Technical Memorandum

To:	Cam Penner-Ash, LG, Ecology	Date:	September 9, 2025
From:	Meaghan Pollock, LG, MFA	Project No.:	M9003.01.063
Re:	Phase 2 Off-Property Portion 2025 Rights-of-Way Sample Results		

On behalf of the Port of Ridgefield (the Port), Maul Foster & Alongi, Inc. (MFA) has prepared this memorandum to summarize the results of soil sampling completed in public rights-of-way (ROWs) within the Phase 2 cleanup area. The Phase 2 cleanup area is part of the off-property portion (OPP) residential neighborhood east of the former Pacific Wood Treating Co. (PWT) site in Ridgefield, Washington (see Figure).

Sampling was conducted to determine the vertical extent of polychlorinated dibenzo-p-dioxins and dibenzofurans (dioxin/furan) in accordance with the 2025 Site-Specific Sampling and Analysis Plan (SSAP) and in coordination with the Washington State Department of Ecology (Ecology) (MFA 2025a, 2025b).

Background

Previous investigations at the OPP identified dioxin/furan toxicity equivalent (TEQ) concentrations exceeding the Model Toxics Control Act (MTCA) Method B CUL in residential yards and ROWs. The Phase 2 cleanup area was defined based on 2010–2011 ROW surface soil data (i.e., 0 to 0.5 foot below ground surface [bgs]) collected north of Hall Street and east of North 1st Avenue, as well as data collected in 2017 near the intersection of Elm Street and Railroad Avenue. Ecology determined that Phase 2 represents the final area requiring additional investigation (Ecology 2018, 2020).

The Phase 2 cleanup area encompasses five properties and associated ROWs, along with isolated ROW segments bounded by North Main Avenue (west), Maple Street (north), North 5th Avenue (east), and Pioneer Street (south) (see Figure). This memorandum describes the soil sampling results for the isolated ROW segments.

Sampling Procedures

Prior to fieldwork, MFA obtained an encroachment permit from the City of Ridgefield and completed public and private utility locates. Discrete surface (0 to 0.5 feet bgs) and subsurface (1.0 to 2.5 feet bgs) soil samples from multiple depth intervals were collected using a stainless-steel hand auger. The shallowest interval samples were analyzed upon collection. The deeper subsurface samples at ROW locations were archived and subsequently analyzed if dioxin/furan TEQ concentrations exceeded the CUL in the corresponding surface or shallower subsurface sample.

In May 2025, soil samples from 13 locations were collected and analyzed per the SSAP (MFA 2025a). Following discussions with Ecology, additional depth samples were collected in July 2025

(MFA 2025b). All samples were submitted under standard chain-of-custody procedures to Apex Laboratories (Tigard, Oregon) and subcontracted to the Ecology-accredit laboratory Enthalpy Analytical, LLC (El Dorado Hills, California) for dioxin/furan analysis by U.S. Environmental Protection Agency Method 8290A. Laboratory reports are provided in Attachment A. A data validation memorandum is included as Attachment B. The data are considered acceptable for their intended use, with the appropriate data qualifiers assigned.

Results

Sample results are provided in Table 1 and compared to the MTCA Method B CUL of 13 nanograms per kilogram dioxin/furan TEQ.

Nine of the 13 samples collected in May 2025 were below the CUL. These samples were generally located on the east side of North 3rd Avenue, along portions of Division Street, and on a portion east of North Main Avenue.

Four of the May 2025 sample locations exceeded the CUL. These samples are located on the south side of Division Street between North 3rd and North 4th Avenue, on the east side of Main Avenue, and on the west side of North 3rd Avenue between Pioneer and Mill Street. Archived depth samples at these locations were analyzed; one location showed no exceedance at depth, while three required additional sampling. Deeper follow-up samples were collected at these locations in July 2025.

The sample results show that contamination is bounded vertically at all locations. Sample results and proposed remediation depths are provided in Table 2.

Findings and Conclusions

Soil samples were collected from the Phase 2 cleanup area to define the depth of remediation required in the ROWs. The results of this investigation identified the following:

- The surface soil sample collected from the ROW on the east side of North 3rd Avenue between Division Street and Maple Street (i.e., location ROW-P3-002) did not detect dioxin/furan TEQ above the CUL and has been removed from the Phase 2 cleanup area.
- Remaining isolated ROW segments require remediation between 1 and 2.5 feet bgs (see Table 2).

Attachments

References

Ecology. 2018. Electronic mail (re: Phase 3 initiation - NNW area yard and ROW characterization) to P. Wiescher and L. Olin, from C. Rankine, Washington State Department of Ecology. November 19.

Ecology. 2020. Electronic mail (re: POR Off-Property Portion Work Phase) to P. Wiescher, L. Olin, M. Abbett, and A. Smith, from C. Rankine, Washington State Department of Ecology. May 7.

MFA. 2025a. *Site-Specific Sampling and Analysis Plan, Off-Property Portion, Former Pacific Wood Treating Co. Site*. Maul Foster & Alongi, Inc.: Vancouver, WA. April 14.

MFA. 2025b. Electronic mail (re: PWT – ROW follow up sample results and quick project update) to C. Penner-Ash, Washington State Department of Ecology, from M. Pollock, Maul Foster & Alongi, Inc. July 7.

Limitations

The services undertaken in completing this technical memorandum were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This technical memorandum is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this technical memorandum apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this technical memorandum.

Figure

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Path: X:\9003.01 Port of Ridgefield\063\Pro\M9003_01_063.aprx\Fig ROW Sample Results

Gee Creek

Hall St
Hall Cir
N Heron Dr
Elm St
N Railroad Ave
N 1st Ave
N Main Ave
N 3rd Ave
N 4th Pl
N 4th Ave
N 6th Ave
Maple St
Division St
Ash St
Mill St
Simons St
Pioneer St
BNSF Railway

SS-36 2.8
ROW-078NW 21.2
69234000
ROW-078N 47.9
ROW-078NE 14.0
SS-58 1.6
SS-59 1.0
ROW-002N 24.5
ROW-001 30.5
ROW-004 1.12
ROW-008 10.7
ROW RRW 22.4
SS-57 23
ROW-010W 20.4
ROW-010E 23.6
ROW-P3-001 1.0-2.0: 7.94
ROW-P3-002 0-0.5: 5.42
ROW-P2-001 23.4
ROW-005 46.9
SS-47 57
ROW-011 33.9
ROW-012 10.0
ROW-P3-003 1.0-2.0: 1.60
ROW-P2-002 22.5
ROW-P2-007 9.97
ROW-P2-009 26.9
ROW-P3-005 1.0-2.0: 8.49
ROW-P2-020 14.3
ROW-013 266
ROW-014 352
ROW-019 23.4
SS-56 1.7
ROW-P2-003 51
ROW-P3-004 1.0-2.0: 27.8 1.5-2.0: 5.75
ROW-P2-008 69.3
ROW-P2-021 31.8
ROW-P2-022 2.98
SS-48 27
ROW-016 24.7
ROW-P3-006 1.0-2.0: 2.28
ROW-P2-004 15.9
ROW-P3-008 1.0-2.0: 11.9
ROW-022W 58.9
ROW-022E 46.8
SS-43 48
ROW-P3-007 1.0-2.0: 62.2 1.5-2.0: 62.1 2.0-2.5: 3.04 2.5-3.0: 1.20
ROW-018 17.9
ROW-022 19.5
ROW-023 40.3
ROW-030 15.4
ROW-P2-011A 183
ROW-P2-010 3.53
SS-44 23
SS-49 20
ROW-P2-005 46.1
ROW-033W 51
ROW-025 47.1
ROW-026 14.7
ROW-036 16.0
ROW-P3-009 1.0-2.0: 7.82
ROW-P2-011B 101
SS-45 6.6
ROW-029B 34.9
SS-54 0.64
ROW-P2-006 18.2
ROW-P2-012 9.85
ROW-P2-013 3.59
ROW-038S 3.78
ROW-029BS 36.1
ROW-P2-015 9.84
ROW-P2-014 7.52
ROW-P3-010 1.0-2.0: 109 2.0-2.5: 32.1 2.5-3.0: 3.47 3.0-3.5: 3.86
ROW-P2-017 73.2
ROW-P3-011 1.0-2.0: 9.30
ROW-P2-016 277
ROW-P2-018 8.3
ROW-P2-019 11.5
ROW-P2-034 29.5
ROW-P3-012 1.0-2.0: 27.3 1.5-2.0: 32.3 2.0-2.5: 9.42 2.5-3.0: 12.7
ROW-P3-013 1.0-2.0: 4.08
ROW-P2-033 101

501

Notes

For subsurface soil samples, bolded results are above the MTCA B CUL for ROW Dioxin TEQ (> 13 ng/kg), and unbolded results are below the CUL.
For sample locations where duplicates were collected, the higher result of the two samples is shown.
All results dioxin TEQ ng/kg.
CUL = cleanup level.
MTCA B = Model Toxics Control Act Method B.
ng/kg = nanograms per kilogram.
ROW = right-of-way.
TEQ = toxicity equivalent.

Data Source
Aerial photograph obtained from the U.S. Department of Agriculture; parcels obtained from Clark County (2024).

Legend

2025 Sample Location ROW Dioxin TEQ Results (Depth: Result)
- Subsurface Soil
- Surface Soil, Below MTCA B CUL (< 13 ng/kg)

Previous Sample Location ROW Dioxin TEQ Results
- Surface Soil, Below MTCA B CUL (< 13 ng/kg)
- Surface Soil, Above MTCA B CUL (> 13 ng/kg)

- Phase 2 ROW Cleanup Area
- Phase 2 Cleanup Properties
- Phase 1 Off Property Portion
- Phase 2 Off Property Portion
- Phase 3 Off Property Portion
- Parcel (Cleanup ID)

Figure
ROW Sample Results

Former Pacific Wood Treating Site
Ridgefield, WA

0 100 200
Feet

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Print Date: 8/31/2025
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Produced By: jelstrott
Project: M9003.01.063

Tables

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Table 1
ROW Soil Results
Former PWT Site
Ridgefield, Washington

Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	**Dioxin TEQ[(a)(1)(2)] (ng/kg)**	1,2,3,4,6,7,8-HpCDD (ng/kg)	1,2,3,4,6,7,8-HpCDF (ng/kg)	1,2,3,4,7,8,9-HpCDF (ng/kg)	1,2,3,4,7,8-HxCDD (ng/kg)	1,2,3,4,7,8-HxCDF (ng/kg)	1,2,3,6,7,8-HxCDD (ng/kg)	1,2,3,6,7,8-HxCDF (ng/kg)
ROW001	SS-ROW001-0.5	05/04/2016	0-0.5	Discrete	Phase 1 OPP	**30.5**	694	80.7	5.37 J	11.7	12.1	45.7	8.18 J
ROW004	SS-ROW004-0.5	05/07/2015	0-0.5	Discrete	Phase 1 OPP	1.12	21.2	6.66	0.303 J	0.391 J	0.517 J	1.09 J	0.378 J
ROW005	SS-ROW005-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	**46.9**	1,400	194	12.3	16.5	31.6	65.3	14.9
ROW005	SBS-ROW005-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	**38.1**	1,230	175	11.4	13.6	24	59.1	11
ROW005	SBS-ROW005-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	9.93	279	49.9	3.21	3.89	6.06	14.2	3.09
ROW008	SBS-ROW008-0.5	05/07/2015	0-0.5	Discrete	Phase 1 OPP	10.7	344	57.4	3.06 J	3.8 J	4.74 J	14.3	3.12 J
ROW010W	SS-ROW010W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	**20.4**	533	114	6.24 J	6.91 J	19.1	28	8 J
ROW010W	SBS-ROW010W-1.5	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	1.09	27.5	5.45	0.393 J	0.351 J	0.784 J	1.19	0.419 J
ROW011	SS-ROW011-0.5	03/22/2016	0-0.5	Discrete	Phase 1 OPP	**33.9**	1,090	132	9.29	10.3	25.2	48.9	11.2
ROW011	SBS-ROW011-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	**14.8**	370	46.3	4.38 J	3.93 J	11.3	16.3	7.16
ROW012	SS-ROW012-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	10.0	345	44.1	2.5	3.34	4.29	16.3	2.9
ROW013	SS-ROW013-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	**266**	8,550	1,120	71.6	70.7	280	378	109
ROW013	SBS-ROW013-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	**241**	7,280	1,080	68.2	50.5	331	367	107
ROW013	SBS-ROW013-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	7.99	248	40.3	2.41	2.42	8.01	12	3.06
ROW014	SS-ROW014-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	**352**	11,100	1,700	99.9	88.6	403	569	161
ROW014	SS-ROW014-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	**70.4**	2,400	358	19.1	17.7	80.7	98.9	32.1
ROW014	SBS-ROW014-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	8.63	271	42.4	2.35	2.5	9.42	12.3	3.61
ROW016	SS-ROW016-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	**24.7**	665	105	5.25	8.74	17.3	34.2	8.35
ROW016	SBS-ROW016-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	**28.9**	861	115	8.26	11	24.6	50.5	11.3
ROW016	SBS-ROW016-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	3.8	113	14.9	0.89 J	1.39	2.63	5.02	1.45
ROW018	SS-ROW018-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	**17.9**	521	84.3	5.87	7.71	7.33	22.8	4.41
ROW018	SBS-ROW018-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	10.0	298	50.5	3.27	3.61	4.23	15.9	2.22 U
ROW019	SS-ROW019-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	**23.4**	673	93.5	5.15	7.15	19.6	31.9	7.93
ROW019	SBS-ROW019-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	**15.6**	437	69.1	4.74	4.82	16.2	24.1	6.27
ROW019	SBS-ROW019-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	**40.7**	1,220	197	10.5	12.8	40.9	54.8	16
ROW019	SBS-ROW019-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	7.94	229	40.2	2.14	2.18	9.1	11.3	3.39
ROW022	SS-ROW022-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	**19.5**	572	84.6	4.88	7.19	11.3	26.2	5.68
ROW022	SBS-ROW022-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	**23.1**	600	107	7.29	8.06	15.7	36.5	7.71
ROW022	SBS-ROW022-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	6.77	174	28.4	1.83	2.31	4.1	8.1	2.75
ROW022W	SS-ROW022W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	**58.9**	1,750	342	20.1	21.4	47.7	84.4	23.3
ROW022W	SBS-ROW022W-1.5	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	4.98	154	27.6	1.83	1.44	3.41	6.35	1.85
ROW023	SS-ROW023-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	**40.3**	1,240	284	21.4	17	20.2	53.6	9.45
ROW023	SBS-ROW023-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	**38.7**	1,080	240	19.5	14	21.8	60.6	10.2
ROW023	SBS-ROW023-1.5	09/01/2015	1.0-1.5	Discrete	Phase 1 OPP	9.14	263	101	6.57	2.97	6.21	11.9	2.62
ROW023	SBS-ROW023-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	2.39	71.4	21.3	1.71	0.741 J	1.3	2.6	0.626 J
ROW025	SS-ROW025-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	**47.1**	1,430	186	12.1	22.3	17.5	63.6	10.9
ROW025	SBS-ROW025-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	**14.2**	395	60.8	4.26	5.44	6.64	22.4	4.16
ROW025	SBS-ROW025-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	9.10	207	34.9	2.37	3.77	4.73	12.2	2.38
ROW026	SS-ROW026-0.5	05/21/2015	0-0.5	Discrete	Phase 1 OPP	**14.7**	424	72.2	3.8	5.27	8.48	18.8	3.95
ROW026	SBS-ROW026-1.0	05/21/2015	0.5-1.0	Discrete	Phase 1 OPP	**23.6**	653	131	6.46	7.46	16.1	36.2	7.05

Table 1
ROW Soil Results
Former PWT Site
Ridgefield, Washington

Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	**Dioxin TEQ[a][1][2] (ng/kg)**	1,2,3,4,6,7,8-HpCDD (ng/kg)	1,2,3,4,6,7,8-HpCDF (ng/kg)	1,2,3,4,7,8,9-HpCDF (ng/kg)	1,2,3,4,7,8-HxCDD (ng/kg)	1,2,3,4,7,8-HxCDF (ng/kg)	1,2,3,6,7,8-HxCDD (ng/kg)	1,2,3,6,7,8-HxCDF (ng/kg)
ROW026	SBS-ROW026-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	**17.8**	460	83.5	4.72	5.75	15.2	24.9	6.62
ROW026	SBS-ROW026-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	8.81	232	44.1	2.47	2.68	8.03	11.9	3.44
ROW029B	SS-ROW029B-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	**34.9**	990	152	9.96	16.2	17.4	45.4	8.97
ROW029B	SBS-ROW029B-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	**19.6**	523	84.4	6.76	8.12	11.8	28.9	5.98 U
ROW029B	SBS-ROW029B-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	10.0	300	51.4	3.36	3.5	5.56	12.1	2.79
ROW030	SS-ROW030-0.5	04/30/2015	0-0.5	Discrete	Phase 1 OPP	**15.4**	430	70.2	3.52	6.25	8.45	21.4	4.38
ROW030	SS-ROW030-1.0	04/30/2015	0.5-1.0	Discrete	Phase 1 OPP	7.42	199	23.9	1.53	3.05	3.63	9.45	1.84
ROW033W	SS-ROW033W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	**51.0**	999	248	15.1	14.7	36.5	58.3	32
ROW033W	SBS-ROW033W	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	**26.6**	463	107	8.1	6.1	22.4	25.5	22.3
ROW036	SS-ROW036-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	**16.0**	363	61.6	5.37	6.07	5.95	14.1	3.26
ROW036	SS-ROW036-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	0.746	13	2.78	0.214 J	0.266 J	0.447 J	0.539 J	0.261 J
ROWRRW	SS-ROWRRW-0.5	03/22/2016	0-0.5	Discrete	Phase 1 OPP	**22.4**	687	87.3	6.06	8.33	11.8	33.2	6.08
ROWRRW	SBS-ROWRRW-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	3.17	89.3	11.6	1.36 J	1.49 J	2.09 J	4.33 J	1.04 J
ROW-002N	ROW-002N-0.5	08/11/2016	0-0.5	Discrete	Phase 2 OPP	**24.5**	477	72.1	5.05	7.7	12.1	35.2	11.6
ROW010E	SS-ROW010E-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	**23.6**	561	101	6.69	6.84	19.9	29.8	10.7
ROW022E	SS-ROW022E-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	**41.8**	1,250	224	13.6	14.9	39.5	67.5	17
ROW022E	SS-ROW022E-0.5	11/02/2015	0-0.5	Discrete Dup	Phase 2 OPP	**46.8**	1,600	218	14.3	14.3	41.1	72.6	19.6
ROW029BS	SS-ROW029BS-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	**36.1**	990	197	14.5	13.3	26.3	50.3	9.76 J
ROW029BS	SBS-ROW029BS-1.5	11/02/2015	1.0-1.5	Discrete	Phase 2 OPP	2.15	55.6	8.46	0.797 J	0.608 J	1.31	2.37	0.54 J
ROW038S	SS-ROW038S-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	3.78	107	19.1	1 J	1.52 J	1.8 J	4.9 J	0.84 J
ROW-P2-001	ROW-P2-001-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	**23.4**	669 J	108	6.68	6.55	25.4	32.7	9.76
ROW-P2-002	ROW-P2-002-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	**22.5**	472	64.9	5.65	4.76 J	16.8	22.8	7.61
ROW-P2-002	ROW-P2-002-0.5-DUP	04/15/2016	0-0.5	Discrete Dup	Phase 2 OPP	**21.9**	451	63.4	5.51	4.52 J	16.5	23	7.68
ROW-P2-003	ROW-P2-003-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	**51.0**	1,580	213	12.1	13.2	50.4	76.6	20.3
ROW-P2-004	ROW-P2-004-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	**15.9**	568	58.3	3.07 J	3.7 J	7.27	29	3.32 J
ROW-P2-005	ROW-P2-005-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	**46.1**	1,440	197	10.6	12.2	40.4	75	16.4
ROW-P2-006	ROW-P2-006-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	**18.2**	499	86.3	5.29	5.25	17.9	23.6	6.21
ROW-P2-007	ROW-P2-007-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	9.97	335	54.4	3.79	2.81	5.99	13.4	2.26
ROW-P2-008	ROW-P2-008-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	**69.3**	2,200	557	42.9	22.7	45.2	83.3	17.8
ROW-P2-009	ROW-P2-009-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	**26.9**	69.3	39	8.15	2.26	42.6	12	20.3
ROW-P2-010	ROW-P2-010-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	3.53	118	15.3	0.945 J	0.842 J	2.45	5.05	1.04
ROW-P2-011A	ROW-P2-011A-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	**183**	5,290	813	58.9	45.2	228	305	83.8
ROW-P2-011B	ROW-P2-011B-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	**101**	2,880	426	30.1	27	119	150	48
ROW-P2-012	ROW-P2-012-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	9.85	287	34.7	2.05	3.19	7	13.2	2.81
ROW-P2-013	ROW-P2-013-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	3.59	116	13.5	0.862 J	1.28	2.03	5.15	0.821 J
ROW-P2-014	ROW-P2-014-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	7.52	234	29.1	1.86	2.36	5.25	10.3	2.01
ROW-P2-015	ROW-P2-015-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	9.84	308	43.3	2.58	3.38	5.78	15.4	2.28
ROW-P2-016	ROW-P2-016-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	**277**	2,440	1,800	71.4	93	393	606	130
ROW-P2-017	ROW-P2-017-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	**73.2**	2,440	302	17.8	18.5	82.2	105	29.2
ROW-P2-018	ROW-P2-018-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	8.26	209	39.5	2.52	2.22	5.01	10.4	2.38

Table 1
ROW Soil Results
Former PWT Site
Ridgefield, Washington

Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	**Dioxin TEQ[a][1][2] (ng/kg)**	1,2,3,4,6,7,8-HpCDD (ng/kg)	1,2,3,4,6,7,8-HpCDF (ng/kg)	1,2,3,4,7,8,9-HpCDF (ng/kg)	1,2,3,4,7,8-HxCDD (ng/kg)	1,2,3,4,7,8-HxCDF (ng/kg)	1,2,3,6,7,8-HxCDD (ng/kg)	1,2,3,6,7,8-HxCDF (ng/kg)
ROW-P2-019	ROW-P2-019-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	11.5	349	77.2	4.21	3.72	7.39	15.6	3.14
ROW-P2-020	ROW-P2-020-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	**14.3**	454	110	7.07	2.5	8.59	21	3.45
ROW-P2-021	ROW-P2-021-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	**30.8**	857	175	11.6	7.64	34	43.2	12.8
ROW-P2-022	ROW-P2-022-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	2.98	88.6	11.8	0.864 J	0.483 J	1.27	2.64	0.775 J
ROW-P2-033	ROW-P2-033-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	**101**	2,810 J	514	31.1	20	126	150	51.2
ROW-P2-034	ROW-P2-034-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	**29.5**	804	131	7.22	7.67	26.3	42.4	12.3
ROW078N	ROW-078N	11/22/2017	0-0.5	Discrete	Phase 3 OPP	**47.9**	985	150	10.3	19	22.7	60.2	12.4
ROW078NE	ROW-078NE	11/22/2017	0-0.5	Discrete	Phase 3 OPP	**14.0**	271	43.3	3.28 J	4.76 J	10.9	16.6	3.78 J
ROW078NW	ROW-078NW	11/22/2017	0-0.5	Discrete	Phase 3 OPP	**21.2**	445	58.3	3.35 J	7.98	7.41	29.8	4.18 J
ROW-P3-001	ROW-P3-001-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	7.94	77.7	13.6	1.15 J	1.11 J	3.26	4.63	3.18
ROW-P3-002	ROW-P3-002-0-0.5	05/01/2025	0-0.5	Discrete	Phase 3 OPP	5.42	154	23.1	1.73 J	1.96 J	2.03 J	6.49	1.34 J
ROW-P3-003	ROW-P3-003-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	1.60	33.9	6.22	0.425 J	0.405 J	1.10 J	2.12 J	0.680 J
ROW-P3-004	ROW-P3-004-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	**27.8**	781	125	7.75	7.52	27.1 J	38.7	12.3
ROW-P3-004	ROW-P3-004-1.5-2.0	05/01/2025	1.5-2.0	Discrete	Phase 3 OPP	5.75	169 J-	26.4 J-	2.39 J-	1.63 J	6.07 J	7.54 J	2.68 J
ROW-P3-005	ROW-P3-005-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	8.49	76.6	19.9	1.77 J	1.42 J	5.12 J	5.59	6.60
ROW-P3-006	ROW-P3-006-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	2.28	84.0	25.8	2.38 J	0.677 J	1.02 J	2.10 U	0.343 J
ROW-P3-007	ROW-P3-007-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	**62.2**	1,590	258	17.7	18.2	28.9 J	76.4	19.1
ROW-P3-007	ROW-P3-007-1.5-2.0	05/01/2025	1.5-2.0	Discrete	Phase 3 OPP	**62.1**	1,750 J	295 J	21.4 J	20.0 J	29.1 J	73.5 J	20.2 J
ROW-P3-007	ROW-P3-007-2.0-2.5	07/09/2025	2.0-2.5	Discrete	Phase 3 OPP	3.04	76.1	14.3	0.849 U	0.922 J	1.08 J	2.81	0.784 J
ROW-P3-007	ROW-P3-007-2.5-3.0	07/09/2025	2.5-3.0	Discrete	Phase 3 OPP	1.20	41.4	5.50	0.358 J	0.466 J	0.721 J	2.11 J	0.192 U
ROW-P3-008	ROW-P3-008-1.0-2.0	05/07/2025	1.0-2.0	Discrete	Phase 3 OPP	11.9	423	69.6	5.45 U	5.32	5.70	13.9	2.98
ROW-P3-009	ROW-P3-009-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	7.82	241	33.8	1.80 J	2.27 J	6.84	12.0	2.89
ROW-P3-010	ROW-P3-010-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	**109**	3,500	518	21.8	30.2	93.5	167	37.3
ROW-P3-010	ROW-P3-010-1.0-2.0-DUP	05/01/2025	1.0-2.0	Discrete Dup	Phase 3 OPP	**96.6**	2,840	445	18.7	23.4	81.8	137	32.1
ROW-P3-010	ROW-P3-010-2.0-2.5	05/01/2025	2.0-2.5	Discrete	Phase 3 OPP	**32.1**	948 J-	148 J-	7.45 J	7.25 UJ	23.9 J	40.7 J	10.8 J
ROW-P3-010	ROW-P3-010-2.5-3.0	07/09/2025	2.5-3.0	Discrete	Phase 3 OPP	3.47	90.6	12.5	0.669 J	0.747 J	2.60	4.11	1.10 J
ROW-P3-010	ROW-P3-010-3.0-3.5	07/09/2025	3.0-3.5	Discrete	Phase 3 OPP	3.86	114	16.2	0.827 J	1.11 J	2.67	4.77	1.13 U
ROW-P3-011	ROW-P3-011-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	9.30	289	41.7	2.54	2.70	8.25	14.4	3.97
ROW-P3-012	ROW-P3-012-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	**27.3**	390	66.2	4.23	4.36	14.3 J	21.8	11.4
ROW-P3-012	ROW-P3-012-1.5-2.0	05/01/2025	1.5-2.0	Discrete	Phase 3 OPP	**32.3**	608 J	105 J	7.52 J	7.50 J	20.6 J	32.1 J	16.8 J
ROW-P3-012	ROW-P3-012-2.0-2.5	07/09/2025	2.0-2.5	Discrete	Phase 3 OPP	9.42	249	35.0	2.13 J	2.30 J	6.04	11.4	3.23
ROW-P3-012	ROW-P3-012-2.5-3.0	07/09/2025	2.5-3.0	Discrete	Phase 3 OPP	12.7	311	43.6	2.63	3.18	8.01	15.1	4.83
ROW-P3-013	ROW-P3-013-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	4.08	116	16.1	1.02 J	1.14 J	3.37	6.28	1.72 J

Table 1
ROW Soil Results
Former PWT Site
Ridgefield, Washington

Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	1,2,3,7,8,9-HxCDD (ng/kg)	1,2,3,7,8,9-HxCDF (ng/kg)	1,2,3,7,8-PeCDD (ng/kg)	1,2,3,7,8-PeCDF (ng/kg)	2,3,4,6,7,8-HxCDF (ng/kg)	2,3,4,7,8-PeCDF (ng/kg)	2,3,7,8-TCDD (ng/kg)
ROW001	SS-ROW001-0.5	05/04/2016	0-0.5	Discrete	Phase 1 OPP	33.2	0.315 U	7.29 J	2.07 J	8.95 J	4.93 J	0.604 J
ROW004	SS-ROW004-0.5	05/07/2015	0-0.5	Discrete	Phase 1 OPP	0.876 J	0.143 U	0.259 J	0.1 U	0.301 J	0.148 J	0.111 J
ROW005	SS-ROW005-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	45.4	0.712 J	7.09	4.43	8.7	6.08	0.664
ROW005	SBS-ROW005-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	35.8	0.667 J	5.05	2.68	7.9	4.1	0.503 U
ROW005	SBS-ROW005-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	9.58	0.183 J	1.56	1.06	2.03	1.35	0.155 J
ROW008	SBS-ROW008-0.5	05/07/2015	0-0.5	Discrete	Phase 1 OPP	9.15	0.184 UJ	1.65 J	0.763 J	2.16 J	1.01 J	0.283 J
ROW010W	SS-ROW010W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	17.2	0.314 J	2.53 J	1.81 J	6.04 J	3.54 J	0.392 J
ROW010W	SBS-ROW010W-1.5	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	0.847 J	0.106 J	0.163 J	0.185 J	0.448 J	0.209 J	0.0968 U
ROW011	SS-ROW011-0.5	03/22/2016	0-0.5	Discrete	Phase 1 OPP	28.1	0.658 J	2.95 J	4.14 J	8.91	7.25	0.473 J
ROW011	SBS-ROW011-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	9.34	1.42 J	1.71 J	2.57 J	7.12	4.84 J	0.828 J
ROW012	SS-ROW012-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	8.66	0.157 J	1.25	0.609 J	2.13	0.862 J	0.189 U
ROW013	SS-ROW013-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	188	4.57	23.4	36.3	60.3	58.6	1.49
ROW013	SBS-ROW013-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	142	5.01	16.3	37.4	66.7	63	2 U
ROW013	SBS-ROW013-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	6.92	0.159 J	0.671 J	1.08	2.12	1.15	0.109 U
ROW014	SS-ROW014-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	208	6.69	25.1	47.7	88.3	69.7	1.36
ROW014	SS-ROW014-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	42.4	1.3	4.54	8.48	17.8	12.7	0.217 U
ROW014	SBS-ROW014-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	6.41	0.174 J	0.707 J	1.33	2.13	1.58	0.109 U
ROW016	SS-ROW016-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	23.6	0.353 J	4.05	2.78	5.23	4.09	0.435
ROW016	SBS-ROW016-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	28.1	0.419 J	4.9 U	3.58	6.65	4.92	0.426 J
ROW016	SBS-ROW016-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	4.1	0.102 U	0.452 J	0.344 J	1.47	0.642 J	0.101 U
ROW018	SS-ROW018-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	20.4	0.216 J	3.29	1.31	2.71	1.54	0.396
ROW018	SBS-ROW018-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	11.3	0.103 U	1.62	0.776 J	1.61	0.918 J	0.249 J
ROW019	SS-ROW019-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	20.1	0.473 J	3.23	2.77	4.55	4.11	0.803
ROW019	SBS-ROW019-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	13.2	0.24 J	1.66	1.62	3.78	2.55	0.333 J
ROW019	SBS-ROW019-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	31.3	0.526 J	4.13	4.95	10.2	6.79	0.796
ROW019	SBS-ROW019-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	5.91	0.194 J	0.749 J	1.02	1.92	1.54	0.1 U
ROW022	SS-ROW022-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	20.1	0.278 J	2.98	1.79	3.71	2.76	0.43
ROW022	SBS-ROW022-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	24.3	0.311 J	3.54	2.34	5.08	3.57	0.352 J
ROW022	SBS-ROW022-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	6.42	0.119 J	1.11	0.648 J	2.68	1.4	0.193 U
ROW022W	SS-ROW022W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	44.6	0.755 J	5.6 J	5.24 J	15.3	8.53 J	1.32 J
ROW022W	SBS-ROW022W-1.5	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	3.51	0.105 U	0.505 J	0.471 J	1.44	0.975 J	0.161 J
ROW023	SS-ROW023-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	42.5	0.439 J	6.08	2.34	6.75	3.09	0.484
ROW023	SBS-ROW023-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	37.5	0.41 J	6.75	2.81	6.76	3.74	0.466 J
ROW023	SBS-ROW023-1.5	09/01/2015	1.0-1.5	Discrete	Phase 1 OPP	8.04	0.136 J	1.02	0.617 J	1.95	0.95 J	0.106 U
ROW023	SBS-ROW023-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	2.36	0.106 U	0.315 J	0.149 J	0.543 J	0.264 J	0.106 U
ROW025	SS-ROW025-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	55.6	0.456 J	8.46	2.99	6.85	3.59	0.715
ROW025	SBS-ROW025-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	15.5	0.19 J	2.62	1.11	2.81	1.4	0.188 U
ROW025	SBS-ROW025-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	9.28	0.458 J	2.08	1.21	1.98	1.2	0.253
ROW026	SS-ROW026-0.5	05/21/2015	0-0.5	Discrete	Phase 1 OPP	13.1	0.22 J	2.59	1.42	2.1	1.88	0.494 J
ROW026	SBS-ROW026-1.0	05/21/2015	0.5-1.0	Discrete	Phase 1 OPP	23.3	0.284 J	3.5	2.43	4.12	3.09	0.566

Table 1
ROW Soil Results
Former PWT Site
Ridgefield, Washington

Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	1,2,3,7,8,9-HxCDD (ng/kg)	1,2,3,7,8,9-HxCDF (ng/kg)	1,2,3,7,8-PeCDD (ng/kg)	1,2,3,7,8-PeCDF (ng/kg)	2,3,4,6,7,8-HxCDF (ng/kg)	2,3,4,7,8-PeCDF (ng/kg)	2,3,7,8-TCDD (ng/kg)
ROW026	SBS-ROW026-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	15.6	0.229 J	2.69	2.31	3.88	3.19	0.451
ROW026	SBS-ROW026-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	7.87	0.218 J	1.11	1.18	1.93	1.68	0.213
ROW029B	SS-ROW029B-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	43.2	0.366 J	6.05	2.39	6.46	3.45	0.573
ROW029B	SBS-ROW029B-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	21.7	0.268 J	3.69	1.66	3.46	2.45	0.342 J
ROW029B	SBS-ROW029B-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	9.61	0.132 J	1.57	0.786 J	2.28	1.15	0.206
ROW030	SS-ROW030-0.5	04/30/2015	0-0.5	Discrete	Phase 1 OPP	20.9	0.151 J	2.78	1.24	2.71	1.47	0.296
ROW030	SS-ROW030-1.0	04/30/2015	0.5-1.0	Discrete	Phase 1 OPP	7.98	0.275 J	1.67	0.703 J	1.19	0.934 J	0.158 J
ROW033W	SS-ROW033W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	36.3	0.586 J	8.08 J	5.13 J	34.7	16.2	1.15 J
ROW033W	SBS-ROW033W	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	13.5	0.278 J	3.81	3.17	25.7	12	0.604
ROW036	SS-ROW036-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	15.5	0.22 U	3.88	0.84 J	2.46	3.96	0.913
ROW036	SS-ROW036-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	0.555 J	0.0983 UJ	0.183 J	0.146 U	0.27 J	0.205 J	0.114 U
ROWRRW	SS-ROWRRW-0.5	03/22/2016	0-0.5	Discrete	Phase 1 OPP	21.5	0.447 J	3.04 J	2.34 J	4.62 J	3.3 J	0.41 J
ROWRRW	SBS-ROWRRW-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	3.18 J	0.386 UJ	0.658 UJ	0.642 UJ	0.95 J	0.818 UJ	0.275 U
ROW-002N	ROW-002N-0.5	08/11/2016	0-0.5	Discrete	Phase 2 OPP	23.1	0.284 U	4.99	2.1 J	10.6	6.75	0.572 J
ROW010E	SS-ROW010E-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	16.3	0.512 J	3.17	3.08	8.94	5.85	1.66
ROW022E	SS-ROW022E-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	34.9	0.56 J	4.13	4.69	11.2	7.66	0.432
ROW022E	SS-ROW022E-0.5	11/02/2015	0-0.5	Discrete Dup	Phase 2 OPP	35.1	0.717 J	4.62	5.02	12.7	8.08	0.449
ROW029BS	SS-ROW029BS-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	33.8	0.409 J	4.78 J	2.6 J	7.11 J	3.81 J	1.31 J
ROW029BS	SBS-ROW029BS-1.5	11/02/2015	1.0-1.5	Discrete	Phase 2 OPP	1.69	0.124 J	0.271 J	0.261 J	0.371 J	0.276 J	0.304
ROW038S	SS-ROW038S-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	4.65 J	0.221 U	0.638 J	0.21 U	0.672 J	0.261 U	0.186 U
ROW-P2-001	ROW-P2-001-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	15.6	0.526 J	2.32 J	3.64 J	5.27	5.91	0.128 U
ROW-P2-002	ROW-P2-002-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	12.5	0.613 J	4.56 J	2.82 J	7.34	7.97	1.36
ROW-P2-002	ROW-P2-002-0.5-DUP	04/15/2016	0-0.5	Discrete Dup	Phase 2 OPP	12.1	0.553 J	4.44 J	2.74 J	7.37	7.65	1.33
ROW-P2-003	ROW-P2-003-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	35.5	0.958 J	4.59 J	6.72	10.9	11	0.614 J
ROW-P2-004	ROW-P2-004-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	9.64	0.368 J	1.5 J	1.83 J	2.43 J	1.92 J	0.235 J
ROW-P2-005	ROW-P2-005-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	32.8	1.01 J	4.38 J	6.35	10.6	9.81	0.306 U
ROW-P2-006	ROW-P2-006-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	14.4	0.334 J	2.36 J	1.97 J	3.91 J	4.05 J	0.339 J
ROW-P2-007	ROW-P2-007-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	8.05	0.129 J	0.99 J	0.686 J	1.95	1.31	0.311 U
ROW-P2-008	ROW-P2-008-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	50.1	0.533 J	8.03	4.23	14.8	7.24	0.712
ROW-P2-009	ROW-P2-009-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	7.82	0.27 J	7.75	2.5	26.1	18.2	0.855
ROW-P2-010	ROW-P2-010-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	2.89	0.136 J	0.391 J	0.424 J	0.721 J	0.5 J	0.105 U
ROW-P2-011A	ROW-P2-011A-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	122	3.68	12	29	47.9	47.8	0.614
ROW-P2-011B	ROW-P2-011B-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	65.1	1.94	8.77	14.6	26	25.9	0.815
ROW-P2-012	ROW-P2-012-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	8.36	0.183 J	1.48	1.06	2.01	1.55	0.421
ROW-P2-013	ROW-P2-013-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	3.52	0.14 U	0.506 J	0.33 U	0.654 J	0.405 J	0.11 U
ROW-P2-014	ROW-P2-014-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	6.1	0.248 J	1.04	0.871 J	1.69	1.23	0.177 J
ROW-P2-015	ROW-P2-015-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	8.88	0.126 J	1.44	0.83 J	1.77	1.2	0.156 U
ROW-P2-016	ROW-P2-016-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	223	13.2	32.2	135	74.4	107	2.12
ROW-P2-017	ROW-P2-017-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	46.6	0.959 J	5.51	9.67	17.6	15.7	0.38
ROW-P2-018	ROW-P2-018-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	6.32	1.27	1.41	0.783 J	1.75	1.35	0.405

Table 1
ROW Soil Results
Former PWT Site
Ridgefield, Washington

Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	1,2,3,7,8,9-HxCDD (ng/kg)	1,2,3,7,8,9-HxCDF (ng/kg)	1,2,3,7,8-PeCDD (ng/kg)	1,2,3,7,8-PeCDF (ng/kg)	2,3,4,6,7,8-HxCDF (ng/kg)	2,3,4,7,8-PeCDF (ng/kg)	2,3,7,8-TCDD (ng/kg)
ROW-P2-019	ROW-P2-019-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	9.63	0.12 J	1.54	0.914 J	2.49	1.42	0.206
ROW-P2-020	ROW-P2-020-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	7.44	0.124 U	1.26	1.17	2.49	1.89	0.771
ROW-P2-021	ROW-P2-021-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	20.3	0.43 J	3.46	3.43	5.49	6.46	0.539
ROW-P2-022	ROW-P2-022-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	1.89	0.126 U	0.355 J	0.132 U	0.49 U	0.439 J	0.461
ROW-P2-033	ROW-P2-033-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	53.8	1.71	7.4	13.9	28.5	30.3	0.616
ROW-P2-034	ROW-P2-034-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	22.5	0.413 J	3.76	2.92	7.18	6.82	0.596
ROW078N	ROW-078N	11/22/2017	0-0.5	Discrete	Phase 3 OPP	37.8	6.18	9.97	3.45 J	18.3	18.2	0.922 J
ROW078NE	ROW-078NE	11/22/2017	0-0.5	Discrete	Phase 3 OPP	8.46	2.25 J	2.98 J	1.52 J	4.82 J	5.18	0.369 UJ
ROW078NW	ROW-078NW	11/22/2017	0-0.5	Discrete	Phase 3 OPP	16.6	2.21 J	4.75 J	1.66 J	5.68	3.81 J	1.87
ROW-P3-001	ROW-P3-001-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	2.25 J	0.817 J	1.09 J	0.737 J	2.87	11.8	0.594 U
ROW-P3-002	ROW-P3-002-0-0.5	05/01/2025	0-0.5	Discrete	Phase 3 OPP	3.88	0.224 U	1.17 J	0.409 U	0.667 J	0.774 J	0.198 U
ROW-P3-003	ROW-P3-003-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	0.849 J	0.150 J	0.299 J	0.257 J	0.609 J	1.20 U	0.0566 U
ROW-P3-004	ROW-P3-004-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	15.4	2.59	2.74	3.94	8.84	8.24	0.267 U
ROW-P3-004	ROW-P3-004-1.5-2.0	05/01/2025	1.5-2.0	Discrete	Phase 3 OPP	3.55 J	0.360 UJ	0.658 UJ	0.844 J	3.13 J	1.51 J	0.112 UJ
ROW-P3-005	ROW-P3-005-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	2.89	0.917 U	1.58 J	1.22 J	7.64	8.13	0.333 U
ROW-P3-006	ROW-P3-006-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	1.27 J	0.047 U	0.282 J	0.073 U	0.356 U	0.119 U	0.0705 U
ROW-P3-007	ROW-P3-007-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	37.1	2.60	8.39	4.19	15.0	34.6	0.629 U
ROW-P3-007	ROW-P3-007-1.5-2.0	05/01/2025	1.5-2.0	Discrete	Phase 3 OPP	43.2 J	5.28 J	9.92 J	4.84 J	19.1 J	17.3 J	0.503 UJ
ROW-P3-007	ROW-P3-007-2.0-2.5	07/09/2025	2.0-2.5	Discrete	Phase 3 OPP	2.45	0.267 J	0.563 J	0.253 J	0.916 J	1.03 J	0.187 U
ROW-P3-007	ROW-P3-007-2.5-3.0	07/09/2025	2.5-3.0	Discrete	Phase 3 OPP	0.900 J	0.111 U	0.120 U	0.211 U	0.370 J	0.360 U	0.0889 U
ROW-P3-008	ROW-P3-008-1.0-2.0	05/07/2025	1.0-2.0	Discrete	Phase 3 OPP	9.06	0.808 U	1.41 U	0.622 U	1.67 J	2.02 J	0.184 U
ROW-P3-009	ROW-P3-009-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	4.41	0.707 J	0.680 U	1.42 J	2.89	2.60	0.277 U
ROW-P3-010	ROW-P3-010-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	60.0	10.6	10.9	20.4	21.9	15.0 J	1.08
ROW-P3-010	ROW-P3-010-1.0-2.0-DUP	05/01/2025	1.0-2.0	Discrete Dup	Phase 3 OPP	46.4	9.69	9.27	17.9	17.2	34.2 J	0.948
ROW-P3-010	ROW-P3-010-2.0-2.5	05/01/2025	2.0-2.5	Discrete	Phase 3 OPP	14.9 J	4.60 UJ	3.80 J	6.01 J	8.76 J	12.1 J	0.286 UJ
ROW-P3-010	ROW-P3-010-2.5-3.0	07/09/2025	2.5-3.0	Discrete	Phase 3 OPP	1.65 J	0.354 J	0.564 J	0.648 J	0.721 U	1.61 J	0.0778 U
ROW-P3-010	ROW-P3-010-3.0-3.5	07/09/2025	3.0-3.5	Discrete	Phase 3 OPP	2.14 J	0.471 J	0.595 J	0.787 J	0.961 U	1.14 J	0.168 U
ROW-P3-011	ROW-P3-011-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	5.54	0.420 J	1.01 J	1.41 J	1.89 J	1.71 J	0.0791 U
ROW-P3-012	ROW-P3-012-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	8.36	3.65	2.63	2.75	10.4	38.2	0.234 U
ROW-P3-012	ROW-P3-012-1.5-2.0	05/01/2025	1.5-2.0	Discrete	Phase 3 OPP	15.8 J	4.19 J	4.45 J	4.34 J	18.1 J	24.3 J	0.403 UJ
ROW-P3-012	ROW-P3-012-2.0-2.5	07/09/2025	2.0-2.5	Discrete	Phase 3 OPP	5.26	0.601 J	1.34 J	1.24 J	2.39 J	4.74	0.0932 U
ROW-P3-012	ROW-P3-012-2.5-3.0	07/09/2025	2.5-3.0	Discrete	Phase 3 OPP	6.75	1.88 J	1.76 J	0.149 J	3.99	7.10	0.290 U
ROW-P3-013	ROW-P3-013-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	2.31 J	0.496 J	0.348 J	0.591 J	1.18 J	1.50 J	0.0591 U

Table 1
ROW Soil Results
Former PWT Site
Ridgefield, Washington

Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	2,3,7,8-TCDF (ng/kg)	OCDD (ng/kg)	OCDF (ng/kg)	Total HpCDDs (ng/kg)	Total HpCDFs (ng/kg)	Total HxCDDs (ng/kg)	Total HxCDFs (ng/kg)
ROW001	SS-ROW001-0.5	05/04/2016	0-0.5	Discrete	Phase 1 OPP	3.24 U	3,660	135	1,170	243	244	271
ROW004	SS-ROW004-0.5	05/07/2015	0-0.5	Discrete	Phase 1 OPP	0.38 U	122	8.05 J	36.9	14.3	6.79	9.45
ROW005	SS-ROW005-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	1.84	8,630	257	2,380	519	330	382
ROW005	SBS-ROW005-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	1.6 U	6,600	210	2,100	474	294	308
ROW005	SBS-ROW005-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	0.48 J	1,590	82.1	517	138	79.7	95.4
ROW008	SBS-ROW008-0.5	05/07/2015	0-0.5	Discrete	Phase 1 OPP	0.32 U	1,980	117	577	159	80.2	94.4
ROW010W	SS-ROW010W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	1.18 J	3,740	204	906	309	152	227
ROW010W	SBS-ROW010W-1.5	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	0.15 J	157	11.1	46.3	14.2	6.26	10.7
ROW011	SS-ROW011-0.5	03/22/2016	0-0.5	Discrete	Phase 1 OPP	2.69	7,300	219	1,960	375	235	352
ROW011	SBS-ROW011-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	1.11	2,410	60	598	114	74.7	218
ROW012	SS-ROW012-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	0.569 UJ	2,160	72.6	601	116	74.9	85.6
ROW013	SS-ROW013-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	9.5 U	50,400	1,080	14,900	3,070	1,640	2,940
ROW013	SBS-ROW013-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	11.5	38,300	531	11,800	2,870	1,330	2,180
ROW013	SBS-ROW013-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	0.38 J	1,520	49.6	449	107	59.2	96.5
ROW014	SS-ROW014-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	11.2	66,200	1,440	18,900	4,370	2,190	4,700
ROW014	SS-ROW014-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	1.97	15,300	262	4,080	897	418	915
ROW014	SBS-ROW014-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	0.24 U	1,730	39.2	482	110	57	111
ROW016	SS-ROW016-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	1.56	3,860	133	1,200	270	190	213
ROW016	SBS-ROW016-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	0.11 U	4,460	112	1,540	320	246	306
ROW016	SBS-ROW016-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	0.17 J	578	16.8	204	36.2	28.3	42.7
ROW018	SS-ROW018-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	0.87 J	2,910	199	916	251	146	115
ROW018	SBS-ROW018-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	1.1 U	1,650	104	526	168	85.2	61.8
ROW019	SS-ROW019-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	1.21	3,540	87.4	1,080	229	144	192
ROW019	SBS-ROW019-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	0.64 J	2,400	46.3	735	178	103	163
ROW019	SBS-ROW019-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	1.31	8,410	160	2,190	493	277	488
ROW019	SBS-ROW019-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	0.28 J	1,660	28.4	391	96.9	50.5	95
ROW022	SS-ROW022-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	1.18	3,220	193	987	237	142	156
ROW022	SBS-ROW022-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	2.05	3,000	173	1,040	320	179	196
ROW022	SBS-ROW022-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	0.67 J	1,170	61.6	329	77	55.1	87.4
ROW022W	SS-ROW022W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	1.66 J	13,300	920	2,900	1,010	418	617
ROW022W	SBS-ROW022W-1.5	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	0.21 U	1,130	73.3	265	78.6	31.5	52.4
ROW023	SS-ROW023-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	1.11	6,530	783	1,970	946	277	285
ROW023	SBS-ROW023-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	1.7 U	5,150	469	1,740	852	278	331
ROW023	SBS-ROW023-1.5	09/01/2015	1.0-1.5	Discrete	Phase 1 OPP	0.18 U	1,880	346	411	365	57.4	113
ROW023	SBS-ROW023-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	0.15 U	462	81.8	115	76.9	15.2	23.8
ROW025	SS-ROW025-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	1.73	8,360	385	2,390	512	373	285
ROW025	SBS-ROW025-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	0.787 J	1,930	87.7	666	174	118	97.4
ROW025	SBS-ROW025-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	0.59 J	1,250	58.6	384	95.2	64.9	59.4
ROW026	SS-ROW026-0.5	05/21/2015	0-0.5	Discrete	Phase 1 OPP	0.937 J	2,470	77.8	749	175	106	103
ROW026	SBS-ROW026-1.0	05/21/2015	0.5-1.0	Discrete	Phase 1 OPP	1.52	3,190	102	1,100	309	181	201

Table 1
ROW Soil Results
Former PWT Site
Ridgefield, Washington

Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	2,3,7,8-TCDF (ng/kg)	OCDD (ng/kg)	OCDF (ng/kg)	Total HpCDDs (ng/kg)	Total HpCDFs (ng/kg)	Total HxCDDs (ng/kg)	Total HxCDFs (ng/kg)
ROW026	SBS-ROW026-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	1.16	2,640	89.4	845	223	131	179
ROW026	SBS-ROW026-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	0.62 J	1,610	43.7	389	107	60.7	82.5
ROW029B	SS-ROW029B-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	1.34	5,360	311	1,810	424	303	209
ROW029B	SBS-ROW029B-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	1.32	2,540	127	995	250	174	145
ROW029B	SBS-ROW029B-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	0.61 J	2,010	144	579	161	80.9	92.8
ROW030	SS-ROW030-0.5	04/30/2015	0-0.5	Discrete	Phase 1 OPP	0.495	976	85.7	702	182	122	96.8
ROW030	SS-ROW030-1.0	04/30/2015	0.5-1.0	Discrete	Phase 1 OPP	0.34 U	924	32.4	322	60.1	50.9	42
ROW033W	SS-ROW033W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	3.27	7,780	637	1,720	763	335	1,040
ROW033W	SBS-ROW033W	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	1.82	2,880	202	849	304	154	780
ROW036	SS-ROW036-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	2.11 U	2,520	223	630	212	109	87.2
ROW036	SS-ROW036-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	0.24 U	99.2	7.13	24.1	7.55	4.13	5.3
ROWRRW	SS-ROWRRW-0.5	03/22/2016	0-0.5	Discrete	Phase 1 OPP	1.9 U	4,530	143	1,240	242	167	195
ROWRRW	SBS-ROWRRW-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	0.449 J	553	22.3	149	32.3	22.1	26.4
ROW-002N	ROW-002N-0.5	08/11/2016	0-0.5	Discrete	Phase 2 OPP	4.21	2,710	78	802	191	169	330
ROW010E	SS-ROW010E-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	1.42	2,580	134	974	290	150	294
ROW022E	SS-ROW022E-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	1.42	3,690	324	2,060	624	310	459
ROW022E	SS-ROW022E-0.5	11/02/2015	0-0.5	Discrete Dup	Phase 2 OPP	1.35	3,210	325	2,760	597	319	483
ROW029BS	SS-ROW029BS-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	1.82 J	7,820	467	1,610	580	242	281
ROW029BS	SBS-ROW029BS-1.5	11/02/2015	1.0-1.5	Discrete	Phase 2 OPP	0.19 J	365	20.9	94.8	24.6	11.9	12.5
ROW038S	SS-ROW038S-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	0.302 J	803	45.1	190	51.7	30.1	23.7
ROW-P2-001	ROW-P2-001-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.829 J	5,280	99.8	1,150	295	137	283
ROW-P2-002	ROW-P2-002-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	3.63	3,400	109	822	195	137	221
ROW-P2-002	ROW-P2-002-0.5-DUP	04/15/2016	0-0.5	Discrete Dup	Phase 2 OPP	3.15	3,450	126	776	194	133	215
ROW-P2-003	ROW-P2-003-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	2.74	10,500	197	2,660	564	334	507
ROW-P2-004	ROW-P2-004-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.7 J	5,400	88.6	962	177	101	131
ROW-P2-005	ROW-P2-005-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	2.56	9,270	157	2,350	510	303	464
ROW-P2-006	ROW-P2-006-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.834 J	3,460	137	829	233	125	181
ROW-P2-007	ROW-P2-007-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.72 J	2,860	316	588	210	68	83.1
ROW-P2-008	ROW-P2-008-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	2.11	19,700	2,440	3,680	2,550	385	876
ROW-P2-009	ROW-P2-009-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	3.54	467	23.2	133	93	118	535
ROW-P2-010	ROW-P2-010-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.3 U	810	19.5	174	37.2	33.4	33.1
ROW-P2-011A	ROW-P2-011A-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	9.01	29,400	714	8,920	2,180	1,110	1,560
ROW-P2-011B	ROW-P2-011B-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	6.23	16,500	370	4,920	1,130	579	839
ROW-P2-012	ROW-P2-012-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.5 J	1,570	55.2	498	89.1	73.4	73.1
ROW-P2-013	ROW-P2-013-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.25 J	720	32.4	184	26.4	27.9	22.9
ROW-P2-014	ROW-P2-014-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.54 J	1,310	51.8	413	79.6	53.7	54.4
ROW-P2-015	ROW-P2-015-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	0.537 J	1,860 J	93.2	531	120	79.1	73.5
ROW-P2-016	ROW-P2-016-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	56.7	14,100	1,570	4,280	5,620	2,260	5,990
ROW-P2-017	ROW-P2-017-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	3.98	14,100	283	4,280	756	451	785
ROW-P2-018	ROW-P2-018-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	1.84	1,210	71.8	350	114	50.9	40

Table 1
ROW Soil Results
Former PWT Site
Ridgefield, Washington

Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	2,3,7,8-TCDF (ng/kg)	OCDD (ng/kg)	OCDF (ng/kg)	Total HpCDDs (ng/kg)	Total HpCDFs (ng/kg)	Total HxCDDs (ng/kg)	Total HxCDFs (ng/kg)
ROW-P2-019	ROW-P2-019-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	0.97 J	2,190	258	597	257	82.7	103
ROW-P2-020	ROW-P2-020-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	1.25	3,710	528 J	947	404	85.7	165
ROW-P2-021	ROW-P2-021-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	1.63	5,520	373	1,430	589	175	352
ROW-P2-022	ROW-P2-022-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	0.35 U	844	33.5	160	37.4	16.5	23
ROW-P2-033	ROW-P2-033-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	9.56	19,300 J	433	4,640	1,400	609	1,610
ROW-P2-034	ROW-P2-034-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	2.52	4,820	124	1,380	330	186	326
ROW078N	ROW-078N	11/22/2017	0-0.5	Discrete	Phase 3 OPP	2.41	6,720 J	315	1,720	428	368	338 J
ROW078NE	ROW-078NE	11/22/2017	0-0.5	Discrete	Phase 3 OPP	1.65	2,280	69.1	487	123	91 J	106 J
ROW078NW	ROW-078NW	11/22/2017	0-0.5	Discrete	Phase 3 OPP	1.17	2,800	67	797	152	174	128 J
ROW-P3-001	ROW-P3-001-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	0.925	532	15.8	135	37.2	30.2	118
ROW-P3-002	ROW-P3-002-0-0.5	05/01/2025	0-0.5	Discrete	Phase 3 OPP	0.303 J	1,440	56.9	299	71.5	46.6	36.9 J
ROW-P3-003	ROW-P3-003-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	0.179 U	272	8.89	60.6	17.8	10.1	19.4
ROW-P3-004	ROW-P3-004-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	1.49	5,900	133	1,340	346	165	389
ROW-P3-004	ROW-P3-004-1.5-2.0	05/01/2025	1.5-2.0	Discrete	Phase 3 OPP	0.440 J	1,250 J-	24.1 J-	311 J	78.8 J	38.1 J	81.5 J
ROW-P3-005	ROW-P3-005-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	1.35	571	34.9	139	60.8 J	40.5	264 J
ROW-P3-006	ROW-P3-006-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	0.0623 U	1,080	134	134	126	11.8 J	26.9 J
ROW-P3-007	ROW-P3-007-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	1.92	14,100	768	2,660	812	369	673 J
ROW-P3-007	ROW-P3-007-1.5-2.0	05/01/2025	1.5-2.0	Discrete	Phase 3 OPP	1.86 J	14,900 J	836 J	3,080 J	988 J	418 J	746 J
ROW-P3-007	ROW-P3-007-2.0-2.5	07/09/2025	2.0-2.5	Discrete	Phase 3 OPP	0.119 U	704	58.7	127	43.6 J	18.4 J	25.3 J
ROW-P3-007	ROW-P3-007-2.5-3.0	07/09/2025	2.5-3.0	Discrete	Phase 3 OPP	0.0965 U	285	9.15	71.1	14.2	9.8 J	12.2 J
ROW-P3-008	ROW-P3-008-1.0-2.0	05/07/2025	1.0-2.0	Discrete	Phase 3 OPP	0.336 U	4,960	310	697	229 J	71.6 J	109 J
ROW-P3-009	ROW-P3-009-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	0.505	1,660	26.7	407	84.8	51.7	90.2 J
ROW-P3-010	ROW-P3-010-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	5.71	28,100	380	5,480	1,380	666 J	1,390
ROW-P3-010	ROW-P3-010-1.0-2.0-DUP	05/01/2025	1.0-2.0	Discrete Dup	Phase 3 OPP	4.74 U	24,900	323	4,770	1,190	556	1,220
ROW-P3-010	ROW-P3-010-2.0-2.5	05/01/2025	2.0-2.5	Discrete	Phase 3 OPP	1.67 J	8,680 J-	111 J-	1,710 J	437 J	185 J	403 J
ROW-P3-010	ROW-P3-010-2.5-3.0	07/09/2025	2.5-3.0	Discrete	Phase 3 OPP	0.294 J	664	11.3	150	34.4	19.9	43.2 J
ROW-P3-010	ROW-P3-010-3.0-3.5	07/09/2025	3.0-3.5	Discrete	Phase 3 OPP	0.283 U	882	13.5	190	42.4	22.5	46.0 J
ROW-P3-011	ROW-P3-011-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	0.545	1,930	29.4	492	104	63	117 J
ROW-P3-012	ROW-P3-012-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	1.54	2,760	66.5	669	173 J	113	390 J
ROW-P3-012	ROW-P3-012-1.5-2.0	05/01/2025	1.5-2.0	Discrete	Phase 3 OPP	2.37 J	3,990 J	111 J	1,090 J	307 J	184 J	581 J
ROW-P3-012	ROW-P3-012-2.0-2.5	07/09/2025	2.0-2.5	Discrete	Phase 3 OPP	0.431 J	1,800	33.9	431	88.3	57.4	102
ROW-P3-012	ROW-P3-012-2.5-3.0	07/09/2025	2.5-3.0	Discrete	Phase 3 OPP	0.482 J	2,140	39.4	542	109	76.9	135 J
ROW-P3-013	ROW-P3-013-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	0.208 U	812	13.6	197	40.3	26	47.6 J

Table 1
ROW Soil Results
Former PWT Site
Ridgefield, Washington

Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	Total PeCDDs (ng/kg)	Total PeCDFs (ng/kg)	Total TCDDs (ng/kg)	Total TCDFs (ng/kg)	Total Organic Carbon (mg/kg)
ROW001	SS-ROW001-0.5	05/04/2016	0-0.5	Discrete	Phase 1 OPP	36 J	96.8 J	3.61	11.9 J	16,000
ROW004	SS-ROW004-0.5	05/07/2015	0-0.5	Discrete	Phase 1 OPP	0.636 J	3.07 J	0.263 J	0.792 J	4,000
ROW005	SS-ROW005-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	31.6	56.7	4.92	13	15,000
ROW005	SBS-ROW005-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	24.2	55.4	0.583 U	6.54	17,000
ROW005	SBS-ROW005-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	8.03	19.1	0.639	6.56	9,900
ROW008	SBS-ROW008-0.5	05/07/2015	0-0.5	Discrete	Phase 1 OPP	9.11	29.8	1.52	6.64	16,000
ROW010W	SS-ROW010W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	15.5	114	4.97	30	21,000
ROW010W	SBS-ROW010W-1.5	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	0.505 J	7.29	0.245	2.3	8,400
ROW011	SS-ROW011-0.5	03/22/2016	0-0.5	Discrete	Phase 1 OPP	15.1	199	5.62	43.5	18,000
ROW011	SBS-ROW011-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	5.57	182	1.86	30.3	9,600
ROW012	SS-ROW012-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	4.94	24.7	1.16	6.44	15,000
ROW013	SS-ROW013-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	112	462	13.4	57.4	20,000
ROW013	SBS-ROW013-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	48	423	2 U	15.3	15,000
ROW013	SBS-ROW013-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	2.29	13.6	0.109 U	2.04	6,800
ROW014	SS-ROW014-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	104	1,100	8.54	64.8	19,000
ROW014	SS-ROW014-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	20	241	1.64	18.7	11,000
ROW014	SBS-ROW014-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	2.43	13.6	0.109 U	1.2	8,400
ROW016	SS-ROW016-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	21.8	43.9	1.87	5.38	20,000
ROW016	SBS-ROW016-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	25	134	5.22	20.6	18,000
ROW016	SBS-ROW016-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	2.25	12.3	0.101 U	2.22	3,800
ROW018	SS-ROW018-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	18.5	18.7	2.49	6.25	19,000
ROW018	SBS-ROW018-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	8.45	22.3	2.71	9.88	18,000
ROW019	SS-ROW019-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	12.4	30.8	1.28	2.41	14,000
ROW019	SBS-ROW019-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	6.57	48.2	0.892 J	4.26	10,000
ROW019	SBS-ROW019-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	17.3	70.3	2.98	13.4	9,100
ROW019	SBS-ROW019-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	2.52	15.5	0.14 J	2.63	4,000
ROW022	SS-ROW022-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	15.4	29.8	3.04	12.3	21,000
ROW022	SBS-ROW022-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	18.9	95.9	3.38	27.1	16,000
ROW022	SBS-ROW022-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	7.03	32.1	1.94	12.9	14,000
ROW022W	SS-ROW022W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	35.6	288	9.47	62.9	16,000
ROW022W	SBS-ROW022W-1.5	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	2.7	31.8	1.07	8.05	12,000
ROW023	SS-ROW023-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	26.1	23.7	2.76	5.01	24,000
ROW023	SBS-ROW023-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	30.9	66.1	4.08	15	16,000
ROW023	SBS-ROW023-1.5	09/01/2015	1.0-1.5	Discrete	Phase 1 OPP	4.41	12.3	1.41	3.72	10,000
ROW023	SBS-ROW023-2.0	09/01/2015	1.5-2.0	Discrete	Phase 1 OPP	1.26	2.94	0.215	0.779	11,000
ROW025	SS-ROW025-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	41.7	47.8	6.55	17.9	21,000
ROW025	SBS-ROW025-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	12.5	41	2.19	12	13,000
ROW025	SBS-ROW025-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	8.27	10.1	1.16	3.99	9,200
ROW026	SS-ROW026-0.5	05/21/2015	0-0.5	Discrete	Phase 1 OPP	15.4	20.4	4.57	8.44	20,000
ROW026	SBS-ROW026-1.0	05/21/2015	0.5-1.0	Discrete	Phase 1 OPP	19.4	37	5.07	12.8	12,000

Table 1
ROW Soil Results
Former PWT Site
Ridgefield, Washington

Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	Total PeCDDs (ng/kg)	Total PeCDFs (ng/kg)	Total TCDDs (ng/kg)	Total TCDFs (ng/kg)	Total Organic Carbon (mg/kg)
ROW026	SBS-ROW026-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	17.5	29.2	3.85	12.6	9,600
ROW026	SBS-ROW026-2.0	08/26/2015	1.5-2.0	Discrete	Phase 1 OPP	6.98	16.5	1.83	5.34	7,900
ROW029B	SS-ROW029B-0.5	06/08/2015	0-0.5	Discrete	Phase 1 OPP	31.5	37.7	4.35	10.9	16,000
ROW029B	SBS-ROW029B-1.0	06/08/2015	0.5-1.0	Discrete	Phase 1 OPP	15.3	60.6	3.73	14.9	16,000
ROW029B	SBS-ROW029B-1.5	08/26/2015	1.0-1.5	Discrete	Phase 1 OPP	9.66	19.2	1.02	4.84	13,000
ROW030	SS-ROW030-0.5	04/30/2015	0-0.5	Discrete	Phase 1 OPP	13.8	15	2.4	4.79	15,000
ROW030	SS-ROW030-1.0	04/30/2015	0.5-1.0	Discrete	Phase 1 OPP	6.13	11.6	1.04	2.29	9,400
ROW033W	SS-ROW033W-0.5	11/02/2015	0-0.5	Discrete	Phase 1 OPP	59.3	1,270	18.5	373	22,000
ROW033W	SBS-ROW033W	11/02/2015	1.0-1.5	Discrete	Phase 1 OPP	38.4	1,010	12.7	277	14,000
ROW036	SS-ROW036-0.5	04/23/2015	0-0.5	Discrete	Phase 1 OPP	22.2	39.7	3.9	60.3	12,000
ROW036	SS-ROW036-1.0	04/23/2015	0.5-1.0	Discrete	Phase 1 OPP	0.796 J	3.47	0.944	3.68	11,000
ROWRRW	SS-ROWRRW-0.5	03/22/2016	0-0.5	Discrete	Phase 1 OPP	13.2	91.2	2.24	20.7	14,000
ROWRRW	SBS-ROWRRW-1.5	03/22/2016	1.0-1.5	Discrete	Phase 1 OPP	1.51 J	12.7	0.158 J	2.63	9,000
ROW-002N	ROW-002N-0.5	08/11/2016	0-0.5	Discrete	Phase 2 OPP	29.3	368	7.91	95.3	29,000
ROW010E	SS-ROW010E-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	20.3	248	7.33	66.8	19,000
ROW022E	SS-ROW022E-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	21.9	220	5.28	38.1	14,000
ROW022E	SS-ROW022E-0.5	11/02/2015	0-0.5	Discrete Dup	Phase 2 OPP	18.1	199	5.41	28.7	15,000
ROW029BS	SS-ROW029BS-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	21.5	84.1	6.54	18.2	15,000
ROW029BS	SBS-ROW029BS-1.5	11/02/2015	1.0-1.5	Discrete	Phase 2 OPP	0.753 J	4.86	0.663	1.46	9,200
ROW038S	SS-ROW038S-0.5	11/02/2015	0-0.5	Discrete	Phase 2 OPP	1.76 J	5.69 J	0.253 J	1.07 J	17,000
ROW-P2-001	ROW-P2-001-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	7.29	92.1	0.439 J	6.03	4,500
ROW-P2-002	ROW-P2-002-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	37.6	130	11.4	63.8	16,000
ROW-P2-002	ROW-P2-002-0.5-DUP	04/15/2016	0-0.5	Discrete Dup	Phase 2 OPP	37.1	111	10.2	54.4	19,000
ROW-P2-003	ROW-P2-003-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	23.4	132	6.11	32.8	16,000
ROW-P2-004	ROW-P2-004-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	5.29	33.6	0.992 J	4	8,400
ROW-P2-005	ROW-P2-005-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	17.1	102	1.46	13.7	15,000
ROW-P2-006	ROW-P2-006-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	12.7	78.2	2.72	15.5	21,000
ROW-P2-007	ROW-P2-007-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	5.79	17	0.896	6.69	22,000
ROW-P2-008	ROW-P2-008-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	32	110	2.77	28	26,000
ROW-P2-009	ROW-P2-009-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	56.8	368	10.1	133	16,000
ROW-P2-010	ROW-P2-010-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	2.7	5.84	0.162 J	1.76	9,200
ROW-P2-011A	ROW-P2-011A-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	40.1	234	3.59	26.9	21,000
ROW-P2-011B	ROW-P2-011B-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	30.8	139	4.93	25.1	15,000
ROW-P2-012	ROW-P2-012-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	8.26	17.8	0.964	4.84	13,000
ROW-P2-013	ROW-P2-013-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	2.12	4.06	0.34	1.08	12,000
ROW-P2-014	ROW-P2-014-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	4.85	11.6	0.522	2.94	17,000
ROW-P2-015	ROW-P2-015-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	7.83	14.6	0.973	4.96	20,000
ROW-P2-016	ROW-P2-016-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	107	988	6.04	110	19,000
ROW-P2-017	ROW-P2-017-0.5	04/15/2016	0-0.5	Discrete	Phase 2 OPP	24.5	141	2.62	25.9	16,000
ROW-P2-018	ROW-P2-018-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	7.31	8.17	1.99	8.62	19,000

Table 1
ROW Soil Results
Former PWT Site
Ridgefield, Washington

Location	Sample Name	Collection Date	Collection Depth (ft bgs)	Sample Type	Area	Total PeCDDs (ng/kg)	Total PeCDFs (ng/kg)	Total TCDDs (ng/kg)	Total TCDFs (ng/kg)	Total Organic Carbon (mg/kg)
ROW-P2-019	ROW-P2-019-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	9.54	17.3	1.45	8.13	28,000
ROW-P2-020	ROW-P2-020-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	9.29	48.4	11.7 J	15.1	35,000
ROW-P2-021	ROW-P2-021-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	16.6	123	5.19	19.5	35,000
ROW-P2-022	ROW-P2-022-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	1.25	18.1	0.461	4.88	16,000
ROW-P2-033	ROW-P2-033-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	46.4	888	14.2	163	23,000
ROW-P2-034	ROW-P2-034-0.5	04/20/2016	0-0.5	Discrete	Phase 2 OPP	21.9	214	6.7	54.3	25,000
ROW078N	ROW-078N	11/22/2017	0-0.5	Discrete	Phase 3 OPP	64.6	248 J	14 J	60.5	29,000
ROW078NE	ROW-078NE	11/22/2017	0-0.5	Discrete	Phase 3 OPP	18.7 J	55.3 J	7.91 U	26.9 J	29,000
ROW078NW	ROW-078NW	11/22/2017	0-0.5	Discrete	Phase 3 OPP	34 J	48.9 J	13.5 J	16.8	30,000
ROW-P3-001	ROW-P3-001-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	9.68 J	180	4.88 U	71.3	--
ROW-P3-002	ROW-P3-002-0-0.5	05/01/2025	0-0.5	Discrete	Phase 3 OPP	8.38 J	14.9 J	2.49 U	6.14 J	--
ROW-P3-003	ROW-P3-003-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	1.33 J	19.1 J	0.195 J	4.31 U	--
ROW-P3-004	ROW-P3-004-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	16.3 J	213	3.62 U	45.3 J	--
ROW-P3-004	ROW-P3-004-1.5-2.0	05/01/2025	1.5-2.0	Discrete	Phase 3 OPP	3.74 UJ	47.1 J	0.13 UJ	7.58 J	--
ROW-P3-005	ROW-P3-005-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	15.9 J	459 J	5.15 U	149 J	--
ROW-P3-006	ROW-P3-006-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	0.797 J	3.44 U	0.175 U	0.547 UJ	--
ROW-P3-007	ROW-P3-007-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	47 J	521 J	11.2 U	117	--
ROW-P3-007	ROW-P3-007-1.5-2.0	05/01/2025	1.5-2.0	Discrete	Phase 3 OPP	56.2 J	615 J	10.4 UJ	108 J	--
ROW-P3-007	ROW-P3-007-2.0-2.5	07/09/2025	2.0-2.5	Discrete	Phase 3 OPP	3.86 J	14.2	0.187 U	2.95 U	--
ROW-P3-007	ROW-P3-007-2.5-3.0	07/09/2025	2.5-3.0	Discrete	Phase 3 OPP	0.12 U	5.28 U	0.0889 U	0.878 U	--
ROW-P3-008	ROW-P3-008-1.0-2.0	05/07/2025	1.0-2.0	Discrete	Phase 3 OPP	4.95 J	30.5 J	0.184 U	2.78 U	--
ROW-P3-009	ROW-P3-009-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	3.99 U	34.6 J	1.15 U	7.07 J	--
ROW-P3-010	ROW-P3-010-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	47.7 J	449	7.53 J	51.4 J	--
ROW-P3-010	ROW-P3-010-1.0-2.0-DUP	05/01/2025	1.0-2.0	Discrete Dup	Phase 3 OPP	43.9	404 J	5.88 J	43 U	--
ROW-P3-010	ROW-P3-010-2.0-2.5	05/01/2025	2.0-2.5	Discrete	Phase 3 OPP	16.9 J	129 J	2.92 UJ	15.8 J	--
ROW-P3-010	ROW-P3-010-2.5-3.0	07/09/2025	2.5-3.0	Discrete	Phase 3 OPP	3.09 J	18.3 J	0.347 J	4.45 J	--
ROW-P3-010	ROW-P3-010-3.0-3.5	07/09/2025	3.0-3.5	Discrete	Phase 3 OPP	2.43 J	13.5 J	0.168 J	1.96 U	--
ROW-P3-011	ROW-P3-011-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	4.32 J	44.1	0.468 UJ	6.68 J	--
ROW-P3-012	ROW-P3-012-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	20.2 J	462 J	4.02 U	104 J	--
ROW-P3-012	ROW-P3-012-1.5-2.0	05/01/2025	1.5-2.0	Discrete	Phase 3 OPP	37.7 J	710 J	8.66 UJ	137 J	--
ROW-P3-012	ROW-P3-012-2.0-2.5	07/09/2025	2.0-2.5	Discrete	Phase 3 OPP	7.63 J	50.7 J	1.08 UJ	10.2 J	--
ROW-P3-012	ROW-P3-012-2.5-3.0	07/09/2025	2.5-3.0	Discrete	Phase 3 OPP	10.7 J	66.6 J	2.46 U	13.4 J	--
ROW-P3-013	ROW-P3-013-1.0-2.0	05/01/2025	1.0-2.0	Discrete	Phase 3 OPP	1.85 J	23.5 J	0.0591 U	3.55 U	--

Table 1
ROW Soil Results
Former PWT Site
Ridgefield, Washington

Notes

Bold indicates values that exceed the MTCA Method B soil cleanup level of 13.0 ng/kg.

-- = not analyzed.

Dup = duplicate sample.

ft bgs = feet below ground surface.

J = result is estimated.

J- = result is estimated, but the result may be biased low.

mg/kg = milligrams per kilogram.

ng/kg = nanograms per kilogram.

OPP = off-property portion.

PWT = Pacific Wood Treating Co.

ROW = right-of-way.

TEQ = toxicity equivalent.

U = result is non-detect.

UJ = result is non-detect with an estimated detection limit.

[a]Dioxin/furan TEQ calculated as the sum of each congener concentration multiplied by the corresponding mammalian TEF value. Detected results qualified as estimated are included in the calculation. Non-detect values are multiplied by one-half.

References

[1]Ecology. 2025. *Cleanup Levels and Risk Calculation (CLARC) table*. Washington State Department of Ecology, Toxics Cleanup Program. February.

[2]Ecology. 2007. Evaluating the Toxicity and Assessing the Carcinogenic Risk of Environmental Mixtures Using Toxicity Equivalency Factors. Supporting Material for CLARC. Washington State Department of Ecology.

Table 2
Phase 2 ROW Cleanup Summary
Former PWT Site
Ridgefield, Washington

ROW	Sample Name	Sample Depth (ft bgs)	Dioxin/Furan TEQ (ng/kg)	Remediation Depth (ft bgs)	ROW Description
P3-001	ROW-010E	0-0.5	**23.6**	1.0	East side of N Main Avenue adjacent to properties 044 and 045.
	ROW-P3-001-1.0-2.0	1.0-2.0	7.94		
P3-002	ROW-P3-002-0-0.5	0-0.5	5.42	1.0	East side of N 3rd Avenue adjacent to property 049.
P3-003	ROW-P2-001	0-0.5	**23.4**	1.0	West side of N 3rd Avenue adjacent to property 048.
	ROW-P3-003-1.0-2.0	1.0-2.0	1.60		
P3-004	ROW-P2-008	0-0.5	**69.3**	1.5	South side of Division Street adjacent to property 063.
	ROW-P3-004-1.0-2.0	1.0-2.0	**27.8**		
	ROW-P3-004-1.5-2.0	1.5-2.0	5.75		
P3-005	ROW-P2-009	0-0.5	**26.9**	1.0	North side of Division Street adjacent to properties 054 and 055.
	ROW-P2-020	0-0.5	**14.3**		
	ROW-P3-005-1.0-2.0	1.0-2.0	8.49		
P3-006	ROW-P2-021	0-0.5	**31.8**	1.0	South side of Division Street and east side of N 4th Avenue adjacent to property 064.
	ROW-P3-006-1.0-2.0	1.0-2.0	2.28		
P3-007	ROW-022E	0-0.5	**46.8**	2.0	East side of N Main Avenue adjacent to properties 058 and 060.
	ROW-P3-007-1.0-2.0	1.0-2.0	**62.2**		
	ROW-P3-007-1.5-2.0	1.5-2.0	**62.1**		
	ROW-P3-007-2.0-2.5	2.0-2.5	3.04		
	ROW-P3-007-2.5-3.0	2.5-3.0	1.20		
P3-008	ROW-P3-008-1.0-2.0	1.0-2.0	11.9	1.0	East side of N 3rd Avenue adjacent to properties 063 and 065.
P3-009	ROW-P2-011B	0-0.5	**101**	1.0	East side of N 3rd Avenue adjacent to properties 068, 071, and 073.
	ROW-P3-009-1.0-2.0	1.0-2.0	7.35		
P3-010	ROW-P2-016	0-0.5	**277**	2.5	West side of N 3rd Avenue between Division and Maple Street.
	ROW-P3-010-1.0-2.0	1.0-2.0	**109**		
	ROW-P3-010-1.0-2.0-DUP	1.0-2.0	**96.6**		
	ROW-P3-010-2.0-2.5	2.0-2.5	**32.1**		
	ROW-P3-010-2.5-3.0	2.5-3.0	3.47		
	ROW-P3-010-3.0-3.5	3.0-3.5	3.86		
P3-011	ROW-P2-017	0-0.5	**73.2**	1.0	East side of N 3rd Avenue adjacent to properties 076 and 077.
	ROW-P3-011-1.0-2.0	1.0-2.0	9.30		
P3-012	ROW-P2-033	0-0.5	**101**	2.0	South side of Simons Street and west side of N 3rd Avenue adjacent to City skate park.
	ROW-P2-017	0-0.5	**73.2**		
	ROW-P3-012-1.0-2.0	1.0-2.0	**27.3**		
	ROW-P3-012-1.5-2.0	1.5-2.0	**32.3**		
	ROW-P3-012-2.0-2.5	2.0-2.5	9.42		
	ROW-P3-012-2.5-3.0	2.5-3.0	12.7		
P3-013	ROW-P2-034	0-0.5	**29.5**	1.0	East side of N 3rd Avenue south of Simons Street.
	ROW-P3-013-1.0-2.0	1.0-2.0	4.08		

NOTES:

Bold values exceed the Model Toxics Control Act Method B CUL of 13 nanograms per kilogram

bgs = below ground surface.

ft = feet.

PWT = Pacific Wood Treating Co.

ROW = right of way.

TEQ = toxicity equivalent

Attachment A

Analytical Laboratory Reports

MAUL
FOSTER
ALONGI

May 20, 2025

Enthalpy Analytical - El Dorado Hills
Work Order No. 2505154

Mr. Philip Nerenberg
Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223

Dear Mr. Nerenberg,

Enclosed are the results for the sample set received at Enthalpy Analytical - EDH on May 09, 2025 under your Project Name 'A5E1070'.

Enthalpy Analytical - EDH is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at kathy.zipp@enthalpy.com.

Thank you for choosing Enthalpy Analytical - EDH as part of your analytical support team.

Sincerely,

Kathy Zipp
Project Manager

Enthalpy Analytical - EDH Work Order No. 2505154
Case Narrative

Sample Condition on Receipt:

One soil sample was received and stored securely in accordance with Enthalpy Analytical - EDH standard operating procedures and EPA methodology. The sample was received in good condition and within the method temperature requirements.

Analytical Notes:

EPA Method 8290A

The sample was extracted and analyzed for tetra-through-octa chlorinated dioxins and furans by EPA Method 8290A using a ZB-DIOXIN GC column.

Holding Times

The method holding time criteria was met for this sample.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected above the sample quantitation limits in the Method Blank. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

TABLE OF CONTENTS

Sample Inventory Report

Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2505154-01	ROW-P3-008-1.0-2.0	07-May-25 08:20	09-May-25 09:57	Clear Glass Jar, 250mL

ANALYTICAL RESULTS

Sample ID: Method Blank

EPA Method 8290A

Client Data
Name: Apex Laboratories
Project: A5E1070
Matrix: Solid

Laboratory Data
Lab Sample: B25E177-BLK1
QC Batch: B25E177
Sample Size: 10.0 g
Date Extracted: 14-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	0.195	0.190			16-May-25 04:57	1
1,2,3,7,8-PeCDD	ND	0.380	0.784			16-May-25 04:57	1
1,2,3,4,7,8-HxCDD	ND	0.280	0.633			16-May-25 04:57	1
1,2,3,6,7,8-HxCDD	ND	0.329	0.640			16-May-25 04:57	1
1,2,3,7,8,9-HxCDD	ND	0.349	0.717			16-May-25 04:57	1
1,2,3,4,6,7,8-HpCDD	ND	0.366	0.706			16-May-25 04:57	1
OCDD	ND	1.58	1.62			16-May-25 04:57	1
2,3,7,8-TCDF	ND	0.216	0.183			16-May-25 04:57	1
1,2,3,7,8-PeCDF	ND	0.210	0.576			16-May-25 04:57	1
2,3,4,7,8-PeCDF	ND	0.196	0.686			16-May-25 04:57	1
1,2,3,4,7,8-HxCDF	ND	0.114	0.659			16-May-25 04:57	1
1,2,3,6,7,8-HxCDF	ND	0.123	0.621			16-May-25 04:57	1
2,3,4,6,7,8-HxCDF	ND	0.138	0.661			16-May-25 04:57	1
1,2,3,7,8,9-HxCDF	ND	0.211	0.716			16-May-25 04:57	1
1,2,3,4,6,7,8-HpCDF	ND	0.142	0.649			16-May-25 04:57	1
1,2,3,4,7,8,9-HpCDF	ND	0.197	0.818			16-May-25 04:57	1
OCDF	ND	0.314	3.84			16-May-25 04:57	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	0.00						
Totals							
Total TCDD	ND	0.195					
Total PeCDD	ND	0.380					
Total HxCDD	ND	0.349					
Total HpCDD	ND	0.366					
Total TCDF	ND	0.216					
Total PeCDF	ND	0.210					
Total HxCDF	ND	0.211					
Total HpCDF	ND	0.197					

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	103	40 - 135		16-May-25 04:57	1
13C-1,2,3,7,8-PeCDD	IS	92.2	40 - 135		16-May-25 04:57	1
13C-1,2,3,4,7,8-HxCDD	IS	97.4	40 - 135		16-May-25 04:57	1
13C-1,2,3,6,7,8-HxCDD	IS	96.3	40 - 135		16-May-25 04:57	1
13C-1,2,3,7,8,9-HxCDD	IS	90.2	40 - 135		16-May-25 04:57	1
13C-1,2,3,4,6,7,8-HpCDD	IS	93.6	40 - 135		16-May-25 04:57	1
13C-OCDD	IS	92.2	40 - 135		16-May-25 04:57	1
13C-2,3,7,8-TCDF	IS	101	40 - 135		16-May-25 04:57	1
13C-1,2,3,7,8-PeCDF	IS	97.1	40 - 135		16-May-25 04:57	1
13C-2,3,4,7,8-PeCDF	IS	96.3	40 - 135		16-May-25 04:57	1
13C-1,2,3,4,7,8-HxCDF	IS	93.2	40 - 135		16-May-25 04:57	1
13C-1,2,3,6,7,8-HxCDF	IS	92.4	40 - 135		16-May-25 04:57	1
13C-2,3,4,6,7,8-HxCDF	IS	92.5	40 - 135		16-May-25 04:57	1
13C-1,2,3,7,8,9-HxCDF	IS	87.4	40 - 135		16-May-25 04:57	1
13C-1,2,3,4,6,7,8-HpCDF	IS	98.6	40 - 135		16-May-25 04:57	1
13C-1,2,3,4,7,8,9-HpCDF	IS	96.1	40 - 135		16-May-25 04:57	1
13C-OCDF	IS	94.0	40 - 135		16-May-25 04:57	1
37Cl-2,3,7,8-TCDD	CRS	96.6	40 - 135		16-May-25 04:57	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: OPR **EPA Method 8290A**

Client Data
Name: Apex Laboratories
Project: A5E1070
Matrix: Solid

Laboratory Data
Lab Sample: B25E177-BS1
QC Batch: B25E177 Date Extracted: 14-May-25 14:21
Sample Size: 10.0 g Column: ZB-DIOXIN

Analyte	Amt Found (pg/g)	Spike Amt	% Recovery	Limits	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	19.9	20.0	99.3	70-130		16-May-25 03:26	1
1,2,3,7,8-PeCDD	90.4	100	90.4	70-130		16-May-25 03:26	1
1,2,3,4,7,8-HxCDD	92.9	100	92.9	70-130		16-May-25 03:26	1
1,2,3,6,7,8-HxCDD	93.1	100	93.1	70-130		16-May-25 03:26	1
1,2,3,7,8,9-HxCDD	93.3	100	93.3	70-130		16-May-25 03:26	1
1,2,3,4,6,7,8-HpCDD	91.6	100	91.6	70-130		16-May-25 03:26	1
OCDD	198	200	98.8	70-130		16-May-25 03:26	1
2,3,7,8-TCDF	20.0	20.0	100	70-130		16-May-25 03:26	1
1,2,3,7,8-PeCDF	86.3	100	86.3	70-130		16-May-25 03:26	1
2,3,4,7,8-PeCDF	94.6	100	94.6	70-130		16-May-25 03:26	1
1,2,3,4,7,8-HxCDF	95.0	100	95.0	70-130		16-May-25 03:26	1
1,2,3,6,7,8-HxCDF	101	100	101	70-130		16-May-25 03:26	1
2,3,4,6,7,8-HxCDF	97.6	100	97.6	70-130		16-May-25 03:26	1
1,2,3,7,8,9-HxCDF	100	100	100	70-130		16-May-25 03:26	1
1,2,3,4,6,7,8-HpCDF	90.7	100	90.7	70-130		16-May-25 03:26	1
1,2,3,4,7,8,9-HpCDF	90.7	100	90.7	70-130		16-May-25 03:26	1
OCDF	196	200	98.2	70-130		16-May-25 03:26	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	73.4	40-135		16-May-25 03:26	1
13C-1,2,3,7,8-PeCDD	IS	71.7	40-135		16-May-25 03:26	1
13C-1,2,3,4,7,8-HxCDD	IS	73.7	40-135		16-May-25 03:26	1
13C-1,2,3,6,7,8-HxCDD	IS	71.9	40-135		16-May-25 03:26	1
13C-1,2,3,7,8,9-HxCDD	IS	70.5	40-135		16-May-25 03:26	1
13C-1,2,3,4,6,7,8-HpCDD	IS	73.6	40-135		16-May-25 03:26	1
13C-OCDD	IS	64.5	40-135		16-May-25 03:26	1
13C-2,3,7,8-TCDF	IS	73.8	40-135		16-May-25 03:26	1
13C-1,2,3,7,8-PeCDF	IS	71.6	40-135		16-May-25 03:26	1
13C-2,3,4,7,8-PeCDF	IS	69.7	40-135		16-May-25 03:26	1
13C-1,2,3,4,7,8-HxCDF	IS	73.4	40-135		16-May-25 03:26	1
13C-1,2,3,6,7,8-HxCDF	IS	70.1	40-135		16-May-25 03:26	1
13C-2,3,4,6,7,8-HxCDF	IS	69.7	40-135		16-May-25 03:26	1
13C-1,2,3,7,8,9-HxCDF	IS	67.6	40-135		16-May-25 03:26	1
13C-1,2,3,4,6,7,8-HpCDF	IS	72.9	40-135		16-May-25 03:26	1
13C-1,2,3,4,7,8,9-HpCDF	IS	72.8	40-135		16-May-25 03:26	1
13C-OCDF	IS	65.6	40-135		16-May-25 03:26	1
37Cl-2,3,7,8-TCDD	CRS	76.0	40-135		16-May-25 03:26	1

Sample ID: ROW-P3-008-1.0-2.0 **EPA Method 8290A**

Client Data
Name: Apex Laboratories
Project: A5E1070
Matrix: Soil
Date Collected: 07-May-25 08:20

Laboratory Data
Lab Sample: 2505154-01
QC Batch: B25E177
Sample Size: 12.0 g
% Solids: 83.4
Date Received: 09-May-25 09:57
Date Extracted: 14-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	0.184	0.190			16-May-25 09:28	1
1,2,3,7,8-PeCDD	ND		0.784	1.41		16-May-25 09:28	1
1,2,3,4,7,8-HxCDD	5.32		0.633			16-May-25 09:28	1
1,2,3,6,7,8-HxCDD	13.9		0.640			16-May-25 09:28	1
1,2,3,7,8,9-HxCDD	9.06		0.717			16-May-25 09:28	1
1,2,3,4,6,7,8-HpCDD	423		0.706			16-May-25 09:28	1
OCDD	4960		1.62			16-May-25 09:28	1
2,3,7,8-TCDF	ND	0.336	0.183			16-May-25 09:28	1
1,2,3,7,8-PeCDF	ND		0.576	0.622		16-May-25 09:28	1
2,3,4,7,8-PeCDF	2.02		0.686		J	16-May-25 09:28	1
1,2,3,4,7,8-HxCDF	5.70		0.659			16-May-25 09:28	1
1,2,3,6,7,8-HxCDF	2.98		0.621			16-May-25 09:28	1
2,3,4,6,7,8-HxCDF	1.67		0.661		J	16-May-25 09:28	1
1,2,3,7,8,9-HxCDF	ND		0.716	0.808		16-May-25 09:28	1
1,2,3,4,6,7,8-HpCDF	69.6		0.649			16-May-25 09:28	1
1,2,3,4,7,8,9-HpCDF	ND		0.818	5.45		16-May-25 09:28	1
OCDF	310		3.84			16-May-25 09:28	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	11.0						
Totals							
Total TCDD	ND	0.184					
Total PeCDD	ND			4.95			
Total HxCDD	56.6			71.6			
Total HpCDD	697						
Total TCDF	2.37			2.78			
Total PeCDF	29.0			30.5			
Total HxCDF	108			109			
Total HpCDF	223			229			

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	107	40 - 135		16-May-25 09:28	1
13C-1,2,3,7,8-PeCDD	IS	102	40 - 135		16-May-25 09:28	1
13C-1,2,3,4,7,8-HxCDD	IS	103	40 - 135		16-May-25 09:28	1
13C-1,2,3,6,7,8-HxCDD	IS	106	40 - 135		16-May-25 09:28	1
13C-1,2,3,7,8,9-HxCDD	IS	103	40 - 135		16-May-25 09:28	1
13C-1,2,3,4,6,7,8-HpCDD	IS	115	40 - 135		16-May-25 09:28	1
13C-OCDD	IS	134	40 - 135		16-May-25 09:28	1
13C-2,3,7,8-TCDF	IS	110	40 - 135		16-May-25 09:28	1
13C-1,2,3,7,8-PeCDF	IS	107	40 - 135		16-May-25 09:28	1
13C-2,3,4,7,8-PeCDF	IS	110	40 - 135		16-May-25 09:28	1
13C-1,2,3,4,7,8-HxCDF	IS	105	40 - 135		16-May-25 09:28	1
13C-1,2,3,6,7,8-HxCDF	IS	99.5	40 - 135		16-May-25 09:28	1
13C-2,3,4,6,7,8-HxCDF	IS	101	40 - 135		16-May-25 09:28	1
13C-1,2,3,7,8,9-HxCDF	IS	97.8	40 - 135		16-May-25 09:28	1
13C-1,2,3,4,6,7,8-HpCDF	IS	111	40 - 135		16-May-25 09:28	1
13C-1,2,3,4,7,8,9-HpCDF	IS	111	40 - 135		16-May-25 09:28	1
13C-OCDF	IS	123	40 - 135		16-May-25 09:28	1
37Cl-2,3,7,8-TCDD	CRS	103	40 - 135		16-May-25 09:28	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
RL	For 537.1, the reported RLs are the MRLs.
TEQ	Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the sample concentrations.
TEQMax	TEQ calculation that uses the detection limit as the concentration for non-detects
TEQMin	TEQ calculation that uses zero as the concentration for non-detects
TEQRisk	TEQ calculation that uses ½ the detection limit as the concentration for non-detects
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Enthalpy Analytical - EDH Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	21-023-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	2211390
Nevada Division of Environmental Protection	CA00413
New Hampshire Environmental Accreditation Program	207721
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-021
Texas Commission on Environmental Quality	T104704189-22-13
Vermont Department of Health	VT-4042
Virginia Department of General Services	11276
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters can be found at Enthalpy.com/Resources/Accreditations.

SUBCONTRACT ORDER

Apex Laboratories

AB 5/7/25 **A5E1070** 2505154 2.2°C

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Enthalpy Analytical- CA
1104 Windfield Way
El Dorado Hills, CA 95762
Phone :(916) 673-1520
Fax: -

Sample Name: ROW-P3-008-1.0-2.0 **Soil** **Sampled: 05/07/25 08:20** (A5E1070-01)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	05/20/25 17:00	06/06/25 08:20	

Containers Supplied:
(A)8 oz Glass Jar

-Standard TAT-

Released By	Date	Received By	Date
JA	5/8/25	Fed Ex (Shipper)	
Fed Ex (Shipper)		Karen J. [signature]	05/09/25 09:57

Page 1 of 1

CoC/Label Reconciliation Report WO# 2505154

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2505154-01	A ROW-P3-008-1.0-2.0 ☑		07-May-25 08:20 ☑	Clear Glass Jar, 250mL (A)	Solid	

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

CONDITION	Yes	No	NA
Sample Container Intact?	✓		
Sample Container(s) Custody Seals Intact?			✓
Custody Seals On Cooler Intact?			✓
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)?	✓		

Comments: (A) Received in Clear Jar

Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 (None) Other

Verifed by/Date: XAO 05/09/25
WWS 05/09/25

May 21, 2025

Enthalpy Analytical - El Dorado Hills
Work Order No. 2505059

Mr. Philip Nerenberg
Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223

Dear Mr. Nerenberg,

Enclosed are the results for the sample set received at Enthalpy Analytical - EDH on May 06, 2025 under your Project Name 'A5E0955 / Port of Ridgefield'.

Enthalpy Analytical - EDH is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at kathy.zipp@enthalpy.com.

Thank you for choosing Enthalpy Analytical - EDH as part of your analytical support team.

Sincerely,

Kathy Zipp
Project Manager

Enthalpy Analytical - EDH Work Order No. 2505059
Case Narrative

Sample Condition on Receipt:

One water sample and thirteen soil samples were received and stored securely in accordance with Enthalpy Analytical - EDH standard operating procedures and EPA methodology. The samples were received in good condition and within the method temperature requirements.

Analytical Notes:

EPA Method 8290A

The samples were extracted and analyzed for tetra-through-octa chlorinated dioxins and furans by EPA Method 8290A using a ZB-DIOXIN GC column.

Holding Times

The method holding time criteria were met for these samples.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected above the sample quantitation limits in the Method Blank. The OPR recoveries were within the method acceptance criteria.

The result for 1,2,3,4,7,8-HxCDF in samples "ROW-P3-004-1.0-2.0", "ROW-P3-005-1.0-2.0", "ROW-P3-007-1.0-2.0" and "ROW-P3-012-1.0-2.0" was reported from a concentration that may include contribution from chlorinated diphenyl ether(s) and has been flagged with an "P" qualifier.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

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TABLE OF CONTENTS

Sample Inventory Report

Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2505059-01	ROW-P3-001-1.0-2.0	01-May-25 10:03	07-May-25 09:03	Clear Glass Jar, 250mL
2505059-02	ROW-P3-002-0-0.5	01-May-25 10:21	07-May-25 09:03	Clear Glass Jar, 250mL
2505059-03	ROW-P3-003-1.0-2.0	01-May-25 11:38	07-May-25 09:03	Clear Glass Jar, 250mL
2505059-04	ROW-P3-004-1.0-2.0	01-May-25 13:12	07-May-25 09:03	Clear Glass Jar, 250mL
2505059-05	ROW-P3-005-1.0-2.0	01-May-25 12:27	07-May-25 09:03	Clear Glass Jar, 250mL
2505059-06	ROW-P3-006-1.0-2.0	01-May-25 12:47	07-May-25 09:03	Clear Glass Jar, 250mL
2505059-07	ROW-P3-007-1.0-2.0	01-May-25 09:30	07-May-25 09:03	Clear Glass Jar, 250mL
2505059-08	ROW-P3-009-1.0-2.0	01-May-25 14:06	07-May-25 09:03	Clear Glass Jar, 250mL
2505059-09	ROW-P3-010-1.0-2.0	01-May-25 14:39	07-May-25 09:03	Clear Glass Jar, 250mL
2505059-10	ROW-P3-010-1.0-2.0-DUP	01-May-25 14:39	07-May-25 09:03	Clear Glass Jar, 250mL
2505059-11	ROW-P3-011-1.0-2.0	01-May-25 15:45	07-May-25 09:03	Clear Glass Jar, 250mL
2505059-12	ROW-P3-012-1.0-2.0	01-May-25 16:21	07-May-25 09:03	Clear Glass Jar, 250mL
2505059-13	ROW-P3-013-1.0-2.0	01-May-25 16:40	07-May-25 09:03	Clear Glass Jar, 250mL
2505059-14	20250501-RB	01-May-25 17:00	07-May-25 09:03	Amber Glass NM Bottle, 1L
				Amber Glass NM Bottle, 1L

ANALYTICAL RESULTS

Sample ID: Method Blank

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Aqueous

Laboratory Data

Lab Sample: B25E084-BLK1
QC Batch: B25E084
Sample Size: 1.00 L
Date Extracted: 07-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/L)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	1.00	1.78			12-May-25 23:02	1
1,2,3,7,8-PeCDD	ND	0.567	5.63			12-May-25 23:02	1
1,2,3,4,7,8-HxCDD	ND	1.50	4.18			12-May-25 23:02	1
1,2,3,6,7,8-HxCDD	ND	1.65	3.51			12-May-25 23:02	1
1,2,3,7,8,9-HxCDD	ND	1.78	4.46			12-May-25 23:02	1
1,2,3,4,6,7,8-HpCDD	ND	1.25	4.84			12-May-25 23:02	1
OCDD	ND	7.47	16.4			12-May-25 23:02	1
2,3,7,8-TCDF	ND	0.560	1.78			12-May-25 23:02	1
1,2,3,7,8-PeCDF	ND	0.988	5.01			12-May-25 23:02	1
2,3,4,7,8-PeCDF	ND	0.795	4.99			12-May-25 23:02	1
1,2,3,4,7,8-HxCDF	ND	0.492	6.87			12-May-25 23:02	1
1,2,3,6,7,8-HxCDF	ND	0.532	6.31			12-May-25 23:02	1
2,3,4,6,7,8-HxCDF	ND	0.576	5.80			12-May-25 23:02	1
1,2,3,7,8,9-HxCDF	ND	0.826	5.33			12-May-25 23:02	1
1,2,3,4,6,7,8-HpCDF	ND	0.687	5.96			12-May-25 23:02	1
1,2,3,4,7,8,9-HpCDF	ND	0.975	5.34			12-May-25 23:02	1
OCDF	ND	1.02	11.3			12-May-25 23:02	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	0.00						
Totals							
Total TCDD	ND	1.00					
Total PeCDD	ND	0.567					
Total HxCDD	ND	1.78					
Total HpCDD	ND	1.25					
Total TCDF	ND	0.560					
Total PeCDF	ND	0.988					
Total HxCDF	ND			0.330			
Total HpCDF	ND	0.975					

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	77.2	40 - 135		12-May-25 23:02	1
13C-1,2,3,7,8-PeCDD	IS	75.9	40 - 135		12-May-25 23:02	1
13C-1,2,3,4,7,8-HxCDD	IS	76.8	40 - 135		12-May-25 23:02	1
13C-1,2,3,6,7,8-HxCDD	IS	75.8	40 - 135		12-May-25 23:02	1
13C-1,2,3,7,8,9-HxCDD	IS	76.6	40 - 135		12-May-25 23:02	1
13C-1,2,3,4,6,7,8-HpCDD	IS	69.7	40 - 135		12-May-25 23:02	1
13C-OCDD	IS	53.4	40 - 135		12-May-25 23:02	1
13C-2,3,7,8-TCDF	IS	80.6	40 - 135		12-May-25 23:02	1
13C-1,2,3,7,8-PeCDF	IS	78.4	40 - 135		12-May-25 23:02	1
13C-2,3,4,7,8-PeCDF	IS	80.2	40 - 135		12-May-25 23:02	1
13C-1,2,3,4,7,8-HxCDF	IS	78.1	40 - 135		12-May-25 23:02	1
13C-1,2,3,6,7,8-HxCDF	IS	76.3	40 - 135		12-May-25 23:02	1
13C-2,3,4,6,7,8-HxCDF	IS	76.9	40 - 135		12-May-25 23:02	1
13C-1,2,3,7,8,9-HxCDF	IS	78.9	40 - 135		12-May-25 23:02	1
13C-1,2,3,4,6,7,8-HpCDF	IS	75.6	40 - 135		12-May-25 23:02	1
13C-1,2,3,4,7,8,9-HpCDF	IS	76.9	40 - 135		12-May-25 23:02	1
13C-OCDF	IS	62.0	40 - 135		12-May-25 23:02	1
37Cl-2,3,7,8-TCDD	CRS	95.2	40 - 135		12-May-25 23:02	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

Sample ID: OPR **EPA Method 8290A**

Client Data
Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Aqueous

Laboratory Data
Lab Sample: B25E084-BS1
QC Batch: B25E084 Date Extracted: 07-May-25 15:31
Sample Size: 1.00 L Column: ZB-DIOXIN

Analyte	Amt Found (pg/L)	Spike Amt	% Recovery	Limits	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	216	200	108	70-130		12-May-25 21:32	1
1,2,3,7,8-PeCDD	1100	1000	110	70-130		12-May-25 21:32	1
1,2,3,4,7,8-HxCDD	1070	1000	107	70-130		12-May-25 21:32	1
1,2,3,6,7,8-HxCDD	1050	1000	105	70-130		12-May-25 21:32	1
1,2,3,7,8,9-HxCDD	1090	1000	109	70-130		12-May-25 21:32	1
1,2,3,4,6,7,8-HpCDD	1080	1000	108	70-130		12-May-25 21:32	1
OCDD	2260	2000	113	70-130		12-May-25 21:32	1
2,3,7,8-TCDF	219	200	109	70-130		12-May-25 21:32	1
1,2,3,7,8-PeCDF	1110	1000	111	70-130		12-May-25 21:32	1
2,3,4,7,8-PeCDF	1140	1000	114	70-130		12-May-25 21:32	1
1,2,3,4,7,8-HxCDF	1080	1000	108	70-130		12-May-25 21:32	1
1,2,3,6,7,8-HxCDF	1090	1000	109	70-130		12-May-25 21:32	1
2,3,4,6,7,8-HxCDF	1090	1000	109	70-130		12-May-25 21:32	1
1,2,3,7,8,9-HxCDF	1100	1000	110	70-130		12-May-25 21:32	1
1,2,3,4,6,7,8-HpCDF	1040	1000	104	70-130		12-May-25 21:32	1
1,2,3,4,7,8,9-HpCDF	1060	1000	106	70-130		12-May-25 21:32	1
OCDF	2200	2000	110	70-130		12-May-25 21:32	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	81.1	40-135		12-May-25 21:32	1
13C-1,2,3,7,8-PeCDD	IS	79.7	40-135		12-May-25 21:32	1
13C-1,2,3,4,7,8-HxCDD	IS	77.1	40-135		12-May-25 21:32	1
13C-1,2,3,6,7,8-HxCDD	IS	77.1	40-135		12-May-25 21:32	1
13C-1,2,3,7,8,9-HxCDD	IS	76.1	40-135		12-May-25 21:32	1
13C-1,2,3,4,6,7,8-HpCDD	IS	75.5	40-135		12-May-25 21:32	1
13C-OCDD	IS	62.9	40-135		12-May-25 21:32	1
13C-2,3,7,8-TCDF	IS	85.7	40-135		12-May-25 21:32	1
13C-1,2,3,7,8-PeCDF	IS	82.8	40-135		12-May-25 21:32	1
13C-2,3,4,7,8-PeCDF	IS	85.0	40-135		12-May-25 21:32	1
13C-1,2,3,4,7,8-HxCDF	IS	77.9	40-135		12-May-25 21:32	1
13C-1,2,3,6,7,8-HxCDF	IS	77.1	40-135		12-May-25 21:32	1
13C-2,3,4,6,7,8-HxCDF	IS	76.7	40-135		12-May-25 21:32	1
13C-1,2,3,7,8,9-HxCDF	IS	77.6	40-135		12-May-25 21:32	1
13C-1,2,3,4,6,7,8-HpCDF	IS	75.1	40-135		12-May-25 21:32	1
13C-1,2,3,4,7,8,9-HpCDF	IS	76.5	40-135		12-May-25 21:32	1
13C-OCDF	IS	66.6	40-135		12-May-25 21:32	1
37Cl-2,3,7,8-TCDD	CRS	99.5	40-135		12-May-25 21:32	1

Sample ID: 20250501-RB **EPA Method 8290A**

Client Data
Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Water
Date Collected: 01-May-25 17:00

Laboratory Data
Lab Sample: 2505059-14
QC Batch: B25E084
Sample Size: 0.908 L
Date Received: 06-May-25 09:03
Date Extracted: 07-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/L)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	1.73	1.96			13-May-25 15:46	1
1,2,3,7,8-PeCDD	ND	1.51	6.20			13-May-25 15:46	1
1,2,3,4,7,8-HxCDD	ND	2.06	4.60			13-May-25 15:46	1
1,2,3,6,7,8-HxCDD	ND	2.06	3.87			13-May-25 15:46	1
1,2,3,7,8,9-HxCDD	ND	2.37	4.91			13-May-25 15:46	1
1,2,3,4,6,7,8-HpCDD	ND	5.73	5.33			13-May-25 15:46	1
OCDD	ND		18.1	10.9		13-May-25 15:46	1
2,3,7,8-TCDF	ND	1.04	1.96			13-May-25 15:46	1
1,2,3,7,8-PeCDF	ND	2.04	5.52			13-May-25 15:46	1
2,3,4,7,8-PeCDF	ND	1.56	5.50			13-May-25 15:46	1
1,2,3,4,7,8-HxCDF	ND	0.902	7.57			13-May-25 15:46	1
1,2,3,6,7,8-HxCDF	ND	0.953	6.95			13-May-25 15:46	1
2,3,4,6,7,8-HxCDF	ND	0.999	6.39			13-May-25 15:46	1
1,2,3,7,8,9-HxCDF	ND	1.54	5.87			13-May-25 15:46	1
1,2,3,4,6,7,8-HpCDF	ND	0.994	6.56			13-May-25 15:46	1
1,2,3,4,7,8,9-HpCDF	ND	1.20	5.88			13-May-25 15:46	1
OCDF	ND	2.89	12.4			13-May-25 15:46	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	0.00						
Totals							
Total TCDD	ND	1.73					
Total PeCDD	ND	1.51					
Total HxCDD	ND	2.37					
Total HpCDD	ND	5.73					
Total TCDF	ND	1.04					
Total PeCDF	ND	2.04					
Total HxCDF	ND	1.54					
Total HpCDF	ND	1.20					

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	65.9	40 - 135		13-May-25 15:46	1
13C-1,2,3,7,8-PeCDD	IS	64.7	40 - 135		13-May-25 15:46	1
13C-1,2,3,4,7,8-HxCDD	IS	61.8	40 - 135		13-May-25 15:46	1
13C-1,2,3,6,7,8-HxCDD	IS	62.6	40 - 135		13-May-25 15:46	1
13C-1,2,3,7,8,9-HxCDD	IS	59.5	40 - 135		13-May-25 15:46	1
13C-1,2,3,4,6,7,8-HpCDD	IS	58.3	40 - 135		13-May-25 15:46	1
13C-OCDD	IS	42.2	40 - 135		13-May-25 15:46	1
13C-2,3,7,8-TCDF	IS	68.8	40 - 135		13-May-25 15:46	1
13C-1,2,3,7,8-PeCDF	IS	67.7	40 - 135		13-May-25 15:46	1
13C-2,3,4,7,8-PeCDF	IS	72.2	40 - 135		13-May-25 15:46	1
13C-1,2,3,4,7,8-HxCDF	IS	61.3	40 - 135		13-May-25 15:46	1
13C-1,2,3,6,7,8-HxCDF	IS	60.4	40 - 135		13-May-25 15:46	1
13C-2,3,4,6,7,8-HxCDF	IS	62.0	40 - 135		13-May-25 15:46	1
13C-1,2,3,7,8,9-HxCDF	IS	61.5	40 - 135		13-May-25 15:46	1
13C-1,2,3,4,6,7,8-HpCDF	IS	56.3	40 - 135		13-May-25 15:46	1
13C-1,2,3,4,7,8,9-HpCDF	IS	59.5	40 - 135		13-May-25 15:46	1
13C-OCDF	IS	43.8	40 - 135		13-May-25 15:46	1
37Cl-2,3,7,8-TCDD	CRS	97.8	40 - 135		13-May-25 15:46	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

Sample ID: Method Blank

EPA Method 8290A

Client Data
Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Solid

Laboratory Data
Lab Sample: B25E166-BLK1
QC Batch: B25E166
Sample Size: 10.0 g
Date Extracted: 13-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	0.0546	0.190			17-May-25 13:02	1
1,2,3,7,8-PeCDD	ND	0.0646	0.784			17-May-25 13:02	1
1,2,3,4,7,8-HxCDD	ND	0.0980	0.633			17-May-25 13:02	1
1,2,3,6,7,8-HxCDD	ND	0.107	0.640			17-May-25 13:02	1
1,2,3,7,8,9-HxCDD	ND	0.106	0.717			17-May-25 13:02	1
1,2,3,4,6,7,8-HpCDD	ND		0.706	0.215		17-May-25 13:02	1
OCDD	0.693		1.62		J	17-May-25 13:02	1
2,3,7,8-TCDF	ND	0.0599	0.183			17-May-25 13:02	1
1,2,3,7,8-PeCDF	ND	0.0649	0.576			17-May-25 13:02	1
2,3,4,7,8-PeCDF	ND	0.0600	0.686			17-May-25 13:02	1
1,2,3,4,7,8-HxCDF	ND	0.0561	0.659			17-May-25 13:02	1
1,2,3,6,7,8-HxCDF	ND	0.0571	0.621			17-May-25 13:02	1
2,3,4,6,7,8-HxCDF	ND	0.0618	0.661			17-May-25 13:02	1
1,2,3,7,8,9-HxCDF	ND	0.0815	0.716			17-May-25 13:02	1
1,2,3,4,6,7,8-HpCDF	ND	0.0572	0.649			17-May-25 13:02	1
1,2,3,4,7,8,9-HpCDF	ND	0.0895	0.818			17-May-25 13:02	1
OCDF	ND	0.196	3.84			17-May-25 13:02	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	0.000208						
Totals							
Total TCDD	ND	0.0546					
Total PeCDD	ND	0.0646					
Total HxCDD	ND	0.107					
Total HpCDD	ND			0.215			
Total TCDF	ND	0.0599					
Total PeCDF	ND	0.0649					
Total HxCDF	ND	0.0815					
Total HpCDF	ND	0.0895					

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	96.4	40 - 135		17-May-25 13:02	1
13C-1,2,3,7,8-PeCDD	IS	85.0	40 - 135		17-May-25 13:02	1
13C-1,2,3,4,7,8-HxCDD	IS	93.4	40 - 135		17-May-25 13:02	1
13C-1,2,3,6,7,8-HxCDD	IS	87.3	40 - 135		17-May-25 13:02	1
13C-1,2,3,7,8,9-HxCDD	IS	89.2	40 - 135		17-May-25 13:02	1
13C-1,2,3,4,6,7,8-HpCDD	IS	87.5	40 - 135		17-May-25 13:02	1
13C-OCDD	IS	77.3	40 - 135		17-May-25 13:02	1
13C-2,3,7,8-TCDF	IS	97.7	40 - 135		17-May-25 13:02	1
13C-1,2,3,7,8-PeCDF	IS	93.5	40 - 135		17-May-25 13:02	1
13C-2,3,4,7,8-PeCDF	IS	92.4	40 - 135		17-May-25 13:02	1
13C-1,2,3,4,7,8-HxCDF	IS	92.6	40 - 135		17-May-25 13:02	1
13C-1,2,3,6,7,8-HxCDF	IS	87.1	40 - 135		17-May-25 13:02	1
13C-2,3,4,6,7,8-HxCDF	IS	88.7	40 - 135		17-May-25 13:02	1
13C-1,2,3,7,8,9-HxCDF	IS	87.5	40 - 135		17-May-25 13:02	1
13C-1,2,3,4,6,7,8-HpCDF	IS	84.7	40 - 135		17-May-25 13:02	1
13C-1,2,3,4,7,8,9-HpCDF	IS	86.2	40 - 135		17-May-25 13:02	1
13C-OCDF	IS	76.8	40 - 135		17-May-25 13:02	1
37Cl-2,3,7,8-TCDD	CRS	84.6	40 - 135		17-May-25 13:02	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: OPR **EPA Method 8290A**

Client Data
Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Solid

Laboratory Data
Lab Sample: B25E166-BS1
QC Batch: B25E166 Date Extracted: 13-May-25 13:14
Sample Size: 10.0 g Column: ZB-DIOXIN

Analyte	Amt Found (pg/g)	Spike Amt	% Recovery	Limits	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	18.9	20.0	94.4	70-130		17-May-25 11:29	1
1,2,3,7,8-PeCDD	95.3	100	95.3	70-130		17-May-25 11:29	1
1,2,3,4,7,8-HxCDD	95.8	100	95.8	70-130		17-May-25 11:29	1
1,2,3,6,7,8-HxCDD	96.9	100	96.9	70-130		17-May-25 11:29	1
1,2,3,7,8,9-HxCDD	94.3	100	94.3	70-130		17-May-25 11:29	1
1,2,3,4,6,7,8-HpCDD	94.4	100	94.4	70-130		17-May-25 11:29	1
OCDD	196	200	98.2	70-130	B	17-May-25 11:29	1
2,3,7,8-TCDF	17.7	20.0	88.6	70-130		17-May-25 11:29	1
1,2,3,7,8-PeCDF	93.0	100	93.0	70-130		17-May-25 11:29	1
2,3,4,7,8-PeCDF	95.9	100	95.9	70-130		17-May-25 11:29	1
1,2,3,4,7,8-HxCDF	91.1	100	91.1	70-130		17-May-25 11:29	1
1,2,3,6,7,8-HxCDF	92.8	100	92.8	70-130		17-May-25 11:29	1
2,3,4,6,7,8-HxCDF	89.0	100	89.0	70-130		17-May-25 11:29	1
1,2,3,7,8,9-HxCDF	93.1	100	93.1	70-130		17-May-25 11:29	1
1,2,3,4,6,7,8-HpCDF	90.8	100	90.8	70-130		17-May-25 11:29	1
1,2,3,4,7,8,9-HpCDF	90.4	100	90.4	70-130		17-May-25 11:29	1
OCDF	187	200	93.3	70-130		17-May-25 11:29	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	97.7	40-135		17-May-25 11:29	1
13C-1,2,3,7,8-PeCDD	IS	75.5	40-135		17-May-25 11:29	1
13C-1,2,3,4,7,8-HxCDD	IS	90.8	40-135		17-May-25 11:29	1
13C-1,2,3,6,7,8-HxCDD	IS	84.6	40-135		17-May-25 11:29	1
13C-1,2,3,7,8,9-HxCDD	IS	91.6	40-135		17-May-25 11:29	1
13C-1,2,3,4,6,7,8-HpCDD	IS	90.3	40-135		17-May-25 11:29	1
13C-OCDD	IS	78.1	40-135		17-May-25 11:29	1
13C-2,3,7,8-TCDF	IS	100	40-135		17-May-25 11:29	1
13C-1,2,3,7,8-PeCDF	IS	93.6	40-135		17-May-25 11:29	1
13C-2,3,4,7,8-PeCDF	IS	94.6	40-135		17-May-25 11:29	1
13C-1,2,3,4,7,8-HxCDF	IS	92.7	40-135		17-May-25 11:29	1
13C-1,2,3,6,7,8-HxCDF	IS	86.8	40-135		17-May-25 11:29	1
13C-2,3,4,6,7,8-HxCDF	IS	87.3	40-135		17-May-25 11:29	1
13C-1,2,3,7,8,9-HxCDF	IS	86.9	40-135		17-May-25 11:29	1
13C-1,2,3,4,6,7,8-HpCDF	IS	85.7	40-135		17-May-25 11:29	1
13C-1,2,3,4,7,8,9-HpCDF	IS	82.9	40-135		17-May-25 11:29	1
13C-OCDF	IS	74.8	40-135		17-May-25 11:29	1
37Cl-2,3,7,8-TCDD	CRS	87.6	40-135		17-May-25 11:29	1

Sample ID: ROW-P3-001-1.0-2.0

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Soil
Date Collected: 01-May-25 10:03

Laboratory Data

Lab Sample: 2505059-01
QC Batch: B25E166
Sample Size: 11.5 g
% Solids: 87.6
Date Received: 06-May-25 09:03
Date Extracted: 13-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND		0.188	0.594		17-May-25 13:49	1
1,2,3,7,8-PeCDD	1.09		0.777		J	17-May-25 13:49	1
1,2,3,4,7,8-HxCDD	1.11		0.627		J	17-May-25 13:49	1
1,2,3,6,7,8-HxCDD	4.63		0.634			17-May-25 13:49	1
1,2,3,7,8,9-HxCDD	2.25		0.711		J	17-May-25 13:49	1
1,2,3,4,6,7,8-HpCDD	77.7		0.700			17-May-25 13:49	1
OCDD	532		1.61		B	17-May-25 13:49	1
2,3,7,8-TCDF	0.925		0.181			17-May-25 13:49	1
1,2,3,7,8-PeCDF	0.737		0.571		J	17-May-25 13:49	1
2,3,4,7,8-PeCDF	11.8		0.680			17-May-25 13:49	1
1,2,3,4,7,8-HxCDF	3.26		0.653			17-May-25 13:49	1
1,2,3,6,7,8-HxCDF	3.18		0.616			17-May-25 13:49	1
2,3,4,6,7,8-HxCDF	2.87		0.655			17-May-25 13:49	1
1,2,3,7,8,9-HxCDF	0.817		0.710		J	17-May-25 13:49	1
1,2,3,4,6,7,8-HpCDF	13.6		0.643			17-May-25 13:49	1
1,2,3,4,7,8,9-HpCDF	1.15		0.811		J	17-May-25 13:49	1
OCDF	15.8		3.81			17-May-25 13:49	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	7.65						
Totals							
Total TCDD	3.55			4.88			
Total PeCDD	7.35			9.68			
Total HxCDD	30.2						
Total HpCDD	135						
Total TCDF	71.3						
Total PeCDF	180						
Total HxCDF	118						
Total HpCDF	37.2						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	85.3	40 - 135		17-May-25 13:49	1
13C-1,2,3,7,8-PeCDD	IS	74.8	40 - 135		17-May-25 13:49	1
13C-1,2,3,4,7,8-HxCDD	IS	79.9	40 - 135		17-May-25 13:49	1
13C-1,2,3,6,7,8-HxCDD	IS	75.9	40 - 135		17-May-25 13:49	1
13C-1,2,3,7,8,9-HxCDD	IS	77.6	40 - 135		17-May-25 13:49	1
13C-1,2,3,4,6,7,8-HpCDD	IS	75.4	40 - 135		17-May-25 13:49	1
13C-OCDD	IS	73.1	40 - 135		17-May-25 13:49	1
13C-2,3,7,8-TCDF	IS	86.5	40 - 135		17-May-25 13:49	1
13C-1,2,3,7,8-PeCDF	IS	83.0	40 - 135		17-May-25 13:49	1
13C-2,3,4,7,8-PeCDF	IS	82.7	40 - 135		17-May-25 13:49	1
13C-1,2,3,4,7,8-HxCDF	IS	79.4	40 - 135		17-May-25 13:49	1
13C-1,2,3,6,7,8-HxCDF	IS	75.3	40 - 135		17-May-25 13:49	1
13C-2,3,4,6,7,8-HxCDF	IS	76.4	40 - 135		17-May-25 13:49	1
13C-1,2,3,7,8,9-HxCDF	IS	75.3	40 - 135		17-May-25 13:49	1
13C-1,2,3,4,6,7,8-HpCDF	IS	74.8	40 - 135		17-May-25 13:49	1
13C-1,2,3,4,7,8,9-HpCDF	IS	72.3	40 - 135		17-May-25 13:49	1
13C-OCDF	IS	67.1	40 - 135		17-May-25 13:49	1
37Cl-2,3,7,8-TCDD	CRS	76.3	40 - 135		17-May-25 13:49	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-002-0-0.5 **EPA Method 8290A**

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Soil
Date Collected: 01-May-25 10:21

Laboratory Data

Lab Sample: 2505059-02
QC Batch: B25E166
Sample Size: 11.2 g
% Solids: 90.0
Date Received: 06-May-25 09:03
Date Extracted: 13-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND		0.189	0.198		17-May-25 14:36	1
1,2,3,7,8-PeCDD	1.17		0.779		J	17-May-25 14:36	1
1,2,3,4,7,8-HxCDD	1.96		0.629		J	17-May-25 14:36	1
1,2,3,6,7,8-HxCDD	6.49		0.636			17-May-25 14:36	1
1,2,3,7,8,9-HxCDD	3.88		0.712			17-May-25 14:36	1
1,2,3,4,6,7,8-HpCDD	154		0.701			17-May-25 14:36	1
OCDD	1440		1.61		B	17-May-25 14:36	1
2,3,7,8-TCDF	0.303		0.182		J	17-May-25 14:36	1
1,2,3,7,8-PeCDF	ND		0.572	0.409		17-May-25 14:36	1
2,3,4,7,8-PeCDF	0.774		0.681		J	17-May-25 14:36	1
1,2,3,4,7,8-HxCDF	2.03		0.655		J	17-May-25 14:36	1
1,2,3,6,7,8-HxCDF	1.34		0.617		J	17-May-25 14:36	1
2,3,4,6,7,8-HxCDF	0.667		0.657		J	17-May-25 14:36	1
1,2,3,7,8,9-HxCDF	ND		0.711	0.224		17-May-25 14:36	1
1,2,3,4,6,7,8-HpCDF	23.1		0.645			17-May-25 14:36	1
1,2,3,4,7,8,9-HpCDF	1.73		0.813		J	17-May-25 14:36	1
OCDF	56.9		3.81			17-May-25 14:36	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	5.31						
Totals							
Total TCDD	1.36			2.49			
Total PeCDD	7.62			8.38			
Total HxCDD	46.6						
Total HpCDD	299						
Total TCDF	5.51			6.14			
Total PeCDF	14.5			14.9			
Total HxCDF	36.1			36.9			
Total HpCDF	71.5						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	96.2	40 - 135		17-May-25 14:36	1
13C-1,2,3,7,8-PeCDD	IS	84.9	40 - 135		17-May-25 14:36	1
13C-1,2,3,4,7,8-HxCDD	IS	89.2	40 - 135		17-May-25 14:36	1
13C-1,2,3,6,7,8-HxCDD	IS	82.4	40 - 135		17-May-25 14:36	1
13C-1,2,3,7,8,9-HxCDD	IS	85.0	40 - 135		17-May-25 14:36	1
13C-1,2,3,4,6,7,8-HpCDD	IS	82.5	40 - 135		17-May-25 14:36	1
13C-OCDD	IS	79.1	40 - 135		17-May-25 14:36	1
13C-2,3,7,8-TCDF	IS	95.5	40 - 135		17-May-25 14:36	1
13C-1,2,3,7,8-PeCDF	IS	88.8	40 - 135		17-May-25 14:36	1
13C-2,3,4,7,8-PeCDF	IS	89.8	40 - 135		17-May-25 14:36	1
13C-1,2,3,4,7,8-HxCDF	IS	87.9	40 - 135		17-May-25 14:36	1
13C-1,2,3,6,7,8-HxCDF	IS	82.7	40 - 135		17-May-25 14:36	1
13C-2,3,4,6,7,8-HxCDF	IS	83.3	40 - 135		17-May-25 14:36	1
13C-1,2,3,7,8,9-HxCDF	IS	84.4	40 - 135		17-May-25 14:36	1
13C-1,2,3,4,6,7,8-HpCDF	IS	81.3	40 - 135		17-May-25 14:36	1
13C-1,2,3,4,7,8,9-HpCDF	IS	81.0	40 - 135		17-May-25 14:36	1
13C-OCDF	IS	73.1	40 - 135		17-May-25 14:36	1
37Cl-2,3,7,8-TCDD	CRS	89.6	40 - 135		17-May-25 14:36	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-003-1.0-2.0

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Soil
Date Collected: 01-May-25 11:38

Laboratory Data

Lab Sample: 2505059-03
QC Batch: B25E166
Sample Size: 10.3 g
% Solids: 97.7
Date Received: 06-May-25 09:03
Date Extracted: 13-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	0.0566	0.189			17-May-25 15:24	1
1,2,3,7,8-PeCDD	0.299		0.780		J	17-May-25 15:24	1
1,2,3,4,7,8-HxCDD	0.405		0.630		J	17-May-25 15:24	1
1,2,3,6,7,8-HxCDD	2.12		0.637		J	17-May-25 15:24	1
1,2,3,7,8,9-HxCDD	0.849		0.713		J	17-May-25 15:24	1
1,2,3,4,6,7,8-HpCDD	33.9		0.702			17-May-25 15:24	1
OCDD	272		1.61		B	17-May-25 15:24	1
2,3,7,8-TCDF	ND		0.182	0.179		17-May-25 15:24	1
1,2,3,7,8-PeCDF	0.257		0.573		J	17-May-25 15:24	1
2,3,4,7,8-PeCDF	ND		0.683	1.20		17-May-25 15:24	1
1,2,3,4,7,8-HxCDF	1.10		0.656		J	17-May-25 15:24	1
1,2,3,6,7,8-HxCDF	0.680		0.618		J	17-May-25 15:24	1
2,3,4,6,7,8-HxCDF	0.609		0.658		J	17-May-25 15:24	1
1,2,3,7,8,9-HxCDF	0.150		0.712		J	17-May-25 15:24	1
1,2,3,4,6,7,8-HpCDF	6.22		0.646			17-May-25 15:24	1
1,2,3,4,7,8,9-HpCDF	0.425		0.814		J	17-May-25 15:24	1
OCDF	8.89		3.82			17-May-25 15:24	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	1.39						
Totals							
Total TCDD	0.195				J		
Total PeCDD	0.939			1.33	J		
Total HxCDD	10.1						
Total HpCDD	60.6						
Total TCDF	3.73			4.31			
Total PeCDF	17.2			19.1			
Total HxCDF	19.4						
Total HpCDF	17.8						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	94.1	40 - 135		17-May-25 15:24	1
13C-1,2,3,7,8-PeCDD	IS	78.6	40 - 135		17-May-25 15:24	1
13C-1,2,3,4,7,8-HxCDD	IS	79.0	40 - 135		17-May-25 15:24	1
13C-1,2,3,6,7,8-HxCDD	IS	71.2	40 - 135		17-May-25 15:24	1
13C-1,2,3,7,8,9-HxCDD	IS	73.9	40 - 135		17-May-25 15:24	1
13C-1,2,3,4,6,7,8-HpCDD	IS	65.4	40 - 135		17-May-25 15:24	1
13C-OCDD	IS	56.6	40 - 135		17-May-25 15:24	1
13C-2,3,7,8-TCDF	IS	92.6	40 - 135		17-May-25 15:24	1
13C-1,2,3,7,8-PeCDF	IS	83.2	40 - 135		17-May-25 15:24	1
13C-2,3,4,7,8-PeCDF	IS	83.1	40 - 135		17-May-25 15:24	1
13C-1,2,3,4,7,8-HxCDF	IS	74.9	40 - 135		17-May-25 15:24	1
13C-1,2,3,6,7,8-HxCDF	IS	72.2	40 - 135		17-May-25 15:24	1
13C-2,3,4,6,7,8-HxCDF	IS	74.1	40 - 135		17-May-25 15:24	1
13C-1,2,3,7,8,9-HxCDF	IS	77.1	40 - 135		17-May-25 15:24	1
13C-1,2,3,4,6,7,8-HpCDF	IS	62.2	40 - 135		17-May-25 15:24	1
13C-1,2,3,4,7,8,9-HpCDF	IS	67.1	40 - 135		17-May-25 15:24	1
13C-OCDF	IS	54.0	40 - 135		17-May-25 15:24	1
37Cl-2,3,7,8-TCDD	CRS	86.1	40 - 135		17-May-25 15:24	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-004-1.0-2.0

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Soil
Date Collected: 01-May-25 13:12

Laboratory Data

Lab Sample: 2505059-04
QC Batch: B25E166
Sample Size: 12.1 g
% Solids: 83.4
Date Received: 06-May-25 09:03
Date Extracted: 13-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND		0.189	0.267		17-May-25 16:11	1
1,2,3,7,8-PeCDD	2.74		0.778			17-May-25 16:11	1
1,2,3,4,7,8-HxCDD	7.52		0.628			17-May-25 16:11	1
1,2,3,6,7,8-HxCDD	38.7		0.635			17-May-25 16:11	1
1,2,3,7,8,9-HxCDD	15.4		0.711			17-May-25 16:11	1
1,2,3,4,6,7,8-HpCDD	781		0.700			17-May-25 16:11	1
OCDD	5900		1.61		B	17-May-25 16:11	1
2,3,7,8-TCDF	1.49		0.182			17-May-25 16:11	1
1,2,3,7,8-PeCDF	3.94		0.571			17-May-25 16:11	1
2,3,4,7,8-PeCDF	8.24		0.681			17-May-25 16:11	1
1,2,3,4,7,8-HxCDF	27.1		0.654		P	17-May-25 16:11	1
1,2,3,6,7,8-HxCDF	12.3		0.616			17-May-25 16:11	1
2,3,4,6,7,8-HxCDF	8.84		0.656			17-May-25 16:11	1
1,2,3,7,8,9-HxCDF	2.59		0.710			17-May-25 16:11	1
1,2,3,4,6,7,8-HpCDF	125		0.644			17-May-25 16:11	1
1,2,3,4,7,8,9-HpCDF	7.75		0.812			17-May-25 16:11	1
OCDF	133		3.81			17-May-25 16:11	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	27.7						
Totals							
Total TCDD	2.58			3.62			
Total PeCDD	15.4			16.3			
Total HxCDD	165						
Total HpCDD	1340						
Total TCDF	43.2			45.3			
Total PeCDF	213						
Total HxCDF	389						
Total HpCDF	346						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	102	40 - 135		17-May-25 16:11	1
13C-1,2,3,7,8-PeCDD	IS	92.9	40 - 135		17-May-25 16:11	1
13C-1,2,3,4,7,8-HxCDD	IS	93.3	40 - 135		17-May-25 16:11	1
13C-1,2,3,6,7,8-HxCDD	IS	88.1	40 - 135		17-May-25 16:11	1
13C-1,2,3,7,8,9-HxCDD	IS	86.5	40 - 135		17-May-25 16:11	1
13C-1,2,3,4,6,7,8-HpCDD	IS	88.4	40 - 135		17-May-25 16:11	1
13C-OCDD	IS	89.6	40 - 135		17-May-25 16:11	1
13C-2,3,7,8-TCDF	IS	102	40 - 135		17-May-25 16:11	1
13C-1,2,3,7,8-PeCDF	IS	96.6	40 - 135		17-May-25 16:11	1
13C-2,3,4,7,8-PeCDF	IS	96.8	40 - 135		17-May-25 16:11	1
13C-1,2,3,4,7,8-HxCDF	IS	92.0	40 - 135		17-May-25 16:11	1
13C-1,2,3,6,7,8-HxCDF	IS	86.3	40 - 135		17-May-25 16:11	1
13C-2,3,4,6,7,8-HxCDF	IS	86.1	40 - 135		17-May-25 16:11	1
13C-1,2,3,7,8,9-HxCDF	IS	87.1	40 - 135		17-May-25 16:11	1
13C-1,2,3,4,6,7,8-HpCDF	IS	85.2	40 - 135		17-May-25 16:11	1
13C-1,2,3,4,7,8,9-HpCDF	IS	89.3	40 - 135		17-May-25 16:11	1
13C-OCDF	IS	80.2	40 - 135		17-May-25 16:11	1
37Cl-2,3,7,8-TCDD	CRS	93.7	40 - 135		17-May-25 16:11	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-005-1.0-2.0 **EPA Method 8290A**

Client Data
Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Soil
Date Collected: 01-May-25 12:27

Laboratory Data
Lab Sample: 2505059-05
QC Batch: B25E166
Sample Size: 12.3 g
% Solids: 81.5
Date Received: 06-May-25 09:03
Date Extracted: 13-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND		0.190	0.333		17-May-25 16:58	1
1,2,3,7,8-PeCDD	1.58		0.782		J	17-May-25 16:58	1
1,2,3,4,7,8-HxCDD	1.42		0.632		J	17-May-25 16:58	1
1,2,3,6,7,8-HxCDD	5.59		0.639			17-May-25 16:58	1
1,2,3,7,8,9-HxCDD	2.89		0.716			17-May-25 16:58	1
1,2,3,4,6,7,8-HpCDD	76.6		0.705			17-May-25 16:58	1
OCDD	571		1.62		B	17-May-25 16:58	1
2,3,7,8-TCDF	1.35		0.183			17-May-25 16:58	1
1,2,3,7,8-PeCDF	1.22		0.575		J	17-May-25 16:58	1
2,3,4,7,8-PeCDF	8.13		0.685			17-May-25 16:58	1
1,2,3,4,7,8-HxCDF	5.12		0.658		P	17-May-25 16:58	1
1,2,3,6,7,8-HxCDF	6.60		0.620			17-May-25 16:58	1
2,3,4,6,7,8-HxCDF	7.64		0.660			17-May-25 16:58	1
1,2,3,7,8,9-HxCDF	ND		0.715	0.917		17-May-25 16:58	1
1,2,3,4,6,7,8-HpCDF	19.9		0.648			17-May-25 16:58	1
1,2,3,4,7,8,9-HpCDF	1.77		0.816		J	17-May-25 16:58	1
OCDF	34.9		3.83			17-May-25 16:58	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	8.28						
Totals							
Total TCDD	4.18			5.15			
Total PeCDD	15.4			15.9			
Total HxCDD	40.5						
Total HpCDD	139						
Total TCDF	146			149			
Total PeCDF	458			459			
Total HxCDF	262			264			
Total HpCDF	60.3			60.8			

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	99.9	40 - 135		17-May-25 16:58	1
13C-1,2,3,7,8-PeCDD	IS	91.1	40 - 135		17-May-25 16:58	1
13C-1,2,3,4,7,8-HxCDD	IS	90.3	40 - 135		17-May-25 16:58	1
13C-1,2,3,6,7,8-HxCDD	IS	84.1	40 - 135		17-May-25 16:58	1
13C-1,2,3,7,8,9-HxCDD	IS	87.4	40 - 135		17-May-25 16:58	1
13C-1,2,3,4,6,7,8-HpCDD	IS	87.2	40 - 135		17-May-25 16:58	1
13C-OCDD	IS	78.1	40 - 135		17-May-25 16:58	1
13C-2,3,7,8-TCDF	IS	93.4	40 - 135		17-May-25 16:58	1
13C-1,2,3,7,8-PeCDF	IS	90.9	40 - 135		17-May-25 16:58	1
13C-2,3,4,7,8-PeCDF	IS	91.3	40 - 135		17-May-25 16:58	1
13C-1,2,3,4,7,8-HxCDF	IS	86.1	40 - 135		17-May-25 16:58	1
13C-1,2,3,6,7,8-HxCDF	IS	81.9	40 - 135		17-May-25 16:58	1
13C-2,3,4,6,7,8-HxCDF	IS	85.1	40 - 135		17-May-25 16:58	1
13C-1,2,3,7,8,9-HxCDF	IS	84.2	40 - 135		17-May-25 16:58	1
13C-1,2,3,4,6,7,8-HpCDF	IS	84.3	40 - 135		17-May-25 16:58	1
13C-1,2,3,4,7,8,9-HpCDF	IS	87.6	40 - 135		17-May-25 16:58	1
13C-OCDF	IS	78.5	40 - 135		17-May-25 16:58	1
37Cl-2,3,7,8-TCDD	CRS	90.9	40 - 135		17-May-25 16:58	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-006-1.0-2.0

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Soil
Date Collected: 01-May-25 12:47

Laboratory Data

Lab Sample: 2505059-06
QC Batch: B25E166
Sample Size: 12.1 g
% Solids: 83.4
Date Received: 06-May-25 09:03
Date Extracted: 13-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	0.0705	0.189			17-May-25 17:46	1
1,2,3,7,8-PeCDD	0.282		0.780		J	17-May-25 17:46	1
1,2,3,4,7,8-HxCDD	0.677		0.630		J	17-May-25 17:46	1
1,2,3,6,7,8-HxCDD	ND		0.637	2.10		17-May-25 17:46	1
1,2,3,7,8,9-HxCDD	1.27		0.713		J	17-May-25 17:46	1
1,2,3,4,6,7,8-HpCDD	84.0		0.702			17-May-25 17:46	1
OCDD	1080		1.61		B	17-May-25 17:46	1
2,3,7,8-TCDF	ND	0.0623	0.182			17-May-25 17:46	1
1,2,3,7,8-PeCDF	ND	0.0730	0.573			17-May-25 17:46	1
2,3,4,7,8-PeCDF	ND		0.683	0.119		17-May-25 17:46	1
1,2,3,4,7,8-HxCDF	1.02		0.656		J	17-May-25 17:46	1
1,2,3,6,7,8-HxCDF	0.343		0.618		J	17-May-25 17:46	1
2,3,4,6,7,8-HxCDF	ND		0.658	0.356		17-May-25 17:46	1
1,2,3,7,8,9-HxCDF	ND		0.712	0.0470		17-May-25 17:46	1
1,2,3,4,6,7,8-HpCDF	25.8		0.646			17-May-25 17:46	1
1,2,3,4,7,8,9-HpCDF	2.38		0.814		J	17-May-25 17:46	1
OCDF	134		3.82			17-May-25 17:46	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	2.10						
Totals							
Total TCDD	ND			0.175			
Total PeCDD	0.282			0.797	J		
Total HxCDD	9.67			11.8			
Total HpCDD	134						
Total TCDF	0.218			0.547	J		
Total PeCDF	2.85			3.44			
Total HxCDF	26.0			26.9			
Total HpCDF	126						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	95.6	40 - 135		17-May-25 17:46	1
13C-1,2,3,7,8-PeCDD	IS	85.7	40 - 135		17-May-25 17:46	1
13C-1,2,3,4,7,8-HxCDD	IS	89.6	40 - 135		17-May-25 17:46	1
13C-1,2,3,6,7,8-HxCDD	IS	84.0	40 - 135		17-May-25 17:46	1
13C-1,2,3,7,8,9-HxCDD	IS	84.9	40 - 135		17-May-25 17:46	1
13C-1,2,3,4,6,7,8-HpCDD	IS	83.6	40 - 135		17-May-25 17:46	1
13C-OCDD	IS	73.7	40 - 135		17-May-25 17:46	1
13C-2,3,7,8-TCDF	IS	96.8	40 - 135		17-May-25 17:46	1
13C-1,2,3,7,8-PeCDF	IS	93.1	40 - 135		17-May-25 17:46	1
13C-2,3,4,7,8-PeCDF	IS	92.5	40 - 135		17-May-25 17:46	1
13C-1,2,3,4,7,8-HxCDF	IS	86.7	40 - 135		17-May-25 17:46	1
13C-1,2,3,6,7,8-HxCDF	IS	81.2	40 - 135		17-May-25 17:46	1
13C-2,3,4,6,7,8-HxCDF	IS	86.4	40 - 135		17-May-25 17:46	1
13C-1,2,3,7,8,9-HxCDF	IS	84.7	40 - 135		17-May-25 17:46	1
13C-1,2,3,4,6,7,8-HpCDF	IS	80.9	40 - 135		17-May-25 17:46	1
13C-1,2,3,4,7,8,9-HpCDF	IS	86.9	40 - 135		17-May-25 17:46	1
13C-OCDF	IS	73.7	40 - 135		17-May-25 17:46	1
37Cl-2,3,7,8-TCDD	CRS	88.8	40 - 135		17-May-25 17:46	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-007-1.0-2.0

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Soil
Date Collected: 01-May-25 09:30

Laboratory Data

Lab Sample: 2505059-07
QC Batch: B25E166
Sample Size: 12.2 g
% Solids: 82.3
Date Received: 06-May-25 09:03
Date Extracted: 13-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND		0.190	0.629		17-May-25 18:33	1
1,2,3,7,8-PeCDD	8.39		0.782			17-May-25 18:33	1
1,2,3,4,7,8-HxCDD	18.2		0.631			17-May-25 18:33	1
1,2,3,6,7,8-HxCDD	76.4		0.638			17-May-25 18:33	1
1,2,3,7,8,9-HxCDD	37.1		0.715			17-May-25 18:33	1
1,2,3,4,6,7,8-HpCDD	1590		0.704			17-May-25 18:33	1
OCDD	14100		8.08		B,D	19-May-25 14:31	5
2,3,7,8-TCDF	1.92		0.183			17-May-25 18:33	1
1,2,3,7,8-PeCDF	4.19		0.575			17-May-25 18:33	1
2,3,4,7,8-PeCDF	34.6		0.684			17-May-25 18:33	1
1,2,3,4,7,8-HxCDF	28.9		0.657		P	17-May-25 18:33	1
1,2,3,6,7,8-HxCDF	19.1		0.620			17-May-25 18:33	1
2,3,4,6,7,8-HxCDF	15.0		0.659			17-May-25 18:33	1
1,2,3,7,8,9-HxCDF	2.60		0.714			17-May-25 18:33	1
1,2,3,4,6,7,8-HpCDF	258		0.647			17-May-25 18:33	1
1,2,3,4,7,8,9-HpCDF	17.7		0.816			17-May-25 18:33	1
OCDF	768		3.83			17-May-25 18:33	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	61.9						
Totals							
Total TCDD	8.66			11.2			
Total PeCDD	44.4			47.0			
Total HxCDD	369						
Total HpCDD	2660						
Total TCDF	117						
Total PeCDF	519			521			
Total HxCDF	667			673			
Total HpCDF	812						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	95.4	40 - 135		17-May-25 18:33	1
13C-1,2,3,7,8-PeCDD	IS	86.4	40 - 135		17-May-25 18:33	1
13C-1,2,3,4,7,8-HxCDD	IS	90.6	40 - 135		17-May-25 18:33	1
13C-1,2,3,6,7,8-HxCDD	IS	84.5	40 - 135		17-May-25 18:33	1
13C-1,2,3,7,8,9-HxCDD	IS	88.3	40 - 135		17-May-25 18:33	1
13C-1,2,3,4,6,7,8-HpCDD	IS	94.7	40 - 135		17-May-25 18:33	1
13C-OCDD	IS	75.0	40 - 135	D	19-May-25 14:31	5
13C-2,3,7,8-TCDF	IS	98.2	40 - 135		17-May-25 18:33	1
13C-1,2,3,7,8-PeCDF	IS	94.2	40 - 135		17-May-25 18:33	1
13C-2,3,4,7,8-PeCDF	IS	94.0	40 - 135		17-May-25 18:33	1
13C-1,2,3,4,7,8-HxCDF	IS	89.9	40 - 135		17-May-25 18:33	1
13C-1,2,3,6,7,8-HxCDF	IS	85.9	40 - 135		17-May-25 18:33	1
13C-2,3,4,6,7,8-HxCDF	IS	87.0	40 - 135		17-May-25 18:33	1
13C-1,2,3,7,8,9-HxCDF	IS	85.8	40 - 135		17-May-25 18:33	1
13C-1,2,3,4,6,7,8-HpCDF	IS	89.6	40 - 135		17-May-25 18:33	1
13C-1,2,3,4,7,8,9-HpCDF	IS	90.1	40 - 135		17-May-25 18:33	1
13C-OCDF	IS	87.8	40 - 135		17-May-25 18:33	1
37Cl-2,3,7,8-TCDD	CRS	86.8	40 - 135		17-May-25 18:33	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-009-1.0-2.0

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Soil
Date Collected: 01-May-25 14:06

Laboratory Data

Lab Sample: 2505059-08
QC Batch: B25E166
Sample Size: 12.2 g
% Solids: 82.6
Date Received: 06-May-25 09:03
Date Extracted: 13-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND		0.188	0.277		17-May-25 19:20	1
1,2,3,7,8-PeCDD	ND		0.778	0.680		17-May-25 19:20	1
1,2,3,4,7,8-HxCDD	2.27		0.628		J	17-May-25 19:20	1
1,2,3,6,7,8-HxCDD	12.0		0.635			17-May-25 19:20	1
1,2,3,7,8,9-HxCDD	4.41		0.711			17-May-25 19:20	1
1,2,3,4,6,7,8-HpCDD	241		0.700			17-May-25 19:20	1
OCDD	1660		1.61		B	17-May-25 19:20	1
2,3,7,8-TCDF	0.505		0.182			17-May-25 19:20	1
1,2,3,7,8-PeCDF	1.42		0.571		J	17-May-25 19:20	1
2,3,4,7,8-PeCDF	2.60		0.680			17-May-25 19:20	1
1,2,3,4,7,8-HxCDF	6.84		0.654			17-May-25 19:20	1
1,2,3,6,7,8-HxCDF	2.89		0.616			17-May-25 19:20	1
2,3,4,6,7,8-HxCDF	2.89		0.656			17-May-25 19:20	1
1,2,3,7,8,9-HxCDF	0.707		0.710		J	17-May-25 19:20	1
1,2,3,4,6,7,8-HpCDF	33.8		0.644			17-May-25 19:20	1
1,2,3,4,7,8,9-HpCDF	1.80		0.811		J	17-May-25 19:20	1
OCDF	26.7		3.81			17-May-25 19:20	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	7.35						
Totals							
Total TCDD	0.727			1.15			
Total PeCDD	2.16			3.99	J		
Total HxCDD	51.7						
Total HpCDD	407						
Total TCDF	6.95			7.07			
Total PeCDF	33.2			34.6			
Total HxCDF	89.6			90.2			
Total HpCDF	84.8						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	103	40 - 135		17-May-25 19:20	1
13C-1,2,3,7,8-PeCDD	IS	94.2	40 - 135		17-May-25 19:20	1
13C-1,2,3,4,7,8-HxCDD	IS	98.5	40 - 135		17-May-25 19:20	1
13C-1,2,3,6,7,8-HxCDD	IS	93.7	40 - 135		17-May-25 19:20	1
13C-1,2,3,7,8,9-HxCDD	IS	96.4	40 - 135		17-May-25 19:20	1
13C-1,2,3,4,6,7,8-HpCDD	IS	98.3	40 - 135		17-May-25 19:20	1
13C-OCDD	IS	94.8	40 - 135		17-May-25 19:20	1
13C-2,3,7,8-TCDF	IS	104	40 - 135		17-May-25 19:20	1
13C-1,2,3,7,8-PeCDF	IS	99.8	40 - 135		17-May-25 19:20	1
13C-2,3,4,7,8-PeCDF	IS	98.1	40 - 135		17-May-25 19:20	1
13C-1,2,3,4,7,8-HxCDF	IS	99.0	40 - 135		17-May-25 19:20	1
13C-1,2,3,6,7,8-HxCDF	IS	93.1	40 - 135		17-May-25 19:20	1
13C-2,3,4,6,7,8-HxCDF	IS	94.2	40 - 135		17-May-25 19:20	1
13C-1,2,3,7,8,9-HxCDF	IS	94.0	40 - 135		17-May-25 19:20	1
13C-1,2,3,4,6,7,8-HpCDF	IS	94.5	40 - 135		17-May-25 19:20	1
13C-1,2,3,4,7,8,9-HpCDF	IS	93.6	40 - 135		17-May-25 19:20	1
13C-OCDF	IS	88.0	40 - 135		17-May-25 19:20	1
37Cl-2,3,7,8-TCDD	CRS	90.7	40 - 135		17-May-25 19:20	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-010-1.0-2.0

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Soil
Date Collected: 01-May-25 14:39

Laboratory Data

Lab Sample: 2505059-09
QC Batch: B25E166
Sample Size: 12.1 g
% Solids: 83.5
Date Received: 06-May-25 09:03
Date Extracted: 13-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	1.08		0.189			18-May-25 01:46	1
1,2,3,7,8-PeCDD	10.9		0.778			18-May-25 01:46	1
1,2,3,4,7,8-HxCDD	30.2		0.628			18-May-25 01:46	1
1,2,3,6,7,8-HxCDD	167		0.635			18-May-25 01:46	1
1,2,3,7,8,9-HxCDD	60.0		0.712			18-May-25 01:46	1
1,2,3,4,6,7,8-HpCDD	3500		7.01		D	19-May-25 17:08	10
OCDD	28100		16.1		B,D	19-May-25 17:08	10
2,3,7,8-TCDF	5.71		0.182			18-May-25 01:46	1
1,2,3,7,8-PeCDF	20.4		0.572			18-May-25 01:46	1
2,3,4,7,8-PeCDF	15.0		0.681			18-May-25 01:46	1
1,2,3,4,7,8-HxCDF	93.5		0.654			18-May-25 01:46	1
1,2,3,6,7,8-HxCDF	37.3		0.616			18-May-25 01:46	1
2,3,4,6,7,8-HxCDF	21.9		0.656			18-May-25 01:46	1
1,2,3,7,8,9-HxCDF	10.6		0.711			18-May-25 01:46	1
1,2,3,4,6,7,8-HpCDF	518		0.644			18-May-25 01:46	1
1,2,3,4,7,8,9-HpCDF	21.8		0.812			18-May-25 01:46	1
OCDF	380		3.81			18-May-25 01:46	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	109						
Totals							
Total TCDD	5.13			7.53			
Total PeCDD	46.9			47.7			
Total HxCDD	661			666			
Total HpCDD	5480						
Total TCDF	47.5			51.4			
Total PeCDF	449						
Total HxCDF	1390						
Total HpCDF	1380						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	97.7	40 - 135		18-May-25 01:46	1
13C-1,2,3,7,8-PeCDD	IS	86.9	40 - 135		18-May-25 01:46	1
13C-1,2,3,4,7,8-HxCDD	IS	89.5	40 - 135		18-May-25 01:46	1
13C-1,2,3,6,7,8-HxCDD	IS	85.3	40 - 135		18-May-25 01:46	1
13C-1,2,3,7,8,9-HxCDD	IS	87.9	40 - 135		18-May-25 01:46	1
13C-1,2,3,4,6,7,8-HpCDD	IS	88.0	40 - 135	D	19-May-25 17:08	10
13C-OCDD	IS	81.6	40 - 135	D	19-May-25 17:08	10
13C-2,3,7,8-TCDF	IS	100	40 - 135		18-May-25 01:46	1
13C-1,2,3,7,8-PeCDF	IS	94.7	40 - 135		18-May-25 01:46	1
13C-2,3,4,7,8-PeCDF	IS	95.8	40 - 135		18-May-25 01:46	1
13C-1,2,3,4,7,8-HxCDF	IS	92.7	40 - 135		18-May-25 01:46	1
13C-1,2,3,6,7,8-HxCDF	IS	88.3	40 - 135		18-May-25 01:46	1
13C-2,3,4,6,7,8-HxCDF	IS	88.5	40 - 135		18-May-25 01:46	1
13C-1,2,3,7,8,9-HxCDF	IS	88.9	40 - 135		18-May-25 01:46	1
13C-1,2,3,4,6,7,8-HpCDF	IS	90.6	40 - 135		18-May-25 01:46	1
13C-1,2,3,4,7,8,9-HpCDF	IS	93.9	40 - 135		18-May-25 01:46	1
13C-OCDF	IS	91.2	40 - 135		18-May-25 01:46	1
37Cl-2,3,7,8-TCDD	CRS	90.0	40 - 135		18-May-25 01:46	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-010-1.0-2.0-DUP

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Soil
Date Collected: 01-May-25 14:39

Laboratory Data

Lab Sample: 2505059-10
QC Batch: B25E166
Sample Size: 12.0 g
% Solids: 83.6
Date Received: 06-May-25 09:03
Date Extracted: 13-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	0.948		0.190			18-May-25 02:33	1
1,2,3,7,8-PeCDD	9.27		0.783			18-May-25 02:33	1
1,2,3,4,7,8-HxCDD	23.4		0.632			18-May-25 02:33	1
1,2,3,6,7,8-HxCDD	137		0.639			18-May-25 02:33	1
1,2,3,7,8,9-HxCDD	46.4		0.716			18-May-25 02:33	1
1,2,3,4,6,7,8-HpCDD	2840		0.705			18-May-25 02:33	1
OCDD	24900		16.2		B,D	19-May-25 16:04	10
2,3,7,8-TCDF	ND		0.183	4.74		18-May-25 02:33	1
1,2,3,7,8-PeCDF	17.9		0.575			18-May-25 02:33	1
2,3,4,7,8-PeCDF	34.2		0.685			18-May-25 02:33	1
1,2,3,4,7,8-HxCDF	81.8		0.658			18-May-25 02:33	1
1,2,3,6,7,8-HxCDF	32.1		0.620			18-May-25 02:33	1
2,3,4,6,7,8-HxCDF	17.2		0.660			18-May-25 02:33	1
1,2,3,7,8,9-HxCDF	9.69		0.715			18-May-25 02:33	1
1,2,3,4,6,7,8-HpCDF	445		0.648			18-May-25 02:33	1
1,2,3,4,7,8,9-HpCDF	18.7		0.817			18-May-25 02:33	1
OCDF	323		3.83			18-May-25 02:33	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	96.4						
Totals							
Total TCDD	4.86			5.88			
Total PeCDD	43.9						
Total HxCDD	556						
Total HpCDD	4770						
Total TCDF	34.2			43.0			
Total PeCDF	403			404			
Total HxCDF	1220						
Total HpCDF	1190						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	97.3	40 - 135		18-May-25 02:33	1
13C-1,2,3,7,8-PeCDD	IS	88.1	40 - 135		18-May-25 02:33	1
13C-1,2,3,4,7,8-HxCDD	IS	92.3	40 - 135		18-May-25 02:33	1
13C-1,2,3,6,7,8-HxCDD	IS	87.7	40 - 135		18-May-25 02:33	1
13C-1,2,3,7,8,9-HxCDD	IS	88.7	40 - 135		18-May-25 02:33	1
13C-1,2,3,4,6,7,8-HpCDD	IS	101	40 - 135		18-May-25 02:33	1
13C-OCDD	IS	68.7	40 - 135	D	19-May-25 16:04	10
13C-2,3,7,8-TCDF	IS	101	40 - 135		18-May-25 02:33	1
13C-1,2,3,7,8-PeCDF	IS	99.3	40 - 135		18-May-25 02:33	1
13C-2,3,4,7,8-PeCDF	IS	97.9	40 - 135		18-May-25 02:33	1
13C-1,2,3,4,7,8-HxCDF	IS	93.3	40 - 135		18-May-25 02:33	1
13C-1,2,3,6,7,8-HxCDF	IS	89.3	40 - 135		18-May-25 02:33	1
13C-2,3,4,6,7,8-HxCDF	IS	89.2	40 - 135		18-May-25 02:33	1
13C-1,2,3,7,8,9-HxCDF	IS	92.3	40 - 135		18-May-25 02:33	1
13C-1,2,3,4,6,7,8-HpCDF	IS	91.6	40 - 135		18-May-25 02:33	1
13C-1,2,3,4,7,8,9-HpCDF	IS	95.2	40 - 135		18-May-25 02:33	1
13C-OCDF	IS	92.2	40 - 135		18-May-25 02:33	1
37Cl-2,3,7,8-TCDD	CRS	85.6	40 - 135		18-May-25 02:33	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-011-1.0-2.0

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Soil
Date Collected: 01-May-25 15:45

Laboratory Data

Lab Sample: 2505059-11
QC Batch: B25E166
Sample Size: 12.0 g
% Solids: 83.9
Date Received: 06-May-25 09:03
Date Extracted: 13-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	0.0791	0.188			18-May-25 03:21	1
1,2,3,7,8-PeCDD	1.01		0.777		J	18-May-25 03:21	1
1,2,3,4,7,8-HxCDD	2.70		0.628			18-May-25 03:21	1
1,2,3,6,7,8-HxCDD	14.4		0.635			18-May-25 03:21	1
1,2,3,7,8,9-HxCDD	5.54		0.711			18-May-25 03:21	1
1,2,3,4,6,7,8-HpCDD	289		0.700			18-May-25 03:21	1
OCDD	1930		1.61		B	18-May-25 03:21	1
2,3,7,8-TCDF	0.545		0.181			18-May-25 03:21	1
1,2,3,7,8-PeCDF	1.41		0.571		J	18-May-25 03:21	1
2,3,4,7,8-PeCDF	1.71		0.680		J	18-May-25 03:21	1
1,2,3,4,7,8-HxCDF	8.25		0.653			18-May-25 03:21	1
1,2,3,6,7,8-HxCDF	3.97		0.616			18-May-25 03:21	1
2,3,4,6,7,8-HxCDF	1.89		0.655		J	18-May-25 03:21	1
1,2,3,7,8,9-HxCDF	0.420		0.710		J	18-May-25 03:21	1
1,2,3,4,6,7,8-HpCDF	41.7		0.643			18-May-25 03:21	1
1,2,3,4,7,8,9-HpCDF	2.54		0.811			18-May-25 03:21	1
OCDF	29.4		3.81			18-May-25 03:21	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	9.26						
Totals							
Total TCDD	0.311			0.468	J		
Total PeCDD	2.59			4.32			
Total HxCDD	63.0						
Total HpCDD	492						
Total TCDF	6.07			6.68			
Total PeCDF	44.1						
Total HxCDF	113			117			
Total HpCDF	104						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	104	40 - 135		18-May-25 03:21	1
13C-1,2,3,7,8-PeCDD	IS	96.0	40 - 135		18-May-25 03:21	1
13C-1,2,3,4,7,8-HxCDD	IS	94.3	40 - 135		18-May-25 03:21	1
13C-1,2,3,6,7,8-HxCDD	IS	94.0	40 - 135		18-May-25 03:21	1
13C-1,2,3,7,8,9-HxCDD	IS	94.6	40 - 135		18-May-25 03:21	1
13C-1,2,3,4,6,7,8-HpCDD	IS	98.8	40 - 135		18-May-25 03:21	1
13C-OCDD	IS	94.2	40 - 135		18-May-25 03:21	1
13C-2,3,7,8-TCDF	IS	103	40 - 135		18-May-25 03:21	1
13C-1,2,3,7,8-PeCDF	IS	105	40 - 135		18-May-25 03:21	1
13C-2,3,4,7,8-PeCDF	IS	101	40 - 135		18-May-25 03:21	1
13C-1,2,3,4,7,8-HxCDF	IS	99.1	40 - 135		18-May-25 03:21	1
13C-1,2,3,6,7,8-HxCDF	IS	94.2	40 - 135		18-May-25 03:21	1
13C-2,3,4,6,7,8-HxCDF	IS	94.1	40 - 135		18-May-25 03:21	1
13C-1,2,3,7,8,9-HxCDF	IS	93.0	40 - 135		18-May-25 03:21	1
13C-1,2,3,4,6,7,8-HpCDF	IS	99.5	40 - 135		18-May-25 03:21	1
13C-1,2,3,4,7,8,9-HpCDF	IS	95.5	40 - 135		18-May-25 03:21	1
13C-OCDF	IS	90.5	40 - 135		18-May-25 03:21	1
37Cl-2,3,7,8-TCDD	CRS	97.7	40 - 135		18-May-25 03:21	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-012-1.0-2.0

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Soil
Date Collected: 01-May-25 16:21

Laboratory Data

Lab Sample: 2505059-12
QC Batch: B25E166
Sample Size: 12.1 g
% Solids: 82.7
Date Received: 06-May-25 09:03
Date Extracted: 13-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND		0.190	0.234		18-May-25 04:08	1
1,2,3,7,8-PeCDD	2.63		0.782			18-May-25 04:08	1
1,2,3,4,7,8-HxCDD	4.36		0.632			18-May-25 04:08	1
1,2,3,6,7,8-HxCDD	21.8		0.639			18-May-25 04:08	1
1,2,3,7,8,9-HxCDD	8.36		0.716			18-May-25 04:08	1
1,2,3,4,6,7,8-HpCDD	390		0.705			18-May-25 04:08	1
OCDD	2760		1.62		B	18-May-25 04:08	1
2,3,7,8-TCDF	1.54		0.183			18-May-25 04:08	1
1,2,3,7,8-PeCDF	2.75		0.575			18-May-25 04:08	1
2,3,4,7,8-PeCDF	38.2		0.685			18-May-25 04:08	1
1,2,3,4,7,8-HxCDF	14.3		0.658		P	18-May-25 04:08	1
1,2,3,6,7,8-HxCDF	11.4		0.620			18-May-25 04:08	1
2,3,4,6,7,8-HxCDF	10.4		0.660			18-May-25 04:08	1
1,2,3,7,8,9-HxCDF	3.65		0.715			18-May-25 04:08	1
1,2,3,4,6,7,8-HpCDF	66.2		0.648			18-May-25 04:08	1
1,2,3,4,7,8,9-HpCDF	4.23		0.816			18-May-25 04:08	1
OCDF	66.5		3.83			18-May-25 04:08	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	27.2						
Totals							
Total TCDD	2.40			4.02			
Total PeCDD	15.8			20.2			
Total HxCDD	113						
Total HpCDD	669						
Total TCDF	103			104			
Total PeCDF	460			462			
Total HxCDF	389			390			
Total HpCDF	172			173			

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	96.0	40 - 135		18-May-25 04:08	1
13C-1,2,3,7,8-PeCDD	IS	85.8	40 - 135		18-May-25 04:08	1
13C-1,2,3,4,7,8-HxCDD	IS	91.2	40 - 135		18-May-25 04:08	1
13C-1,2,3,6,7,8-HxCDD	IS	86.9	40 - 135		18-May-25 04:08	1
13C-1,2,3,7,8,9-HxCDD	IS	87.5	40 - 135		18-May-25 04:08	1
13C-1,2,3,4,6,7,8-HpCDD	IS	94.4	40 - 135		18-May-25 04:08	1
13C-OCDD	IS	87.3	40 - 135		18-May-25 04:08	1
13C-2,3,7,8-TCDF	IS	96.4	40 - 135		18-May-25 04:08	1
13C-1,2,3,7,8-PeCDF	IS	93.4	40 - 135		18-May-25 04:08	1
13C-2,3,4,7,8-PeCDF	IS	92.2	40 - 135		18-May-25 04:08	1
13C-1,2,3,4,7,8-HxCDF	IS	92.7	40 - 135		18-May-25 04:08	1
13C-1,2,3,6,7,8-HxCDF	IS	89.6	40 - 135		18-May-25 04:08	1
13C-2,3,4,6,7,8-HxCDF	IS	88.6	40 - 135		18-May-25 04:08	1
13C-1,2,3,7,8,9-HxCDF	IS	88.1	40 - 135		18-May-25 04:08	1
13C-1,2,3,4,6,7,8-HpCDF	IS	89.8	40 - 135		18-May-25 04:08	1
13C-1,2,3,4,7,8,9-HpCDF	IS	89.5	40 - 135		18-May-25 04:08	1
13C-OCDF	IS	84.4	40 - 135		18-May-25 04:08	1
37Cl-2,3,7,8-TCDD	CRS	88.5	40 - 135		18-May-25 04:08	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-013-1.0-2.0

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Soil
Date Collected: 01-May-25 16:40

Laboratory Data

Lab Sample: 2505059-13
QC Batch: B25E166
Sample Size: 12.2 g
% Solids: 82.4
Date Received: 06-May-25 09:03
Date Extracted: 13-May-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	0.0591	0.189			18-May-25 04:55	1
1,2,3,7,8-PeCDD	0.348		0.781		J	18-May-25 04:55	1
1,2,3,4,7,8-HxCDD	1.14		0.630		J	18-May-25 04:55	1
1,2,3,6,7,8-HxCDD	6.28		0.637			18-May-25 04:55	1
1,2,3,7,8,9-HxCDD	2.31		0.714		J	18-May-25 04:55	1
1,2,3,4,6,7,8-HpCDD	116		0.703			18-May-25 04:55	1
OCDD	812		1.61		B	18-May-25 04:55	1
2,3,7,8-TCDF	ND		0.182	0.208		18-May-25 04:55	1
1,2,3,7,8-PeCDF	0.591		0.574		J	18-May-25 04:55	1
2,3,4,7,8-PeCDF	1.50		0.683		J	18-May-25 04:55	1
1,2,3,4,7,8-HxCDF	3.37		0.656			18-May-25 04:55	1
1,2,3,6,7,8-HxCDF	1.72		0.619		J	18-May-25 04:55	1
2,3,4,6,7,8-HxCDF	1.18		0.658		J	18-May-25 04:55	1
1,2,3,7,8,9-HxCDF	0.496		0.713		J	18-May-25 04:55	1
1,2,3,4,6,7,8-HpCDF	16.1		0.646			18-May-25 04:55	1
1,2,3,4,7,8,9-HpCDF	1.02		0.815		J	18-May-25 04:55	1
OCDF	13.6		3.82			18-May-25 04:55	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	4.04						
Totals							
Total TCDD	ND	0.0591					
Total PeCDD	0.348			1.85	J		
Total HxCDD	26.0						
Total HpCDD	197						
Total TCDF	2.82			3.55			
Total PeCDF	22.5			23.5			
Total HxCDF	47.2			47.6			
Total HpCDF	40.3						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	101	40 - 135		18-May-25 04:55	1
13C-1,2,3,7,8-PeCDD	IS	86.7	40 - 135		18-May-25 04:55	1
13C-1,2,3,4,7,8-HxCDD	IS	88.2	40 - 135		18-May-25 04:55	1
13C-1,2,3,6,7,8-HxCDD	IS	84.8	40 - 135		18-May-25 04:55	1
13C-1,2,3,7,8,9-HxCDD	IS	88.6	40 - 135		18-May-25 04:55	1
13C-1,2,3,4,6,7,8-HpCDD	IS	89.5	40 - 135		18-May-25 04:55	1
13C-OCDD	IS	83.1	40 - 135		18-May-25 04:55	1
13C-2,3,7,8-TCDF	IS	100	40 - 135		18-May-25 04:55	1
13C-1,2,3,7,8-PeCDF	IS	97.6	40 - 135		18-May-25 04:55	1
13C-2,3,4,7,8-PeCDF	IS	97.3	40 - 135		18-May-25 04:55	1
13C-1,2,3,4,7,8-HxCDF	IS	92.4	40 - 135		18-May-25 04:55	1
13C-1,2,3,6,7,8-HxCDF	IS	88.2	40 - 135		18-May-25 04:55	1
13C-2,3,4,6,7,8-HxCDF	IS	87.9	40 - 135		18-May-25 04:55	1
13C-1,2,3,7,8,9-HxCDF	IS	89.6	40 - 135		18-May-25 04:55	1
13C-1,2,3,4,6,7,8-HpCDF	IS	90.2	40 - 135		18-May-25 04:55	1
13C-1,2,3,4,7,8,9-HpCDF	IS	87.1	40 - 135		18-May-25 04:55	1
13C-OCDF	IS	78.5	40 - 135		18-May-25 04:55	1
37Cl-2,3,7,8-TCDD	CRS	93.6	40 - 135		18-May-25 04:55	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
RL	For 537.1, the reported RLs are the MRLs.
TEQ	Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the sample concentrations.
TEQMax	TEQ calculation that uses the detection limit as the concentration for non-detects
TEQMin	TEQ calculation that uses zero as the concentration for non-detects
TEQRisk	TEQ calculation that uses ½ the detection limit as the concentration for non-detects
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Enthalpy Analytical - EDH Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	21-023-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	2211390
Nevada Division of Environmental Protection	CA00413
New Hampshire Environmental Accreditation Program	207721
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-021
Texas Commission on Environmental Quality	T104704189-22-13
Vermont Department of Health	VT-4042
Virginia Department of General Services	11276
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters can be found at Enthalpy.com/Resources/Accreditations.

2505059 1.5C

SUBCONTRACT ORDER

Apex Laboratories

A5E0955

SENDING LABORATORY:	**RECEIVING LABORATORY:**
Apex Laboratories	Enthalpy Analytical- CA
6700 S.W. Sandburg Street	1104 Windfield Way
Tigard, OR 97223	El Dorado Hills, CA 95762
Phone: (503) 718-2323	Phone :(916) 673-1520
Fax: (503) 336-0745	Fax: -
Project Manager: Philip Nerenberg	

Sample Name: ROW-P3-001-1.0-2.0 **Soil** **Sampled: 05/01/25 10:03** (A5E0955-01)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	05/15/25 17:00	05/31/25 10:03	
Containers Supplied:			
(A)8 oz Glass Jar			

Sample Name: ROW-P3-002-0-0.5 **Soil** **Sampled: 05/01/25 10:21** (A5E0955-03)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	05/15/25 17:00	05/31/25 10:21	
Containers Supplied:			
(A)8 oz Glass Jar			

Sample Name: ROW-P3-003-1.0-2.0 **Soil** **Sampled: 05/01/25 11:38** (A5E0955-05)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	05/15/25 17:00	05/31/25 11:38	
Containers Supplied:			
(A)8 oz Glass Jar			

Sample Name: ROW-P3-004-1.0-2.0 **Soil** **Sampled: 05/01/25 13:12** (A5E0955-07)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	05/15/25 17:00	05/31/25 13:12	
Containers Supplied:			
(A)8 oz Glass Jar			

- Standard TAT -

Released By	Date	Received By	Date
ZA	5/5/25	Fed Ex (Shipper)	
Fed Ex (Shipper)			
Released By	Date	Received By	Date
			05/06/25 09:03

2505059

SUBCONTRACT ORDER

Apex Laboratories

5/12/25 **A5E0955**

Sample Name: ROW-P3-005-1.0-2.0 **Soil** **Sampled: 05/01/25 12:27** (A5E0955-09)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	05/15/25 17:00	05/31/25 12:27	
Containers Supplied:			
(A)8 oz Glass Jar			

Sample Name: ROW-P3-006-1.0-2.0 **Soil** **Sampled: 05/01/25 12:47** (A5E0955-11)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	05/15/25 17:00	05/31/25 12:47	
Containers Supplied:			
(A)8 oz Glass Jar			

Sample Name: ROW-P3-007-1.0-2.0 **Soil** **Sampled: 05/01/25 09:30** (A5E0955-13)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	05/15/25 17:00	05/31/25 09:30	
Containers Supplied:			
(A)8 oz Glass Jar			

Sample Name: ROW-P3-009-1.0-2.0 **Soil** **Sampled: 05/01/25 14:06** (A5E0955-16)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	05/15/25 17:00	05/31/25 14:06	
Containers Supplied:			
(A)8 oz Glass Jar			

Sample Name: ROW-P3-010-1.0-2.0 **Soil** **Sampled: 05/01/25 14:39** (A5E0955-18)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	05/15/25 17:00	05/31/25 14:39	
Containers Supplied:			
(A)8 oz Glass Jar			

Sample Name: ROW-P3-010-1.0-2.0-DUP **Soil** **Sampled: 05/01/25 14:39** (A5E0955-19)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	05/15/25 17:00	05/31/25 14:39	
Containers Supplied:			
(A)8 oz Glass Jar			

- Standard TAT -

ZA 5/5/25 Fed Ex (Shipper)

Released By Date Received By Date

Fed Ex (Shipper) VAB 05/06/25

Released By Date Received By 05/06/25 09:03 Date

2505059

SUBCONTRACT ORDER

Apex Laboratories

A5E0955

Sample Name: ROW-P3-011-1.0-2.0 **Soil** **Sampled: 05/01/25 15:45** (A5E0955-21)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	05/15/25 17:00	05/31/25 15:45	
Containers Supplied:			
(A)8 oz Glass Jar			

Sample Name: ROW-P3-012-1.0-2.0 **Soil** **Sampled: 05/01/25 16:21** (A5E0955-23)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	05/15/25 17:00	05/31/25 16:21	
Containers Supplied:			
(A)8 oz Glass Jar			

Sample Name: ROW-P3-013-1.0-2.0 **Soil** **Sampled: 05/01/25 16:40** (A5E0955-25)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	05/15/25 17:00	05/31/25 16:40	
Containers Supplied:			
(A)8 oz Glass Jar			

Sample Name: 20250501-RB **Water** **Sampled: 05/01/25 17:00** (A5E0955-27)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	05/15/25 17:00	05/31/25 17:00	
Containers Supplied:			
(A)1 L Amber Glass - Non Preserved			
(B)1 L Amber Glass - Non Preserved			

Standard TAT -

Released By	Date	Received By	Date
ZA	5/5/25	Fed Ex (Shipper)	
Fed Ex (Shipper)			
Released By	Date	Received By	Date
			05/06/25 09:03

CoC/Label Reconciliation Report WO# 2505059

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2505059-01	A ROW-P3-001-1.0-2.0	A5E0955-01	01-May-25 10:03	Clear Glass Jar, 250mL (A)	Solid	
2505059-02	A ROW-P3-002-0-0.5	A5E0955-03	01-May-25 10:21	Clear Glass Jar, 250mL	Solid	
2505059-03	A ROW-P3-003-1.0-2.0	A5E0955-05	01-May-25 11:38	Clear Glass Jar, 250mL	Solid	
2505059-04	A ROW-P3-004-1.0-2.0	A5E0955-07	01-May-25 13:12	Clear Glass Jar, 250mL	Solid	
2505059-05	A ROW-P3-005-1.0-2.0	A5E0955-09	01-May-25 12:27	Clear Glass Jar, 250mL	Solid	
2505059-06	A ROW-P3-006-1.0-2.0	A5E0955-11	01-May-25 12:47	Clear Glass Jar, 250mL	Solid	
2505059-07	A ROW-P3-007-1.0-2.0	A5E0955-13	01-May-25 09:30	Clear Glass Jar, 250mL	Solid	
2505059-08	A ROW-P3-009-1.0-2.0	A5E0955-16	01-May-25 14:06	Clear Glass Jar, 250mL	Solid	
2505059-09	A ROW-P3-010-1.0-2.0	A5E0955-18	01-May-25 14:39	Clear Glass Jar, 250mL	Solid	
2505059-10	A ROW-P3-010-1.0-2.0-DUP	A5E0955-19	01-May-25 14:39	Clear Glass Jar, 250mL	Solid	
2505059-11	A ROW-P3-011-1.0-2.0	A5E0955-21	01-May-25 15:45	Clear Glass Jar, 250mL	Solid	
2505059-12	A ROW-P3-012-1.0-2.0	A5E0955-23	01-May-25 16:21	Clear Glass Jar, 250mL	Solid	
2505059-13	A ROW-P3-013-1.0-2.0	A5E0955-25	01-May-25 16:40	Clear Glass Jar, 250mL	Solid	
2505059-14	A 20250501-RB	A5E0955-27	01-May-25 17:00	Amber Glass NM Bottle, 1L	Aqueous	
2505059-14	B 20250501-RB	A5E0955-27	01-May-25 17:00	Amber Glass NM Bottle, 1L	Aqueous	

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

CONDITION	Yes	No	NA
Sample Container Intact?	✓		
Sample Container(s) Custody Seals Intact?			✓
Custody Seals On Cooler Intact?			✓
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)?	✓		

Comments:
(A) Clear Jar used, Client Jar Used wrapped in Foil.

Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 (None) Other

Verifed by/Date: XAO 05/07/25
HT 05/07/25

June 20, 2025

Enthalpy Analytical - El Dorado Hills
Work Order No. 2506086

Mr. Philip Nerenberg
Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223

Dear Mr. Nerenberg,

Enclosed are the results for the sample set received at Enthalpy Analytical - EDH on June 05, 2025 under your Project Name 'A5E0955 / Port of Ridgefield'.

Enthalpy Analytical - EDH is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at kathy.zipp@enthalpy.com.

Thank you for choosing Enthalpy Analytical - EDH as part of your analytical support team.

Sincerely,

Kathy Zipp
Project Manager

Enthalpy Analytical - EDH Work Order No. 2506086
Case Narrative

Sample Condition on Receipt:

Four soil samples were received and stored securely in accordance with Enthalpy Analytical - EDH standard operating procedures and EPA methodology. The samples were received in good condition and within the method temperature requirements. The samples were received out of hold time. Authorization to proceed with the analyses was received by email on June 7, 2025.

Analytical Notes:

EPA Method 8290A

The samples were extracted and analyzed for tetra-through-octa chlorinated dioxins and furans by EPA Method 8290A using a ZB-DIOXIN GC column.

Holding Times

The method holding time criteria were met for these samples. The samples were extracted outside the method hold time but within the hold time guidance in SW-846 Update VI, Chapter 4 (2018). The samples were analyzed within the method hold time.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected above the sample quantitation limits in the Method Blank. The OPR recoveries were within the method acceptance criteria.

The labeled standard recoveries outside the acceptance criteria are flagged with an "H" qualifier.

TABLE OF CONTENTS

Sample Inventory Report

Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2506086-01	ROW-P3-004-1.5-2.0	01-May-25 13:16	05-Jun-25 09:27	Clear Glass Jar, 250mL
2506086-02	ROW-P3-007-1.5-2.0	01-May-25 09:32	05-Jun-25 09:27	Clear Glass Jar, 250mL
2506086-03	ROW-P3-010-2.0-2.5	01-May-25 14:45	05-Jun-25 09:27	Clear Glass Jar, 250mL
2506086-04	ROW-P3-012-1.5-2.0	01-May-25 16:25	05-Jun-25 09:27	Clear Glass Jar, 250mL

ANALYTICAL RESULTS

Sample ID: Method Blank

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Solid

Laboratory Data

Lab Sample: B25F125-BLK1
QC Batch: B25F125
Sample Size: 10.0 g
Date Extracted: 11-Jun-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	0.0903	0.190			12-Jun-25 16:52	1
1,2,3,7,8-PeCDD	ND	0.142	0.784			12-Jun-25 16:52	1
1,2,3,4,7,8-HxCDD	ND	0.139	0.633			12-Jun-25 16:52	1
1,2,3,6,7,8-HxCDD	ND	0.133	0.640			12-Jun-25 16:52	1
1,2,3,7,8,9-HxCDD	ND	0.143	0.717			12-Jun-25 16:52	1
1,2,3,4,6,7,8-HpCDD	ND	0.113	0.706			12-Jun-25 16:52	1
OCDD	ND	0.722	1.62			12-Jun-25 16:52	1
2,3,7,8-TCDF	ND	0.0827	0.183			12-Jun-25 16:52	1
1,2,3,7,8-PeCDF	ND		0.576	0.139		12-Jun-25 16:52	1
2,3,4,7,8-PeCDF	ND	0.0947	0.686			12-Jun-25 16:52	1
1,2,3,4,7,8-HxCDF	0.148		0.659		J	12-Jun-25 16:52	1
1,2,3,6,7,8-HxCDF	ND		0.621	0.129		12-Jun-25 16:52	1
2,3,4,6,7,8-HxCDF	ND		0.661	0.137		12-Jun-25 16:52	1
1,2,3,7,8,9-HxCDF	ND	0.130	0.716			12-Jun-25 16:52	1
1,2,3,4,6,7,8-HpCDF	ND	0.0899	0.649			12-Jun-25 16:52	1
1,2,3,4,7,8,9-HpCDF	ND		0.818	0.182		12-Jun-25 16:52	1
OCDF	ND	0.254	3.84			12-Jun-25 16:52	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	0.0148						
Totals							
Total TCDD	ND	0.0903					
Total PeCDD	ND	0.142					
Total HxCDD	ND	0.143					
Total HpCDD	ND	0.113					
Total TCDF	ND	0.0827					
Total PeCDF	ND			0.139			
Total HxCDF	0.148			0.414	J		
Total HpCDF	ND			0.182			

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	74.9	40 - 135		12-Jun-25 16:52	1
13C-1,2,3,7,8-PeCDD	IS	76.6	40 - 135		12-Jun-25 16:52	1
13C-1,2,3,4,7,8-HxCDD	IS	83.3	40 - 135		12-Jun-25 16:52	1
13C-1,2,3,6,7,8-HxCDD	IS	85.6	40 - 135		12-Jun-25 16:52	1
13C-1,2,3,7,8,9-HxCDD	IS	81.4	40 - 135		12-Jun-25 16:52	1
13C-1,2,3,4,6,7,8-HpCDD	IS	72.2	40 - 135		12-Jun-25 16:52	1
13C-OCDD	IS	58.5	40 - 135		12-Jun-25 16:52	1
13C-2,3,7,8-TCDF	IS	79.8	40 - 135		12-Jun-25 16:52	1
13C-1,2,3,7,8-PeCDF	IS	78.1	40 - 135		12-Jun-25 16:52	1
13C-2,3,4,7,8-PeCDF	IS	77.4	40 - 135		12-Jun-25 16:52	1
13C-1,2,3,4,7,8-HxCDF	IS	78.1	40 - 135		12-Jun-25 16:52	1
13C-1,2,3,6,7,8-HxCDF	IS	74.5	40 - 135		12-Jun-25 16:52	1
13C-2,3,4,6,7,8-HxCDF	IS	72.6	40 - 135		12-Jun-25 16:52	1
13C-1,2,3,7,8,9-HxCDF	IS	71.4	40 - 135		12-Jun-25 16:52	1
13C-1,2,3,4,6,7,8-HpCDF	IS	66.0	40 - 135		12-Jun-25 16:52	1
13C-1,2,3,4,7,8,9-HpCDF	IS	64.4	40 - 135		12-Jun-25 16:52	1
13C-OCDF	IS	56.6	40 - 135		12-Jun-25 16:52	1
37Cl-2,3,7,8-TCDD	CRS	92.4	40 - 135		12-Jun-25 16:52	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: OPR **EPA Method 8290A**

Client Data
Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Solid

Laboratory Data
Lab Sample: B25F125-BS1
QC Batch: B25F125 Date Extracted: 11-Jun-25 03:35
Sample Size: 10.0 g Column: ZB-DIOXIN

Analyte	Amt Found (pg/g)	Spike Amt	% Recovery	Limits	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	20.5	20.0	103	70-130		12-Jun-25 14:32	1
1,2,3,7,8-PeCDD	111	100	111	70-130		12-Jun-25 14:32	1
1,2,3,4,7,8-HxCDD	97.1	100	97.1	70-130		12-Jun-25 14:32	1
1,2,3,6,7,8-HxCDD	95.0	100	95.0	70-130		12-Jun-25 14:32	1
1,2,3,7,8,9-HxCDD	102	100	102	70-130		12-Jun-25 14:32	1
1,2,3,4,6,7,8-HpCDD	106	100	106	70-130		12-Jun-25 14:32	1
OCDD	218	200	109	70-130		12-Jun-25 14:32	1
2,3,7,8-TCDF	19.3	20.0	96.6	70-130		12-Jun-25 14:32	1
1,2,3,7,8-PeCDF	102	100	102	70-130		12-Jun-25 14:32	1
2,3,4,7,8-PeCDF	107	100	107	70-130		12-Jun-25 14:32	1
1,2,3,4,7,8-HxCDF	102	100	102	70-130	B	12-Jun-25 14:32	1
1,2,3,6,7,8-HxCDF	107	100	107	70-130		12-Jun-25 14:32	1
2,3,4,6,7,8-HxCDF	105	100	105	70-130		12-Jun-25 14:32	1
1,2,3,7,8,9-HxCDF	105	100	105	70-130		12-Jun-25 14:32	1
1,2,3,4,6,7,8-HpCDF	108	100	108	70-130		12-Jun-25 14:32	1
1,2,3,4,7,8,9-HpCDF	107	100	107	70-130		12-Jun-25 14:32	1
OCDF	200	200	99.8	70-130		12-Jun-25 14:32	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	71.5	40-135		12-Jun-25 14:32	1
13C-1,2,3,7,8-PeCDD	IS	76.0	40-135		12-Jun-25 14:32	1
13C-1,2,3,4,7,8-HxCDD	IS	78.3	40-135		12-Jun-25 14:32	1
13C-1,2,3,6,7,8-HxCDD	IS	82.5	40-135		12-Jun-25 14:32	1
13C-1,2,3,7,8,9-HxCDD	IS	77.0	40-135		12-Jun-25 14:32	1
13C-1,2,3,4,6,7,8-HpCDD	IS	65.9	40-135		12-Jun-25 14:32	1
13C-OCDD	IS	51.2	40-135		12-Jun-25 14:32	1
13C-2,3,7,8-TCDF	IS	74.0	40-135		12-Jun-25 14:32	1
13C-1,2,3,7,8-PeCDF	IS	76.4	40-135		12-Jun-25 14:32	1
13C-2,3,4,7,8-PeCDF	IS	76.2	40-135		12-Jun-25 14:32	1
13C-1,2,3,4,7,8-HxCDF	IS	75.1	40-135		12-Jun-25 14:32	1
13C-1,2,3,6,7,8-HxCDF	IS	72.8	40-135		12-Jun-25 14:32	1
13C-2,3,4,6,7,8-HxCDF	IS	70.3	40-135		12-Jun-25 14:32	1
13C-1,2,3,7,8,9-HxCDF	IS	67.9	40-135		12-Jun-25 14:32	1
13C-1,2,3,4,6,7,8-HpCDF	IS	63.8	40-135		12-Jun-25 14:32	1
13C-1,2,3,4,7,8,9-HpCDF	IS	62.3	40-135		12-Jun-25 14:32	1
13C-OCDF	IS	54.7	40-135		12-Jun-25 14:32	1
37Cl-2,3,7,8-TCDD	CRS	91.0	40-135		12-Jun-25 14:32	1

Sample ID: ROW-P3-004-1.5-2.0

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Soil
Date Collected: 01-May-25 13:16

Laboratory Data

Lab Sample: 2506086-01
QC Batch: B25F125
Sample Size: 11.8 g
% Solids: 85.3
Date Received: 05-Jun-25 09:27
Date Extracted: 11-Jun-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	0.112	0.189			12-Jun-25 19:57	1
1,2,3,7,8-PeCDD	ND		0.779	0.658		12-Jun-25 19:57	1
1,2,3,4,7,8-HxCDD	1.63		0.629		J	12-Jun-25 19:57	1
1,2,3,6,7,8-HxCDD	7.54		0.636			12-Jun-25 19:57	1
1,2,3,7,8,9-HxCDD	3.55		0.712			12-Jun-25 19:57	1
1,2,3,4,6,7,8-HpCDD	169		0.701			12-Jun-25 19:57	1
OCDD	1250		1.61			12-Jun-25 19:57	1
2,3,7,8-TCDF	0.440		0.182		J	12-Jun-25 19:57	1
1,2,3,7,8-PeCDF	0.844		0.572		J	12-Jun-25 19:57	1
2,3,4,7,8-PeCDF	1.51		0.682		J	12-Jun-25 19:57	1
1,2,3,4,7,8-HxCDF	6.07		0.655		B	12-Jun-25 19:57	1
1,2,3,6,7,8-HxCDF	2.68		0.617			12-Jun-25 19:57	1
2,3,4,6,7,8-HxCDF	3.13		0.657			12-Jun-25 19:57	1
1,2,3,7,8,9-HxCDF	ND		0.711	0.360		12-Jun-25 19:57	1
1,2,3,4,6,7,8-HpCDF	26.4		0.645			12-Jun-25 19:57	1
1,2,3,4,7,8,9-HpCDF	2.39		0.813		J	12-Jun-25 19:57	1
OCDF	24.1		3.82			12-Jun-25 19:57	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	5.34						
Totals							
Total TCDD	ND			0.130			
Total PeCDD	1.14			3.74	J		
Total HxCDD	37.2			38.1			
Total HpCDD	311						
Total TCDF	7.11			7.58			
Total PeCDF	46.3			47.1			
Total HxCDF	78.5			81.5	B		
Total HpCDF	78.8						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	70.2	40 - 135		12-Jun-25 19:57	1
13C-1,2,3,7,8-PeCDD	IS	58.9	40 - 135		12-Jun-25 19:57	1
13C-1,2,3,4,7,8-HxCDD	IS	55.3	40 - 135		12-Jun-25 19:57	1
13C-1,2,3,6,7,8-HxCDD	IS	54.5	40 - 135		12-Jun-25 19:57	1
13C-1,2,3,7,8,9-HxCDD	IS	46.2	40 - 135		12-Jun-25 19:57	1
13C-1,2,3,4,6,7,8-HpCDD	IS	34.6	40 - 135	H	12-Jun-25 19:57	1
13C-OCDD	IS	23.5	40 - 135	H	12-Jun-25 19:57	1
13C-2,3,7,8-TCDF	IS	77.4	40 - 135		12-Jun-25 19:57	1
13C-1,2,3,7,8-PeCDF	IS	64.8	40 - 135		12-Jun-25 19:57	1
13C-2,3,4,7,8-PeCDF	IS	64.1	40 - 135		12-Jun-25 19:57	1
13C-1,2,3,4,7,8-HxCDF	IS	48.6	40 - 135		12-Jun-25 19:57	1
13C-1,2,3,6,7,8-HxCDF	IS	45.5	40 - 135		12-Jun-25 19:57	1
13C-2,3,4,6,7,8-HxCDF	IS	40.2	40 - 135		12-Jun-25 19:57	1
13C-1,2,3,7,8,9-HxCDF	IS	52.2	40 - 135		12-Jun-25 19:57	1
13C-1,2,3,4,6,7,8-HpCDF	IS	25.8	40 - 135	H	12-Jun-25 19:57	1
13C-1,2,3,4,7,8,9-HpCDF	IS	37.9	40 - 135	H	12-Jun-25 19:57	1
13C-OCDF	IS	25.3	40 - 135	H	12-Jun-25 19:57	1
37Cl-2,3,7,8-TCDD	CRS	97.4	40 - 135		12-Jun-25 19:57	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-007-1.5-2.0

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Soil
Date Collected: 01-May-25 09:32

Laboratory Data

Lab Sample: 2506086-02
QC Batch: B25F125
Sample Size: 12.3 g
% Solids: 81.8
Date Received: 05-Jun-25 09:27
Date Extracted: 11-Jun-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND		0.190	0.503		12-Jun-25 20:43	1
1,2,3,7,8-PeCDD	9.92		0.782			12-Jun-25 20:43	1
1,2,3,4,7,8-HxCDD	20.0		0.631			12-Jun-25 20:43	1
1,2,3,6,7,8-HxCDD	73.5		0.638			12-Jun-25 20:43	1
1,2,3,7,8,9-HxCDD	43.2		0.715			12-Jun-25 20:43	1
1,2,3,4,6,7,8-HpCDD	1750		0.704			12-Jun-25 20:43	1
OCDD	14900		16.2		D	13-Jun-25 14:37	10
2,3,7,8-TCDF	1.86		0.183			12-Jun-25 20:43	1
1,2,3,7,8-PeCDF	4.84		0.575			12-Jun-25 20:43	1
2,3,4,7,8-PeCDF	17.3		0.684			12-Jun-25 20:43	1
1,2,3,4,7,8-HxCDF	29.1		0.657		B	12-Jun-25 20:43	1
1,2,3,6,7,8-HxCDF	20.2		0.619			12-Jun-25 20:43	1
2,3,4,6,7,8-HxCDF	19.1		0.659			12-Jun-25 20:43	1
1,2,3,7,8,9-HxCDF	5.28		0.714			12-Jun-25 20:43	1
1,2,3,4,6,7,8-HpCDF	295		0.647			12-Jun-25 20:43	1
1,2,3,4,7,8,9-HpCDF	21.4		0.816			12-Jun-25 20:43	1
OCDF	836		3.83			12-Jun-25 20:43	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	61.9						
Totals							
Total TCDD	9.10			10.4			
Total PeCDD	50.8			56.2			
Total HxCDD	418						
Total HpCDD	3080						
Total TCDF	107			108			
Total PeCDF	613			615			
Total HxCDF	746				B		
Total HpCDF	988						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	75.3	40 - 135		12-Jun-25 20:43	1
13C-1,2,3,7,8-PeCDD	IS	67.5	40 - 135		12-Jun-25 20:43	1
13C-1,2,3,4,7,8-HxCDD	IS	68.1	40 - 135		12-Jun-25 20:43	1
13C-1,2,3,6,7,8-HxCDD	IS	68.9	40 - 135		12-Jun-25 20:43	1
13C-1,2,3,7,8,9-HxCDD	IS	58.4	40 - 135		12-Jun-25 20:43	1
13C-1,2,3,4,6,7,8-HpCDD	IS	51.6	40 - 135		12-Jun-25 20:43	1
13C-OCDD	IS	44.8	40 - 135	D	13-Jun-25 14:37	10
13C-2,3,7,8-TCDF	IS	78.9	40 - 135		12-Jun-25 20:43	1
13C-1,2,3,7,8-PeCDF	IS	71.9	40 - 135		12-Jun-25 20:43	1
13C-2,3,4,7,8-PeCDF	IS	71.7	40 - 135		12-Jun-25 20:43	1
13C-1,2,3,4,7,8-HxCDF	IS	62.1	40 - 135		12-Jun-25 20:43	1
13C-1,2,3,6,7,8-HxCDF	IS	57.5	40 - 135		12-Jun-25 20:43	1
13C-2,3,4,6,7,8-HxCDF	IS	53.8	40 - 135		12-Jun-25 20:43	1
13C-1,2,3,7,8,9-HxCDF	IS	61.0	40 - 135		12-Jun-25 20:43	1
13C-1,2,3,4,6,7,8-HpCDF	IS	41.7	40 - 135		12-Jun-25 20:43	1
13C-1,2,3,4,7,8,9-HpCDF	IS	50.4	40 - 135		12-Jun-25 20:43	1
13C-OCDF	IS	42.0	40 - 135		12-Jun-25 20:43	1
37Cl-2,3,7,8-TCDD	CRS	97.6	40 - 135		12-Jun-25 20:43	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-010-2.0-2.5

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Soil
Date Collected: 01-May-25 14:45

Laboratory Data

Lab Sample: 2506086-03
QC Batch: B25F125
Sample Size: 12.3 g
% Solids: 81.5
Date Received: 05-Jun-25 09:27
Date Extracted: 11-Jun-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND		0.190	0.286		12-Jun-25 21:30	1
1,2,3,7,8-PeCDD	3.80		0.783			12-Jun-25 21:30	1
1,2,3,4,7,8-HxCDD	ND		0.632	7.25		12-Jun-25 21:30	1
1,2,3,6,7,8-HxCDD	40.7		0.639			12-Jun-25 21:30	1
1,2,3,7,8,9-HxCDD	14.9		0.716			12-Jun-25 21:30	1
1,2,3,4,6,7,8-HpCDD	948		0.705			12-Jun-25 21:30	1
OCDD	8680		16.2		D	13-Jun-25 15:24	10
2,3,7,8-TCDF	1.67		0.183			12-Jun-25 21:30	1
1,2,3,7,8-PeCDF	6.01		0.575			12-Jun-25 21:30	1
2,3,4,7,8-PeCDF	12.1		0.685			12-Jun-25 21:30	1
1,2,3,4,7,8-HxCDF	23.9		0.658		B	12-Jun-25 21:30	1
1,2,3,6,7,8-HxCDF	10.8		0.620			12-Jun-25 21:30	1
2,3,4,6,7,8-HxCDF	8.76		0.660			12-Jun-25 21:30	1
1,2,3,7,8,9-HxCDF	ND		0.715	4.60		12-Jun-25 21:30	1
1,2,3,4,6,7,8-HpCDF	148		0.648			12-Jun-25 21:30	1
1,2,3,4,7,8,9-HpCDF	7.45		0.817			12-Jun-25 21:30	1
OCDF	111		3.83			12-Jun-25 21:30	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	31.4						
Totals							
Total TCDD	0.640			2.92			
Total PeCDD	13.2			16.9			
Total HxCDD	176			185			
Total HpCDD	1710						
Total TCDF	12.8			15.8			
Total PeCDF	120			129			
Total HxCDF	392			403	B		
Total HpCDF	435			437			

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	63.6	40 - 135		12-Jun-25 21:30	1
13C-1,2,3,7,8-PeCDD	IS	54.6	40 - 135		12-Jun-25 21:30	1
13C-1,2,3,4,7,8-HxCDD	IS	58.0	40 - 135		12-Jun-25 21:30	1
13C-1,2,3,6,7,8-HxCDD	IS	56.0	40 - 135		12-Jun-25 21:30	1
13C-1,2,3,7,8,9-HxCDD	IS	45.8	40 - 135		12-Jun-25 21:30	1
13C-1,2,3,4,6,7,8-HpCDD	IS	39.9	40 - 135	H	12-Jun-25 21:30	1
13C-OCDD	IS	28.4	40 - 135	D,H	13-Jun-25 15:24	10
13C-2,3,7,8-TCDF	IS	69.7	40 - 135		12-Jun-25 21:30	1
13C-1,2,3,7,8-PeCDF	IS	60.2	40 - 135		12-Jun-25 21:30	1
13C-2,3,4,7,8-PeCDF	IS	59.4	40 - 135		12-Jun-25 21:30	1
13C-1,2,3,4,7,8-HxCDF	IS	51.4	40 - 135		12-Jun-25 21:30	1
13C-1,2,3,6,7,8-HxCDF	IS	46.4	40 - 135		12-Jun-25 21:30	1
13C-2,3,4,6,7,8-HxCDF	IS	41.5	40 - 135		12-Jun-25 21:30	1
13C-1,2,3,7,8,9-HxCDF	IS	48.0	40 - 135		12-Jun-25 21:30	1
13C-1,2,3,4,6,7,8-HpCDF	IS	30.0	40 - 135	H	12-Jun-25 21:30	1
13C-1,2,3,4,7,8,9-HpCDF	IS	40.9	40 - 135		12-Jun-25 21:30	1
13C-OCDF	IS	30.3	40 - 135	H	12-Jun-25 21:30	1
37Cl-2,3,7,8-TCDD	CRS	94.4	40 - 135		12-Jun-25 21:30	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-012-1.5-2.0

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5E0955 / Port of Ridgefield
Matrix: Soil
Date Collected: 01-May-25 16:25

Laboratory Data

Lab Sample: 2506086-04
QC Batch: B25F125
Sample Size: 12.1 g
% Solids: 83.2
Date Received: 05-Jun-25 09:27
Date Extracted: 11-Jun-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND		0.189	0.403		12-Jun-25 22:16	1
1,2,3,7,8-PeCDD	4.45		0.781			12-Jun-25 22:16	1
1,2,3,4,7,8-HxCDD	7.50		0.631			12-Jun-25 22:16	1
1,2,3,6,7,8-HxCDD	32.1		0.638			12-Jun-25 22:16	1
1,2,3,7,8,9-HxCDD	15.8		0.715			12-Jun-25 22:16	1
1,2,3,4,6,7,8-HpCDD	608		0.704			12-Jun-25 22:16	1
OCDD	3990		1.61			12-Jun-25 22:16	1
2,3,7,8-TCDF	2.37		0.182			12-Jun-25 22:16	1
1,2,3,7,8-PeCDF	4.34		0.574			12-Jun-25 22:16	1
2,3,4,7,8-PeCDF	24.3		0.684			12-Jun-25 22:16	1
1,2,3,4,7,8-HxCDF	20.6		0.657		B	12-Jun-25 22:16	1
1,2,3,6,7,8-HxCDF	16.8		0.619			12-Jun-25 22:16	1
2,3,4,6,7,8-HxCDF	18.1		0.659			12-Jun-25 22:16	1
1,2,3,7,8,9-HxCDF	4.19		0.714			12-Jun-25 22:16	1
1,2,3,4,6,7,8-HpCDF	105		0.647			12-Jun-25 22:16	1
1,2,3,4,7,8,9-HpCDF	7.52		0.815			12-Jun-25 22:16	1
OCDF	111		3.83			12-Jun-25 22:16	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	32.1						
Totals							
Total TCDD	6.49			8.66			
Total PeCDD	36.7			37.7			
Total HxCDD	184						
Total HpCDD	1090						
Total TCDF	136			137			
Total PeCDF	709			710			
Total HxCDF	581				B		
Total HpCDF	307						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	78.2	40 - 135		12-Jun-25 22:16	1
13C-1,2,3,7,8-PeCDD	IS	72.0	40 - 135		12-Jun-25 22:16	1
13C-1,2,3,4,7,8-HxCDD	IS	76.6	40 - 135		12-Jun-25 22:16	1
13C-1,2,3,6,7,8-HxCDD	IS	76.2	40 - 135		12-Jun-25 22:16	1
13C-1,2,3,7,8,9-HxCDD	IS	67.1	40 - 135		12-Jun-25 22:16	1
13C-1,2,3,4,6,7,8-HpCDD	IS	64.3	40 - 135		12-Jun-25 22:16	1
13C-OCDD	IS	45.5	40 - 135		12-Jun-25 22:16	1
13C-2,3,7,8-TCDF	IS	81.1	40 - 135		12-Jun-25 22:16	1
13C-1,2,3,7,8-PeCDF	IS	72.5	40 - 135		12-Jun-25 22:16	1
13C-2,3,4,7,8-PeCDF	IS	71.9	40 - 135		12-Jun-25 22:16	1
13C-1,2,3,4,7,8-HxCDF	IS	70.0	40 - 135		12-Jun-25 22:16	1
13C-1,2,3,6,7,8-HxCDF	IS	65.6	40 - 135		12-Jun-25 22:16	1
13C-2,3,4,6,7,8-HxCDF	IS	61.8	40 - 135		12-Jun-25 22:16	1
13C-1,2,3,7,8,9-HxCDF	IS	66.2	40 - 135		12-Jun-25 22:16	1
13C-1,2,3,4,6,7,8-HpCDF	IS	49.8	40 - 135		12-Jun-25 22:16	1
13C-1,2,3,4,7,8,9-HpCDF	IS	56.6	40 - 135		12-Jun-25 22:16	1
13C-OCDF	IS	45.5	40 - 135		12-Jun-25 22:16	1
37Cl-2,3,7,8-TCDD	CRS	103	40 - 135		12-Jun-25 22:16	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
RL	For 537.1, the reported RLs are the MRLs.
TEQ	Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the sample concentrations.
TEQMax	TEQ calculation that uses the detection limit as the concentration for non-detects
TEQMin	TEQ calculation that uses zero as the concentration for non-detects
TEQRisk	TEQ calculation that uses ½ the detection limit as the concentration for non-detects
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Enthalpy Analytical - EDH Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	21-023-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	2211390
Nevada Division of Environmental Protection	CA00413
New Hampshire Environmental Accreditation Program	207721
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-021
Texas Commission on Environmental Quality	T104704189-22-13
Vermont Department of Health	VT-4042
Virginia Department of General Services	11276
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters can be found at Enthalpy.com/Resources/Accreditations.

SUBCONTRACT ORDER

Apex Laboratories

A5E0955

Aw 6/3/25 KN 2506086 2.7°C

SENDING LABORATORY:	**RECEIVING LABORATORY:**
Apex Laboratories 6700 S.W. Sandburg Street Tigard, OR 97223 Phone: (503) 718-2323 Fax: (503) 336-0745 Project Manager: Philip Nerenberg	Enthalpy Analytical- CA 1104 Windfield Way El Dorado Hills, CA 95762 Phone :(916) 673-1520 Fax: -

Subcontracted analysis added per client request

Sample Name: ROW-P3-004-1.5-2.0 **Soil** **Sampled: 05/01/25 13:16** (A5E0955-08)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB) *Containers Supplied:* (A)8 oz Glass Jar	06/25/25 17:00	05/31/25 13:16	Port of Ridgefield - Out of hold OK

Subcontracted analysis added per client request

Sample Name: ROW-P3-007-1.5-2.0 **Soil** **Sampled: 05/01/25 09:32** (A5E0955-14)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB) *Containers Supplied:* (A)8 oz Glass Jar	06/25/25 17:00	05/31/25 09:32	Port of Ridgefield - Out of hold OK

Subcontracted analysis added per client request

Sample Name: ROW-P3-010-2.0-2.5 **Soil** **Sampled: 05/01/25 14:45** (A5E0955-20)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB) *Containers Supplied:* (A)8 oz Glass Jar	06/25/25 17:00	05/31/25 14:45	Port of Ridgefield - Out of hold OK

Subcontracted analysis added per client request

Sample Name: ROW-P3-012-1.5-2.0 **Soil** **Sampled: 05/01/25 16:25** (A5E0955-24)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB) *Containers Supplied:* (A)8 oz Glass Jar	06/25/25 17:00	05/31/25 16:25	Port of Ridgefield - Out of hold OK

Standard TAT

Released By	Date	Received By	Date
[signature]	6/4/25	Fed Ex (Shipper)	
Fed Ex (Shipper)		[signature]	06/05/25 0927

Page 1 of 1

CoC/Label Reconciliation Report WO# 2506086

LabNumber	CoC Sample ID		SampleAlias	Sample Date/Time		Container	BaseMatrix	Sample Comments
2506086-01	A ROW-P3-004-1.5-2.0	☑	A5E0955-08	01-May-25 13:16	☑	Clear Glass Jar, 250mL (A)	Solid	
2506086-02	A ROW-P3-007-1.5-2.0	☑	A5E0955-14	01-May-25 09:32	☑	Clear Glass Jar, 250mL	Solid	
2506086-03	A ROW-P3-010-2.0-2.5	☑	A5E0955-20	01-May-25 14:45	☑	Clear Glass Jar, 250mL	Solid	
2506086-04	A ROW-P3-012-1.5-2.0	☑	A5E0955-24	01-May-25 16:25	☑	Clear Glass Jar, 250mL	Solid	

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

CONDITION	Yes	No	NA
Sample Container Intact?	/		
Sample Container(s) Custody Seals Intact?			/
Custody Seals On Cooler Intact?			/
Adequate Sample Volume?	/		
Container Type Appropriate for Analysis(es)?	/		

Comments:
(A) Recived in Clear Jar wrapped in foil

Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 (None) Other

Verifed by/Date: XAO 06/05/25
KBB 06/05/2025

August 07, 2025

Enthalpy Analytical - El Dorado Hills
Work Order No. 2507127

Mr. Philip Nerenberg
Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223

Dear Mr. Nerenberg,

Enclosed are the results for the sample set received at Enthalpy Analytical - EDH on July 15, 2025 under your Project Name 'A5G1121 / Port of Ridgefield'.

Enthalpy Analytical - EDH is committed to serving you effectively. If you require additional information, please contact me at 916-673-1520 or by email at kathy.zipp@enthalpy.com.

Thank you for choosing Enthalpy Analytical - EDH as part of your analytical support team.

Sincerely,

Kathy Zipp
Project Manager

Enthalpy Analytical - EDH Work Order No. 2507127
Case Narrative

Sample Condition on Receipt:

Six soil samples were received and stored securely in accordance with Enthalpy Analytical - EDH standard operating procedures and EPA methodology. The samples were received in good condition and within the method temperature requirements.

Analytical Notes:

EPA Method 8290A

The samples were extracted and analyzed for tetra-through-octa chlorinated dioxins and furans by EPA Method 8290A using a ZB-DIOXIN GC column.

Holding Times

The method holding time criteria were met for these samples.

Quality Control

The Initial Calibration and Continuing Calibration Verifications met the method acceptance criteria.

A Method Blank and Ongoing Precision and Recovery (OPR) sample were extracted and analyzed with the preparation batch. No analytes were detected above the sample quantitation limits in the Method Blank. The OPR recoveries were within the method acceptance criteria.

Labeled standard recoveries for all QC and field samples were within method acceptance criteria.

Table of Contents

Sample Inventory Report

Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2507127-01	ROW-P3-007-2.0-2.5	09-Jul-25 09:20	15-Jul-25 09:37	Clear Glass Jar, 8 oz
2507127-02	ROW-P3-007-2.5-3.0	09-Jul-25 09:25	15-Jul-25 09:37	Clear Glass Jar, 8 oz
2507127-03	ROW-P3-010-2.5-3.0	09-Jul-25 09:55	15-Jul-25 09:37	Clear Glass Jar, 8 oz
2507127-04	ROW-P3-010-3.0-3.5	09-Jul-25 10:00	15-Jul-25 09:37	Clear Glass Jar, 8 oz
2507127-05	ROW-P3-012-2.0-2.5	09-Jul-25 10:20	15-Jul-25 09:37	Clear Glass Jar, 8 oz
2507127-06	ROW-P3-012-2.5-3.0	09-Jul-25 10:25	15-Jul-25 09:37	Clear Glass Jar, 8 oz

ANALYTICAL RESULTS

Sample ID: Method Blank

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5G1121 / Port of Ridgefield
Matrix: Solid

Laboratory Data

Lab Sample: B25G252-BLK1
QC Batch: B25G252
Sample Size: 10.0 g
Date Extracted: 28-Jul-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	0.106	0.190			06-Aug-25 14:16	1
1,2,3,7,8-PeCDD	ND	0.101	0.784			06-Aug-25 14:16	1
1,2,3,4,7,8-HxCDD	ND	0.148	0.633			06-Aug-25 14:16	1
1,2,3,6,7,8-HxCDD	ND	0.158	0.640			06-Aug-25 14:16	1
1,2,3,7,8,9-HxCDD	ND	0.182	0.717			06-Aug-25 14:16	1
1,2,3,4,6,7,8-HpCDD	0.332		0.706		J	06-Aug-25 14:16	1
OCDD	3.64		1.62		J	06-Aug-25 14:16	1
2,3,7,8-TCDF	ND	0.107	0.183			06-Aug-25 14:16	1
1,2,3,7,8-PeCDF	ND	0.0755	0.576			06-Aug-25 14:16	1
2,3,4,7,8-PeCDF	ND	0.0695	0.686			06-Aug-25 14:16	1
1,2,3,4,7,8-HxCDF	ND	0.106	0.659			06-Aug-25 14:16	1
1,2,3,6,7,8-HxCDF	ND	0.104	0.621			06-Aug-25 14:16	1
2,3,4,6,7,8-HxCDF	ND	0.128	0.661			06-Aug-25 14:16	1
1,2,3,7,8,9-HxCDF	ND	0.132	0.716			06-Aug-25 14:16	1
1,2,3,4,6,7,8-HpCDF	ND	0.110	0.649			06-Aug-25 14:16	1
1,2,3,4,7,8,9-HpCDF	ND	0.160	0.818			06-Aug-25 14:16	1
OCDF	ND	0.395	3.84			06-Aug-25 14:16	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	0.00441						
Totals							
Total TCDD	ND	0.106					
Total PeCDD	ND	0.101					
Total HxCDD	ND	0.182					
Total HpCDD	0.332				J		
Total TCDF	ND	0.107					
Total PeCDF	ND	0.0755					
Total HxCDF	ND	0.132					
Total HpCDF	ND	0.160					

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	97.0	40 - 135		06-Aug-25 14:16	1
13C-1,2,3,7,8-PeCDD	IS	104	40 - 135		06-Aug-25 14:16	1
13C-1,2,3,4,7,8-HxCDD	IS	110	40 - 135		06-Aug-25 14:16	1
13C-1,2,3,6,7,8-HxCDD	IS	111	40 - 135		06-Aug-25 14:16	1
13C-1,2,3,7,8,9-HxCDD	IS	106	40 - 135		06-Aug-25 14:16	1
13C-1,2,3,4,6,7,8-HpCDD	IS	104	40 - 135		06-Aug-25 14:16	1
13C-OCDD	IS	108	40 - 135		06-Aug-25 14:16	1
13C-2,3,7,8-TCDF	IS	81.5	40 - 135		06-Aug-25 14:16	1
13C-1,2,3,7,8-PeCDF	IS	116	40 - 135		06-Aug-25 14:16	1
13C-2,3,4,7,8-PeCDF	IS	114	40 - 135		06-Aug-25 14:16	1
13C-1,2,3,4,7,8-HxCDF	IS	108	40 - 135		06-Aug-25 14:16	1
13C-1,2,3,6,7,8-HxCDF	IS	108	40 - 135		06-Aug-25 14:16	1
13C-2,3,4,6,7,8-HxCDF	IS	102	40 - 135		06-Aug-25 14:16	1
13C-1,2,3,7,8,9-HxCDF	IS	106	40 - 135		06-Aug-25 14:16	1
13C-1,2,3,4,6,7,8-HpCDF	IS	99.7	40 - 135		06-Aug-25 14:16	1
13C-1,2,3,4,7,8,9-HpCDF	IS	101	40 - 135		06-Aug-25 14:16	1
13C-OCDF	IS	101	40 - 135		06-Aug-25 14:16	1
37Cl-2,3,7,8-TCDD	CRS	99.4	40 - 135		06-Aug-25 14:16	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: OPR **EPA Method 8290A**

Client Data
Name: Apex Laboratories
Project: A5G1121 / Port of Ridgefield
Matrix: Solid

Laboratory Data
Lab Sample: B25G252-BS1
QC Batch: B25G252 Date Extracted: 28-Jul-25 08:35
Sample Size: 10.0 g Column: ZB-DIOXIN

Analyte	Amt Found (pg/g)	Spike Amt	% Recovery	Limits	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	20.8	20.0	104	70-130		06-Aug-25 12:44	1
1,2,3,7,8-PeCDD	109	100	109	70-130		06-Aug-25 12:44	1
1,2,3,4,7,8-HxCDD	92.7	100	92.7	70-130		06-Aug-25 12:44	1
1,2,3,6,7,8-HxCDD	92.7	100	92.7	70-130		06-Aug-25 12:44	1
1,2,3,7,8,9-HxCDD	96.4	100	96.4	70-130		06-Aug-25 12:44	1
1,2,3,4,6,7,8-HpCDD	98.3	100	98.3	70-130	B	06-Aug-25 12:44	1
OCDD	199	200	99.7	70-130	B	06-Aug-25 12:44	1
2,3,7,8-TCDF	19.5	20.0	97.7	70-130		06-Aug-25 12:44	1
1,2,3,7,8-PeCDF	93.6	100	93.6	70-130		06-Aug-25 12:44	1
2,3,4,7,8-PeCDF	95.0	100	95.0	70-130		06-Aug-25 12:44	1
1,2,3,4,7,8-HxCDF	96.7	100	96.7	70-130		06-Aug-25 12:44	1
1,2,3,6,7,8-HxCDF	95.9	100	95.9	70-130		06-Aug-25 12:44	1
2,3,4,6,7,8-HxCDF	96.2	100	96.2	70-130		06-Aug-25 12:44	1
1,2,3,7,8,9-HxCDF	93.9	100	93.9	70-130		06-Aug-25 12:44	1
1,2,3,4,6,7,8-HpCDF	99.1	100	99.1	70-130		06-Aug-25 12:44	1
1,2,3,4,7,8,9-HpCDF	97.2	100	97.2	70-130		06-Aug-25 12:44	1
OCDF	198	200	99.1	70-130		06-Aug-25 12:44	1

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	96.0	40-135		06-Aug-25 12:44	1
13C-1,2,3,7,8-PeCDD	IS	105	40-135		06-Aug-25 12:44	1
13C-1,2,3,4,7,8-HxCDD	IS	111	40-135		06-Aug-25 12:44	1
13C-1,2,3,6,7,8-HxCDD	IS	115	40-135		06-Aug-25 12:44	1
13C-1,2,3,7,8,9-HxCDD	IS	108	40-135		06-Aug-25 12:44	1
13C-1,2,3,4,6,7,8-HpCDD	IS	107	40-135		06-Aug-25 12:44	1
13C-OCDD	IS	120	40-135		06-Aug-25 12:44	1
13C-2,3,7,8-TCDF	IS	80.2	40-135		06-Aug-25 12:44	1
13C-1,2,3,7,8-PeCDF	IS	119	40-135		06-Aug-25 12:44	1
13C-2,3,4,7,8-PeCDF	IS	118	40-135		06-Aug-25 12:44	1
13C-1,2,3,4,7,8-HxCDF	IS	108	40-135		06-Aug-25 12:44	1
13C-1,2,3,6,7,8-HxCDF	IS	108	40-135		06-Aug-25 12:44	1
13C-2,3,4,6,7,8-HxCDF	IS	102	40-135		06-Aug-25 12:44	1
13C-1,2,3,7,8,9-HxCDF	IS	106	40-135		06-Aug-25 12:44	1
13C-1,2,3,4,6,7,8-HpCDF	IS	102	40-135		06-Aug-25 12:44	1
13C-1,2,3,4,7,8,9-HpCDF	IS	100	40-135		06-Aug-25 12:44	1
13C-OCDF	IS	111	40-135		06-Aug-25 12:44	1
37Cl-2,3,7,8-TCDD	CRS	102	40-135		06-Aug-25 12:44	1

Sample ID: ROW-P3-007-2.0-2.5

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5G1121 / Port of Ridgefield
Matrix: Soil
Date Collected: 09-Jul-25 09:20

Laboratory Data

Lab Sample: 2507127-01
QC Batch: B25G252
Sample Size: 12.5 g
% Solids: 84.0
Date Received: 15-Jul-25 09:37
Date Extracted: 28-Jul-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	0.187	0.181			06-Aug-25 15:03	1
1,2,3,7,8-PeCDD	0.563		0.746		J	06-Aug-25 15:03	1
1,2,3,4,7,8-HxCDD	0.922		0.603		J	06-Aug-25 15:03	1
1,2,3,6,7,8-HxCDD	2.81		0.609			06-Aug-25 15:03	1
1,2,3,7,8,9-HxCDD	2.45		0.683			06-Aug-25 15:03	1
1,2,3,4,6,7,8-HpCDD	76.1		0.672		B	06-Aug-25 15:03	1
OCDD	704		1.54		B	06-Aug-25 15:03	1
2,3,7,8-TCDF	ND	0.119	0.174			06-Aug-25 15:03	1
1,2,3,7,8-PeCDF	0.253		0.548		J	06-Aug-25 15:03	1
2,3,4,7,8-PeCDF	1.03		0.653		J	06-Aug-25 15:03	1
1,2,3,4,7,8-HxCDF	1.08		0.627		J	06-Aug-25 15:03	1
1,2,3,6,7,8-HxCDF	0.784		0.591		J	06-Aug-25 15:03	1
2,3,4,6,7,8-HxCDF	0.916		0.629		J	06-Aug-25 15:03	1
1,2,3,7,8,9-HxCDF	0.267		0.682		J	06-Aug-25 15:03	1
1,2,3,4,6,7,8-HpCDF	14.3		0.618			06-Aug-25 15:03	1
1,2,3,4,7,8,9-HpCDF	ND		0.779	0.849		06-Aug-25 15:03	1
OCDF	58.7		3.66			06-Aug-25 15:03	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	2.94						
Totals							
Total TCDD	ND	0.187					
Total PeCDD	2.27			3.86	J		
Total HxCDD	17.8			18.4			
Total HpCDD	127				B		
Total TCDF	2.16			2.95			
Total PeCDF	14.2						
Total HxCDF	25.2			25.3			
Total HpCDF	42.7			43.6			

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	90.7	40 - 135		06-Aug-25 15:03	1
13C-1,2,3,7,8-PeCDD	IS	104	40 - 135		06-Aug-25 15:03	1
13C-1,2,3,4,7,8-HxCDD	IS	110	40 - 135		06-Aug-25 15:03	1
13C-1,2,3,6,7,8-HxCDD	IS	109	40 - 135		06-Aug-25 15:03	1
13C-1,2,3,7,8,9-HxCDD	IS	104	40 - 135		06-Aug-25 15:03	1
13C-1,2,3,4,6,7,8-HpCDD	IS	103	40 - 135		06-Aug-25 15:03	1
13C-OCDD	IS	109	40 - 135		06-Aug-25 15:03	1
13C-2,3,7,8-TCDF	IS	76.4	40 - 135		06-Aug-25 15:03	1
13C-1,2,3,7,8-PeCDF	IS	112	40 - 135		06-Aug-25 15:03	1
13C-2,3,4,7,8-PeCDF	IS	116	40 - 135		06-Aug-25 15:03	1
13C-1,2,3,4,7,8-HxCDF	IS	108	40 - 135		06-Aug-25 15:03	1
13C-1,2,3,6,7,8-HxCDF	IS	104	40 - 135		06-Aug-25 15:03	1
13C-2,3,4,6,7,8-HxCDF	IS	101	40 - 135		06-Aug-25 15:03	1
13C-1,2,3,7,8,9-HxCDF	IS	104	40 - 135		06-Aug-25 15:03	1
13C-1,2,3,4,6,7,8-HpCDF	IS	94.7	40 - 135		06-Aug-25 15:03	1
13C-1,2,3,4,7,8,9-HpCDF	IS	94.9	40 - 135		06-Aug-25 15:03	1
13C-OCDF	IS	101	40 - 135		06-Aug-25 15:03	1
37Cl-2,3,7,8-TCDD	CRS	91.8	40 - 135		06-Aug-25 15:03	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-007-2.5-3.0

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5G1121 / Port of Ridgefield
Matrix: Soil
Date Collected: 09-Jul-25 09:25

Laboratory Data

Lab Sample: 2507127-02
QC Batch: B25G252
Sample Size: 12.0 g
% Solids: 83.8
Date Received: 15-Jul-25 09:37
Date Extracted: 28-Jul-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	0.0889	0.190			06-Aug-25 15:51	1
1,2,3,7,8-PeCDD	ND	0.120	0.783			06-Aug-25 15:51	1
1,2,3,4,7,8-HxCDD	0.466		0.632		J	06-Aug-25 15:51	1
1,2,3,6,7,8-HxCDD	2.11		0.639		J	06-Aug-25 15:51	1
1,2,3,7,8,9-HxCDD	0.900		0.716		J	06-Aug-25 15:51	1
1,2,3,4,6,7,8-HpCDD	41.4		0.705		B	06-Aug-25 15:51	1
OCDD	285		1.62		B	06-Aug-25 15:51	1
2,3,7,8-TCDF	ND	0.0965	0.183			06-Aug-25 15:51	1
1,2,3,7,8-PeCDF	ND		0.575	0.211		06-Aug-25 15:51	1
2,3,4,7,8-PeCDF	ND		0.685	0.360		06-Aug-25 15:51	1
1,2,3,4,7,8-HxCDF	0.721		0.658		J	06-Aug-25 15:51	1
1,2,3,6,7,8-HxCDF	ND	0.192	0.620			06-Aug-25 15:51	1
2,3,4,6,7,8-HxCDF	0.370		0.660		J	06-Aug-25 15:51	1
1,2,3,7,8,9-HxCDF	ND		0.715	0.111		06-Aug-25 15:51	1
1,2,3,4,6,7,8-HpCDF	5.50		0.648			06-Aug-25 15:51	1
1,2,3,4,7,8,9-HpCDF	0.358		0.817		J	06-Aug-25 15:51	1
OCDF	9.15		3.83			06-Aug-25 15:51	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	1.02						
Totals							
Total TCDD	ND	0.0889					
Total PeCDD	ND	0.120					
Total HxCDD	9.46			9.80			
Total HpCDD	71.1				B		
Total TCDF	0.716			0.878			
Total PeCDF	4.39			5.28			
Total HxCDF	11.8			12.2			
Total HpCDF	14.2						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	87.9	40 - 135		06-Aug-25 15:51	1
13C-1,2,3,7,8-PeCDD	IS	103	40 - 135		06-Aug-25 15:51	1
13C-1,2,3,4,7,8-HxCDD	IS	113	40 - 135		06-Aug-25 15:51	1
13C-1,2,3,6,7,8-HxCDD	IS	111	40 - 135		06-Aug-25 15:51	1
13C-1,2,3,7,8,9-HxCDD	IS	107	40 - 135		06-Aug-25 15:51	1
13C-1,2,3,4,6,7,8-HpCDD	IS	108	40 - 135		06-Aug-25 15:51	1
13C-OCDD	IS	117	40 - 135		06-Aug-25 15:51	1
13C-2,3,7,8-TCDF	IS	76.2	40 - 135		06-Aug-25 15:51	1
13C-1,2,3,7,8-PeCDF	IS	119	40 - 135		06-Aug-25 15:51	1
13C-2,3,4,7,8-PeCDF	IS	113	40 - 135		06-Aug-25 15:51	1
13C-1,2,3,4,7,8-HxCDF	IS	111	40 - 135		06-Aug-25 15:51	1
13C-1,2,3,6,7,8-HxCDF	IS	106	40 - 135		06-Aug-25 15:51	1
13C-2,3,4,6,7,8-HxCDF	IS	103	40 - 135		06-Aug-25 15:51	1
13C-1,2,3,7,8,9-HxCDF	IS	107	40 - 135		06-Aug-25 15:51	1
13C-1,2,3,4,6,7,8-HpCDF	IS	98.7	40 - 135		06-Aug-25 15:51	1
13C-1,2,3,4,7,8,9-HpCDF	IS	104	40 - 135		06-Aug-25 15:51	1
13C-OCDF	IS	108	40 - 135		06-Aug-25 15:51	1
37Cl-2,3,7,8-TCDD	CRS	92.7	40 - 135		06-Aug-25 15:51	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-010-2.5-3.0

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5G1121 / Port of Ridgefield
Matrix: Soil
Date Collected: 09-Jul-25 09:55

Laboratory Data

Lab Sample: 2507127-03
QC Batch: B25G252
Sample Size: 12.6 g
% Solids: 82.0
Date Received: 15-Jul-25 09:37
Date Extracted: 28-Jul-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	0.0778	0.184			06-Aug-25 16:38	1
1,2,3,7,8-PeCDD	0.564		0.757		J	06-Aug-25 16:38	1
1,2,3,4,7,8-HxCDD	0.747		0.612		J	06-Aug-25 16:38	1
1,2,3,6,7,8-HxCDD	4.11		0.618			06-Aug-25 16:38	1
1,2,3,7,8,9-HxCDD	1.65		0.693		J	06-Aug-25 16:38	1
1,2,3,4,6,7,8-HpCDD	90.6		0.682		B	06-Aug-25 16:38	1
OCDD	664		1.57		B	06-Aug-25 16:38	1
2,3,7,8-TCDF	0.294		0.177		J	06-Aug-25 16:38	1
1,2,3,7,8-PeCDF	0.648		0.556		J	06-Aug-25 16:38	1
2,3,4,7,8-PeCDF	1.61		0.663		J	06-Aug-25 16:38	1
1,2,3,4,7,8-HxCDF	2.60		0.637			06-Aug-25 16:38	1
1,2,3,6,7,8-HxCDF	1.10		0.600		J	06-Aug-25 16:38	1
2,3,4,6,7,8-HxCDF	ND		0.639	0.721		06-Aug-25 16:38	1
1,2,3,7,8,9-HxCDF	0.354		0.692		J	06-Aug-25 16:38	1
1,2,3,4,6,7,8-HpCDF	12.5		0.627			06-Aug-25 16:38	1
1,2,3,4,7,8,9-HpCDF	0.669		0.790		J	06-Aug-25 16:38	1
OCDF	11.3		3.71			06-Aug-25 16:38	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	3.39						
Totals							
Total TCDD	ND			0.347			
Total PeCDD	1.49			3.09	J		
Total HxCDD	19.9						
Total HpCDD	150				B		
Total TCDF	2.91			4.45			
Total PeCDF	16.2			18.3			
Total HxCDF	42.4			43.2			
Total HpCDF	34.4						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	97.2	40 - 135		06-Aug-25 16:38	1
13C-1,2,3,7,8-PeCDD	IS	110	40 - 135		06-Aug-25 16:38	1
13C-1,2,3,4,7,8-HxCDD	IS	116	40 - 135		06-Aug-25 16:38	1
13C-1,2,3,6,7,8-HxCDD	IS	116	40 - 135		06-Aug-25 16:38	1
13C-1,2,3,7,8,9-HxCDD	IS	109	40 - 135		06-Aug-25 16:38	1
13C-1,2,3,4,6,7,8-HpCDD	IS	109	40 - 135		06-Aug-25 16:38	1
13C-OCDD	IS	126	40 - 135		06-Aug-25 16:38	1
13C-2,3,7,8-TCDF	IS	84.3	40 - 135		06-Aug-25 16:38	1
13C-1,2,3,7,8-PeCDF	IS	119	40 - 135		06-Aug-25 16:38	1
13C-2,3,4,7,8-PeCDF	IS	118	40 - 135		06-Aug-25 16:38	1
13C-1,2,3,4,7,8-HxCDF	IS	113	40 - 135		06-Aug-25 16:38	1
13C-1,2,3,6,7,8-HxCDF	IS	109	40 - 135		06-Aug-25 16:38	1
13C-2,3,4,6,7,8-HxCDF	IS	105	40 - 135		06-Aug-25 16:38	1
13C-1,2,3,7,8,9-HxCDF	IS	110	40 - 135		06-Aug-25 16:38	1
13C-1,2,3,4,6,7,8-HpCDF	IS	102	40 - 135		06-Aug-25 16:38	1
13C-1,2,3,4,7,8,9-HpCDF	IS	107	40 - 135		06-Aug-25 16:38	1
13C-OCDF	IS	112	40 - 135		06-Aug-25 16:38	1
37Cl-2,3,7,8-TCDD	CRS	103	40 - 135		06-Aug-25 16:38	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-010-3.0-3.5

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5G1121 / Port of Ridgefield
Matrix: Soil
Date Collected: 09-Jul-25 10:00

Laboratory Data

Lab Sample: 2507127-04
QC Batch: B25G252
Sample Size: 12.6 g
% Solids: 83.0
Date Received: 15-Jul-25 09:37
Date Extracted: 28-Jul-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND		0.182	0.168		06-Aug-25 17:26	1
1,2,3,7,8-PeCDD	0.595		0.749		J	06-Aug-25 17:26	1
1,2,3,4,7,8-HxCDD	1.11		0.605		J	06-Aug-25 17:26	1
1,2,3,6,7,8-HxCDD	4.77		0.612			06-Aug-25 17:26	1
1,2,3,7,8,9-HxCDD	2.14		0.685		J	06-Aug-25 17:26	1
1,2,3,4,6,7,8-HpCDD	114		0.675		B	06-Aug-25 17:26	1
OCDD	882		1.55		B	06-Aug-25 17:26	1
2,3,7,8-TCDF	ND		0.175	0.283		06-Aug-25 17:26	1
1,2,3,7,8-PeCDF	0.787		0.551		J	06-Aug-25 17:26	1
2,3,4,7,8-PeCDF	1.14		0.656		J	06-Aug-25 17:26	1
1,2,3,4,7,8-HxCDF	2.67		0.630			06-Aug-25 17:26	1
1,2,3,6,7,8-HxCDF	ND		0.594	1.13		06-Aug-25 17:26	1
2,3,4,6,7,8-HxCDF	ND		0.632	0.961		06-Aug-25 17:26	1
1,2,3,7,8,9-HxCDF	0.471		0.684		J	06-Aug-25 17:26	1
1,2,3,4,6,7,8-HpCDF	16.2		0.620			06-Aug-25 17:26	1
1,2,3,4,7,8,9-HpCDF	0.827		0.782		J	06-Aug-25 17:26	1
OCDF	13.5		3.67			06-Aug-25 17:26	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	3.66						
Totals							
Total TCDD	ND			0.168			
Total PeCDD	2.03			2.43	J		
Total HxCDD	22.5						
Total HpCDD	190				B		
Total TCDF	0.710			1.96			
Total PeCDF	12.3			13.5			
Total HxCDF	43.9			46.0			
Total HpCDF	42.4						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	90.7	40 - 135		06-Aug-25 17:26	1
13C-1,2,3,7,8-PeCDD	IS	96.5	40 - 135		06-Aug-25 17:26	1
13C-1,2,3,4,7,8-HxCDD	IS	111	40 - 135		06-Aug-25 17:26	1
13C-1,2,3,6,7,8-HxCDD	IS	112	40 - 135		06-Aug-25 17:26	1
13C-1,2,3,7,8,9-HxCDD	IS	106	40 - 135		06-Aug-25 17:26	1
13C-1,2,3,4,6,7,8-HpCDD	IS	106	40 - 135		06-Aug-25 17:26	1
13C-OCDD	IS	124	40 - 135		06-Aug-25 17:26	1
13C-2,3,7,8-TCDF	IS	78.9	40 - 135		06-Aug-25 17:26	1
13C-1,2,3,7,8-PeCDF	IS	111	40 - 135		06-Aug-25 17:26	1
13C-2,3,4,7,8-PeCDF	IS	105	40 - 135		06-Aug-25 17:26	1
13C-1,2,3,4,7,8-HxCDF	IS	109	40 - 135		06-Aug-25 17:26	1
13C-1,2,3,6,7,8-HxCDF	IS	106	40 - 135		06-Aug-25 17:26	1
13C-2,3,4,6,7,8-HxCDF	IS	103	40 - 135		06-Aug-25 17:26	1
13C-1,2,3,7,8,9-HxCDF	IS	106	40 - 135		06-Aug-25 17:26	1
13C-1,2,3,4,6,7,8-HpCDF	IS	101	40 - 135		06-Aug-25 17:26	1
13C-1,2,3,4,7,8,9-HpCDF	IS	105	40 - 135		06-Aug-25 17:26	1
13C-OCDF	IS	112	40 - 135		06-Aug-25 17:26	1
37Cl-2,3,7,8-TCDD	CRS	90.4	40 - 135		06-Aug-25 17:26	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-012-2.0-2.5 **EPA Method 8290A**

Client Data
Name: Apex Laboratories
Project: A5G1121 / Port of Ridgefield
Matrix: Soil
Date Collected: 09-Jul-25 10:20

Laboratory Data
Lab Sample: 2507127-05
QC Batch: B25G252
Sample Size: 11.8 g
% Solids: 85.3
Date Received: 15-Jul-25 09:37
Date Extracted: 28-Jul-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND	0.0932	0.190			06-Aug-25 18:13	1
1,2,3,7,8-PeCDD	1.34		0.782		J	06-Aug-25 18:13	1
1,2,3,4,7,8-HxCDD	2.30		0.632		J	06-Aug-25 18:13	1
1,2,3,6,7,8-HxCDD	11.4		0.639			06-Aug-25 18:13	1
1,2,3,7,8,9-HxCDD	5.26		0.715			06-Aug-25 18:13	1
1,2,3,4,6,7,8-HpCDD	249		0.704		B	06-Aug-25 18:13	1
OCDD	1800		1.62		B	06-Aug-25 18:13	1
2,3,7,8-TCDF	0.431		0.183		J	06-Aug-25 18:13	1
1,2,3,7,8-PeCDF	1.24		0.575		J	06-Aug-25 18:13	1
2,3,4,7,8-PeCDF	4.74		0.684			06-Aug-25 18:13	1
1,2,3,4,7,8-HxCDF	6.04		0.658			06-Aug-25 18:13	1
1,2,3,6,7,8-HxCDF	3.23		0.620			06-Aug-25 18:13	1
2,3,4,6,7,8-HxCDF	2.39		0.660		J	06-Aug-25 18:13	1
1,2,3,7,8,9-HxCDF	0.601		0.714		J	06-Aug-25 18:13	1
1,2,3,4,6,7,8-HpCDF	35.0		0.648			06-Aug-25 18:13	1
1,2,3,4,7,8,9-HpCDF	2.13		0.816		J	06-Aug-25 18:13	1
OCDF	33.9		3.83			06-Aug-25 18:13	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	9.38						
Totals							
Total TCDD	0.372			1.08	J		
Total PeCDD	6.56			7.63			
Total HxCDD	57.4						
Total HpCDD	431				B		
Total TCDF	9.17			10.2			
Total PeCDF	49.3			50.7			
Total HxCDF	102						
Total HpCDF	88.3						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	97.4	40 - 135		06-Aug-25 18:13	1
13C-1,2,3,7,8-PeCDD	IS	106	40 - 135		06-Aug-25 18:13	1
13C-1,2,3,4,7,8-HxCDD	IS	114	40 - 135		06-Aug-25 18:13	1
13C-1,2,3,6,7,8-HxCDD	IS	113	40 - 135		06-Aug-25 18:13	1
13C-1,2,3,7,8,9-HxCDD	IS	111	40 - 135		06-Aug-25 18:13	1
13C-1,2,3,4,6,7,8-HpCDD	IS	112	40 - 135		06-Aug-25 18:13	1
13C-OCDD	IS	126	40 - 135		06-Aug-25 18:13	1
13C-2,3,7,8-TCDF	IS	86.3	40 - 135		06-Aug-25 18:13	1
13C-1,2,3,7,8-PeCDF	IS	114	40 - 135		06-Aug-25 18:13	1
13C-2,3,4,7,8-PeCDF	IS	115	40 - 135		06-Aug-25 18:13	1
13C-1,2,3,4,7,8-HxCDF	IS	112	40 - 135		06-Aug-25 18:13	1
13C-1,2,3,6,7,8-HxCDF	IS	110	40 - 135		06-Aug-25 18:13	1
13C-2,3,4,6,7,8-HxCDF	IS	104	40 - 135		06-Aug-25 18:13	1
13C-1,2,3,7,8,9-HxCDF	IS	111	40 - 135		06-Aug-25 18:13	1
13C-1,2,3,4,6,7,8-HpCDF	IS	105	40 - 135		06-Aug-25 18:13	1
13C-1,2,3,4,7,8,9-HpCDF	IS	106	40 - 135		06-Aug-25 18:13	1
13C-OCDF	IS	116	40 - 135		06-Aug-25 18:13	1
37Cl-2,3,7,8-TCDD	CRS	98.9	40 - 135		06-Aug-25 18:13	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

Sample ID: ROW-P3-012-2.5-3.0

EPA Method 8290A

Client Data

Name: Apex Laboratories
Project: A5G1121 / Port of Ridgefield
Matrix: Soil
Date Collected: 09-Jul-25 10:25

Laboratory Data

Lab Sample: 2507127-06
QC Batch: B25G252
Sample Size: 12.1 g
% Solids: 83.9
Date Received: 15-Jul-25 09:37
Date Extracted: 28-Jul-25
Column: ZB-DIOXIN

Analyte	Conc. (pg/g)	EDL	MDL	EMPC	Qualifiers	Analyzed	Dilution
2,3,7,8-TCDD	ND		0.187	0.290		06-Aug-25 19:00	1
1,2,3,7,8-PeCDD	1.76		0.770		J	06-Aug-25 19:00	1
1,2,3,4,7,8-HxCDD	3.18		0.622			06-Aug-25 19:00	1
1,2,3,6,7,8-HxCDD	15.1		0.629			06-Aug-25 19:00	1
1,2,3,7,8,9-HxCDD	6.75		0.704			06-Aug-25 19:00	1
1,2,3,4,6,7,8-HpCDD	311		0.694		B	06-Aug-25 19:00	1
OCDD	2140		1.59		B	06-Aug-25 19:00	1
2,3,7,8-TCDF	0.482		0.180		J	06-Aug-25 19:00	1
1,2,3,7,8-PeCDF	0.149		0.566		J	06-Aug-25 19:00	1
2,3,4,7,8-PeCDF	7.10		0.674			06-Aug-25 19:00	1
1,2,3,4,7,8-HxCDF	8.01		0.647			06-Aug-25 19:00	1
1,2,3,6,7,8-HxCDF	4.83		0.610			06-Aug-25 19:00	1
2,3,4,6,7,8-HxCDF	3.99		0.649			06-Aug-25 19:00	1
1,2,3,7,8,9-HxCDF	1.88		0.703		J	06-Aug-25 19:00	1
1,2,3,4,6,7,8-HpCDF	43.6		0.638			06-Aug-25 19:00	1
1,2,3,4,7,8,9-HpCDF	2.63		0.804			06-Aug-25 19:00	1
OCDF	39.4		3.77			06-Aug-25 19:00	1
Toxic Equivalent							
TEQMinWHO2005Dioxin	12.5						
Totals							
Total TCDD	0.980			2.46			
Total PeCDD	9.54			10.7			
Total HxCDD	76.9						
Total HpCDD	542				B		
Total TCDF	13.2			13.4			
Total PeCDF	65.4			66.6			
Total HxCDF	132			135			
Total HpCDF	109						

Labeled Standards	Type	% Recovery	Limits	Qualifiers	Analyzed	Dilution
13C-2,3,7,8-TCDD	IS	96.2	40 - 135		06-Aug-25 19:00	1
13C-1,2,3,7,8-PeCDD	IS	105	40 - 135		06-Aug-25 19:00	1
13C-1,2,3,4,7,8-HxCDD	IS	114	40 - 135		06-Aug-25 19:00	1
13C-1,2,3,6,7,8-HxCDD	IS	110	40 - 135		06-Aug-25 19:00	1
13C-1,2,3,7,8,9-HxCDD	IS	107	40 - 135		06-Aug-25 19:00	1
13C-1,2,3,4,6,7,8-HpCDD	IS	109	40 - 135		06-Aug-25 19:00	1
13C-OCDD	IS	125	40 - 135		06-Aug-25 19:00	1
13C-2,3,7,8-TCDF	IS	82.7	40 - 135		06-Aug-25 19:00	1
13C-1,2,3,7,8-PeCDF	IS	114	40 - 135		06-Aug-25 19:00	1
13C-2,3,4,7,8-PeCDF	IS	114	40 - 135		06-Aug-25 19:00	1
13C-1,2,3,4,7,8-HxCDF	IS	113	40 - 135		06-Aug-25 19:00	1
13C-1,2,3,6,7,8-HxCDF	IS	108	40 - 135		06-Aug-25 19:00	1
13C-2,3,4,6,7,8-HxCDF	IS	104	40 - 135		06-Aug-25 19:00	1
13C-1,2,3,7,8,9-HxCDF	IS	106	40 - 135		06-Aug-25 19:00	1
13C-1,2,3,4,6,7,8-HpCDF	IS	101	40 - 135		06-Aug-25 19:00	1
13C-1,2,3,4,7,8,9-HpCDF	IS	105	40 - 135		06-Aug-25 19:00	1
13C-OCDF	IS	109	40 - 135		06-Aug-25 19:00	1
37Cl-2,3,7,8-TCDD	CRS	95.5	40 - 135		06-Aug-25 19:00	1

EDL - Sample specifc estimated detection limit
EMPC - Estimated maximum possible concentration
MDL - Method Detection Limit

The results are reported in dry weight.
The sample size is reported in wet weight.

DATA QUALIFIERS & ABBREVIATIONS

B	This compound was also detected in the method blank
Conc.	Concentration
CRS	Cleanup Recovery Standard
D	Dilution
DL	Detection Limit
E	The associated compound concentration exceeded the calibration range of the instrument
EDL	Estimated Detection Limit
EMPC	Estimated Maximum Possible Concentration
H	Recovery and/or RPD was outside laboratory acceptance limits
I	Chemical Interference
IS	Internal Standard
J	The amount detected is below the Reporting Limit/LOQ
LOD	Limit of Detection
LOQ	Limit of Quantitation
MDL	Method Detection Limit
NA	Not applicable
ND	Not Detected
OPR	Ongoing Precision and Recovery sample
P	The reported concentration may include contribution from chlorinated diphenyl ether(s).
Q	The ion transition ratio is outside of the acceptance criteria.
RL	Reporting Limit
RL	For 537.1, the reported RLs are the MRLs.
TEQ	Toxic Equivalency, sum of the toxic equivalency factors (TEF) multiplied by the sample concentrations.
TEQMax	TEQ calculation that uses the detection limit as the concentration for non-detects
TEQMin	TEQ calculation that uses zero as the concentration for non-detects
TEQRisk	TEQ calculation that uses ½ the detection limit as the concentration for non-detects
U	Not Detected (specific projects only)
*	See Cover Letter

Unless otherwise noted, solid sample results are reported in dry weight. Tissue samples are reported in wet weight.

Enthalpy Analytical - EDH Certifications

Accrediting Authority	Certificate Number
Alaska Department of Environmental Conservation	17-013
Arkansas Department of Environmental Quality	21-023-0
California Department of Health – ELAP	2892
DoD ELAP - A2LA Accredited - ISO/IEC 17025	3091.01
Florida Department of Health	E87777
Hawaii Department of Health	N/A
Louisiana Department of Environmental Quality	01977
Maine Department of Health	2020018
Michigan Department of Environmental Quality	9932
Minnesota Department of Health	2211390
Nevada Division of Environmental Protection	CA00413
New Hampshire Environmental Accreditation Program	207721
New Jersey Department of Environmental Protection	CA003
New York Department of Health	11411
Ohio Environmental Protection Agency	87778
Oregon Laboratory Accreditation Program	4042-021
Texas Commission on Environmental Quality	T104704189-22-13
Vermont Department of Health	VT-4042
Virginia Department of General Services	11276
Washington Department of Ecology	C584
Wisconsin Department of Natural Resources	998036160

Current certificates and lists of licensed parameters can be found at Enthalpy.com/Resources/Accreditations.

#8827 7818 6441

SUBCONTRACT ORDER ESS

Apex Laboratories

A5G1121

AKK 7/10/25

2507127 2.4°C

SENDING LABORATORY:

Apex Laboratories
6700 S.W. Sandburg Street
Tigard, OR 97223
Phone: (503) 718-2323
Fax: (503) 336-0745
Project Manager: Philip Nerenberg

RECEIVING LABORATORY:

Enthalpy Analytical- CA
1104 Windfield Way
El Dorado Hills, CA 95762
Phone :(916) 673-1520
Fax: -

Sample Name: ROW-P3-007-2.0-2.5 **Soil** **Sampled: 07/09/25 09:20** (A5G1121-01)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	07/22/25 17:00	08/08/25 09:20	
Containers Supplied:			
(A)8 oz Glass Jar			

Sample Name: ROW-P3-007-2.5-3.0 **Soil** **Sampled: 07/09/25 09:25** (A5G1121-02)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	07/22/25 17:00	08/08/25 09:25	
Containers Supplied:			
(A)8 oz Glass Jar			

Sample Name: ROW-P3-010-2.5-3.0 **Soil** **Sampled: 07/09/25 09:55** (A5G1121-03)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	07/22/25 17:00	08/08/25 09:55	
Containers Supplied:			
(A)8 oz Glass Jar			

Sample Name: ROW-P3-010-3.0-3.5 **Soil** **Sampled: 07/09/25 10:00** (A5G1121-04)

Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB)	07/22/25 17:00	08/08/25 10:00	
Containers Supplied:			
(A)8 oz Glass Jar			

Standard TAT

Released By	Date	Received By	Date	
ZA	7/14/25	Fed Ex (Shipper)		
Fed Ex (Shipper)		Xavier Acosta	07/15/25	05:37
Released By	Date	Received By	Date	

SUBCONTRACT ORDER EST

Apex Laboratories

A5G1121

Sample Name: ROW-P3-012-2.0-2.5	**Soil**	**Sampled: 07/09/25 10:20**	(A5G1121-05)
Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB) *Containers Supplied:* (A)8 oz Glass Jar	07/22/25 17:00	08/08/25 10:20	

Sample Name: ROW-P3-012-2.5-3.0	**Soil**	**Sampled: 07/09/25 10:25**	(A5G1121-06)
Analysis	Due	Expires	Comments
8290 Dioxins/Furans by HRGC/HRMS (SUB) *Containers Supplied:* (A)8 oz Glass Jar	07/22/25 17:00	08/08/25 10:25	

Standard TAT

JA	7/14/25	Fed Ex (Shipper)	
Released By	Date	Received By	Date
Fed Ex (Shipper)		Karen J. [signature]	07/15/25 08:27
Released By	Date	Received By	Date

CoC/Label Reconciliation Report WO# 2507127

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
2507127-01	A ROW-P3-007-2.0-2.5	A5G1121-01	09-Jul-25 09:20	Clear Glass Jar, 8 oz	Solid	
2507127-02	A ROW-P3-007-2.5-3.0	A5G1121-02	09-Jul-25 09:25	Clear Glass Jar, 8 oz	Solid	
2507127-03	A ROW-P3-010-2.5-3.0	A5G1121-03	09-Jul-25 09:55	Clear Glass Jar, 8 oz	Solid	
2507127-04	A ROW-P3-010-3.0-3.5	A5G1121-04	09-Jul-25 10:00	Clear Glass Jar, 8 oz	Solid	
2507127-05	A ROW-P3-012-2.0-2.5	A5G1121-05	09-Jul-25 10:20	Clear Glass Jar, 8 oz	Solid	
2507127-06	A ROW-P3-012-2.5-3.0	A5G1121-06	09-Jul-25 10:25	Clear Glass Jar, 8 oz	Solid	

Checkmarks indicate that information on the COC reconciled with the sample label.
Any discrepancies are noted in the following columns.

CONDITION	Yes	No	NA
Sample Container Intact?	✓		
Sample Container(s) Custody Seals Intact?			✓
Custody Seals On Cooler Intact?			✓
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)?	✓		

Comments:
(C2) = Cooler 2
(A) clear jar wrapped in foil

Preservation Documented: Na2S2O3 Trizma NH4CH3CO2 (None) Other

Verifed by/Date: ~~DAE~~ 07/15/25
MLS 07/15/25

Attachment B

Data Validation Memorandum

MAUL
FOSTER
ALONGI

Data Validation Memorandum

Project No. M9009.01.063 | August 28, 2025 | Port of Ridgefield

Maul Foster & Alongi, Inc. (MFA), conducted an independent Stage 2A review of the quality of analytical results for soil, and associated quality control samples collected in May and July 2025 at the off-property portion of the former Pacific Wood Treating Co. site in Ridgefield, Washington.

Enthalpy Analytical LLC (Enthalpy) performed the analyses. Samples were submitted to Apex Laboratories, LLC, and dioxins and furans analysis was subcontracted to Enthalpy. MFA reviewed Enthalpy report numbers 2505059, 2505154, 2506086, and 2507127. The analysis performed and the samples analyzed are listed in the following tables.

Analysis	Reference
Dioxins and furans	EPA 8290A

Note
EPA = U.S. Environmental Protection Agency.

Samples Analyzed	
Report 2505059	**Report 2505154**
ROW-P3-001-1.0-2.0	ROW-P3-008-1.0-2.0
ROW-P3-002-0-0.5	**Report 2506086**
ROW-P3-003-1.0-2.0	ROW-P3-004-1.5-2.0
ROW-P3-004-1.0-2.0	ROW-P3-007-1.5-2.0
ROW-P3-005-1.0-2.0	ROW-P3-010-1.5-2.0
ROW-P3-006-1.0-2.0	ROW-P3-012-1.5-2.0
ROW-P3-007-1.0-2.0	**Report 2507127**
ROW-P3-009-1.0-2.0	ROW-P3-007-2.0-2.5
ROW-P3-010-1.0-2.0	ROW-P3-007-2.5-3.0
ROW-P3-010-1.0-2.0-DUP	ROW-P3-010-2.5-3.0
ROW-P3-011-1.0-2.0	ROW-P3-010-3.0-3.5
ROW-P3-012-1.0-2.0	ROW-P3-012-2.0-2.5
ROW-P3-013-1.0-2.0	ROW-P3-012-2.5-3.0
20250501-RB	--

Data Validation Procedures

Analytical results were evaluated according to applicable sections of U.S. Environmental Protection Agency (EPA) guidelines for data review (EPA 2020) and appropriate laboratory- and method-specific guidelines (Enthalpy 2023, EPA 1986, EPA 2014).

Based on the data quality assurance/quality control review described herein, the data, with the appropriate final data qualifiers assigned, are considered acceptable for their intended use. Final data qualifiers represent qualifiers originating from the laboratory and accepted by the reviewer, and data qualifiers assigned by the reviewer during validation.

Final data qualifiers:

- J = result is estimated.

- U = result is non-detect at the sample-specific estimated detection limit (EDL) or reporting limit.
- UJ = result is non-detect with an estimated reporting limit.

General Qualifications

Chlorinated Diphenyl Ether Interference

According to report 2505059, several EPA Method 8290A 1,2,3,4,7,8-HxCDF results were impacted by interference from chlorinated diphenyl ethers. The reviewer qualified the associated sample results with J, as shown in the following table.

Report	Sample	Analyte	Original Result (pg/g)	Qualified Result (pg/g)
2505059	ROW-P3-004-1.0-2.0	1,2,3,4,7,8-HxCDF	27.1	27.1 J
	ROW-P3-005-1.0-2.0		5.12	5.12 J
	ROW-P3-007-1.0-2.0		28.9	28.9 J
	ROW-P3-012-1.0-2.0		14.3	14.3 J

Notes
J = result is estimated.
pg/g = picograms per gram.

Second Column Confirmation

Enthalpy performed EPA Method 8290A analysis using a column with sufficient resolution to quantify 2,3,7,8-TCDF detections above the MRL; thus, second column confirmation analysis was not required.

Estimated Maximum Potential Concentration Results

In accordance with EPA Region 10 guidance for data validation of polychlorinated dibenzodioxins and polychlorinated dibenzofurans (PCDDs/PCDFs) (EPA 2014) and EPA national functional guidelines for high-resolution Superfund methods data review (EPA 2020), the reviewer qualified EPA Method 8290A results because of laboratory estimated maximum potential concentration (EMPC) detections. The reviewer accepted some qualifications from the laboratory without additional qualifications.

Where Enthalpy reported congener or total homolog results as non-detect and an EMPC, the reviewer accepted the laboratory qualification. Results are reported as non-detect (U) at the EMPC value and are not shown in the table below.

Where Enthalpy flagged detected total homolog results as EMPCs, and all associated congeners were either EMPCs or non-detect, the reviewer qualified the total homolog result at the reported concentration with U, as non-detect. If the result had an additional J flag, the J flag was retained and final qualification is UJ.

Where Enthalpy flagged total homolog results as EMPCs and one or more associated congeners were detected without an EMPC flag, results were qualified by the reviewer with J at the EMPC value.

Final data qualifiers for EPA Method 8290A EMPC results are as follows:

Report	Sample	Analyte	Original Result (pg/g)	Qualified Result (pg/g)
2505059	ROW-P3-001-1.0-2.0	Total TCDD	4.88 K	4.88 U
		Total PeCDD	9.68 K	9.68 J
	ROW-P3-002-0-0.5	Total TCDD	2.49 K	2.49 U
		Total PeCDD	8.38 K	8.38 J
		Total TCDF	6.14 K	6.14 J
		Total PeCDF	14.9 K	14.9 J
		Total HxCDF	36.9 K	36.9 J
	ROW-P3-003-1.0-2.0	Total PeCDD	1.33 JK	1.33 J
		Total TCDF	4.31 K	4.31 U
		Total PeCDF	19.1 K	19.1 J
	ROW-P3-004-1.0-2.0	Total TCDD	3.62 K	3.62 U
		Total PeCDD	16.3 K	16.3 J
		Total TCDF	45.3 K	45.3 J
	ROW-P3-005-1.0-2.0	Total TCDD	5.15 K	5.15 U
		Total PeCDD	15.9 K	15.9 J
		Total TCDF	149 K	149 J
		Total PeCDF	459 K	459 J
		Total HxCDF	264 K	264 J
		Total HpCDF	60.8 K	60.8 J
	ROW-P3-006-1.0-2.0	Total PeCDD	0.797 JK	0.797 J
		Total HxCDD	11.8 K	11.8 J
		Total TCDF	0.547 JK	0.547 UJ
		Total PeCDF	3.44 K	3.44 U
		Total HxCDF	26.9 K	26.9 J
	ROW-P3-007-1.0-2.0	Total TCDD	11.2 K	11.2 U
		Total PeCDD	47.0 K	47.0 J
		Total PeCDF	521 K	521 J
		Total HxCDF	673 K	673 J
	ROW-P3-009-1.0-2.0	Total TCDD	1.15 K	1.15 U
		Total PeCDD	3.99 K	3.99 U
		Total TCDF	7.07 K	7.07 J
		Total PeCDF	34.6 K	34.6 J
		Total HxCDF	90.2 K	90.2 J
	ROW-P3-010-1.0-2.0	Total TCDD	7.53 K	7.53 J
		Total PeCDD	47.7 K	47.7 J
		Total HxCDD	666 K	666 J
		Total TCDF	51.4 K	51.4 J
	ROW-P3-010-1.0-2.0-DUP	Total TCDD	5.88 K	5.88 J
		Total TCDF	43.0 K	43.0 U
		Total PeCDF	404 K	404 J
	ROW-P3-011-1.0-2.0	Total TCDD	0.468 JK	0.468 UJ
		Total PeCDD	4.32 K	4.32 J
		Total TCDF	6.68 K	6.68 J
		Total HxCDF	117 K	117 J

Report	Sample	Analyte	Original Result (pg/g)	Qualified Result (pg/g)
2505059	ROW-P3-012-1.0-2.0	Total TCDD	4.02 K	4.02 U
		Total PeCDD	20.2 K	20.2 J
		Total TCDF	104 K	104 J
		Total PeCDF	462 K	462 J
		Total HxCDF	390 K	390 J
		Total HpCDF	173 K	173 J
	ROW-P3-013-1.0-2.0	Total PeCDD	1.85 JK	1.85 J
		Total TCDF	3.55 K	3.55 U
		Total PeCDF	23.5 K	23.5 J
		Total HxCDF	47.6 K	47.6 J
2505154	ROW-P3-008-1.0-2.0	Total HxCDD	71.6 K	71.6 J
		Total TCDF	2.78 K	2.78 U
		Total PeCDF	30.5 K	30.5 J
		Total HxCDF	109 K	109 J
		Total HpCDF	229 K	229 J
2506086	ROW-P3-004-1.5-2.0	Total PeCDD	3.74 JK	3.74 UJ
		Total HxCDD	38.1 K	38.1 J
		Total TCDF	7.58 K	7.58 J
		Total PeCDF	47.1 K	47.1 J
		Total HxCDF	81.5 K	81.5 J
	ROW-P3-007-1.5-2.0	Total TCDD	10.4 K	10.4 UJ
		Total PeCDD	56.2 K	56.2 J
		Total TCDF	108 K	108 J
		Total PeCDF	615 K	615 J
	ROW-P3-010-2.0-2.5	Total TCDD	2.92 K	2.92 UJ
		Total PeCDD	16.9 K	16.9 J
		Total HxCDD	185 K	185 J
		Total TCDF	15.8 K	15.8 J
		Total PeCDF	129 K	129 J
		Total HxCDF	403 K	403 J
		Total HpCDF	437 K	437 J
	ROW-P3-012-1.5-2.0	Total TCDD	8.66 K	8.66 UJ
		Total PeCDD	37.7 K	37.7 J
		Total TCDF	137 K	137 J
		Total PeCDF	710 K	710 J
2507127	ROW-P3-007-2.0-2.5	Total PeCDD	3.86 JK	3.86 J
		Total HxCDD	18.4 K	18.4 J
		Total TCDF	2.95 K	2.95 U
		Total HxCDF	25.3 K	25.3 J
		Total HpCDF	43.6 K	43.6 J
	ROW-P3-007-2.5-3.0	Total HxCDD	9.80 K	9.80 J
		Total TCDF	0.878 K	0.878 U
		Total PeCDF	5.28 K	5.28 U
		Total HxCDF	12.2 K	12.2 J

Report	Sample	Analyte	Original Result (pg/g)	Qualified Result (pg/g)
2507127	ROW-P3-010-2.5-3.0	Total PeCDD	3.09 JK	3.09 J
		Total TCDF	4.45 K	4.45 J
		Total PeCDF	18.3 K	18.3 J
		Total HxCDF	43.2 K	43.2 J
	ROW-P3-010-3.0-3.5	Total PeCDD	2.43 JK	2.43 J
		Total TCDF	1.96 K	1.96 U
		Total PeCDF	13.5 K	13.5 J
		Total HxCDF	46.0 K	46.0 J
	ROW-P3-012-2.0-2.5	Total TCDD	1.08 JK	1.08 UJ
		Total PeCDD	7.63 K	7.63 J
		Total TCDF	10.2 K	10.2 J
		Total PeCDF	50.7 K	50.7 J
	ROW-P3-012-2.5-3.0	Total TCDD	2.46 K	2.46 U
		Total PeCDD	10.7 K	10.7 J
		Total TCDF	13.4 K	13.4 J
		Total PeCDF	66.6 K	66.6 J
		Total HxCDF	135 K	135 J

Notes
J = result is estimated.
JK = result is estimated and an estimated maximum potential concentration.
K = result is an estimated maximum potential concentration.
pg/g = picograms per gram.
UJ = result is non-detect with an estimated reporting limit.
U = result is non-detect.

Sample Conditions

Sample Custody

Sample custody was appropriately documented on the chain-of-custody forms accompanying the reports.

The reviewer confirmed that the gap in custody on the subcontractor chain-of-custody forms is due to shipment via a third-party service.

Holding Times

According to report 2506086, EPA Method 8290A extraction was performed for samples ROW-P3-004-1.5-2.0, ROW-P3-007-1.5-2.0, ROW-P3-010-2.0-2.5, and ROW-P3-012-1.5-2.0 11 days after the 30-day method-recommended holding time.

EPA Method 8290A notes that dioxins and furans are very stable in a variety of matrices and that when stored at less than or equal to 6 degrees Celsius, the holding times may be as long as a year for certain matrices. Because storage stability for dioxins and furans was not evaluated in soil from the project site, the holding time was not extended. The reviewer qualified associated detected sample results with J, and non-detect results with UJ. Results already flagged by Enthalpy with J due to detection below the MRL were not additionally qualified but are presented for a complete record.

Results also qualified based on EMPCs and internal standard recovery are shown with final qualification.

Report	Sample	Analysis	Original Results	Qualification
2506086	ROW-P3-004-1.5-2.0 ROW-P3-007-1.5-2.0 ROW-P3-010-2.0-2.5 ROW-P3-012-1.5-2.0	EPA 8290A	Detected	J[a][b]
				J-[c]
			Non-detect	UJ

Notes
J = result is estimated.
UJ = result is estimated, but the result may be biased low
[a]Some results were already flagged with J due to detection below the method reporting limit; these results did not require additional qualification.
[b]Results also qualified based on estimated maximum potential concentration. Final qualification is shown.
[c]Results also qualified based on analog standard recovery. Final qualification is shown.

The remaining extractions and analyses were performed within the method-recommended holding times.

Preservation and Sample Storage

The reviewer confirmed the EPA Method 8290A samples were collected in clear jars wrapped in foil to protect from light, in accordance with the method.

The samples were preserved and stored appropriately.

Reporting Limits

The laboratory evaluated results to EDLs. Samples that required dilutions because of high analyte concentrations, matrix interferences, and/or dilutions necessary for preparation and/or analysis were reported with raised EDLs and method reporting limits (MRLs).

The laboratory qualified results between the EDL and the MRL with J, as estimated.

Blank Results

Method Blanks

Laboratory method blanks are used to evaluate whether laboratory contamination was introduced during sample preparation and analysis. Laboratory method blank analyses were performed at the required frequencies, in accordance with laboratory- and method-specific requirements.

According to reports 2505059, 2506086, and 2507127, EPA Method 8290A batches B25G252 and B25E166 laboratory method blanks had several detections between EDLs and MRLs. Method blank detections are listed in the table below.

Report	Batch	Analyte	Method Blank Result (pg/g)
2505059	B25E166	OCDD	0.693 J
2506086	B25F125	1,2,3,4,7,8-HxCDF	0.148 J
		Total HxCDF	0.414 JK
2507127	B25G252	1,2,3,4,6,7,8-HpCDD	0.332 J
		OCDD	3.64 J
		Total HpCDD	0.332 J

Notes
J = result is estimated.
JK = result is estimated and an estimated maximum potential concentration.
pg/g = picograms per gram.

All associated sample results were non-detect or greater than five times the method blank concentrations; thus, qualification was not required.

All remaining laboratory method blank results were non-detect to EDLs.

Equipment Rinsate Blanks

Equipment rinsate blanks are used to evaluate the adequacy of the field equipment decontamination process when decontaminated sampling equipment is used to collect samples.

Environmental samples are associated with the equipment rinsate blank based on sample dates, as shown in the following table. The reviewer was unable to evaluate the field equipment decontamination process for the remaining sample dates.

Report	Equipment Rinsate Blank	Associated Date
2505059	20250501-RB	May 1, 2025

The equipment rinsate blank sample was non-detect to EDLs for all target analytes.

Laboratory Control Sample and Laboratory Control Sample Duplicate Results

Laboratory control sample (LCS) and laboratory control sample duplicate results are used to evaluate laboratory precision and accuracy. Enthalpy reported “ongoing precision and recovery” sample results in accordance with the method, which are equivalent to an LCS. All LCS were prepared and analyzed at the required frequency, in accordance with laboratory- and method-specific requirements.

All LCS results were within acceptance limits for percent recovery.

Laboratory Duplicate Results

Laboratory duplicate results are used to evaluate laboratory precision and sample homogeneity. No laboratory duplicate results were reported, in accordance with the method.

Matrix Spike and Matrix Spike Duplicate Results

Matrix spike and matrix spike duplicate results are used to evaluate laboratory precision, accuracy, and the effect of the sample matrix on sample preparation and target analyte recovery. No matrix spike results were reported, in accordance with the method.

Labeled Analog Results

EPA Method 8290A samples were spiked with carbon-13 labeled standards to quantify the relative response of analytes in each sample, and with a chlorine-37 labeled cleanup standard to measure the efficiency of the cleanup process.

According to report 2506086, several EPA Method 8290A labeled analog standard results for samples ROW-P3-004-1.5-2.0 and ROW-P3-010-2.0-2.5 were below the lower percent recovery acceptance limit of 40 percent, ranging from 23.5 percent to 39.9 percent. The same sample results were also associated with holding time exceedances. The reviewer determined the

qualification as estimated with a potential low bias was appropriate and qualified the associated sample results with J-, as shown in the following table:

Report	Sample	Analyte	Original Result (pg/g)	Qualified Result (pg/g)
2506086	ROW-P3-004-1.5-2.0	1,2,3,4,6,7,8-HpCDD	169	169 J-
		OCDD	1,250	1,250 J-
		1,2,3,4,6,7,8-HpCDF	26.4	26.4 J-
		1,2,3,4,7,8,9-HpCDF	2.39 J	2.39 J-
		OCDF	24.1	24.1 J-
	ROW-P3-010-2.0-2.5	1,2,3,4,6,7,8-HpCDD	948	948 J-
		OCDD	8,680	8,680 J-
		1,2,3,4,6,7,8-HpCDF	148	148 J-
		OCDF	111	111 J-

Notes
J = result is estimated.
J- = result is estimated, but the result may be biased low.
pg/g = picograms per gram.

All remaining labeled standard recoveries were within acceptance limits.

Field Duplicate Results

Field duplicate results are used to evaluate field precision and sample homogeneity. The following field duplicate and parent sample pair was submitted for analysis:

Report	Parent Sample	Field Duplicate Sample
2505059	ROW-P3-010-1.0-2.0	ROW-P3-010-1.0-2.0-DUP

MFA uses acceptance criteria of 100 percent relative percent difference (RPD) for results that are less than five times the MRL or 50 percent RPD for results that are greater than five times the MRL. RPD was not evaluated when both results in the sample pair were non-detect. When one result in the sample pair was reported as a non-detect EMPC, RPD was evaluated using the EMPC value of the non-detect EMPC result. RPD was evaluated using the reported laboratory results prior to any EMPC qualifications applied by the reviewer in the General Qualifications section above.

Field duplicate results that exceeded the acceptance criteria were qualified by the reviewer, as shown in the following table.

Report	Sample	Analyte	RPD (%)	Original Result (pg/g)	Qualified Result (pg/g)
2505059	ROW-P3-010-1.0-2.0	2,3,4,7,8-PeCDF	78.1	15.0	15.0 J
	ROW-P3-010-1.0-2.0-DUP			34.2	34.2 J

Notes
J = result is estimated.
pg/g = picograms per gram.
RPD = relative percent difference

All remaining field duplicate results met the RPD acceptance criteria.

Data Package

The data package was reviewed for transcription errors, omissions, and anomalies. None were found.

References

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