,2,3,7,8-PeCDF	2000	551.530	28	**Y**	40-135	1.58	1.160
13C-2,3,4,7,8-PeCDF	2000	583.140	29	**Y**	40-135	1.57	1.196
13C-1,2,3,4,7,8-HxCDF	2000	421.181	21	**Y**	40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	367.277	18	**Y**	40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	395.060	20	**Y**	40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	523.581	26	**Y**	40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	273.370	14	**Y**	40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	328.706	16	**Y**	40-135	0.41	1.080
37Cl-2,3,7,8-TCDD	800	391.508	49		40-135	NA	1.024

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-003 (Port Ewen 3A)	**Units:**	ng/Kg
Lab Code:	E2200953-003	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.157	0.818	1	1	
1,2,3,7,8-PeCDD	**0.139**	0.0752	4.09	1	1	0.139
1,2,3,6,7,8-HxCDD	**0.274**	0.00802	4.09	1	0.1	0.0274
1,2,3,4,7,8-HxCDD	**0.348**	0.00901	4.09	1	0.1	0.0348
1,2,3,7,8,9-HxCDD	**0.168**	0.00851	4.09	1	0.1	0.0168
1,2,3,4,6,7,8-HpCDD	**3.88**	0.0779	4.09	1	0.01	0.0388
OCDD	**177**	1.45	8.18	1	0.0003	0.0531
2,3,7,8-TCDF	**0.712**	0.192	0.818	1	0.1	0.0712
1,2,3,7,8-PeCDF	**0.348**	0.170	4.09	1	0.03	0.0104
2,3,4,7,8-PeCDF	ND	0.152	4.09	1	0.3	
1,2,3,6,7,8-HxCDF	**0.362**	0.0770	4.09	1	0.1	0.0362
1,2,3,7,8,9-HxCDF	**0.253**	0.0910	4.09	1	0.1	0.0253
1,2,3,4,7,8-HxCDF	**0.477**	0.0696	4.09	1	0.1	0.0477
2,3,4,6,7,8-HxCDF	**0.240**	0.0586	4.09	1	0.1	0.0240
1,2,3,4,6,7,8-HpCDF	**1.90**	0.0244	4.09	1	0.01	0.0190
1,2,3,4,7,8,9-HpCDF	**0.214**	0.0254	4.09	1	0.01	0.00214
OCDF	**6.56**	0.380	8.18	1	0.0003	0.00197
		Total TEQ				0.548

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-003 (Port Ewen 3A)	**Units:**	Percent
Lab Code:	E2200953-003	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	5.8376g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	60.7		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-004 (Port Ewen 3B)	**Units:**	ng/Kg
Lab Code:	E2200953-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 00:49
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.280g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540008	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	21.6		3.86	3.86	0.74	1.001	1
1,2,3,7,8-PeCDD	20.5	**K**	2.23	4.12	1.30	1.001	1
1,2,3,6,7,8-HxCDD	5.09		0.575	4.12	1.24	1.000	1
1,2,3,4,7,8-HxCDD	4.11	**J**	0.629	4.12	1.05	1.000	1
1,2,3,7,8,9-HxCDD	5.13		0.601	4.12	1.37	1.007	1
1,2,3,4,6,7,8-HpCDD	81.3		0.223	4.12	1.07	1.000	1
OCDD	714		2.75	8.24	0.90	1.000	1
2,3,7,8-TCDF	300		0.745	0.824	0.74	1.001	1
1,2,3,7,8-PeCDF	250		18.6	18.6	1.52	1.000	1
2,3,4,7,8-PeCDF	244		16.2	16.2	1.52	1.000	1
1,2,3,6,7,8-HxCDF	84.7		0.771	4.12	1.20	1.001	1
1,2,3,7,8,9-HxCDF	15.5		0.929	4.12	1.15	1.001	1
1,2,3,4,7,8-HxCDF	83.9		0.714	4.12	1.15	1.001	1
2,3,4,6,7,8-HxCDF	37.3		0.596	4.12	1.13	1.001	1
1,2,3,4,6,7,8-HpCDF	36.8		0.372	4.12	0.98	1.000	1
1,2,3,4,7,8,9-HpCDF	4.64		0.395	4.12	1.02	1.000	1
OCDF	15.1		0.464	8.24	0.86	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-004 (Port Ewen 3B)	**Units:**	ng/Kg
Lab Code:	E2200953-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 00:49
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.280g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540008	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	308		3.86	3.86	0.80		1
Total Penta-Dioxins	104		2.23	4.12	1.53		1
Total Hexa-Dioxins	45.1		0.601	4.12	1.13		1
Total Hepta-Dioxins	146		0.223	4.12	1.03		1
Total Tetra-Furans	6000		0.745	0.824	0.71		1
Total Penta-Furans	2720		0.104	4.12	1.46		1
Total Hexa-Furans	537		0.734	4.12	1.18		1
Total Hepta-Furans	51.8		0.383	4.12	0.98		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-004 (Port Ewen 3B)	**Units:**	Percent
Lab Code:	E2200953-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 00:49
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.280g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540008	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	466.359	23	**Y**	40-135	0.78	1.024
13C-1,2,3,7,8-PeCDD	2000	489.452	24	**Y**	40-135	1.62	1.206
13C-1,2,3,4,7,8-HxCDD	2000	428.307	21	**Y**	40-135	1.28	0.991
13C-1,2,3,6,7,8-HxCDD	2000	471.152	24	**Y**	40-135	1.29	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	404.588	20	**Y**	40-135	1.08	1.068
13C-OCDD	4000	528.378	13	**Y**	40-135	0.85	1.140
13C-2,3,7,8-TCDF	2000	414.862	21	**Y**	40-135	0.78	0.992
13C-1,2,3,7,8-PeCDF	2000	446.708	22	**Y**	40-135	1.60	1.160
13C-2,3,4,7,8-PeCDF	2000	490.724	25	**Y**	40-135	1.63	1.196
13C-1,2,3,4,7,8-HxCDF	2000	439.699	22	**Y**	40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	391.646	20	**Y**	40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	412.065	21	**Y**	40-135	0.49	1.008
13C-2,3,4,6,7,8-HxCDF	2000	556.576	28	**Y**	40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	314.080	16	**Y**	40-135	0.41	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	377.291	19	**Y**	40-135	0.43	1.080
37Cl-2,3,7,8-TCDD	800	287.068	36	**Y**	40-135	NA	1.024

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-004 (Port Ewen 3B)	**Units:**	ng/Kg
Lab Code:	E2200953-004	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	**21.6**	3.86	3.86	1	1	21.6
1,2,3,7,8-PeCDD	**20.5**	2.23	4.12	1	1	20.5
1,2,3,6,7,8-HxCDD	**5.09**	0.575	4.12	1	0.1	0.509
1,2,3,4,7,8-HxCDD	**4.11**	0.629	4.12	1	0.1	0.411
1,2,3,7,8,9-HxCDD	**5.13**	0.601	4.12	1	0.1	0.513
1,2,3,4,6,7,8-HpCDD	**81.3**	0.223	4.12	1	0.01	0.813
OCDD	**714**	2.75	8.24	1	0.0003	0.214
2,3,7,8-TCDF	**300**	0.745	0.824	1	0.1	30.0
1,2,3,7,8-PeCDF	**250**	18.6	18.6	1	0.03	7.50
2,3,4,7,8-PeCDF	**244**	16.2	16.2	1	0.3	73.2
1,2,3,6,7,8-HxCDF	**84.7**	0.771	4.12	1	0.1	8.47
1,2,3,7,8,9-HxCDF	**15.5**	0.929	4.12	1	0.1	1.55
1,2,3,4,7,8-HxCDF	**83.9**	0.714	4.12	1	0.1	8.39
2,3,4,6,7,8-HxCDF	**37.3**	0.596	4.12	1	0.1	3.73
1,2,3,4,6,7,8-HpCDF	**36.8**	0.372	4.12	1	0.01	0.368
1,2,3,4,7,8,9-HpCDF	**4.64**	0.395	4.12	1	0.01	0.0464
OCDF	**15.1**	0.464	8.24	1	0.0003	0.00453
		Total TEQ				178

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 09:20
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-004 (Port Ewen 3B)	**Units:**	Percent
Lab Code:	E2200953-004	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	6.05g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	59.0		-	-			1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-005 (Port Ewen 4A)	**Units:**	ng/Kg
Lab Code:	E2200953-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 01:38
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.331g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540009	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.115	0.848			1
1,2,3,7,8-PeCDD	ND	U	0.135	4.24			1
1,2,3,6,7,8-HxCDD	0.129**BJK**		0.0399	4.24	0.61	1.001	1
1,2,3,4,7,8-HxCDD	0.350**BJ**		0.0448	4.24	1.35	1.000	1
1,2,3,7,8,9-HxCDD	0.246**BJ**		0.0423	4.24	1.18	1.007	1
1,2,3,4,6,7,8-HpCDD	5.73		0.172	4.24	1.19	1.001	1
OCDD	326		1.34	8.48	0.86	1.000	1
2,3,7,8-TCDF	2.29		0.141	0.848	0.73	1.000	1
1,2,3,7,8-PeCDF	1.01**JK**		0.195	4.24	1.22	1.000	1
2,3,4,7,8-PeCDF	1.32**J**		0.195	4.24	1.37	1.001	1
1,2,3,6,7,8-HxCDF	0.521**JK**		0.0531	4.24	1.83	1.001	1
1,2,3,7,8,9-HxCDF	0.142**BJK**		0.0575	4.24	0.71	1.001	1
1,2,3,4,7,8-HxCDF	0.712**J**		0.0482	4.24	1.13	1.001	1
2,3,4,6,7,8-HxCDF	0.217**JK**		0.0428	4.24	1.53	1.000	1
1,2,3,4,6,7,8-HpCDF	1.10**BJK**		0.0892	4.24	0.87	1.000	1
1,2,3,4,7,8,9-HpCDF	0.237**BJK**		0.0929	4.24	0.81	1.001	1
OCDF	19.7		0.178	8.48	0.91	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-005 (Port Ewen 4A)	**Units:**	ng/Kg
Lab Code:	E2200953-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 01:38
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.331g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540009	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.115	0.848			1
Total Penta-Dioxins	ND	U	0.135	4.24			1
Total Hexa-Dioxins	0.711**J**		0.0423	4.24	1.17		1
Total Hepta-Dioxins	6.20		0.172	4.24	1.19		1
Total Tetra-Furans	6.61		0.141	0.848	0.67		1
Total Penta-Furans	3.98**J**		0.107	4.24	1.58		1
Total Hexa-Furans	1.73**J**		0.0499	4.24	1.36		1
Total Hepta-Furans	2.95**J**		0.0911	4.24	1.15		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-005 (Port Ewen 4A)	**Units:**	Percent
Lab Code:	E2200953-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 01:38
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.331g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540009	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1067.192	53		40-135	0.79	1.024
13C-1,2,3,7,8-PeCDD	2000	905.440	45		40-135	1.58	1.206
13C-1,2,3,4,7,8-HxCDD	2000	732.749	37	**Y**	40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	826.993	41		40-135	1.25	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	764.292	38	**Y**	40-135	1.06	1.068
13C-OCDD	4000	1139.233	28	**Y**	40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	947.965	47		40-135	0.78	0.992
13C-1,2,3,7,8-PeCDF	2000	898.881	45		40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	877.317	44		40-135	1.58	1.196
13C-1,2,3,4,7,8-HxCDF	2000	789.756	39	**Y**	40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	686.136	34	**Y**	40-135	0.52	0.973
13C-1,2,3,7,8,9-HxCDF	2000	819.951	41		40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	938.274	47		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	610.639	31	**Y**	40-135	0.43	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	727.108	36	**Y**	40-135	0.42	1.080
37Cl-2,3,7,8-TCDD	800	466.627	58		40-135	NA	1.024

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-005 (Port Ewen 4A)	**Units:**	ng/Kg
Lab Code:	E2200953-005	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.115	0.848	1	1	
1,2,3,7,8-PeCDD	ND	0.135	4.24	1	1	
1,2,3,6,7,8-HxCDD	**0.129**	0.0399	4.24	1	0.1	0.0129
1,2,3,4,7,8-HxCDD	**0.350**	0.0448	4.24	1	0.1	0.0350
1,2,3,7,8,9-HxCDD	**0.246**	0.0423	4.24	1	0.1	0.0246
1,2,3,4,6,7,8-HpCDD	**5.73**	0.172	4.24	1	0.01	0.0573
OCDD	**326**	1.34	8.48	1	0.0003	0.0978
2,3,7,8-TCDF	**2.29**	0.141	0.848	1	0.1	0.229
1,2,3,7,8-PeCDF	**1.01**	0.195	4.24	1	0.03	0.0303
2,3,4,7,8-PeCDF	**1.32**	0.195	4.24	1	0.3	0.396
1,2,3,6,7,8-HxCDF	**0.521**	0.0531	4.24	1	0.1	0.0521
1,2,3,7,8,9-HxCDF	**0.142**	0.0575	4.24	1	0.1	0.0142
1,2,3,4,7,8-HxCDF	**0.712**	0.0482	4.24	1	0.1	0.0712
2,3,4,6,7,8-HxCDF	**0.217**	0.0428	4.24	1	0.1	0.0217
1,2,3,4,6,7,8-HpCDF	**1.10**	0.0892	4.24	1	0.01	0.0110
1,2,3,4,7,8,9-HpCDF	**0.237**	0.0929	4.24	1	0.01	0.00237
OCDF	**19.7**	0.178	8.48	1	0.0003	0.00591
		Total TEQ				1.06

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:00
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-005 (Port Ewen 4A)	**Units:**	Percent
Lab Code:	E2200953-005	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	5.6919g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	57.1		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-006 (Port Ewen 4B)	**Units:**	ng/Kg
Lab Code:	E2200953-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 02:26
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.187g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540010	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.129	0.774			1
1,2,3,7,8-PeCDD	ND	U	0.0826	3.87			1
1,2,3,6,7,8-HxCDD	0.143**BJ**		0.0660	3.87	1.08	1.000	1
1,2,3,4,7,8-HxCDD	0.244**BJK**		0.0716	3.87	0.80	1.000	1
1,2,3,7,8,9-HxCDD	0.186**BJ**		0.0688	3.87	1.27	1.007	1
1,2,3,4,6,7,8-HpCDD	4.30		0.0807	3.87	1.07	1.000	1
OCDD	245		1.11	7.74	0.87	1.000	1
2,3,7,8-TCDF	2.57		0.136	0.774	0.88	1.001	1
1,2,3,7,8-PeCDF	0.966**J**		0.188	3.87	1.70	1.000	1
2,3,4,7,8-PeCDF	0.901**J**		0.190	3.87	1.35	1.000	1
1,2,3,6,7,8-HxCDF	0.550**JK**		0.0511	3.87	1.03	1.001	1
1,2,3,7,8,9-HxCDF	0.236**BJK**		0.0587	3.87	1.97	1.001	1
1,2,3,4,7,8-HxCDF	1.02**JK**		0.0462	3.87	1.49	1.000	1
2,3,4,6,7,8-HxCDF	0.410**J**		0.0419	3.87	1.21	1.000	1
1,2,3,4,6,7,8-HpCDF	2.52**J**		0.0765	3.87	1.12	1.000	1
1,2,3,4,7,8,9-HpCDF	0.500**BJ**		0.0798	3.87	0.90	1.000	1
OCDF	9.24		0.134	7.74	0.84	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-006 (Port Ewen 4B)	**Units:**	ng/Kg
Lab Code:	E2200953-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 02:26
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.187g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540010	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.129	0.774			1
Total Penta-Dioxins	0.242**J**		0.0826	3.87	1.53		1
Total Hexa-Dioxins	0.467**J**		0.0686	3.87	1.08		1
Total Hepta-Dioxins	10.7		0.0807	3.87	1.04		1
Total Tetra-Furans	3.53		0.136	0.774	0.77		1
Total Penta-Furans	2.30**J**		0.0970	3.87	1.70		1
Total Hexa-Furans	0.700**J**		0.0488	3.87	1.34		1
Total Hepta-Furans	3.39**J**		0.0781	3.87	1.12		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-006 (Port Ewen 4B)	**Units:**	Percent
Lab Code:	E2200953-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 02:26
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.187g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540010	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1062.676	53		40-135	0.79	1.024
13C-1,2,3,7,8-PeCDD	2000	904.495	45		40-135	1.62	1.207
13C-1,2,3,4,7,8-HxCDD	2000	767.841	38	**Y**	40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	839.958	42		40-135	1.26	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	770.350	39	**Y**	40-135	1.04	1.068
13C-OCDD	4000	1132.888	28	**Y**	40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	877.170	44		40-135	0.78	0.992
13C-1,2,3,7,8-PeCDF	2000	891.763	45		40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	858.245	43		40-135	1.56	1.196
13C-1,2,3,4,7,8-HxCDF	2000	810.467	41		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	715.550	36	**Y**	40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	816.522	41		40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	968.281	48		40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	629.093	31	**Y**	40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	736.485	37	**Y**	40-135	0.41	1.080
37Cl-2,3,7,8-TCDD	800	462.001	58		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-006 (Port Ewen 4B)	**Units:**	ng/Kg
Lab Code:	E2200953-006	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.129	0.774	1	1	
1,2,3,7,8-PeCDD	ND	0.0826	3.87	1	1	
1,2,3,6,7,8-HxCDD	**0.143**	0.0660	3.87	1	0.1	0.0143
1,2,3,4,7,8-HxCDD	**0.244**	0.0716	3.87	1	0.1	0.0244
1,2,3,7,8,9-HxCDD	**0.186**	0.0688	3.87	1	0.1	0.0186
1,2,3,4,6,7,8-HpCDD	**4.30**	0.0807	3.87	1	0.01	0.0430
OCDD	**245**	1.11	7.74	1	0.0003	0.0735
2,3,7,8-TCDF	**2.57**	0.136	0.774	1	0.1	0.257
1,2,3,7,8-PeCDF	**0.966**	0.188	3.87	1	0.03	0.0290
2,3,4,7,8-PeCDF	**0.901**	0.190	3.87	1	0.3	0.270
1,2,3,6,7,8-HxCDF	**0.550**	0.0511	3.87	1	0.1	0.0550
1,2,3,7,8,9-HxCDF	**0.236**	0.0587	3.87	1	0.1	0.0236
1,2,3,4,7,8-HxCDF	**1.02**	0.0462	3.87	1	0.1	0.102
2,3,4,6,7,8-HxCDF	**0.410**	0.0419	3.87	1	0.1	0.0410
1,2,3,4,6,7,8-HpCDF	**2.52**	0.0765	3.87	1	0.01	0.0252
1,2,3,4,7,8,9-HpCDF	**0.500**	0.0798	3.87	1	0.01	0.00500
OCDF	**9.24**	0.134	7.74	1	0.0003	0.00277
		Total TEQ				0.984

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:10
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-006 (Port Ewen 4B)	**Units:**	Percent
Lab Code:	E2200953-006	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	5.721g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	63.4		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-007 (Port Ewen 5A)	**Units:**	ng/Kg
Lab Code:	E2200953-007	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 12:52
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.242g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540018	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	1.11	1.11			1
1,2,3,7,8-PeCDD	ND	U	0.865	4.13			1
1,2,3,6,7,8-HxCDD	1.34**J**		0.713	4.13	1.20	1.000	1
1,2,3,4,7,8-HxCDD	ND	U	0.817	4.13			1
1,2,3,7,8,9-HxCDD	1.09**JK**		0.761	4.13	1.59	1.007	1
1,2,3,4,6,7,8-HpCDD	6.10**K**		1.49	4.13	1.61	1.000	1
OCDD	123**K**		5.85	8.26	1.12	1.000	1
2,3,7,8-TCDF	ND	U	1.42	1.42			1
1,2,3,7,8-PeCDF	ND	U	1.44	4.13			1
2,3,4,7,8-PeCDF	ND	U	1.38	4.13			1
1,2,3,6,7,8-HxCDF	ND	U	1.03	4.13			1
1,2,3,7,8,9-HxCDF	ND	U	1.68	4.13			1
1,2,3,4,7,8-HxCDF	1.26**J**		0.980	4.13	1.28	1.000	1
2,3,4,6,7,8-HxCDF	0.989**JK**		0.869	4.13	2.30	1.000	1
1,2,3,4,6,7,8-HpCDF	10.6**K**		0.410	4.13	1.21	1.000	1
1,2,3,4,7,8,9-HpCDF	2.02**J**		0.553	4.13	1.00	1.000	1
OCDF	11.2**K**		3.43	8.26	0.65	1.004	1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-007 (Port Ewen 5A)	**Units:**	ng/Kg
Lab Code:	E2200953-007	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 12:52
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.242g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540018	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	1.11	1.11			1
Total Penta-Dioxins	ND	U	0.865	4.13			1
Total Hexa-Dioxins	3.36**J**		0.760	4.13	1.21		1
Total Hepta-Dioxins	8.74		1.49	4.13	0.95		1
Total Tetra-Furans	ND	U	1.42	1.42			1
Total Penta-Furans	ND	U	1.41	4.13			1
Total Hexa-Furans	1.26**J**		1.08	4.13	1.28		1
Total Hepta-Furans	2.02**J**		0.473	4.13	1.00		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-007 (Port Ewen 5A)	**Units:**	Percent
Lab Code:	E2200953-007	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 12:52
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.242g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540018	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	282.697	14	**Y**	40-135	0.77	1.024
13C-1,2,3,7,8-PeCDD	2000	199.324	10	**Y**	40-135	1.63	1.207
13C-1,2,3,4,7,8-HxCDD	2000	193.291	10	**Y**	40-135	1.31	0.991
13C-1,2,3,6,7,8-HxCDD	2000	230.608	12	**Y**	40-135	1.25	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	161.546	8	**Y**	40-135	1.08	1.068
13C-OCDD	4000	204.848	5	**Y**	40-135	0.90	1.139
13C-2,3,7,8-TCDF	2000	261.603	13	**Y**	40-135	0.78	0.992
13C-1,2,3,7,8-PeCDF	2000	194.124	10	**Y**	40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	198.611	10	**Y**	40-135	1.61	1.196
13C-1,2,3,4,7,8-HxCDF	2000	210.502	11	**Y**	40-135	0.49	0.970
13C-1,2,3,6,7,8-HxCDF	2000	199.332	10	**Y**	40-135	0.47	0.972
13C-1,2,3,7,8,9-HxCDF	2000	158.763	8	**Y**	40-135	0.51	1.008
13C-2,3,4,6,7,8-HxCDF	2000	246.741	12	**Y**	40-135	0.50	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	134.869	7	**Y**	40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	124.361	6	**Y**	40-135	0.39	1.080
37Cl-2,3,7,8-TCDD	800	234.273	29	**Y**	40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-007 (Port Ewen 5A)	**Units:**	ng/Kg
Lab Code:	E2200953-007	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	1.11	1.11	1	1	
1,2,3,7,8-PeCDD	ND	0.865	4.13	1	1	
1,2,3,6,7,8-HxCDD	**1.34**	0.713	4.13	1	0.1	0.134
1,2,3,4,7,8-HxCDD	ND	0.817	4.13	1	0.1	
1,2,3,7,8,9-HxCDD	**1.09**	0.761	4.13	1	0.1	0.109
1,2,3,4,6,7,8-HpCDD	**6.10**	1.49	4.13	1	0.01	0.0610
OCDD	**123**	5.85	8.26	1	0.0003	0.0369
2,3,7,8-TCDF	ND	1.42	1.42	1	0.1	
1,2,3,7,8-PeCDF	ND	1.44	4.13	1	0.03	
2,3,4,7,8-PeCDF	ND	1.38	4.13	1	0.3	
1,2,3,6,7,8-HxCDF	ND	1.03	4.13	1	0.1	
1,2,3,7,8,9-HxCDF	ND	1.68	4.13	1	0.1	
1,2,3,4,7,8-HxCDF	**1.26**	0.980	4.13	1	0.1	0.126
2,3,4,6,7,8-HxCDF	**0.989**	0.869	4.13	1	0.1	0.0989
1,2,3,4,6,7,8-HpCDF	**10.6**	0.410	4.13	1	0.01	0.106
1,2,3,4,7,8,9-HpCDF	**2.02**	0.553	4.13	1	0.01	0.0202
OCDF	**11.2**	3.43	8.26	1	0.0003	0.00336
		Total TEQ				0.695

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:30
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-007 (Port Ewen 5A)	**Units:**	Percent
Lab Code:	E2200953-007	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	4.1118g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	59.1		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-008 (Port Ewen 5B)	**Units:**	ng/Kg
Lab Code:	E2200953-008	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 13:40
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.315g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540019	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.183	0.769			1
1,2,3,7,8-PeCDD	ND	U	0.0770	3.85			1
1,2,3,6,7,8-HxCDD	0.238**J**		0.127	3.85	1.09	1.000	1
1,2,3,4,7,8-HxCDD	0.453**JK**		0.141	3.85	0.68	1.000	1
1,2,3,7,8,9-HxCDD	ND	U	0.134	3.85			1
1,2,3,4,6,7,8-HpCDD	6.33**K**		0.406	3.85	1.26	1.000	1
OCDD	144		0.983	7.69	0.86	1.000	1
2,3,7,8-TCDF	ND	U	0.151	0.769			1
1,2,3,7,8-PeCDF	ND	U	0.153	3.85			1
2,3,4,7,8-PeCDF	ND	U	0.158	3.85			1
1,2,3,6,7,8-HxCDF	0.181**J**		0.0598	3.85	1.05	1.000	1
1,2,3,7,8,9-HxCDF	0.221**JK**		0.0831	3.85	0.80	1.000	1
1,2,3,4,7,8-HxCDF	0.197**J**		0.0567	3.85	1.05	1.000	1
2,3,4,6,7,8-HxCDF	0.166**JK**		0.0533	3.85	0.90	1.000	1
1,2,3,4,6,7,8-HpCDF	0.866**JK**		0.0157	3.85	1.39	1.001	1
1,2,3,4,7,8,9-HpCDF	0.128**JK**		0.0196	3.85	0.61	1.000	1
OCDF	1.70**J**		0.469	7.69	0.82	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-008 (Port Ewen 5B)	**Units:**	ng/Kg
Lab Code:	E2200953-008	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 13:40
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.315g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540019	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.183	0.769			1
Total Penta-Dioxins	ND	U	0.0770	3.85			1
Total Hexa-Dioxins	0.804**J**		0.134	3.85	1.09		1
Total Hepta-Dioxins	20.4		0.406	3.85	1.15		1
Total Tetra-Furans	0.229**J**		0.151	0.769	0.79		1
Total Penta-Furans	ND	U	0.155	3.85			1
Total Hexa-Furans	ND	U	0.0616	3.85			1
Total Hepta-Furans	0.686**J**		0.0176	3.85	0.95		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-008 (Port Ewen 5B)	**Units:**	Percent
Lab Code:	E2200953-008	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 13:40
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.315g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540019	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1725.572	86		40-135	0.79	1.024
13C-1,2,3,7,8-PeCDD	2000	1372.832	69		40-135	1.59	1.207
13C-1,2,3,4,7,8-HxCDD	2000	1375.715	69		40-135	1.39	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1583.941	79		40-135	1.23	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1179.658	59		40-135	1.06	1.068
13C-OCDD	4000	1457.791	36	**Y**	40-135	0.86	1.139
13C-2,3,7,8-TCDF	2000	1537.440	77		40-135	0.78	0.992
13C-1,2,3,7,8-PeCDF	2000	1379.482	69		40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	1289.226	64		40-135	1.57	1.196
13C-1,2,3,4,7,8-HxCDF	2000	1480.150	74		40-135	0.51	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1397.295	70		40-135	0.52	0.972
13C-1,2,3,7,8,9-HxCDF	2000	1287.359	64		40-135	0.48	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1689.888	84		40-135	0.52	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	1007.442	50		40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1026.187	51		40-135	0.45	1.080
37Cl-2,3,7,8-TCDD	800	419.938	52		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-008 (Port Ewen 5B)	**Units:**	ng/Kg
Lab Code:	E2200953-008	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method: 8290A
Prep Method: Method

Toxicity Equivalency Quotient

Analyte Name	Result	DL	MRL	Dilution Factor	TEF	TEF - Adjusted Concentration
2,3,7,8-TCDD	ND	0.183	0.769	1	1	
1,2,3,7,8-PeCDD	ND	0.0770	3.85	1	1	
1,2,3,6,7,8-HxCDD	**0.238**	0.127	3.85	1	0.1	0.0238
1,2,3,4,7,8-HxCDD	**0.453**	0.141	3.85	1	0.1	0.0453
1,2,3,7,8,9-HxCDD	ND	0.134	3.85	1	0.1	
1,2,3,4,6,7,8-HpCDD	**6.33**	0.406	3.85	1	0.01	0.0633
OCDD	**144**	0.983	7.69	1	0.0003	0.0432
2,3,7,8-TCDF	ND	0.151	0.769	1	0.1	
1,2,3,7,8-PeCDF	ND	0.153	3.85	1	0.03	
2,3,4,7,8-PeCDF	ND	0.158	3.85	1	0.3	
1,2,3,6,7,8-HxCDF	**0.181**	0.0598	3.85	1	0.1	0.0181
1,2,3,7,8,9-HxCDF	**0.221**	0.0831	3.85	1	0.1	0.0221
1,2,3,4,7,8-HxCDF	**0.197**	0.0567	3.85	1	0.1	0.0197
2,3,4,6,7,8-HxCDF	**0.166**	0.0533	3.85	1	0.1	0.0166
1,2,3,4,6,7,8-HpCDF	**0.866**	0.0157	3.85	1	0.01	0.00866
1,2,3,4,7,8,9-HpCDF	**0.128**	0.0196	3.85	1	0.01	0.00128
OCDF	**1.70**	0.469	7.69	1	0.0003	0.000510
		Total TEQ				0.263

2005 WHO TEFs, ND = 0

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	09/27/22 11:40
Sample Matrix:	Soil	**Date Received:**	10/01/22 09:40
Sample Name:	3265886-008 (Port Ewen 5B)	**Units:**	Percent
Lab Code:	E2200953-008	**Basis:**	As Received

Total Solids

Analysis Method:	ALS SOP	**Date Analyzed:**	10/17/22 17:28
	5.6124g		NA
			E-Balance-01

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Solids	63.0		-	-			1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200474-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 21:36
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.199g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540004	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	ND	U	0.0448	0.490			1
1,2,3,7,8-PeCDD	ND	U	0.0279	2.45			1
1,2,3,6,7,8-HxCDD	0.0188**JK**		0.0180	2.45	5.33	1.000	1
1,2,3,4,7,8-HxCDD	0.147**JK**		0.0196	2.45	1.02	1.000	1
1,2,3,7,8,9-HxCDD	0.0303**JK**		0.0188	2.45	0.58	1.007	1
1,2,3,4,6,7,8-HpCDD	0.290**J**		0.00981	2.45	1.09	1.001	1
OCDD	2.76**J**		0.119	4.90	0.89	1.000	1
2,3,7,8-TCDF	ND	U	0.0580	0.490			1
1,2,3,7,8-PeCDF	ND	U	0.0354	2.45			1
2,3,4,7,8-PeCDF	ND	U	0.0358	2.45			1
1,2,3,6,7,8-HxCDF	0.0330**J**		0.0143	2.45	1.16	1.000	1
1,2,3,7,8,9-HxCDF	0.0281**JK**		0.0167	2.45	0.34	1.001	1
1,2,3,4,7,8-HxCDF	0.0436**J**		0.0128	2.45	1.20	1.000	1
2,3,4,6,7,8-HxCDF	0.0144**JK**		0.0121	2.45	0.68	1.001	1
1,2,3,4,6,7,8-HpCDF	0.123**JK**		0.00344	2.45	0.80	1.000	1
1,2,3,4,7,8,9-HpCDF	0.0891**J**		0.00353	2.45	1.10	1.000	1
OCDF	0.336**JK**		0.0429	4.90	0.75	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	ng/Kg
Lab Code:	EQ2200474-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 21:36
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.199g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540004	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	ND	U	0.0448	0.490			1
Total Penta-Dioxins	0.0675**J**		0.0279	2.45	1.35		1
Total Hexa-Dioxins	0.0545**J**		0.0188	2.45	1.41		1
Total Hepta-Dioxins	0.599**J**		0.00981	2.45	0.98		1
Total Tetra-Furans	ND	U	0.0580	0.490			1
Total Penta-Furans	ND	U	0.0356	2.45			1
Total Hexa-Furans	0.0767**J**		0.0138	2.45	1.20		1
Total Hepta-Furans	0.0891**J**		0.00353	2.45	1.10		1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Units:**	Percent
Lab Code:	EQ2200474-01	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/13/22 21:36
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.199g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540004	**Blank File Name:**	P540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540001

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1338.963	67		40-135	0.79	1.024
13C-1,2,3,7,8-PeCDD	2000	1180.236	59		40-135	1.58	1.206
13C-1,2,3,4,7,8-HxCDD	2000	1011.887	51		40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1148.996	57		40-135	1.27	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1095.539	55		40-135	1.06	1.068
13C-OCDD	4000	1640.166	41		40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	1158.315	58		40-135	0.80	0.992
13C-1,2,3,7,8-PeCDF	2000	1170.581	59		40-135	1.58	1.160
13C-2,3,4,7,8-PeCDF	2000	1103.238	55		40-135	1.55	1.196
13C-1,2,3,4,7,8-HxCDF	2000	1130.728	57		40-135	0.50	0.970
13C-1,2,3,6,7,8-HxCDF	2000	975.985	49		40-135	0.50	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1039.819	52		40-135	0.53	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1243.776	62		40-135	0.51	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	859.279	43		40-135	0.44	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1058.480	53		40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	683.377	85		40-135	NA	1.024

Accuracy & Precision

ALS Environmental - Houston HRMS
10450 Stancliff Rd., Suite 210, Houston TX 77099
Phone (713)266-1599 Fax (713)266-0130
www.alsglobal.com

QA/QC Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Analyzed:**	11/14/22
Sample Matrix:	Soil	**Date Extracted:**	10/18/22

Duplicate Lab Control Sample Summary
Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Units:**	ng/Kg
Prep Method:	Method	**Basis:**	Dry
		Analysis Lot:	785786

	Lab Control Sample EQ2200474-02			Duplicate Lab Control Sample EQ2200474-03					
Analyte Name	**Result**	**Spike Amount**	**% Rec**	**Result**	**Spike Amount**	**% Rec**	**% Rec Limits**	**RPD**	**RPD Limit**
1,2,3,4,6,7,8-HpCDD	87.0	98.6	88	88.5	98.7	90	70-130	2	25
1,2,3,4,7,8-HxCDD	93.1	98.6	94	97.1	98.7	98	70-130	4	25
1,2,3,6,7,8-HxCDD	86.8	98.6	88	88.9	98.7	90	70-130	2	25
1,2,3,7,8,9-HxCDD	92.0	98.6	93	97.5	98.7	99	70-130	6	25
1,2,3,7,8-PeCDD	88.7	98.6	90	90.8	98.7	92	70-130	2	25
2,3,7,8-TCDD	15.1	19.7	76	15.3	19.7	78	70-130	2	25
OCDD	184	197	93	187	197	95	70-130	1	25
1,2,3,4,6,7,8-HpCDF	91.2	98.6	92	96.5	98.7	98	70-130	6	25
1,2,3,4,7,8,9-HpCDF	85.4	98.6	87	88.0	98.7	89	70-130	3	25
1,2,3,4,7,8-HxCDF	85.4	98.6	87	88.5	98.7	90	70-130	4	25
1,2,3,6,7,8-HxCDF	94.1	98.6	95	96.8	98.7	98	70-130	3	25
1,2,3,7,8,9-HxCDF	85.8	98.6	87	89.3	98.7	91	70-130	4	25
1,2,3,7,8-PeCDF	86.8	98.6	88	90.2	98.7	91	70-130	4	25
2,3,4,6,7,8-HxCDF	77.8	98.6	79	80.8	98.7	82	70-130	4	25
2,3,4,7,8-PeCDF	90.9	98.6	92	97.8	98.7	99	70-130	7	25
2,3,7,8-TCDF	17.4	19.7	88	18.4	19.7	93	70-130	5	25
OCDF	191	197	97	198	197	100	70-130	4	25

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200474-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 18:31
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.137g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540025	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	15.1		0.0693	0.493	0.73	1.001	1
1,2,3,7,8-PeCDD	88.7		0.0538	2.47	1.54	1.001	1
1,2,3,6,7,8-HxCDD	86.8		0.0114	2.47	1.31	1.000	1
1,2,3,4,7,8-HxCDD	93.1		0.0129	2.47	1.24	1.000	1
1,2,3,7,8,9-HxCDD	92.0		0.0121	2.47	1.27	1.007	1
1,2,3,4,6,7,8-HpCDD	87.0		0.0360	2.47	1.04	1.000	1
OCDD	184		1.08	4.93	0.85	1.000	1
2,3,7,8-TCDF	17.4		0.0539	0.493	0.73	1.001	1
1,2,3,7,8-PeCDF	86.8		0.237	2.47	1.49	1.001	1
2,3,4,7,8-PeCDF	90.9		0.249	2.47	1.51	1.001	1
1,2,3,6,7,8-HxCDF	94.1		0.00484	2.47	1.21	1.000	1
1,2,3,7,8,9-HxCDF	85.8		0.00622	2.47	1.17	1.000	1
1,2,3,4,7,8-HxCDF	85.4		0.00444	2.47	1.21	1.000	1
2,3,4,6,7,8-HxCDF	77.8		0.00415	2.47	1.19	1.000	1
1,2,3,4,6,7,8-HpCDF	91.2		0.166	2.47	1.01	1.000	1
1,2,3,4,7,8,9-HpCDF	85.4		0.193	2.47	1.03	1.000	1
OCDF	191		0.759	4.93	0.87	1.004	1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200474-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 18:31
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.137g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540025	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	15.1		0.0693	0.493	0.73		1
Total Penta-Dioxins	88.7		0.0538	2.47	1.54		1
Total Hexa-Dioxins	272		0.0121	2.47	1.24		1
Total Hepta-Dioxins	87.0		0.0360	2.47	1.04		1
Total Tetra-Furans	17.4		0.0539	0.493	0.73		1
Total Penta-Furans	178		0.243	2.47	1.49		1
Total Hexa-Furans	343		0.00484	2.47	1.21		1
Total Hepta-Furans	177		0.179	2.47	1.01		1

ALS Group USA, Corp. dba ALS Environmental

Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Lab Control Sample	**Units:**	Percent
Lab Code:	EQ2200474-02	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 18:31
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.137g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540025	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1393.184	70		40-135	0.78	1.023
13C-1,2,3,7,8-PeCDD	2000	1111.305	56		40-135	1.60	1.206
13C-1,2,3,4,7,8-HxCDD	2000	1180.259	59		40-135	1.27	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1385.600	69		40-135	1.25	0.993
13C-1,2,3,4,6,7,8-HpCDD	2000	1173.807	59		40-135	1.05	1.068
13C-OCDD	4000	1675.477	42		40-135	0.89	1.140
13C-2,3,7,8-TCDF	2000	1177.771	59		40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	1121.285	56		40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	1032.181	52		40-135	1.59	1.195
13C-1,2,3,4,7,8-HxCDF	2000	1310.050	66		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1165.428	58		40-135	0.51	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1208.008	60		40-135	0.48	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1437.627	72		40-135	0.50	0.987
13C-1,2,3,4,6,7,8-HpCDF	2000	978.253	49		40-135	0.42	1.043
13C-1,2,3,4,7,8,9-HpCDF	2000	1074.929	54		40-135	0.44	1.080
37Cl-2,3,7,8-TCDD	800	587.310	73		40-135	NA	1.025

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200474-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 19:19
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.135g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540026	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
2,3,7,8-TCDD	15.3		0.0757	0.493	0.76	1.001	1
1,2,3,7,8-PeCDD	90.8		0.0433	2.47	1.59	1.001	1
1,2,3,6,7,8-HxCDD	88.9		0.0250	2.47	1.29	1.000	1
1,2,3,4,7,8-HxCDD	97.1		0.0279	2.47	1.25	1.000	1
1,2,3,7,8,9-HxCDD	97.5		0.0264	2.47	1.29	1.007	1
1,2,3,4,6,7,8-HpCDD	88.5		0.0127	2.47	1.06	1.000	1
OCDD	187		0.987	4.93	0.90	1.000	1
2,3,7,8-TCDF	18.4		0.0525	0.493	0.74	1.001	1
1,2,3,7,8-PeCDF	90.2		0.326	2.47	1.49	1.001	1
2,3,4,7,8-PeCDF	97.8		0.338	2.47	1.51	1.001	1
1,2,3,6,7,8-HxCDF	96.8		0.0146	2.47	1.23	1.000	1
1,2,3,7,8,9-HxCDF	89.3		0.0188	2.47	1.16	1.000	1
1,2,3,4,7,8-HxCDF	88.5		0.0133	2.47	1.18	1.000	1
2,3,4,6,7,8-HxCDF	80.8		0.0131	2.47	1.17	1.000	1
1,2,3,4,6,7,8-HpCDF	96.5		0.195	2.47	0.98	1.000	1
1,2,3,4,7,8,9-HpCDF	88.0		0.207	2.47	0.99	1.000	1
OCDF	198		0.104	4.93	0.92	1.005	1

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	ng/Kg
Lab Code:	EQ2200474-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 19:19
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.135g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540026	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Native Analyte Results

Analyte Name	Result	Q	EDL	MRL	Ion Ratio	RRT	Dilution Factor
Total Tetra-Dioxins	15.3		0.0757	0.493	0.76		1
Total Penta-Dioxins	91.0		0.0433	2.47	1.59		1
Total Hexa-Dioxins	284		0.0264	2.47	1.25		1
Total Hepta-Dioxins	88.5		0.0127	2.47	1.06		1
Total Tetra-Furans	18.4		0.0525	0.493	0.74		1
Total Penta-Furans	189		0.332	2.47	1.49		1
Total Hexa-Furans	355		0.0147	2.47	1.18		1
Total Hepta-Furans	184		0.201	2.47	0.98		1

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Analytical Report

Client:	ALS Environmental - Middletown	**Service Request:**	E2200953
Project:	3265886	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Duplicate Lab Control Sample	**Units:**	Percent
Lab Code:	EQ2200474-03	**Basis:**	Dry

Polychlorinated Dibenzodioxins and Polychlorinated Dibenzofurans by HRGC/HRMS

Analysis Method:	8290A	**Date Analyzed:**	11/14/22 19:19
Prep Method:	Method	**Date Extracted:**	10/18/22
Sample Amount:	10.135g	**Instrument Name:**	E-HRMS-07
		GC Column:	DB-5MSUI
Data File Name:	P540026	**Blank File Name:**	p540004
ICAL Date:	01/18/22	**Cal Ver. File Name:**	P540015

Labeled Standard Results

Labeled Compounds	Spike Conc.(pg)	Conc. Found (pg)	% Rec	Q	Control Limits	Ion Ratio	RRT
13C-2,3,7,8-TCDD	2000	1588.992	79		40-135	0.79	1.023
13C-1,2,3,7,8-PeCDD	2000	1304.869	65		40-135	1.59	1.206
13C-1,2,3,4,7,8-HxCDD	2000	1328.136	66		40-135	1.25	0.991
13C-1,2,3,6,7,8-HxCDD	2000	1501.285	75		40-135	1.26	0.994
13C-1,2,3,4,6,7,8-HpCDD	2000	1221.116	61		40-135	1.03	1.068
13C-OCDD	4000	1592.697	40		40-135	0.87	1.140
13C-2,3,7,8-TCDF	2000	1325.123	66		40-135	0.78	0.991
13C-1,2,3,7,8-PeCDF	2000	1294.477	65		40-135	1.57	1.160
13C-2,3,4,7,8-PeCDF	2000	1186.517	59		40-135	1.55	1.195
13C-1,2,3,4,7,8-HxCDF	2000	1479.181	74		40-135	0.52	0.970
13C-1,2,3,6,7,8-HxCDF	2000	1310.113	66		40-135	0.52	0.973
13C-1,2,3,7,8,9-HxCDF	2000	1303.443	65		40-135	0.50	1.008
13C-2,3,4,6,7,8-HxCDF	2000	1570.879	79		40-135	0.52	0.988
13C-1,2,3,4,6,7,8-HpCDF	2000	984.188	49		40-135	0.43	1.044
13C-1,2,3,4,7,8,9-HpCDF	2000	1155.790	58		40-135	0.43	1.081
37Cl-2,3,7,8-TCDD	800	696.874	87		40-135	NA	1.025

ANALYTICAL REPORT

Lab Number:	L2253426
Client:	Normandeau Associates, Inc. 600 Beach Road West Haverstraw, NY 10993
ATTN:	Mike Taylor
Phone:	(603) 637-1193
Project Name:	CHPE HUDSON RIVER
Project Number:	24711.001
Report Date:	10/07/22

Certifications & Approvals: MA (M-MA030), NH NELAP (2062), CT (PH-0141), DoD (L2474), FL (E87814), IL (200081), LA (85084), ME (MA00030), MD (350), NJ (MA015), NY (11627), NC (685), OH (CL106), PA (68-02089), RI (LAO00299), TX (T104704419), VT (VT-0015), VA (460194), WA (C954), US Army Corps of Engineers, USDA (Permit #P330-17-00150), USFWS (Permit #206964).

320 Forbes Boulevard, Mansfield, MA 02048-1806
508-822-9300 (Fax) 508-822-3288 800-624-9220 - www.alphalab.com

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2253426-01	PORT EWEN 2A	SEDIMENT	KINGSTON, NY	09/27/22 10:00	09/28/22
L2253426-02	PORT EWEN 2B	SEDIMENT	KINGSTON, NY	09/27/22 10:10	09/28/22
L2253426-03	PORT EWEN 3A	SEDIMENT	KINGSTON, NY	09/27/22 09:00	09/28/22
L2253426-04	PORT EWEN 3B	SEDIMENT	KINGSTON, NY	09/27/22 09:20	09/28/22
L2253426-05	PORT EWEN 4A	SEDIMENT	KINGSTON, NY	09/27/22 11:00	09/28/22
L2253426-06	PORT EWEN 4B	SEDIMENT	KINGSTON, NY	09/27/22 11:10	09/28/22
L2253426-07	PORT EWEN 5A	SEDIMENT	KINGSTON, NY	09/27/22 11:30	09/28/22
L2253426-08	PORT EWEN 5B	SEDIMENT	KINGSTON, NY	09/27/22 11:40	09/28/22

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253426
Project Number:	24711.001	**Report Date:**	10/07/22

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments, solids and tissues are reported on a dry weight basis unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253426
Project Number:	24711.001	**Report Date:**	10/07/22

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

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. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Elizabeth Porta

Title: Technical Director/Representative Date: 10/07/22

ORGANICS

PCBS

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-01
Client ID: PORT EWEN 2A
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 10:00
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 12:01
Analyst: PS
Percent Solids: 67%

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.602	0.301	1
Cl3-BZ#18	ND		ug/kg	0.602	0.301	1
Cl3-BZ#28	ND		ug/kg	0.602	0.301	1
Cl4-BZ#44	ND		ug/kg	0.602	0.301	1
Cl4-BZ#49	ND		ug/kg	0.602	0.301	1
Cl4-BZ#52	ND		ug/kg	0.602	0.301	1
Cl4-BZ#66	ND		ug/kg	0.602	0.301	1
Cl5-BZ#87	ND		ug/kg	0.602	0.301	1
Cl5-BZ#101	ND		ug/kg	0.602	0.301	1
Cl5-BZ#105	ND		ug/kg	0.602	0.301	1
Cl5-BZ#118	ND		ug/kg	0.602	0.301	1
Cl6-BZ#128	ND		ug/kg	0.602	0.301	1
Cl6-BZ#138	ND		ug/kg	0.602	0.301	1
Cl6-BZ#153	ND		ug/kg	0.602	0.301	1
Cl7-BZ#170	ND		ug/kg	0.602	0.301	1
Cl7-BZ#180	ND		ug/kg	0.602	0.301	1
Cl7-BZ#183	ND		ug/kg	0.602	0.301	1
Cl7-BZ#184	ND		ug/kg	0.602	0.301	1
Cl7-BZ#187	ND		ug/kg	0.602	0.301	1
Cl8-BZ#195	ND		ug/kg	0.602	0.301	1
Cl9-BZ#206	ND		ug/kg	0.602	0.301	1
Cl10-BZ#209	ND		ug/kg	0.602	0.301	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	94		50-125
BZ 198	105		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-02
Client ID: PORT EWEN 2B
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 10:10
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 12:33
Analyst: PS
Percent Solids: 66%

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.555	0.277	1
Cl3-BZ#18	ND		ug/kg	0.555	0.277	1
Cl3-BZ#28	ND		ug/kg	0.555	0.277	1
Cl4-BZ#44	ND		ug/kg	0.555	0.277	1
Cl4-BZ#49	ND		ug/kg	0.555	0.277	1
Cl4-BZ#52	ND		ug/kg	0.555	0.277	1
Cl4-BZ#66	ND		ug/kg	0.555	0.277	1
Cl5-BZ#87	ND		ug/kg	0.555	0.277	1
Cl5-BZ#101	ND		ug/kg	0.555	0.277	1
Cl5-BZ#105	ND		ug/kg	0.555	0.277	1
Cl5-BZ#118	ND		ug/kg	0.555	0.277	1
Cl6-BZ#128	ND		ug/kg	0.555	0.277	1
Cl6-BZ#138	ND		ug/kg	0.555	0.277	1
Cl6-BZ#153	ND		ug/kg	0.555	0.277	1
Cl7-BZ#170	ND		ug/kg	0.555	0.277	1
Cl7-BZ#180	ND		ug/kg	0.555	0.277	1
Cl7-BZ#183	ND		ug/kg	0.555	0.277	1
Cl7-BZ#184	ND		ug/kg	0.555	0.277	1
Cl7-BZ#187	ND		ug/kg	0.555	0.277	1
Cl8-BZ#195	ND		ug/kg	0.555	0.277	1
Cl9-BZ#206	ND		ug/kg	0.555	0.277	1
Cl10-BZ#209	ND		ug/kg	0.555	0.277	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	91		50-125
BZ 198	98		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-03
Client ID: PORT EWEN 3A
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 09:00
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 13:06
Analyst: PS
Percent Solids: 62%

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.596	0.298	1
Cl3-BZ#18	ND		ug/kg	0.596	0.298	1
Cl3-BZ#28	ND		ug/kg	0.596	0.298	1
Cl4-BZ#44	ND		ug/kg	0.596	0.298	1
Cl4-BZ#49	ND		ug/kg	0.596	0.298	1
Cl4-BZ#52	ND		ug/kg	0.596	0.298	1
Cl4-BZ#66	ND		ug/kg	0.596	0.298	1
Cl5-BZ#87	ND		ug/kg	0.596	0.298	1
Cl5-BZ#101	ND		ug/kg	0.596	0.298	1
Cl5-BZ#105	ND		ug/kg	0.596	0.298	1
Cl5-BZ#118	ND		ug/kg	0.596	0.298	1
Cl6-BZ#128	ND		ug/kg	0.596	0.298	1
Cl6-BZ#138	ND		ug/kg	0.596	0.298	1
Cl6-BZ#153	ND		ug/kg	0.596	0.298	1
Cl7-BZ#170	ND		ug/kg	0.596	0.298	1
Cl7-BZ#180	ND		ug/kg	0.596	0.298	1
Cl7-BZ#183	ND		ug/kg	0.596	0.298	1
Cl7-BZ#184	ND		ug/kg	0.596	0.298	1
Cl7-BZ#187	ND		ug/kg	0.596	0.298	1
Cl8-BZ#195	ND		ug/kg	0.596	0.298	1
Cl9-BZ#206	ND		ug/kg	0.596	0.298	1
Cl10-BZ#209	ND		ug/kg	0.596	0.298	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	103		50-125
BZ 198	108		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-04
Client ID: PORT EWEN 3B
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 09:20
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 13:38
Analyst: PS
Percent Solids: 63%

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.609	0.304	1
Cl3-BZ#18	ND		ug/kg	0.609	0.304	1
Cl3-BZ#28	ND		ug/kg	0.609	0.304	1
Cl4-BZ#44	ND		ug/kg	0.609	0.304	1
Cl4-BZ#49	ND		ug/kg	0.609	0.304	1
Cl4-BZ#52	ND		ug/kg	0.609	0.304	1
Cl4-BZ#66	ND		ug/kg	0.609	0.304	1
Cl5-BZ#87	ND		ug/kg	0.609	0.304	1
Cl5-BZ#101	ND		ug/kg	0.609	0.304	1
Cl5-BZ#105	ND		ug/kg	0.609	0.304	1
Cl5-BZ#118	ND		ug/kg	0.609	0.304	1
Cl6-BZ#128	ND		ug/kg	0.609	0.304	1
Cl6-BZ#138	ND		ug/kg	0.609	0.304	1
Cl6-BZ#153	ND		ug/kg	0.609	0.304	1
Cl7-BZ#170	ND		ug/kg	0.609	0.304	1
Cl7-BZ#180	ND		ug/kg	0.609	0.304	1
Cl7-BZ#183	ND		ug/kg	0.609	0.304	1
Cl7-BZ#184	ND		ug/kg	0.609	0.304	1
Cl7-BZ#187	ND		ug/kg	0.609	0.304	1
Cl8-BZ#195	ND		ug/kg	0.609	0.304	1
Cl9-BZ#206	ND		ug/kg	0.609	0.304	1
Cl10-BZ#209	ND		ug/kg	0.609	0.304	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	91		50-125
BZ 198	99		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-05
Client ID: PORT EWEN 4A
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 11:00
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 14:10
Analyst: PS
Percent Solids: 60%

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.627	0.314	1
Cl3-BZ#18	ND		ug/kg	0.627	0.314	1
Cl3-BZ#28	ND		ug/kg	0.627	0.314	1
Cl4-BZ#44	ND		ug/kg	0.627	0.314	1
Cl4-BZ#49	ND		ug/kg	0.627	0.314	1
Cl4-BZ#52	ND		ug/kg	0.627	0.314	1
Cl4-BZ#66	ND		ug/kg	0.627	0.314	1
Cl5-BZ#87	ND		ug/kg	0.627	0.314	1
Cl5-BZ#101	ND		ug/kg	0.627	0.314	1
Cl5-BZ#105	ND		ug/kg	0.627	0.314	1
Cl5-BZ#118	ND		ug/kg	0.627	0.314	1
Cl6-BZ#128	ND		ug/kg	0.627	0.314	1
Cl6-BZ#138	ND		ug/kg	0.627	0.314	1
Cl6-BZ#153	ND		ug/kg	0.627	0.314	1
Cl7-BZ#170	ND		ug/kg	0.627	0.314	1
Cl7-BZ#180	ND		ug/kg	0.627	0.314	1
Cl7-BZ#183	ND		ug/kg	0.627	0.314	1
Cl7-BZ#184	ND		ug/kg	0.627	0.314	1
Cl7-BZ#187	ND		ug/kg	0.627	0.314	1
Cl8-BZ#195	ND		ug/kg	0.627	0.314	1
Cl9-BZ#206	ND		ug/kg	0.627	0.314	1
Cl10-BZ#209	ND		ug/kg	0.627	0.314	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	97		50-125
BZ 198	96		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-06
Client ID: PORT EWEN 4B
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 11:10
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 14:42
Analyst: PS
Percent Solids: 63%

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.632	0.316	1
Cl3-BZ#18	ND		ug/kg	0.632	0.316	1
Cl3-BZ#28	ND		ug/kg	0.632	0.316	1
Cl4-BZ#44	ND		ug/kg	0.632	0.316	1
Cl4-BZ#49	ND		ug/kg	0.632	0.316	1
Cl4-BZ#52	ND		ug/kg	0.632	0.316	1
Cl4-BZ#66	ND		ug/kg	0.632	0.316	1
Cl5-BZ#87	ND		ug/kg	0.632	0.316	1
Cl5-BZ#101	ND		ug/kg	0.632	0.316	1
Cl5-BZ#105	ND		ug/kg	0.632	0.316	1
Cl5-BZ#118	ND		ug/kg	0.632	0.316	1
Cl6-BZ#128	ND		ug/kg	0.632	0.316	1
Cl6-BZ#138	ND		ug/kg	0.632	0.316	1
Cl6-BZ#153	ND		ug/kg	0.632	0.316	1
Cl7-BZ#170	ND		ug/kg	0.632	0.316	1
Cl7-BZ#180	ND		ug/kg	0.632	0.316	1
Cl7-BZ#183	ND		ug/kg	0.632	0.316	1
Cl7-BZ#184	ND		ug/kg	0.632	0.316	1
Cl7-BZ#187	ND		ug/kg	0.632	0.316	1
Cl8-BZ#195	ND		ug/kg	0.632	0.316	1
Cl9-BZ#206	ND		ug/kg	0.632	0.316	1
Cl10-BZ#209	ND		ug/kg	0.632	0.316	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	86		50-125
BZ 198	93		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-07
Client ID: PORT EWEN 5A
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 11:30
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 15:15
Analyst: PS
Percent Solids: 61%

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.631	0.315	1
Cl3-BZ#18	ND		ug/kg	0.631	0.315	1
Cl3-BZ#28	ND		ug/kg	0.631	0.315	1
Cl4-BZ#44	ND		ug/kg	0.631	0.315	1
Cl4-BZ#49	ND		ug/kg	0.631	0.315	1
Cl4-BZ#52	ND		ug/kg	0.631	0.315	1
Cl4-BZ#66	ND		ug/kg	0.631	0.315	1
Cl5-BZ#87	ND		ug/kg	0.631	0.315	1
Cl5-BZ#101	ND		ug/kg	0.631	0.315	1
Cl5-BZ#105	ND		ug/kg	0.631	0.315	1
Cl5-BZ#118	ND		ug/kg	0.631	0.315	1
Cl6-BZ#128	ND		ug/kg	0.631	0.315	1
Cl6-BZ#138	ND		ug/kg	0.631	0.315	1
Cl6-BZ#153	ND		ug/kg	0.631	0.315	1
Cl7-BZ#170	ND		ug/kg	0.631	0.315	1
Cl7-BZ#180	ND		ug/kg	0.631	0.315	1
Cl7-BZ#183	ND		ug/kg	0.631	0.315	1
Cl7-BZ#184	ND		ug/kg	0.631	0.315	1
Cl7-BZ#187	ND		ug/kg	0.631	0.315	1
Cl8-BZ#195	ND		ug/kg	0.631	0.315	1
Cl9-BZ#206	ND		ug/kg	0.631	0.315	1
Cl10-BZ#209	ND		ug/kg	0.631	0.315	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	73		50-125
BZ 198	70		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-08
Client ID: PORT EWEN 5B
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 11:40
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment
Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 15:47
Analyst: PS
Percent Solids: 64%

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
PCB Congeners (NOAA List) - Mansfield Lab						
Cl2-BZ#8	ND		ug/kg	0.604	0.302	1
Cl3-BZ#18	ND		ug/kg	0.604	0.302	1
Cl3-BZ#28	ND		ug/kg	0.604	0.302	1
Cl4-BZ#44	ND		ug/kg	0.604	0.302	1
Cl4-BZ#49	ND		ug/kg	0.604	0.302	1
Cl4-BZ#52	ND		ug/kg	0.604	0.302	1
Cl4-BZ#66	ND		ug/kg	0.604	0.302	1
Cl5-BZ#87	ND		ug/kg	0.604	0.302	1
Cl5-BZ#101	ND		ug/kg	0.604	0.302	1
Cl5-BZ#105	ND		ug/kg	0.604	0.302	1
Cl5-BZ#118	ND		ug/kg	0.604	0.302	1
Cl6-BZ#128	ND		ug/kg	0.604	0.302	1
Cl6-BZ#138	ND		ug/kg	0.604	0.302	1
Cl6-BZ#153	ND		ug/kg	0.604	0.302	1
Cl7-BZ#170	ND		ug/kg	0.604	0.302	1
Cl7-BZ#180	ND		ug/kg	0.604	0.302	1
Cl7-BZ#183	ND		ug/kg	0.604	0.302	1
Cl7-BZ#184	ND		ug/kg	0.604	0.302	1
Cl7-BZ#187	ND		ug/kg	0.604	0.302	1
Cl8-BZ#195	ND		ug/kg	0.604	0.302	1
Cl9-BZ#206	ND		ug/kg	0.604	0.302	1
Cl10-BZ#209	ND		ug/kg	0.604	0.302	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
DBOB	90		50-125
BZ 198	96		50-125

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

Method Blank Analysis
Batch Quality Control

Analytical Method: 105,8270E-SIM/680(M)
Analytical Date: 10/06/22 09:54
Analyst: PS

Extraction Method: EPA 3570
Extraction Date: 10/03/22 14:56
Cleanup Method: EPA 3630
Cleanup Date: 10/04/22

Parameter	Result	Qualifier	Units	RL	MDL
PCB Congeners (NOAA List) - Mansfield Lab for sample(s): 01-08 Batch: WG1694842-1					
Cl2-BZ#8	ND		ug/kg	0.400	0.200
Cl3-BZ#18	ND		ug/kg	0.400	0.200
Cl3-BZ#28	ND		ug/kg	0.400	0.200
Cl4-BZ#44	ND		ug/kg	0.400	0.200
Cl4-BZ#49	ND		ug/kg	0.400	0.200
Cl4-BZ#52	ND		ug/kg	0.400	0.200
Cl4-BZ#66	ND		ug/kg	0.400	0.200
Cl5-BZ#87	ND		ug/kg	0.400	0.200
Cl5-BZ#101	ND		ug/kg	0.400	0.200
Cl5-BZ#105	ND		ug/kg	0.400	0.200
Cl5-BZ#118	ND		ug/kg	0.400	0.200
Cl6-BZ#128	ND		ug/kg	0.400	0.200
Cl6-BZ#138	ND		ug/kg	0.400	0.200
Cl6-BZ#153	ND		ug/kg	0.400	0.200
Cl7-BZ#170	ND		ug/kg	0.400	0.200
Cl7-BZ#180	ND		ug/kg	0.400	0.200
Cl7-BZ#183	ND		ug/kg	0.400	0.200
Cl7-BZ#184	ND		ug/kg	0.400	0.200
Cl7-BZ#187	ND		ug/kg	0.400	0.200
Cl8-BZ#195	ND		ug/kg	0.400	0.200
Cl9-BZ#206	ND		ug/kg	0.400	0.200
Cl10-BZ#209	ND		ug/kg	0.400	0.200

Surrogate	%Recovery	Qualifier	Acceptance Criteria
DBOB	81		50-125
BZ 198	89		50-125

Lab Control Sample Analysis

Batch Quality Control

Project Name: CHPE HUDSON RIVER

Project Number: 24711.001

Lab Number: L2253426

Report Date: 10/07/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab	Associated sample(s): 01-08		Batch: WG1694842-2 WG1694842-3					
Cl2-BZ#8	80		83		40-140	4		30
Cl3-BZ#18	80		83		40-140	4		30
Cl3-BZ#28	84		89		40-140	6		30
Cl4-BZ#44	84		92		40-140	9		30
Cl4-BZ#49	83		86		40-140	4		30
Cl4-BZ#52	81		91		40-140	12		30
Cl4-BZ#66	98		106		40-140	8		30
Cl5-BZ#87	85		93		40-140	9		30
Cl5-BZ#101	83		92		40-140	10		30
Cl5-BZ#105	86		90		40-140	5		30
Cl5-BZ#118	83		91		40-140	9		30
Cl6-BZ#128	88		97		40-140	10		30
Cl6-BZ#138	85		95		40-140	11		30
Cl6-BZ#153	85		96		40-140	12		30
Cl7-BZ#170	90		100		40-140	11		30
Cl7-BZ#180	83		91		40-140	9		30
Cl7-BZ#183	81		86		40-140	6		30
Cl7-BZ#184	82		91		40-140	10		30
Cl7-BZ#187	85		97		40-140	13		30
Cl8-BZ#195	91		100		40-140	9		30
Cl9-BZ#206	97		105		40-140	8		30
Cl10-BZ#209	117		130		40-140	11		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
PCB Congeners (NOAA List) - Mansfield Lab	Associated sample(s): 01-08 Batch: WG1694842-2 WG1694842-3							

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
DBOB	101		103		50-125
BZ 198	112		124		50-125

INORGANICS
&
MISCELLANEOUS

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-01
Client ID: PORT EWEN 2A
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/27/22 10:00
Date Received: 09/28/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	66.5		%	0.100	0.100	1	-	09/30/22 11:04	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-02
Client ID: PORT EWEN 2B
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/27/22 10:10
Date Received: 09/28/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	66.2		%	0.100	0.100	1	-	09/30/22 11:04	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-03
Client ID: PORT EWEN 3A
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 09:00
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	62.3		%	0.100	0.100	1	-	09/30/22 11:04	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-04
Client ID: PORT EWEN 3B
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 09:20
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	62.8		%	0.100	0.100	1	-	09/30/22 11:04	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-05
Client ID: PORT EWEN 4A
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 11:00
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	59.9		%	0.100	0.100	1	-	09/30/22 11:04	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-06
Client ID: PORT EWEN 4B
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 11:10
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	62.7		%	0.100	0.100	1	-	09/30/22 11:04	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001
Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-07
Client ID: PORT EWEN 5A
Sample Location: KINGSTON, NY
Sample Depth:
Matrix: Sediment

Date Collected: 09/27/22 11:30
Date Received: 09/28/22
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	61.1		%	0.100	0.100	1	-	09/30/22 11:04	121,2540G	VM

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

SAMPLE RESULTS

Lab ID: L2253426-08
Client ID: PORT EWEN 5B
Sample Location: KINGSTON, NY

Date Collected: 09/27/22 11:40
Date Received: 09/28/22
Field Prep: Not Specified

Sample Depth:
Matrix: Sediment

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Mansfield Lab										
Solids, Total	63.6		%	0.100	0.100	1	-	09/30/22 11:04	121,2540G	VM

Lab Duplicate Analysis
Batch Quality Control

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Mansfield Lab Associated sample(s): 01-08 QC Batch ID: WG1694024-1 QC Sample: L2253534-04 Client ID: DUP Sample						
Solids, Total	90.8	88.4	%	3		10

Project Name: CHPE HUDSON RIVER
Project Number: 24711.001

Lab Number: L2253426
Report Date: 10/07/22

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2253426-01A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253426-02A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253426-03A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253426-04A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253426-05A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253426-06A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253426-07A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)
L2253426-08A	Glass 120ml/4oz unpreserved	A	NA		4.9	Y	Absent		A2-TS(7),A2-PCBCONG-8270-NOAA(14)

*Values in parentheses indicate holding time in days

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253426
Project Number:	24711.001	**Report Date:**	10/07/22

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

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Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253426
Project Number:	24711.001	**Report Date:**	10/07/22

Data Qualifiers

Identified Compounds (TICs).

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	CHPE HUDSON RIVER	**Lab Number:**	L2253426
Project Number:	24711.001	**Report Date:**	10/07/22

REFERENCES

105 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - IIIA, 1997 in conjunction with NOAA Technical Memorandum NMFS-NWFSC-59: Extraction, Cleanup and GC/MS Analysis of Sediments and Tissues for Organic Contaminants, March 2004 and the Determination of Pesticides and PCBs in Water and Oil/Sediment by GC/MS: Method 680, EPA 01A0005295, November 1985.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624/624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625/625.1: alpha-Terpineol
EPA 8260C/8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene, Azobenzene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270D/8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS
EPA 8082A: NPW: PCB: 1, 5, 31, 87,101, 110, 141, 151, 153, 180, 183, 187.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 332: Perchlorate; **EPA 524.2:** THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables), **EPA 600/4-81-045**: PCB-Oil.
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, SM9221E, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW YORK CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab: 9/ /22

ALPHA Job #: L2253426

Client Information

Client: Normandeau
Address: 400 Old Reading Pk
Stowe PA 19464
Phone: 717-617-7076
Fax:
Email: DNazario@Normandeau.com

Project Information

Project Name: CHPE Hudson River
Project Location: Kingston, NY
Project #: 24711.001
(Use Project name as Project #)
Project Manager: Mike Mettler
ALPHAQuote #: 16943

Turn-Around Time

Standard [X]
Rush (only if pre approved) [ ]
Due Date:
# of Days:

These samples have been previously analyzed by Alpha [ ]

Other project specific requirements/comments:

PCB Congeners NOAA 22 8270D-SIM/680(M)

Please specify Metals or TAL.

Deliverables

[ ] ASP-A [ ] ASP-B
[ ] EQuIS (1 File) [ ] EQuIS (4 File)
[ ] Other

Regulatory Requirement

[ ] NY TOGS [ ] NY Part 375
[ ] AWQ Standards [ ] NY CP-51
[ ] NY Restricted Use [ ] Other
[ ] NY Unrestricted Use
[ ] NYC Sewer Discharge

Billing Information

[X] Same as Client Info
PO # 24711.001

Disposal Site Information

Please identify below location of applicable disposal facilities.
Disposal Facility:
[ ] NJ [ ] NY
[ ] Other:

Sample Filtration

[ ] Done
[ ] Lab to do
Preservation
[ ] Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID		Collection Date	Collection Time	Sample Matrix	Sampler's Initials	PCB Congeners	NOAA 22	8270D-SIM	680(M)	Total Bottle	Sample Specific Comments
34346 -01	Port Ewen	2A	9/27/22	1000	Soil	NAI	1					
-02		2B		1010			1					
-03		3A		0900			1					
-04		3B		0920			1					
-05		4A		1100			1					
-06		4B		1110			1					
-07		5A		1130			1					
-08		5B		1140			1					

Container Type: GL
Preservative: -

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
	9/27/22 1500	Colleen	9/27/22
	9-28-22 15:30		
	9-28-22 1611		9.28.22 15:35

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-25 HC (rev. 30-Sept-2013)

FedEx Ship Manager - Print Your Label(s)

ORIGIN ID:OICA (717) 617-7076
DONALD NAZARIO - RM 159
NORMANDEAU CO QUALITY INN
114 ROUTE 28
KINGSTON
KINGSTON, NY 12401
UNITED STATES US

SHIP DATE: 27SEP22
ACTWGT: 40.00 LB
CAD: 5720875/INET4530
DIMS: 18x14x14 IN

BILL SENDER

TO SAMPLE RECEIPT
ALPHA ANALYTICAL
8 WALKUP DRIVE

WESTBOROUGH MA 01581
(508) 898-9220
INV
PO

FedEx Express

WED - 28 SEP 10:30A
PRIORITY OVERNIGHT

TRK# 7700 4836 1537
0201

01581
MA-US BOS

EM BRFA

9/27/22, 1:47 PM

Field Data Sheets

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name:	**CHPE Hudson River**	**Proj. #:** 24711.001
Site Name:	**Hudson River**	**Task #:** 10
City:	**Poughkeepsie** **State:** **NY**	**Date:** 9/26/22

Field Team Leader(s): MM
Field Crew: DM CB
Station ID #: PORT EWEN 5
Photos: Y (N) File Name: —

Field Team Safety Coordinator: MM
Arrival & Departure Times: 0920 – 0940
Weather: (Clear) Cloudy Rain Temp ___
Wind Conditions (Speed/Direction): 15-20 SW

FIELD DATA

Water Depth: 31 ft. Tide: Ebb Flood (Low Slack) High Slack Other **N/A**

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: EWEN 5 Coring Time: 0935 Penetration Depth: 9.5 ft. Core Recovery: 9' 2" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: EWEN 5
Lat / N: 41.885147 35
Lon / E: 73.95384463
PDOP or (SVs): 9

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS 84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10
Preparer's Initial: MM

North

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Project Name: **CHPE Hudson River**		**Proj. #:** 24711.001
Site Name: **Hudson River**		**Task #:** 10
City: **Poughkeepsie**	**State:** **NY**	**Date:** 9/26/21

Field Team Leader(s): MM
Field Safety Coordinator: MM
Field Crew: DJV CCB
Arrival & Departure Times: 0950-1010
Station ID #: PORT EWPN 4
Weather: (Clear) Cloudy Rain Temp —
Photos: Y (N) File Name: —
Wind Conditions (Speed/Direction): 15-20 SW

FIELD DATA

Water Depth: 33 ft. Tide: Ebb (Flood) Low Slack High Slack Other **N/A**

PID: **N/A** Redox Potential: **N/A** pH: **N/A** H^2O Temp.: **N/A** Air Temp.: **NA**

SAMPLE/PUSH #1

Core ID#: EWPN4 Coring Time: 1000 Penetration Depth: 10 ft. Core Recovery: 9 ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: ______ Coring Time: ______ Penetration Depth: ______ ft. Core Recovery: ______ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: ______ Coring Time: ______ Penetration Depth: ______ ft. Core Recovery: ______ ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: EWPN 4
(Lat) / N: 41.88658995
(Lon) / E: 73.95328460
PDOP or SVs: 8

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS 84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

North

Feet of Tubing 10

Preparer's Initial: MM

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River	**Proj. #:** 24717.001
Site Name: Hudson River	**Task #:** 10
City: Poughkeepsie **State:** NY	**Date:** 9/26/22

Field Team Leader(s): MM
Field Crew: DJN CCB MM
Station ID #: PORT EWEN PX 3
Photos: Y (N) File Name: —

Field Team Safety Coordinator: MM
Arrival & Departure Times: 1019 - 1040
Weather: (Clear) Cloudy Rain Temp —
Wind Conditions (Speed/Direction): 15-20 SW

FIELD DATA

Water Depth: 35 ft. Tide: Ebb (Flood) Low Slack High Slack Other N/A

PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: EWEN 3 Coring Time: 1030 Penetration Depth: 10 ft. Core Recovery: 9' 2" ft

Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"

Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft

Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"

Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: EWEN3
(Lat) / N: 41.8895 1429
Lon / E: 73.9981 0408
PDOP or SVs: 11

Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10

Preparer's Initial: MM

North

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

rev:7/22

FIELD DATA SHEET

Page 1 of 1

Project Name: CHPE Hudson River	**Proj. #:** 24711.001
Site Name: Hudson River	**Task #:** 10
City: Poughkeepsie **State:** NY	**Date:** 9/26/22

Field Team Leader(s): MM
Field Team Safety Coordinator: MM
Field Crew: DDN CCB
Arrival & Departure Times: 1051 - 1120
Station ID #: PORT EWEN 2
Weather: (Clear) Cloudy Rain Temp —
Photos: Y (N) File Name: —
Wind Conditions (Speed/Direction): 10-15 SW

FIELD DATA

Water Depth: 37 ft. Tide: Ebb (Flood) Low Slack High Slack Other N/A
PID: N/A Redox Potential: N/A pH: N/A H^2O Temp.: N/A Air Temp.: NA

SAMPLE/PUSH #1

Core ID#: PEWEN 2 Coring Time: 1111 Penetration Depth: 10 ft. Core Recovery: 9' 1" ft
Sample Method: Ponar / (Vibracore) / Piston Core / Manual Coring Material: (CAB) / Aluminum / SS Core Diameter (OD): 2" (3") 4"
Vibracore Type: (Rossfelder) / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: (Y) N

SAMPLE/PUSH #2

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

SAMPLE/PUSH #3

Core ID#: _____ Coring Time: _____ Penetration Depth: _____ft. Core Recovery: _____ft
Sample Method: Ponar / Vibracore / Piston Core / Manual Coring Material: CAB / Aluminum / SS Core Diameter (OD): 2" 3" 4"
Vibracore Type: Rossfelder / PVL / Portable Clamp-on / Mini Sampling Equipment Deconned or Replaced: Y N

DGPS DATA

Operator: MM
File Name: EWEN 2
(Lat) / N: 41.89107706
Lon / E: -73.95940701
PDOP or (SVs): 9
Coordinate Units: (Lat/Lon) Feet
Datum: (Y) N Other WGS84
Proj.:
GPS GeoXH 6000 Series S/N# 5108400788 Serial #:

COMMENTS / NOTES

Feet of Tubing 10
Preparer's Initial: MM

North

Soil Boring Logs

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9-27-22 Time

PROJECT NUMBER	BORING NUMBER
24711.000, Task 10	Port Ewen 3 SHEET 1 OF 4

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 35
START : 0855 END : 0945 LOGGER : DJN

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to damp GLEY 1/3/10Y medium plasticity cohesive, silty clay no odor, no sheen	Ewen 3A VOA taken at 2 ft. at 0900 2 x 8 oz jars 1 VOA kit 1 x 4oz. jar
4					↓	Ewen 3B VOA taken at 6.5 ft at 0920 2 x 8 oz. jars 1 VOA kit 1 x 4 oz. jar
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9/27/22 Time

PROJECT NUMBER	BORING NUMBER
24711.001, Task 10	Port Ewen 2 SHEET 2 OF 4

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 37
START : 0945 END : 1030 LOGGER : DJN

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to damp GLEY 1/3/10Y medium plasticity cohesive, silty clay no odor, no sheen	Port Ewen 2A VOA taken at 2 ft. at 1000 2 x 8 oz. jars 1 VOA kit 1 x 4 oz. jar
4					↓	Port Ewen 2B VOA taken at 6.5 ft at 1010 2 x 8 oz. jars 1 VOA kit 1 x 4 oz. jar
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9-27-22 Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	Port Ewen 4	SHEET 3 OF 4

Soil Boring Log

PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 33
START : 1050 END : 1120 LOGGER : DTN

DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very soft to soft very wet to damp GLEY 1/3/10Y medium plasticity Cohesive, Silty clay no odor, no sheen	Port Ewen 4A VOA taken at 2 ft at 1100 2 x 8 oz. jars 1 VOA kit 1 x 4 oz. jar
4					↓	Port Ewen 4B VOA taken at 6.5 ft at 1110 2 x 8 oz. jars 1 VOA kit 1 x 4 oz. jar
9						

NORMANDEAU ASSOCIATES
ENVIRONMENTAL CONSULTANTS

Collected: Date 9-27-22 Time

PROJECT NUMBER	BORING NUMBER	
24711.001, Task 10	Port Ewen 5	SHEET 4 OF 4

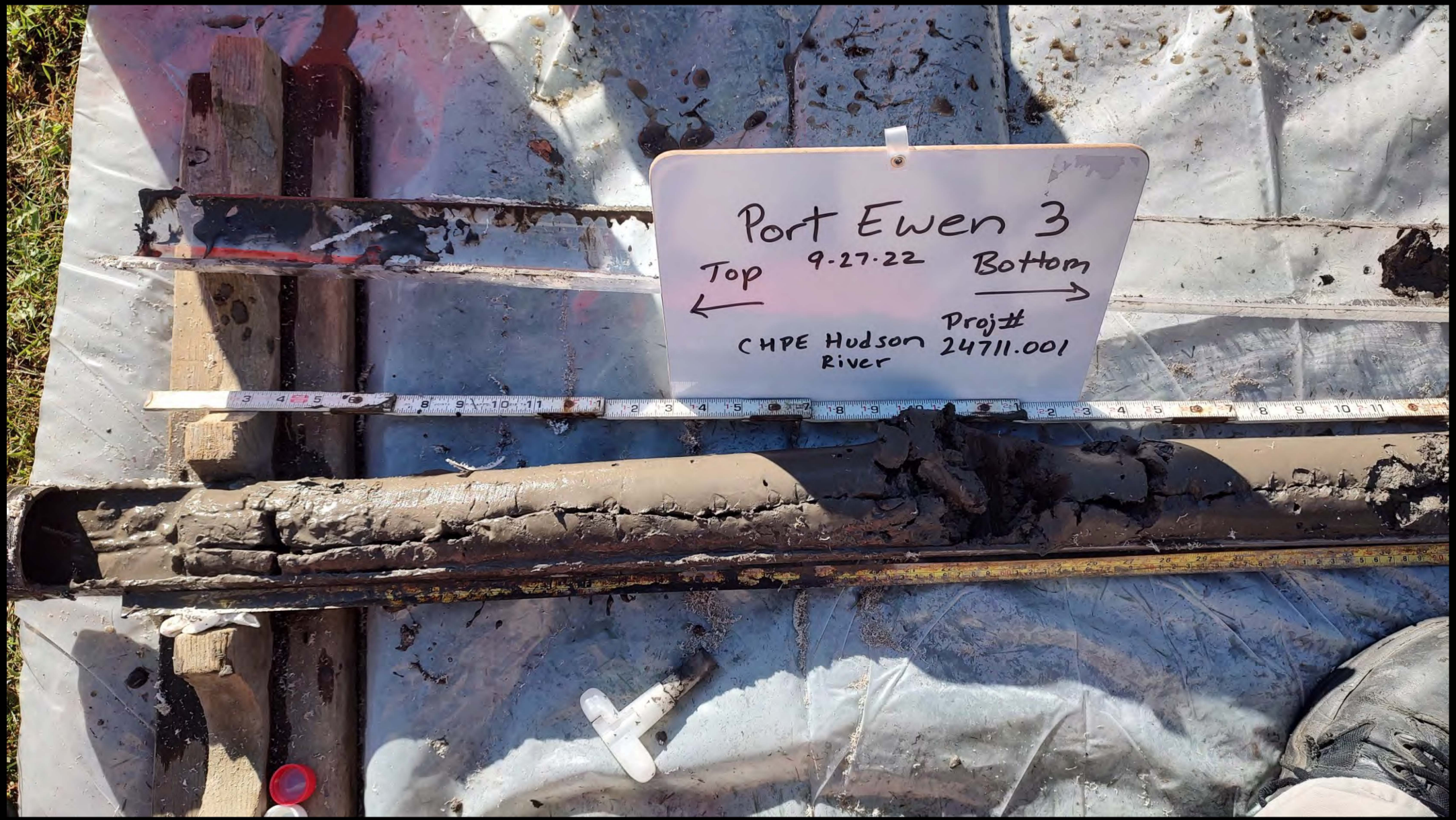
Soil Boring Log

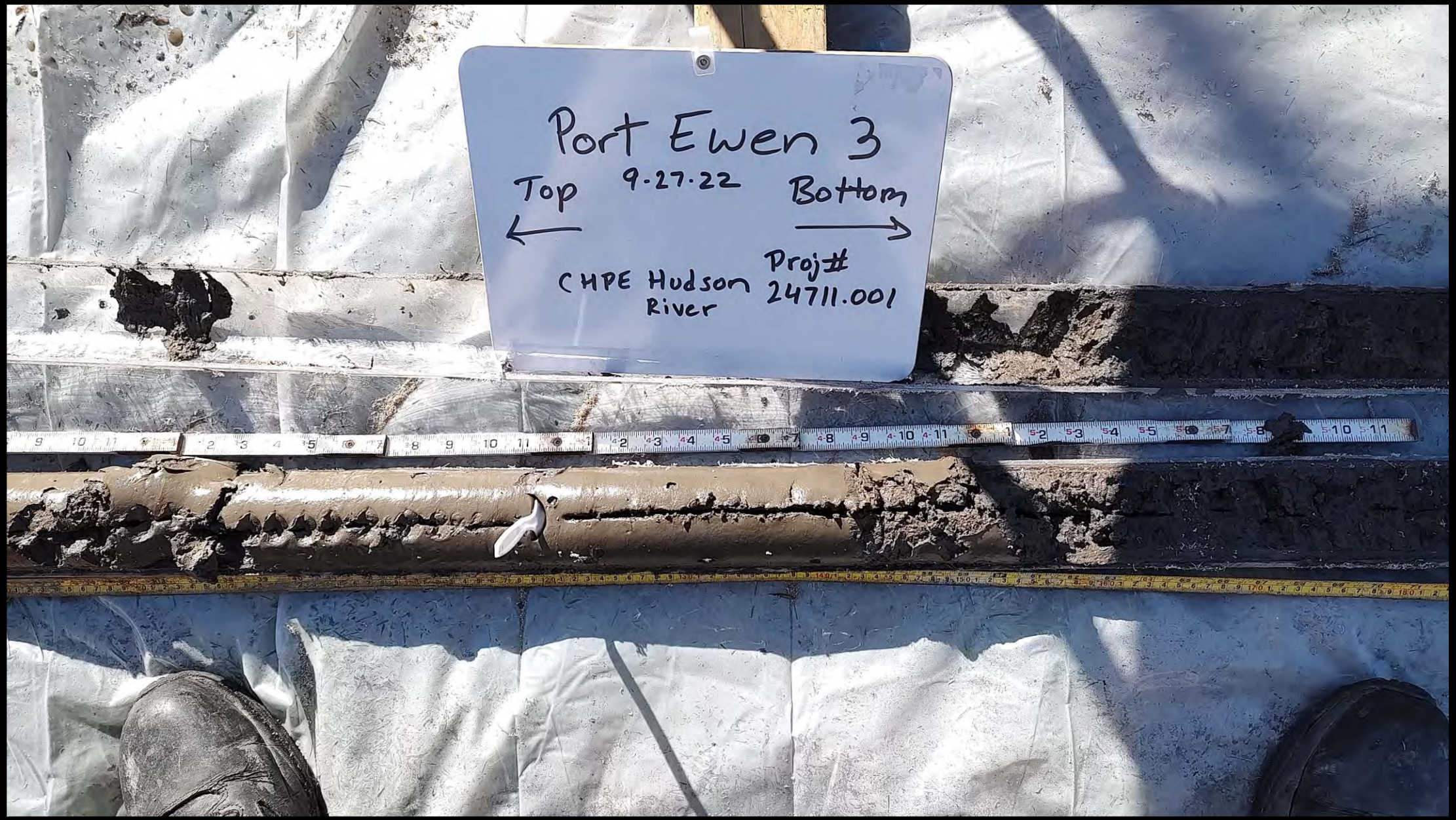
PROJECT : CHPE Hudson River
LOCATION : Poughkeepsie, NY
ELEVATION :
DRILLING CONTRACTOR : Normandeau Associates, Inc.
DRILLING METHOD AND EQUIPMENT USED : Mini-Vibracore sediment sampling, 3 inch CAB tubing
WATER LEVELS : 3'
START : 1125 END : 1205 LOGGER : DJW

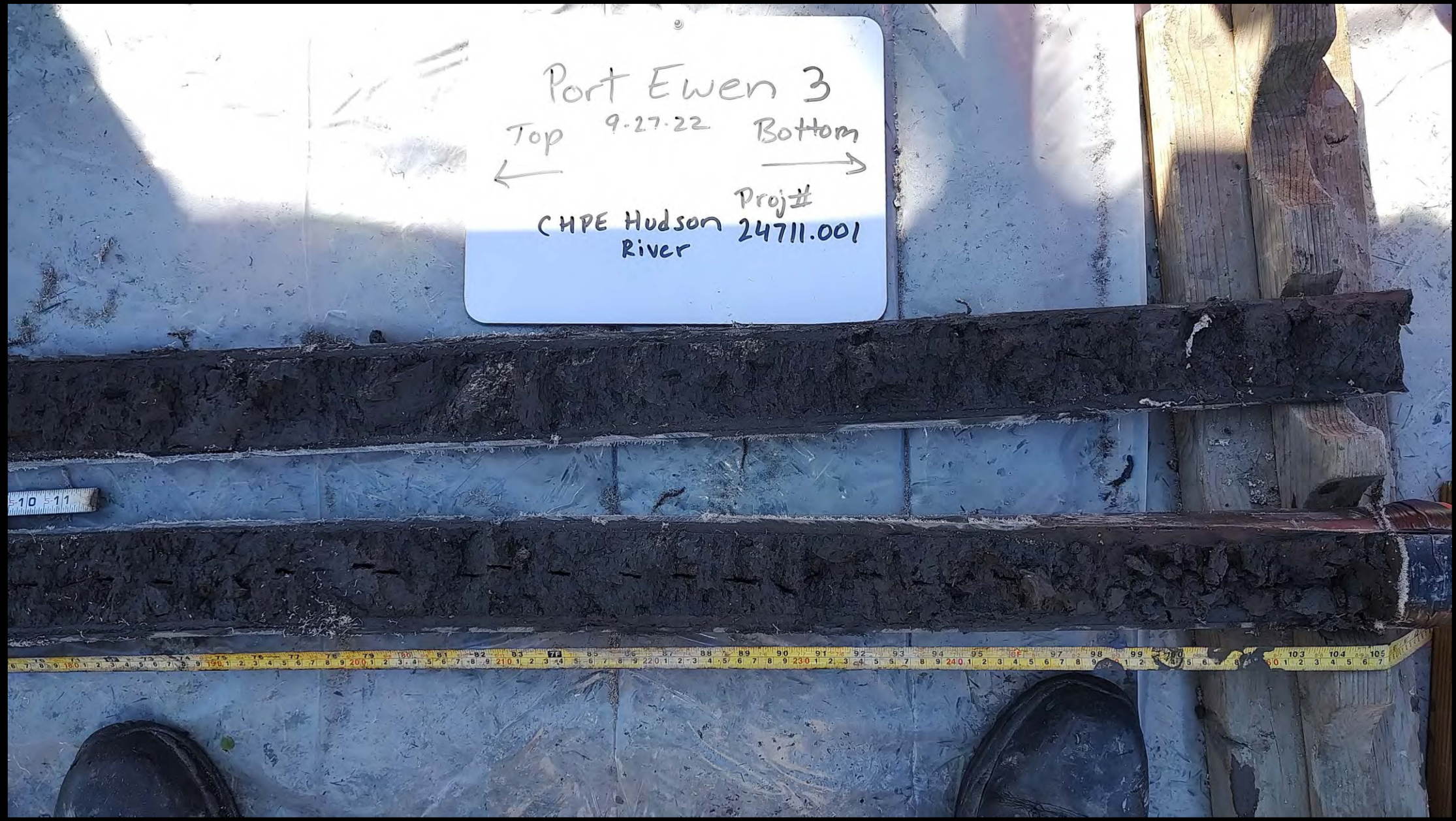
DEPTH BELOW SURFACE (FT)	INTERVAL (FT)	RECOVERY (FT)	#/TYPE	STANDARD PENETRATION TEST RESULTS 6"-6"-6"-6" (N)	CORE DESCRIPTION: SOIL NAME, USCS GROUP SYMBOL, COLOR, MOISTURE CONTENT, RELATIVE DENSITY OR CONSISTENCY, SOIL STRUCTURE, MINERALOGY.	COMMENTS: DEPTH OF CASING, DRILLING RATE, DRILLING FLUID LOSS, TESTS, AND INSTRUMENTATION.
0					Homogeneous Throughout very Soft to Soft very wet to damp GLEY 1/3/10Y medium plasticity cohesive, silty clay no odor, no sheen	Port Ewen 5A VOA taken at 2ft. at 1130 2 x 8 oz. jars 1 VOA kit 1 x 4 oz. jar
4						Port Ewen 5B VOA taken at 6.5 ft at 1140 2x 8 oz jars 1 VOA kit 1 x 4 oz. Jar
9						

Sediment Core Photos

CHPE Hudson River
Location – Port Ewen
Project No. 24711.001, Task 10


Port Ewen 3
Top
9.27.22
Bottom
CHPE Hudson River
Proj#
24711.001


Port Ewen 3
Top
9.27.22
Bottom
CHPE Hudson River
Proj#
24711.001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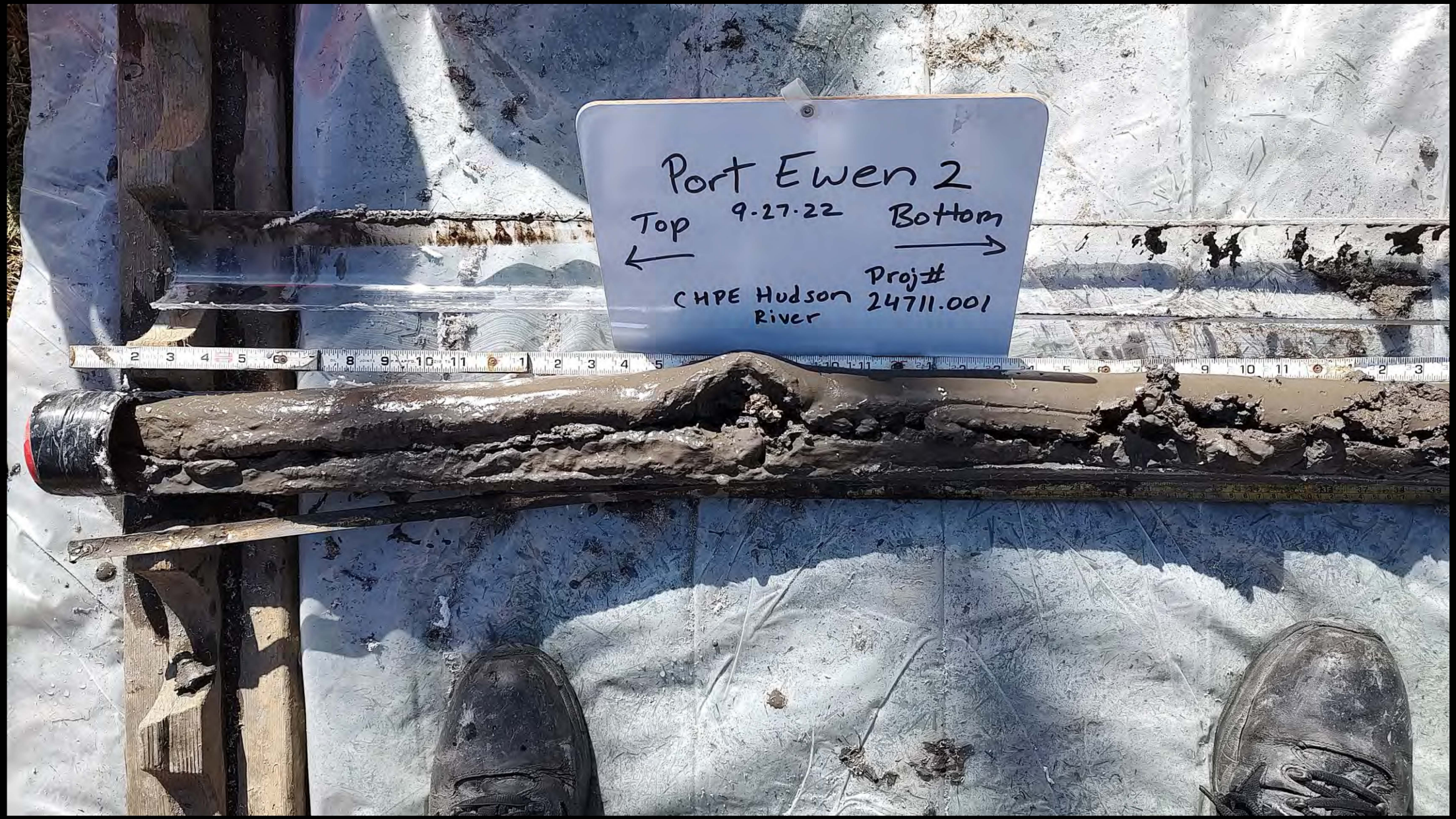
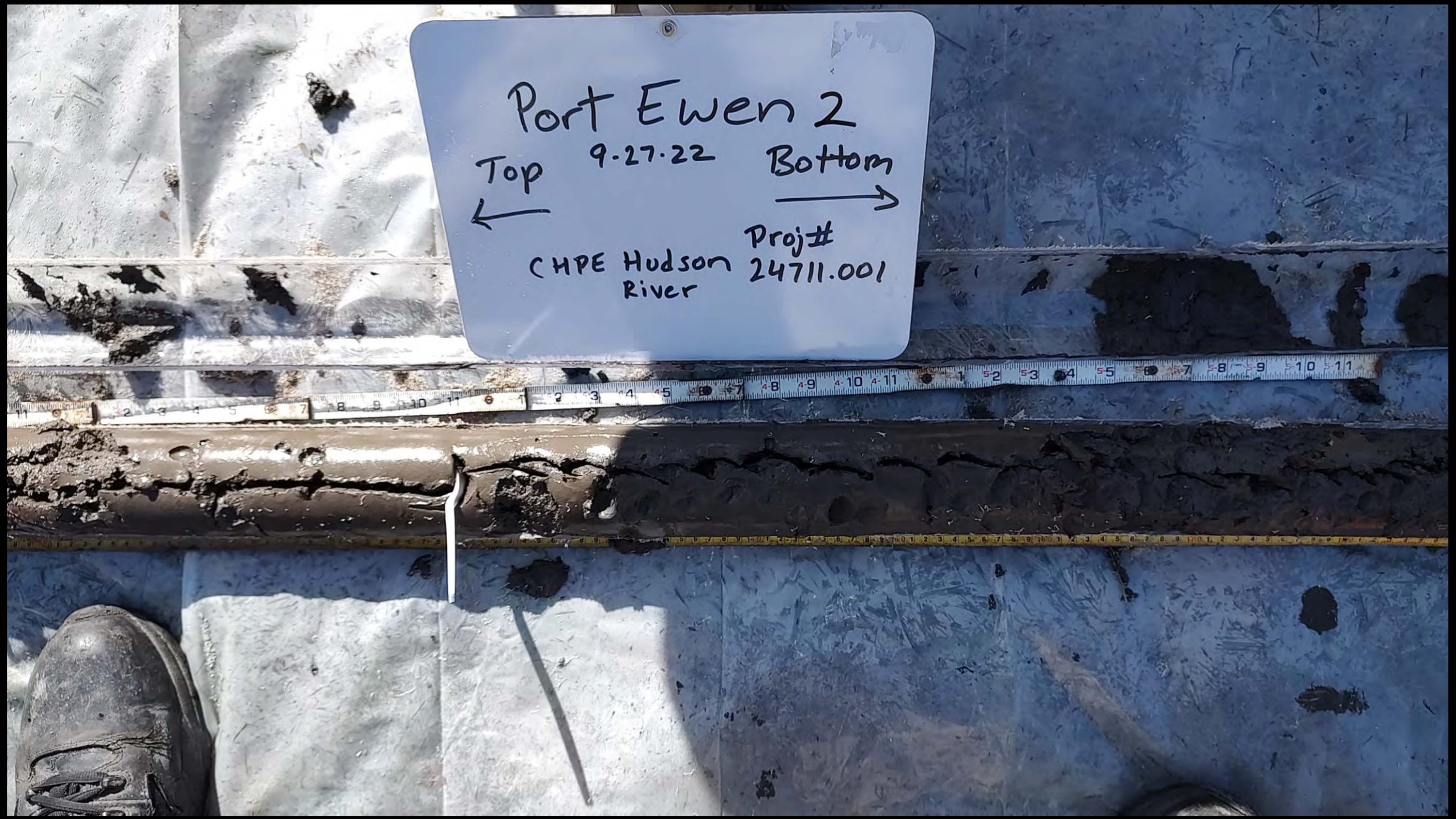
9-27-22
Top
Bottom
CHPE Hudson River
Proj#
24711.001


Port Ewen 2
Top
9.27.22
Bottom
CHPE Hudson River
Proj#
24711.001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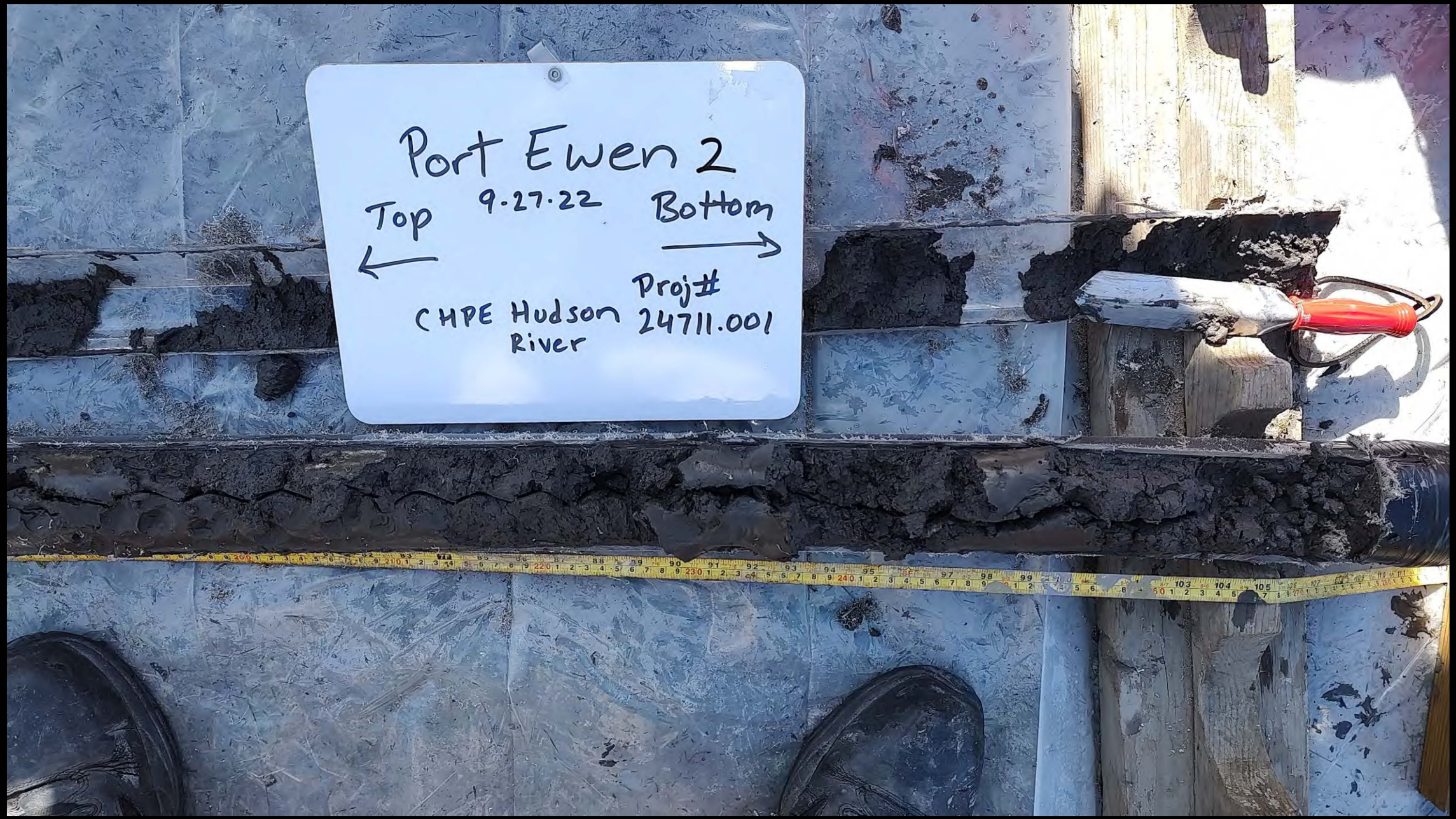
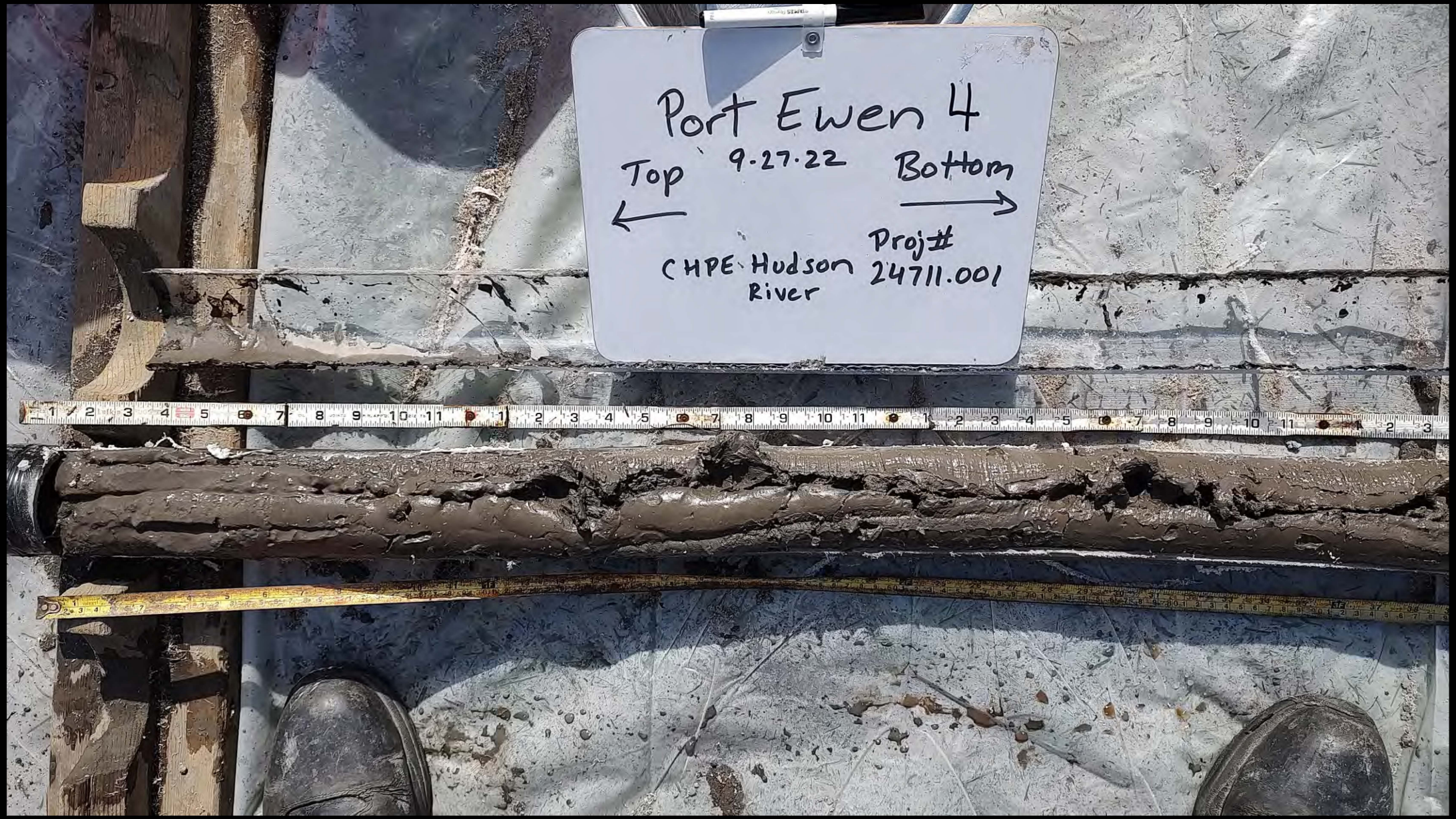
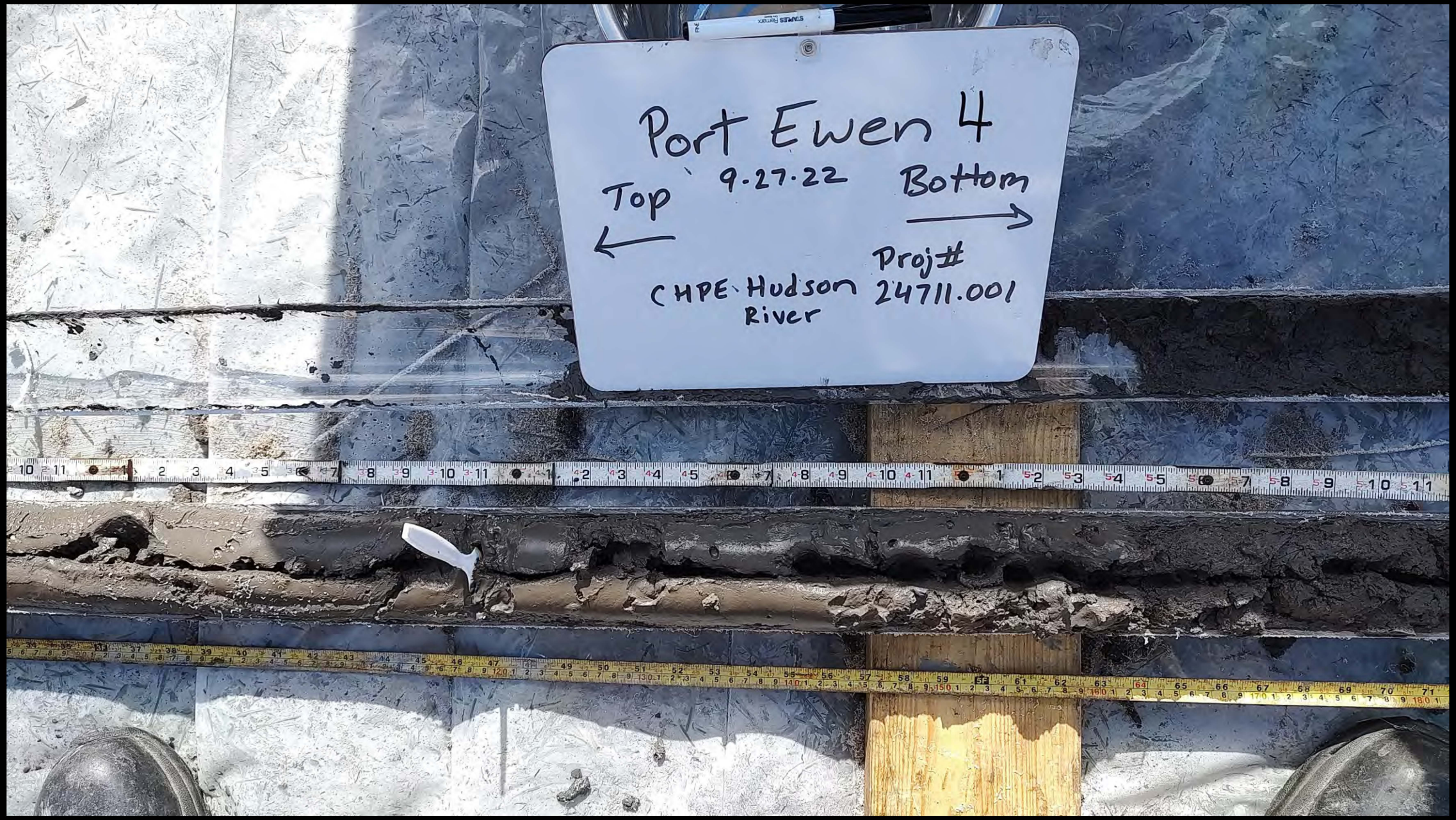
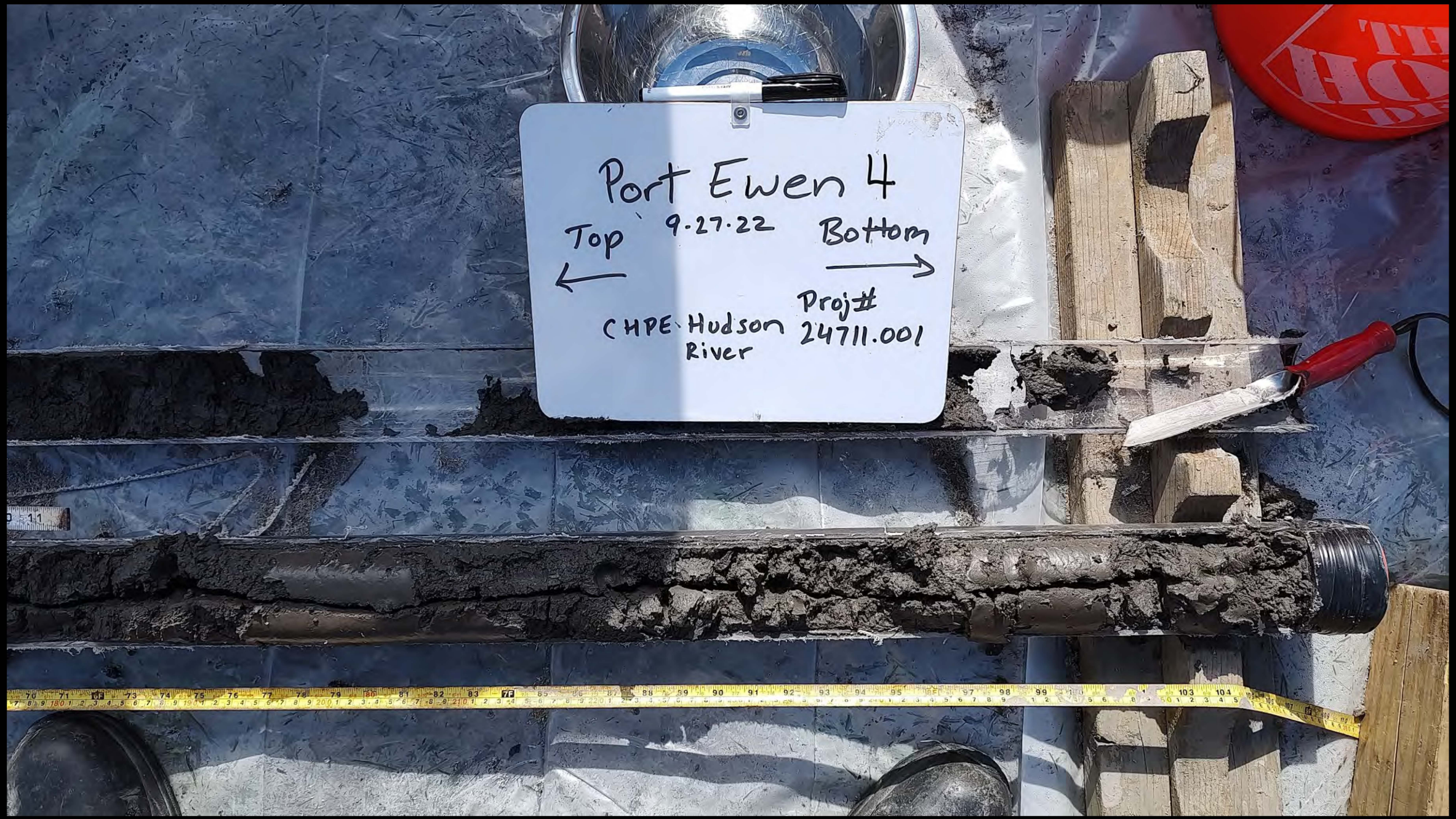
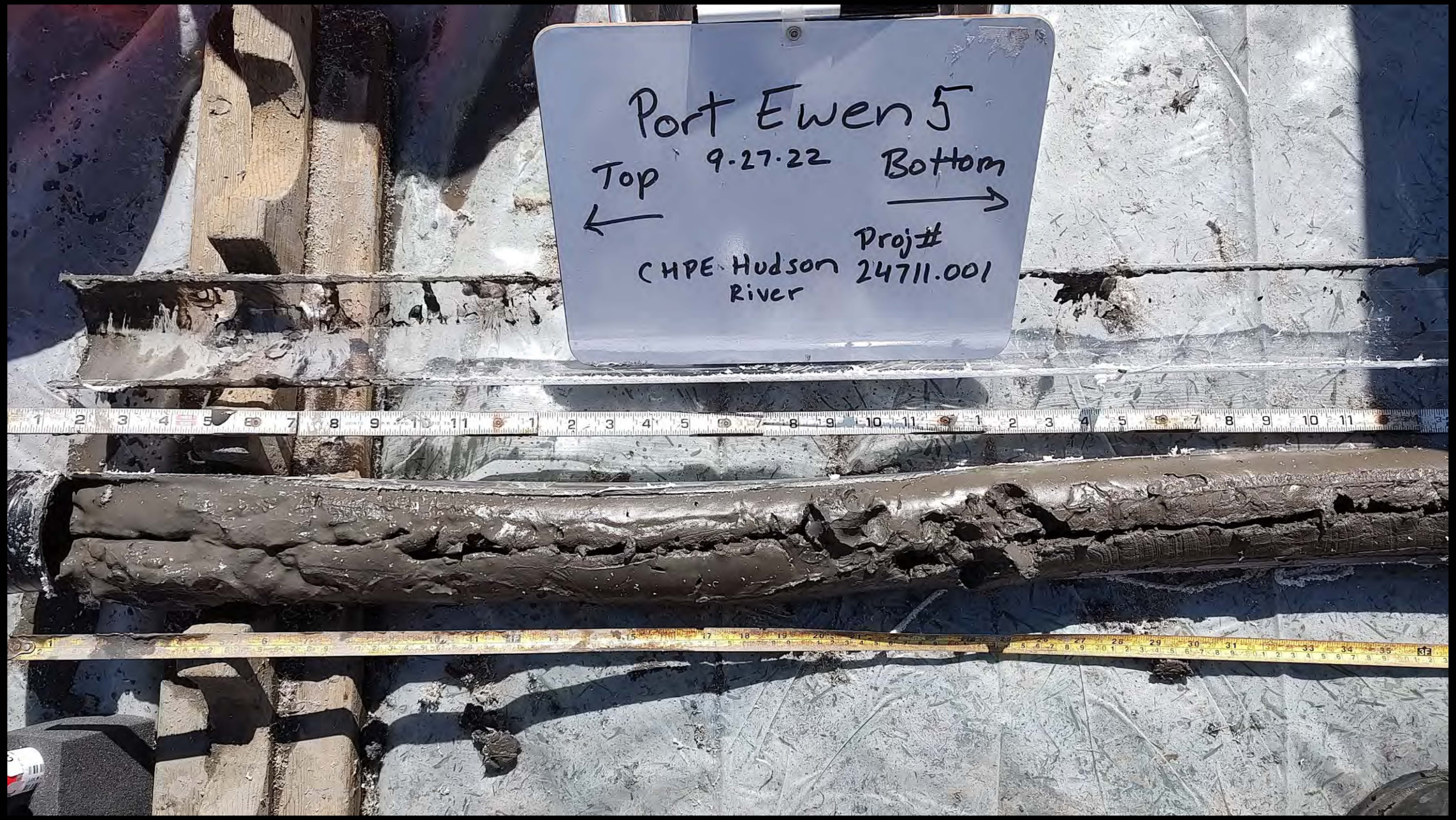
9.27.22
Top
Bottom
Proj#
CHPE Hudson River
24711.001


Port Ewen 2
9.27.22
Top
Bottom
Proj#
CHPE Hudson River
24711.001


Port Ewen 4
9.27.22
Top
Bottom
CHPE Hudson River
Proj#
24711.001


Port Ewen 4
9.27.22
Top
Bottom
CHPE Hudson River
Proj#
24711.001


Port Ewen 4
9.27.22
Top
Bottom
CHPE Hudson River
Proj#
24711.001


Port Ewen 5
Top
9-27-22
Bottom
CHPE Hudson River
Proj#
24711.001