

Work Orders: 2A05051

Project: 60674414, COC # 01042022DW-01

Attn: Margie Pascua

Client: AECOM - Honolulu
1001 Bishop Street Suite 1600
Honolulu, HI 96813

Report Date: 1/10/2022

Received Date: 01/05/2022

Turnaround Time: 3 workdays

Phones: (808) 529-7277

Fax: (808) 524-0246

P.O. #: reference number
60571032.02.46.01

Billing Code:

ELAP-CA #1132 • EPA-UCMR #CA00211 • Guam-EPA #17-008R • HW-DOH #4047 • LACSD #10143 • NELAP-OR #4047 • NJ-DEP
#CA015 • NV-DEP #NAC 445A • SCAQMD #93LA1006

This is a complete final report. The information in this report applies to the samples analyzed in accordance with the chain-of-custody document. Weck Laboratories certifies that the test results meet all requirements of TNI unless noted by qualifiers or written in the Case Narrative. This analytical report must be reproduced in its entirety.

Dear Margie Pascua,

Enclosed are the results of analyses for samples received 1/05/22 with the Chain-of-Custody document. The samples were received in good condition, at 3.6 °C and on ice. All analyses met the method criteria except as noted in the case narrative or in the report with data qualifiers.

Reviewed by:



Kim G. Tu
Project Manager



AECOM - Honolulu
1001 Bishop Street Suite 1600
Honolulu, HI 96813

Project Number: 60674414, COC # 01042022DW-01

Reported:
01/10/2022 20:22

Project Manager: Margie Pascua

Sample Summary

Sample Name	Sampled By	Lab ID	Matrix	Sampled	Qualifiers
20220104-A1-ZT01	AECOM	2A05051-01	Water	01/04/22 10:45	
20220104-A1-ZT03	AECOM	2A05051-02	Water	01/04/22 10:50	
20220104-D1-ZT04	AECOM	2A05051-03	Water	01/04/22 12:35	

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Project Number: 60674414, COC # 01042022DW-01

Reported:
01/10/2022 20:22

Project Manager: Margie Pascua

Sample Results

Sample: 20220104-A1-ZT01
2A05051-01 (Water)

Sampled: 01/04/22 10:45 by AECOM

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Volatile Organic Compounds by P&T and GC/MS							
Method: EPA 524.2		Instr: GCMS14					
Batch ID: W2A0117	Preparation: EPA 5030		Prepared: 01/04/22 12:16			Analyst: cam	
1,1,1,2-Tetrachloroethane	ND	0.24	0.50	ug/l	1	01/06/22	U
1,1,1-Trichloroethane	ND	0.26	0.50	ug/l	1	01/06/22	U
1,1,2,2-Tetrachloroethane	ND	0.20	0.50	ug/l	1	01/06/22	U
1,1,2-Trichloroethane	ND	0.19	0.50	ug/l	1	01/06/22	U
1,1-Dichloroethane	ND	0.27	0.50	ug/l	1	01/06/22	U
1,1-Dichloroethene	ND	0.16	0.50	ug/l	1	01/06/22	U
1,1-Dichloropropene	ND	0.14	0.50	ug/l	1	01/06/22	U
1,2,3-Trichlorobenzene	ND	0.40	0.50	ug/l	1	01/06/22	U
1,2,4-Trichlorobenzene	ND	0.17	0.50	ug/l	1	01/06/22	U
1,2,4-Trimethylbenzene	ND	0.20	0.50	ug/l	1	01/06/22	U
1,2-Dichloroethane	ND	0.24	0.50	ug/l	1	01/06/22	U
1,2-Dichloropropane	ND	0.13	0.50	ug/l	1	01/06/22	U
1,3,5-Trimethylbenzene	ND	0.17	0.50	ug/l	1	01/06/22	U
1,3-Dichloropropane	ND	0.27	0.50	ug/l	1	01/06/22	U
1,3-Dichloropropene, Total	ND		0.50	ug/l	1	01/06/22	U
2,2-Dichloropropane	ND	0.17	0.50	ug/l	1	01/06/22	U
2-Butanone	ND	1.5	5.0	ug/l	1	01/06/22	U
2-Chlorotoluene	ND	0.15	0.50	ug/l	1	01/06/22	U
2-Hexanone	ND	1.2	5.0	ug/l	1	01/06/22	U
4-Chlorotoluene	ND	0.15	0.50	ug/l	1	01/06/22	U
4-Methyl-2-pentanone	ND	1.8	5.0	ug/l	1	01/06/22	U
Benzene	ND	0.15	0.50	ug/l	1	01/06/22	U
Bromobenzene	ND	0.15	0.50	ug/l	1	01/06/22	U
Bromochloromethane	ND	0.15	0.50	ug/l	1	01/06/22	U
Bromodichloromethane	ND	0.24	0.50	ug/l	1	01/06/22	U
Bromoform	ND	0.38	0.50	ug/l	1	01/06/22	U
Bromomethane	ND	0.27	0.50	ug/l	1	01/06/22	U
Carbon tetrachloride	ND	0.27	0.50	ug/l	1	01/06/22	U
Chlorobenzene	ND	0.15	0.50	ug/l	1	01/06/22	U
Chloroethane	ND	0.17	0.50	ug/l	1	01/06/22	U
Chloroform	ND	0.27	0.50	ug/l	1	01/06/22	U
Chloromethane	ND	0.23	0.50	ug/l	1	01/06/22	U
cis-1,2-Dichloroethene	ND	0.25	0.50	ug/l	1	01/06/22	U
cis-1,3-Dichloropropene	ND	0.30	0.50	ug/l	1	01/06/22	U
Dibromochloromethane	ND	0.20	0.50	ug/l	1	01/06/22	U

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Project Number: 60674414, COC # 01042022DW-01

Reported:
01/10/2022 20:22

Project Manager: Margie Pascua

Sample Results

(Continued)

Sample: 20220104-A1-ZT01
2A05051-01 (Water)

Sampled: 01/04/22 10:45 by AECOM
(Continued)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
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Volatile Organic Compounds by P&T and GC/MS (Continued)

Method: EPA 524.2

Instr: GCMS14

Batch ID: W2A0117

Preparation: EPA 5030

Prepared: 01/04/22 12:16

Analyst: cam

Dibromomethane	ND	0.20	0.50	ug/l	1	01/06/22	U
Dichlorodifluoromethane (Freon 12)	ND	0.45	0.50	ug/l	1	01/06/22	U
Di-isopropyl ether	ND	1.1	2.0	ug/l	1	01/06/22	U
Ethyl tert-butyl ether	ND	1.0	2.0	ug/l	1	01/06/22	U
Ethylbenzene	ND	0.21	0.50	ug/l	1	01/06/22	U
Freon 113	ND	1.5	5.0	ug/l	1	01/06/22	U
Hexachlorobutadiene	ND	0.40	0.50	ug/l	1	01/06/22	U
Isopropylbenzene	ND	0.18	0.50	ug/l	1	01/06/22	U
m,p-Xylene	ND	0.33	0.50	ug/l	1	01/06/22	U
m-Dichlorobenzene	ND	0.14	0.50	ug/l	1	01/06/22	U
Methyl tert-butyl ether (MTBE)	ND	0.94	2.0	ug/l	1	01/06/22	U
Methylene chloride	ND	0.30	0.50	ug/l	1	01/06/22	U
Naphthalene	ND	0.35	0.50	ug/l	1	01/06/22	U
n-Butylbenzene	ND	0.29	0.50	ug/l	1	01/06/22	U
n-Propylbenzene	ND	0.18	0.50	ug/l	1	01/06/22	U
o-Dichlorobenzene	ND	0.19	0.50	ug/l	1	01/06/22	U
o-Xylene	ND	0.20	0.50	ug/l	1	01/06/22	U
p-Dichlorobenzene	ND	0.18	0.50	ug/l	1	01/06/22	U
p-Isopropyltoluene	ND	0.25	0.50	ug/l	1	01/06/22	U
sec-Butylbenzene	ND	0.24	0.50	ug/l	1	01/06/22	U
Styrene	ND	0.19	0.50	ug/l	1	01/06/22	U
Tert-amyl methyl ether	ND	0.59	2.0	ug/l	1	01/06/22	U
tert-Butylbenzene	ND	0.18	0.50	ug/l	1	01/06/22	U
Tetrachloroethene	ND	0.18	0.50	ug/l	1	01/06/22	U
THMs, Total	ND		0.50	ug/l	1	01/06/22	U
Toluene	ND	0.29	0.50	ug/l	1	01/06/22	U
trans-1,2-Dichloroethene	ND	0.26	0.50	ug/l	1	01/06/22	U
trans-1,3-Dichloropropene	ND	0.32	0.50	ug/l	1	01/06/22	U
Trichloroethene	ND	0.18	0.50	ug/l	1	01/06/22	U
Trichlorofluoromethane	ND	0.18	0.50	ug/l	1	01/06/22	U
Vinyl chloride	ND	0.18	0.50	ug/l	1	01/06/22	U
Xylenes, Total	ND		0.50	ug/l	1	01/06/22	U

Surrogate(s)

1,2-Dichlorobenzene-d4	95%	Conc: 9.48	70-130	01/06/22
4-Bromofluorobenzene	99%	Conc: 9.86	70-130	01/06/22

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Sample Results

(Continued)

Sample: 20220104-A1-ZT03
2A05051-02 (Water) Sampled: 01/04/22 10:50 by AECOM

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Chlorinated Pesticides and/or PCBs by GC/ECD							
Method: EPA 508.1				Instr: GC08			
Batch ID: W2A0464		Preparation: EPA 508.1/SPE		Prepared: 01/07/22 09:50		Analyst: rjg	
Aroclor 1016	ND	0.016	0.10	ug/l	1	01/10/22	U
Aroclor 1221	ND	0.044	0.10	ug/l	1	01/10/22	U
Aroclor 1232	ND	0.010	0.10	ug/l	1	01/10/22	U
Aroclor 1242	ND	0.074	0.10	ug/l	1	01/10/22	U
Aroclor 1248	ND	0.094	0.10	ug/l	1	01/10/22	U
Aroclor 1254	ND	0.087	0.10	ug/l	1	01/10/22	U
Aroclor 1260	ND	0.038	0.10	ug/l	1	01/10/22	U
Chlordane (tech)	ND	0.067	0.10	ug/l	1	01/10/22	U
PCBs, Total	ND		0.50	ug/l	1	01/10/22	U
Surrogate(s)							
4,4-Dibromobiphenyl	130%	Conc: 0.131	70-130			01/10/22	

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: SM 5310B				Instr: TOC02			
Batch ID: W2A0252		Preparation: _NONE (TOC/TOX)		Prepared: 01/05/22 09:41		Analyst: ajc	
Total Organic Carbon (TOC)	0.67	0.19	0.30	mg/l	1	01/06/22	

Metals by EPA 200 Series Methods

Method: EPA 200.8				Instr: ICPMS04			
Batch ID: W2A0331		Preparation: EPA 200.2		Prepared: 01/05/22 17:05		Analyst: chc	
Antimony, Total	ND	0.089	0.50	ug/l	1	01/06/22	U
Arsenic, Total	ND	0.074	0.40	ug/l	1	01/07/22	U
Barium, Total	2.7	0.14	1.0	ug/l	1	01/06/22	
Beryllium, Total	ND	0.062	0.10	ug/l	1	01/07/22	U
Cadmium, Total	ND	0.042	0.20	ug/l	1	01/07/22	U
Chromium, Total	1.5	0.089	0.20	ug/l	1	01/07/22	
Copper, Total	24	0.23	0.50	ug/l	1	01/06/22	
Lead, Total	1.1	0.083	0.20	ug/l	1	01/06/22	
Selenium, Total	ND	0.067	0.40	ug/l	1	01/07/22	U
Thallium, Total	ND	0.021	0.20	ug/l	1	01/06/22	U

Method: EPA 245.1				Instr: HG03			
Batch ID: W2A0352		Preparation: EPA 245.1		Prepared: 01/06/22 09:30		Analyst: mpn	
Mercury, Total	ND	0.017	0.050	ug/l	1	01/06/22	U

Semivolatile Organic Compounds by GC/MS

Method: EPA 525.2				Instr: GCMS16			
Batch ID: W2A0245		Preparation: EPA 525.2/SPE		Prepared: 01/05/22 08:39		Analyst: rmr	
1-Methylnaphthalene	ND	0.0080	0.050	ug/l	1	01/07/22	U
2-Methylnaphthalene	ND	0.0090	0.050	ug/l	1	01/07/22	U

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Honolulu, HI 96813

Project Number: 60674414, COC # 01042022DW-01

Reported:
01/10/2022 20:22

Project Manager: Margie Pascua

Sample Results

(Continued)

Sample: 20220104-A1-ZT03
2A05051-02 (Water)

Sampled: 01/04/22 10:50 by AECOM
(Continued)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
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Semivolatile Organic Compounds by GC/MS (Continued)

Method: EPA 525.2

Instr: GCMS16

Batch ID: W2A0245

Preparation: EPA 525.2/SPE

Prepared: 01/05/22 08:39

Analyst: rmr

Alachlor	ND	0.011	0.10	ug/l	1	01/07/22	U
Atrazine	ND	0.0073	0.10	ug/l	1	01/07/22	U
Benzo (a) pyrene	ND	0.012	0.050	ug/l	1	01/07/22	Q-02, U
Bis(2-ethylhexyl)adipate	ND	0.0096	5.0	ug/l	1	01/07/22	U
Bis(2-ethylhexyl)phthalate	ND	0.44	3.0	ug/l	1	01/07/22	U
Endrin	ND	0.0099	0.20	ug/l	1	01/07/22	BS-04, U
gamma-BHC (Lindane)	ND	0.0063	0.10	ug/l	1	01/07/22	U
Heptachlor	ND	0.0096	0.10	ug/l	1	01/07/22	U
Heptachlor epoxide	ND	0.012	0.10	ug/l	1	01/07/22	U
Hexachlorobenzene	ND	0.098	0.10	ug/l	1	01/07/22	U
Hexachlorocyclopentadiene	ND	0.0059	1.0	ug/l	1	01/07/22	U
Methoxychlor	ND	0.0086	0.20	ug/l	1	01/07/22	BS-04, U
Naphthalene	ND	0.010	0.050	ug/l	1	01/07/22	U
Pentachlorophenol	ND	0.024	1.0	ug/l	1	01/07/22	U
Simazine	ND	0.0073	0.10	ug/l	1	01/07/22	U

Surrogate(s)

1,3-Dimethyl-2-nitrobenzene	114%	Conc: 0.578	70-130	01/07/22
Perylene-d12	76%	Conc: 0.385	70-130	01/07/22
Triphenyl phosphate	112%	Conc: 0.565	70-130	01/07/22

Volatile Organic Compounds by P&T and GC/MS

Method: EPA 524.2

Instr: GCMS14

Batch ID: W2A0117

Preparation: EPA 5030

Prepared: 01/04/22 12:16

Analyst: cam

1,1,1,2-Tetrachloroethane	ND	0.24	0.50	ug/l	1	01/06/22	U
1,1,1-Trichloroethane	ND	0.26	0.50	ug/l	1	01/06/22	U
1,1,2,2-Tetrachloroethane	ND	0.20	0.50	ug/l	1	01/06/22	U
1,1,2-Trichloroethane	ND	0.19	0.50	ug/l	1	01/06/22	U
1,1-Dichloroethane	ND	0.27	0.50	ug/l	1	01/06/22	U
1,1-Dichloroethene	ND	0.16	0.50	ug/l	1	01/06/22	U
1,1-Dichloropropene	ND	0.14	0.50	ug/l	1	01/06/22	U
1,2,3-Trichlorobenzene	ND	0.40	0.50	ug/l	1	01/06/22	U
1,2,4-Trichlorobenzene	ND	0.17	0.50	ug/l	1	01/06/22	U
1,2,4-Trimethylbenzene	ND	0.20	0.50	ug/l	1	01/06/22	U
1,2-Dichloroethane	ND	0.24	0.50	ug/l	1	01/06/22	U
1,2-Dichloropropane	ND	0.13	0.50	ug/l	1	01/06/22	U
1,3,5-Trimethylbenzene	ND	0.17	0.50	ug/l	1	01/06/22	U
1,3-Dichloropropane	ND	0.27	0.50	ug/l	1	01/06/22	U

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Project Number: 60674414, COC # 01042022DW-01

Reported:
01/10/2022 20:22

Project Manager: Margie Pascua

Sample Results

(Continued)

Sample: 20220104-A1-ZT03
2A05051-02 (Water)

Sampled: 01/04/22 10:50 by AECOM

(Continued)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
Volatile Organic Compounds by P&T and GC/MS (Continued)							
Method: EPA 524.2		Instr: GCMS14					
Batch ID: W2A0117	Preparation: EPA 5030		Prepared: 01/04/22 12:16			Analyst: cam	
1,3-Dichloropropene, Total	ND		0.50	ug/l	1	01/06/22	U
2,2-Dichloropropane	ND	0.17	0.50	ug/l	1	01/06/22	U
2-Butanone	ND	1.5	5.0	ug/l	1	01/06/22	U
2-Chlorotoluene	ND	0.15	0.50	ug/l	1	01/06/22	U
2-Hexanone	ND	1.2	5.0	ug/l	1	01/06/22	U
4-Chlorotoluene	ND	0.15	0.50	ug/l	1	01/06/22	U
4-Methyl-2-pentanone	ND	1.8	5.0	ug/l	1	01/06/22	U
Benzene	ND	0.15	0.50	ug/l	1	01/06/22	U
Bromobenzene	ND	0.15	0.50	ug/l	1	01/06/22	U
Bromochloromethane	ND	0.15	0.50	ug/l	1	01/06/22	U
Bromodichloromethane	0.29	0.24	0.50	ug/l	1	01/06/22	J
Bromoform	0.86	0.38	0.50	ug/l	1	01/06/22	
Bromomethane	ND	0.27	0.50	ug/l	1	01/06/22	U
Carbon tetrachloride	ND	0.27	0.50	ug/l	1	01/06/22	U
Chlorobenzene	ND	0.15	0.50	ug/l	1	01/06/22	U
Chloroethane	ND	0.17	0.50	ug/l	1	01/06/22	U
Chloroform	ND	0.27	0.50	ug/l	1	01/06/22	U
Chloromethane	ND	0.23	0.50	ug/l	1	01/06/22	U
cis-1,2-Dichloroethene	ND	0.25	0.50	ug/l	1	01/06/22	U
cis-1,3-Dichloropropene	ND	0.30	0.50	ug/l	1	01/06/22	U
Dibromochloromethane	0.74	0.20	0.50	ug/l	1	01/06/22	
Dibromomethane	ND	0.20	0.50	ug/l	1	01/06/22	U
Dichlorodifluoromethane (Freon 12)	ND	0.45	0.50	ug/l	1	01/06/22	U
Di-isopropyl ether	ND	1.1	2.0	ug/l	1	01/06/22	U
Ethyl tert-butyl ether	ND	1.0	2.0	ug/l	1	01/06/22	U
Ethylbenzene	ND	0.21	0.50	ug/l	1	01/06/22	U
Freon 113	ND	1.5	5.0	ug/l	1	01/06/22	U
Hexachlorobutadiene	ND	0.40	0.50	ug/l	1	01/06/22	U
Isopropylbenzene	ND	0.18	0.50	ug/l	1	01/06/22	U
m,p-Xylene	ND	0.33	0.50	ug/l	1	01/06/22	U
m-Dichlorobenzene	ND	0.14	0.50	ug/l	1	01/06/22	U
Methyl tert-butyl ether (MTBE)	ND	0.94	2.0	ug/l	1	01/06/22	U
Methylene chloride	ND	0.30	0.50	ug/l	1	01/06/22	U
Naphthalene	ND	0.35	0.50	ug/l	1	01/06/22	U
n-Butylbenzene	ND	0.29	0.50	ug/l	1	01/06/22	U

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Project Number: 60674414, COC # 01042022DW-01

Project Manager: Margie Pascua

Reported:
01/10/2022 20:22

Sample Results

(Continued)

Sample: 20220104-A1-ZT03
2A05051-02 (Water)

Sampled: 01/04/22 10:50 by AECOM
(Continued)

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
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Volatile Organic Compounds by P&T and GC/MS (Continued)

Method: EPA 524.2

Instr: GCMS14

Batch ID: W2A0117

Preparation: EPA 5030

Prepared: 01/04/22 12:16

Analyst: cam

n-Propylbenzene	ND	0.18	0.50	ug/l	1	01/06/22	U
o-Dichlorobenzene	ND	0.19	0.50	ug/l	1	01/06/22	U
o-Xylene	ND	0.20	0.50	ug/l	1	01/06/22	U
p-Dichlorobenzene	ND	0.18	0.50	ug/l	1	01/06/22	U
p-Isopropyltoluene	ND	0.25	0.50	ug/l	1	01/06/22	U
sec-Butylbenzene	ND	0.24	0.50	ug/l	1	01/06/22	U
Styrene	ND	0.19	0.50	ug/l	1	01/06/22	U
Tert-amyl methyl ether	ND	0.59	2.0	ug/l	1	01/06/22	U
tert-Butylbenzene	ND	0.18	0.50	ug/l	1	01/06/22	U
Tetrachloroethene	ND	0.18	0.50	ug/l	1	01/06/22	U
THMs, Total	1.6		0.50	ug/l	1	01/06/22	
Toluene	ND	0.29	0.50	ug/l	1	01/06/22	U
trans-1,2-Dichloroethene	ND	0.26	0.50	ug/l	1	01/06/22	U
trans-1,3-Dichloropropene	ND	0.32	0.50	ug/l	1	01/06/22	U
Trichloroethene	ND	0.18	0.50	ug/l	1	01/06/22	U
Trichlorofluoromethane	ND	0.18	0.50	ug/l	1	01/06/22	U
Vinyl chloride	ND	0.18	0.50	ug/l	1	01/06/22	U
Xylenes, Total	ND		0.50	ug/l	1	01/06/22	U

Surrogate(s)

1,2-Dichlorobenzene-d4	89%	Conc: 8.86	70-130	01/06/22
4-Bromofluorobenzene	90%	Conc: 8.98	70-130	01/06/22

Sample Results

(Continued)

Sample: 20220104-D1-ZT04
2A05051-03 (Water)

Sampled: 01/04/22 12:35 by AECOM

Analyte	Result	MDL	MRL	Units	Dil	Analyzed	Qualifier
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Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Method: SM 5310B

Instr: TOC02

Batch ID: W2A0252

Preparation: _NONE (TOC/TOX)

Prepared: 01/05/22 09:41

Analyst: ajc

Total Organic Carbon (TOC)	0.49	0.19	0.30	mg/l	1	01/06/22	
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Project Number: 60674414, COC # 01042022DW-01

Reported:
01/10/2022 20:22

Project Manager: Margie Pascua

Quality Control Results

Chlorinated Pesticides and/or PCBs by GC/ECD

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W2A0464 - EPA 508.1											
Blank (W2A0464-BLK1)						Prepared: 01/07/22 Analyzed: 01/10/22					
Aroclor 1016	ND	0.016	0.10	ug/l							U
Aroclor 1221	ND	0.044	0.10	ug/l							U
Aroclor 1232	ND	0.010	0.10	ug/l							U
Aroclor 1242	ND	0.074	0.10	ug/l							U
Aroclor 1248	ND	0.094	0.10	ug/l							U
Aroclor 1254	ND	0.087	0.10	ug/l							U
Aroclor 1260	ND	0.038	0.10	ug/l							U
Chlordane (tech)	ND	0.067	0.10	ug/l							U
PCBs, Total	ND		0.50	ug/l							U
<i>Surrogate(s)</i>											
4,4-Dibromobiphenyl	0.112			ug/l	0.100		112	70-130			
LCS (W2A0464-BS1)						Prepared: 01/07/22 Analyzed: 01/10/22					
Aroclor 1016	0.418	0.016	0.10	ug/l	0.500		84	70-130			
Aroclor 1260	0.536	0.038	0.10	ug/l	0.500		107	70-130			
<i>Surrogate(s)</i>											
4,4-Dibromobiphenyl	0.122			ug/l	0.100		122	70-130			
LCS Dup (W2A0464-BSD1)						Prepared: 01/07/22 Analyzed: 01/10/22					
Aroclor 1016	0.486	0.016	0.10	ug/l	0.500		97	70-130	15	30	
Aroclor 1260	0.529	0.038	0.10	ug/l	0.500		106	70-130	1	30	
<i>Surrogate(s)</i>											
4,4-Dibromobiphenyl	0.119			ug/l	0.100		119	70-130			

Quality Control Results

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W2A0252 - SM 5310B											
Blank (W2A0252-BLK1)						Prepared: 01/05/22 Analyzed: 01/06/22					
Total Organic Carbon (TOC)	ND	0.19	0.30	mg/l							U
LCS (W2A0252-BS1)						Prepared: 01/05/22 Analyzed: 01/06/22					
Total Organic Carbon (TOC)	0.996	0.19	0.30	mg/l	1.00		100	85-115			
Matrix Spike (W2A0252-MS1)						Source: 2A04062-01 Prepared: 01/05/22 Analyzed: 01/06/22					
Total Organic Carbon (TOC)	5.08	0.19	0.30	mg/l	5.00	0.693	88	76-115			
Matrix Spike Dup (W2A0252-MSD1)						Source: 2A04062-01 Prepared: 01/05/22 Analyzed: 01/06/22					
Total Organic Carbon (TOC)	5.03	0.19	0.30	mg/l	5.00	0.693	87	76-115	1	20	

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Quality Control Results

(Continued)

Metals by EPA 200 Series Methods

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W2A0331 - EPA 200.8											
Blank (W2A0331-BLK1)											
						Prepared: 01/05/22 Analyzed: 01/06/22					
Antimony, Total	ND	0.089	0.50	ug/l							U
Arsenic, Total	ND	0.074	0.40	ug/l							U
Barium, Total	ND	0.14	1.0	ug/l							U
Beryllium, Total	ND	0.062	0.10	ug/l							U
Cadmium, Total	ND	0.042	0.20	ug/l							U
Chromium, Total	ND	0.089	0.20	ug/l							U
Copper, Total	ND	0.23	0.50	ug/l							U
Lead, Total	ND	0.083	0.20	ug/l							U
Selenium, Total	ND	0.067	0.40	ug/l							U
Thallium, Total	ND	0.021	0.20	ug/l							U
LCS (W2A0331-BS1)											
						Prepared: 01/05/22 Analyzed: 01/06/22					
Antimony, Total	43.3	0.089	0.50	ug/l	50.0		87	85-115			
Arsenic, Total	49.1	0.074	0.40	ug/l	50.0		98	85-115			
Barium, Total	42.8	0.14	1.0	ug/l	50.0		86	85-115			
Beryllium, Total	45.3	0.062	0.10	ug/l	50.0		91	85-115			
Cadmium, Total	48.8	0.042	0.20	ug/l	50.0		98	85-115			
Chromium, Total	50.4	0.089	0.20	ug/l	50.0		101	85-115			
Copper, Total	44.2	0.23	0.50	ug/l	50.0		88	85-115			
Lead, Total	43.5	0.083	0.20	ug/l	50.0		87	85-115			
Selenium, Total	48.4	0.067	0.40	ug/l	50.0		97	85-115			
Thallium, Total	43.5	0.021	0.20	ug/l	50.0		87	85-115			
Matrix Spike (W2A0331-MS1)											
				Source: 1L22106-01		Prepared: 01/05/22 Analyzed: 01/06/22					
Antimony, Total	65.5	0.089	0.50	ug/l	50.0	21.5	88	70-130			
Arsenic, Total	49.5	0.074	0.40	ug/l	50.0	ND	99	70-130			
Barium, Total	47.3	0.14	1.0	ug/l	50.0	0.880	93	70-130			
Beryllium, Total	47.2	0.062	0.10	ug/l	50.0	ND	94	70-130			
Cadmium, Total	47.2	0.042	0.20	ug/l	50.0	ND	94	70-130			
Chromium, Total	49.7	0.089	0.20	ug/l	50.0	0.234	99	70-130			
Copper, Total	47.6	0.23	0.50	ug/l	50.0	0.456	94	70-130			
Lead, Total	45.8	0.083	0.20	ug/l	50.0	ND	92	70-130			
Selenium, Total	48.2	0.067	0.40	ug/l	50.0	0.0845	96	70-130			
Thallium, Total	45.9	0.021	0.20	ug/l	50.0	ND	92	70-130			
Matrix Spike Dup (W2A0331-MSD1)											
				Source: 1L22106-01		Prepared: 01/05/22 Analyzed: 01/06/22					
Antimony, Total	66.6	0.089	0.50	ug/l	50.0	21.5	90	70-130	2	30	
Arsenic, Total	50.7	0.074	0.40	ug/l	50.0	ND	101	70-130	2	30	
Barium, Total	46.6	0.14	1.0	ug/l	50.0	0.880	92	70-130	1	30	
Beryllium, Total	47.9	0.062	0.10	ug/l	50.0	ND	96	70-130	2	30	
Cadmium, Total	51.0	0.042	0.20	ug/l	50.0	ND	102	70-130	8	30	
Chromium, Total	53.3	0.089	0.20	ug/l	50.0	0.234	106	70-130	7	30	

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Quality Control Results

(Continued)

Metals by EPA 200 Series Methods (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W2A0331 - EPA 200.8 (Continued)											
Matrix Spike Dup (W2A0331-MSD1)			Source: 1L22106-01			Prepared: 01/05/22 Analyzed: 01/07/22					
Copper, Total	46.1	0.23	0.50	ug/l	50.0	0.456	91	70-130	3	30	
Lead, Total	44.6	0.083	0.20	ug/l	50.0	ND	89	70-130	3	30	
Selenium, Total	50.5	0.067	0.40	ug/l	50.0	0.0845	101	70-130	5	30	
Thallium, Total	44.3	0.021	0.20	ug/l	50.0	ND	89	70-130	4	30	
Batch: W2A0352 - EPA 245.1											
Blank (W2A0352-BLK1)			Prepared & Analyzed: 01/06/22								
Mercury, Total	ND	0.017	0.050	ug/l							U
LCS (W2A0352-BS1)			Prepared & Analyzed: 01/06/22								
Mercury, Total	1.04	0.017	0.050	ug/l	1.00		104	85-115			
Matrix Spike (W2A0352-MS1)			Source: 2A05051-02			Prepared & Analyzed: 01/06/22					
Mercury, Total	1.05	0.017	0.050	ug/l	1.00	ND	105	70-130			
Matrix Spike Dup (W2A0352-MSD1)			Source: 2A05051-02			Prepared & Analyzed: 01/06/22					
Mercury, Total	1.06	0.017	0.050	ug/l	1.00	ND	106	70-130	0.9	20	

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Quality Control Results

(Continued)

Semivolatile Organic Compounds by GC/MS

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	RPD Limit	Qualifier
Batch: W2A0245 - EPA 525.2											
Blank (W2A0245-BLK1)						Prepared: 01/05/22 Analyzed: 01/07/22					
1-Methylnaphthalene	ND	0.0080	0.050	ug/l							U
2-Methylnaphthalene	ND	0.0090	0.050	ug/l							U
Alachlor	ND	0.011	0.10	ug/l							U
Atrazine	ND	0.0073	0.10	ug/l							U
Benzo (a) pyrene	ND	0.012	0.050	ug/l							U
Bis(2-ethylhexyl)adipate	ND	0.0096	5.0	ug/l							U
Bis(2-ethylhexyl)phthalate	ND	0.44	3.0	ug/l							U
Endrin	ND	0.0099	0.20	ug/l							U
gamma-BHC (Lindane)	ND	0.0063	0.10	ug/l							U
Heptachlor	ND	0.0096	0.10	ug/l							U
Heptachlor epoxide	ND	0.012	0.10	ug/l							U
Hexachlorobenzene	ND	0.098	0.10	ug/l							U
Hexachlorocyclopentadiene	ND	0.0059	1.0	ug/l							U
Methoxychlor	ND	0.0086	0.20	ug/l							U
Naphthalene	ND	0.010	0.050	ug/l							U
Pentachlorophenol	ND	0.024	1.0	ug/l							U
Simazine	ND	0.0073	0.10	ug/l							U
Surrogate(s)											
1,3-Dimethyl-2-nitrobenzene	0.495			ug/l	0.500		99	70-130			
Perylene-d12	0.253			ug/l	0.500		51	70-130			S-11
Triphenyl phosphate	0.445			ug/l	0.500		89	70-130			
LCS (W2A0245-BS1)						Prepared: 01/05/22 Analyzed: 01/07/22					
1-Methylnaphthalene	0.227	0.0080	0.050	ug/l	0.250		91	70-130			
2-Methylnaphthalene	0.230	0.0090	0.050	ug/l	0.250		92	70-130			
Alachlor	0.486	0.011	0.10	ug/l	0.500		97	70-130			
Atrazine	0.238	0.0073	0.10	ug/l	0.250		95	70-130			
Benzo (a) pyrene	0.143	0.012	0.050	ug/l	0.250		57	60-130			Q-02
Bis(2-ethylhexyl)adipate	0.215	0.0096	5.0	ug/l	0.250		86	70-130			J
Bis(2-ethylhexyl)phthalate	0.241	0.0	3.0	ug/l	0.250		97	70-130			J
Endrin	0.196	0.0099	0.20	ug/l	0.250		78	70-130			J
gamma-BHC (Lindane)	0.243	0.0063	0.10	ug/l	0.250		97	70-130			
Heptachlor	0.201	0.0096	0.10	ug/l	0.250		80	70-130			
Heptachlor epoxide	0.257	0.012	0.10	ug/l	0.250		103	70-130			
Hexachlorobenzene	0.0383	0.0	0.10	ug/l	0.0500		77	70-130			J
Hexachlorocyclopentadiene	0.127	0.0059	1.0	ug/l	0.250		51	33-106			J
Methoxychlor	0.223	0.0086	0.20	ug/l	0.250		89	70-130			
Naphthalene	0.209	0.010	0.050	ug/l	0.250		84	70-130			
Pentachlorophenol	0.137	0.024	1.0	ug/l	0.250		55	50-120			J
Simazine	0.225	0.0073	0.10	ug/l	0.250		90	60-130			

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Quality Control Results

(Continued)

Semivolatle Organic Compounds by GC/MS (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W2A0245 - EPA 525.2 (Continued)											
LCS (W2A0245-BS1)					Prepared: 01/05/22 Analyzed: 01/07/22						
Surrogate(s)											
1,3-Dimethyl-2-nitrobenzene	0.527			ug/l	0.500		105	70-130			
Perylene-d12	0.372			ug/l	0.500		74	70-130			
Triphenyl phosphate	0.624			ug/l	0.500		125	70-130			
LCS Dup (W2A0245-BSD1)					Prepared: 01/05/22 Analyzed: 01/07/22						
1-Methylnaphthalene	0.224	0.0080	0.050	ug/l	0.250		90	70-130	1	30	
2-Methylnaphthalene	0.231	0.0090	0.050	ug/l	0.250		92	70-130	0.5	30	
Alachlor	0.368	0.011	0.10	ug/l	0.500		74	70-130	28	30	
Atrazine	0.218	0.0073	0.10	ug/l	0.250		87	70-130	9	30	
Benzo (a) pyrene	0.0503	0.012	0.050	ug/l	0.250		20	60-130	96	30	Q-02
Bis(2-ethylhexyl)adipate	0.210	0.0096	5.0	ug/l	0.250		84	70-130	3	30	J
Bis(2-ethylhexyl)phthalate	0.239	0.0	3.0	ug/l	0.250		96	70-130	0.9	30	J
Endrin	0.129	0.0099	0.20	ug/l	0.250		51	70-130	41	30	BS-04, J
gamma-BHC (Lindane)	0.236	0.0063	0.10	ug/l	0.250		94	70-130	3	30	
Heptachlor	0.189	0.0096	0.10	ug/l	0.250		75	70-130	6	30	
Heptachlor epoxide	0.248	0.012	0.10	ug/l	0.250		99	70-130	4	30	
Hexachlorobenzene	0.0363	0.0	0.10	ug/l	0.0500		73	70-130	5	30	J
Hexachlorocyclopentadiene	0.128	0.0059	1.0	ug/l	0.250		51	33-106	0.5	30	J
Methoxychlor	0.160	0.0086	0.20	ug/l	0.250		64	70-130	33	30	BS-04, J
Naphthalene	0.215	0.010	0.050	ug/l	0.250		86	70-130	3	30	
Pentachlorophenol	0.142	0.024	1.0	ug/l	0.250		57	50-120	4	30	J
Simazine	0.209	0.0073	0.10	ug/l	0.250		83	60-130	8	30	
Surrogate(s)											
1,3-Dimethyl-2-nitrobenzene	0.506			ug/l	0.500		101	70-130			
Perylene-d12	0.137			ug/l	0.500		27	70-130			S-11
Triphenyl phosphate	0.563			ug/l	0.500		113	70-130			

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Quality Control Results

(Continued)

Volatile Organic Compounds by P&T and GC/MS

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W2A0117 - EPA 524.2											
Blank (W2A0117-BLK1)						Prepared: 01/04/22 Analyzed: 01/05/22					
1,1,1-Trichloroethane	ND	0.26	0.50	ug/l							U
1,1,2-Trichloroethane	ND	0.19	0.50	ug/l							U
1,1-Dichloroethene	ND	0.16	0.50	ug/l							U
1,2,4-Trichlorobenzene	ND	0.17	0.50	ug/l							U
1,2-Dichloroethane	ND	0.24	0.50	ug/l							U
1,2-Dichloropropane	ND	0.13	0.50	ug/l							U
Benzene	ND	0.15	0.50	ug/l							U
Carbon tetrachloride	ND	0.27	0.50	ug/l							U
Chlorobenzene	ND	0.15	0.50	ug/l							U
cis-1,2-Dichloroethene	ND	0.25	0.50	ug/l							U
Ethylbenzene	ND	0.21	0.50	ug/l							U
m,p-Xylene	ND	0.33	0.50	ug/l							U
Methylene chloride	ND	0.30	0.50	ug/l							U
o-Dichlorobenzene	ND	0.19	0.50	ug/l							U
o-Xylene	ND	0.20	0.50	ug/l							U
p-Dichlorobenzene	ND	0.18	0.50	ug/l							U
Styrene	ND	0.19	0.50	ug/l							U
Tetrachloroethene	ND	0.18	0.50	ug/l							U
THMs, Total	ND		0.50	ug/l							U
Toluene	ND	0.29	0.50	ug/l							U
trans-1,2-Dichloroethene	ND	0.26	0.50	ug/l							U
Trichloroethene	ND	0.18	0.50	ug/l							U
Vinyl chloride	ND	0.18	0.50	ug/l							U
<i>Surrogate(s)</i>											
1,2-Dichlorobenzene-d4	8.78			ug/l	10.0		88	70-130			
4-Bromofluorobenzene	8.73			ug/l	10.0		87	70-130			
LCS (W2A0117-BS1)						Prepared: 01/04/22 Analyzed: 01/05/22					
1,1,1-Trichloroethane	4.63	0.26	0.50	ug/l	5.00		93	70-130			
1,1,2-Trichloroethane	5.01	0.19	0.50	ug/l	5.00		100	70-130			
1,1-Dichloroethene	4.97	0.16	0.50	ug/l	5.00		99	70-130			
1,2,4-Trichlorobenzene	5.19	0.17	0.50	ug/l	5.00		104	70-130			
1,2-Dichloroethane	4.92	0.24	0.50	ug/l	5.00		98	70-130			
1,2-Dichloropropane	4.99	0.13	0.50	ug/l	5.00		100	70-130			
Benzene	5.06	0.15	0.50	ug/l	5.00		101	70-130			
Carbon tetrachloride	4.60	0.27	0.50	ug/l	5.00		92	70-130			
Chlorobenzene	4.91	0.15	0.50	ug/l	5.00		98	70-130			
cis-1,2-Dichloroethene	5.16	0.25	0.50	ug/l	5.00		103	70-130			
Ethylbenzene	5.40	0.21	0.50	ug/l	5.00		108	70-130			
m,p-Xylene	5.15	0.33	0.50	ug/l	5.00		103	70-130			

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Quality Control Results

(Continued)

Volatile Organic Compounds by P&T and GC/MS (Continued)

Analyte	Result	MDL	MRL	Units	Spike Level	Source Result	%REC	Limits	RPD	Limit	Qualifier
Batch: W2A0117 - EPA 524.2 (Continued)											
LCS (W2A0117-BS1)						Prepared: 01/04/22 Analyzed: 01/05/22					
Methylene chloride	4.96	0.30	0.50	ug/l	5.00		99	70-130			
o-Dichlorobenzene	5.12	0.19	0.50	ug/l	5.00		102	70-130			
o-Xylene	5.33	0.20	0.50	ug/l	5.00		107	70-130			
p-Dichlorobenzene	5.17	0.18	0.50	ug/l	5.00		103	70-130			
Styrene	5.39	0.19	0.50	ug/l	5.00		108	70-130			
Tetrachloroethene	4.69	0.18	0.50	ug/l	5.00		94	70-130			
Toluene	5.00	0.29	0.50	ug/l	5.00		100	70-130			
trans-1,2-Dichloroethene	5.20	0.26	0.50	ug/l	5.00		104	70-130			
Trichloroethene	5.70	0.18	0.50	ug/l	5.00		114	70-130			
Vinyl chloride	4.77	0.18	0.50	ug/l	5.00		95	70-130			
<i>Surrogate(s)</i>											
1,2-Dichlorobenzene-d4	11.5			ug/l	10.0		115	70-130			
4-Bromofluorobenzene	11.1			ug/l	10.0		111	70-130			
LCS Dup (W2A0117-BSD1)						Prepared: 01/04/22 Analyzed: 01/05/22					
1,1,1-Trichloroethane	4.66	0.26	0.50	ug/l	5.00		93	70-130	0.8	30	
1,1,2-Trichloroethane	4.89	0.19	0.50	ug/l	5.00		98	70-130	2	30	
1,1-Dichloroethene	5.20	0.16	0.50	ug/l	5.00		104	70-130	4	30	
1,2,4-Trichlorobenzene	5.13	0.17	0.50	ug/l	5.00		103	70-130	1	30	
1,2-Dichloroethane	4.86	0.24	0.50	ug/l	5.00		97	70-130	1	30	
1,2-Dichloropropane	5.13	0.13	0.50	ug/l	5.00		103	70-130	3	30	
Benzene	5.08	0.15	0.50	ug/l	5.00		102	70-130	0.3	30	
Carbon tetrachloride	4.62	0.27	0.50	ug/l	5.00		92	70-130	0.5	30	
Chlorobenzene	4.93	0.15	0.50	ug/l	5.00		99	70-130	0.4	30	
cis-1,2-Dichloroethene	5.20	0.25	0.50	ug/l	5.00		104	70-130	0.8	30	
Ethylbenzene	5.37	0.21	0.50	ug/l	5.00		107	70-130	0.6	30	
m,p-Xylene	5.12	0.33	0.50	ug/l	5.00		102	70-130	0.7	30	
Methylene chloride	5.03	0.30	0.50	ug/l	5.00		101	70-130	1	30	
o-Dichlorobenzene	5.03	0.19	0.50	ug/l	5.00		101	70-130	2	30	
o-Xylene	5.26	0.20	0.50	ug/l	5.00		105	70-130	1	30	
p-Dichlorobenzene	5.06	0.18	0.50	ug/l	5.00		101	70-130	2	30	
Styrene	5.34	0.19	0.50	ug/l	5.00		107	70-130	1	30	
Tetrachloroethene	4.72	0.18	0.50	ug/l	5.00		94	70-130	0.7	30	
Toluene	5.00	0.29	0.50	ug/l	5.00		100	70-130	0.07	30	
trans-1,2-Dichloroethene	5.29	0.26	0.50	ug/l	5.00		106	70-130	2	30	
Trichloroethene	5.89	0.18	0.50	ug/l	5.00		118	70-130	3	30	
Vinyl chloride	5.02	0.18	0.50	ug/l	5.00		100	70-130	5	30	
<i>Surrogate(s)</i>											
1,2-Dichlorobenzene-d4	10.8			ug/l	10.0		108	70-130			
4-Bromofluorobenzene	10.8			ug/l	10.0		108	70-130			

AECOM - Honolulu
1001 Bishop Street Suite 1600
Honolulu, HI 96813

Project Number: 60674414, COC # 01042022DW-01

Project Manager: Margie Pascua

Reported:
01/10/2022 20:22

Notes and Definitions

Item	Definition
BS-04	The recovery of this analyte in LCS or LCSD was outside control limit. Sample was accepted based on the remaining LCS, LCSD or LCS-LL.
J	Estimated conc. detected <MRL and >MDL.
Q-02	Low recovery of this analyte in the QC sample. The analysis of the low level standard produced acceptable recovery indicating that the sample result might be accurately reported as Not Detected.
S-11	Surrogate recovery outside of control limits. The data was accepted based on valid recovery of the remaining surrogate.
U	Analyte included in the analysis, but not detected
%REC	Percent Recovery
Dil	Dilution
MDL	Method Detection Limit
MRL	The minimum levels, concentrations, or quantities of a target variable (e.g., target analyte) that can be reported with a specified degree of confidence. The MRL is also known as Limit of Quantitation (LOQ)
ND	NOT DETECTED at or above the Method Reporting Limit (MRL). If Method Detection Limit (MDL) is reported, then ND means not detected at or above the MDL.
RPD	Relative Percent Difference
Source	Sample that was matrix spiked or duplicated.

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

All results are expressed on wet weight basis unless otherwise specified.

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813-3908
Attention: Frank Cioffi
Fax: 808-524-0246

Date of Issue
01/06/2022

Rachelle Orada
EUROFINS EATON
ANALYTICAL, LLC



Utah ELCP CA00006

SZN3: Ivana Velez
Project Manager

Report: 977854
Project: SPECIAL
Group: RUSH Testing

* Accredited in accordance with TNI 2016 and ISO/IEC 17025:2017.

* Laboratory certifies that the test results meet all **TNI 2016 and ISO/IEC 17025:2017** requirements unless noted under the individual analysis.

* As applicable, this report consists of the cover page, State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms.

* Test results relate only to the sample(s) tested.

* Test results apply to the sample(s) as received, unless otherwise noted in the comments report (ISO/IEC 17025:2017).

* This report shall not be reproduced except in full, without the written approval of the laboratory.

* This report includes ISO/IEC 17025 and non-ISO 17025 accredited methods.

STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Montana	Cert 0035
Arizona	AZ0778	Nebraska	NE-OS-21-13
Arkansas	CA00006	Nevada	CA00006
California	2813	New Hampshire *	2959
Colorado	CA00006	New Jersey *	CA 008
Connecticut	PH-0107	New Mexico	CA00006
Delaware	CA 006	New York *	11320
Florida *	E871024	North Carolina	06701
Georgia	947	North Dakota	R-009
Guam	21-008R	Ohio - 537.1	87786
Hawaii	CA00006	Oregon *	4034
Idaho	CA00006	Pennsylvania *	68-00565
Illinois	200033	Puerto Rico	CA00006
Indiana	C-CA-01	Rhode Island	LAO00326
Iowa – Asbestos	413	South Carolina	87016
Kansas *	E-10268	South Dakota	CA11320
Kentucky	90107	Tennessee	TN02839
Louisiana *	LA008	Texas *	T104704230-20-18
Maine	CA00006	Utah (Primary AB) *	CA00006
Maryland	224	Vermont	VT0114
Marianas Islands	MP0004	Virginia *	460260
Massachusetts	M-CA006	Washington	C838
Michigan	9906	EPA Region 5	CA00006
Mississippi	CA00006	Los Angeles County Sanitation Districts	10264

* NELAP/TNI Recognized Accreditation Bodies

ISO/IEC 17025:2917 Accredited Method List

The test listed below are accredited and met the requirements of ISO/IEC 17025 as verify by A2LA.

Refer to our certificates and scope of accreditations (no. 5890-1 and 5890-2) found at:

<https://www.eurofinsus.com/Eaton>

Test(s)	Method(s)	Potable Water *	Waste Water
Enterococci	Enterolert	x	x
Escherichia coli (Enumeration)	SM 9221 B.1 SM 9221 F	x	
Fecal Coliform (P/A and Enumeration)	SM 9221 C (MTF/EC), SM 9221 E (MTF/EC)	x	x
Fecal Streptococci and Enterococci	SM 9230 B	x	x
Heterotrophic Bacteria	SM 9215 B	x	
Legionella	Legiolert®	x	
Pseudomonas aeruginosa	Idexx Pseudalart	x	
Total Coliform (P/A and Enumeration)	SM 9221A, SM 9221B, SM 9221 C	x	x
Total Coliform, Total Coliform with Chlorine Present	SM 9221 B	x	x
Total Coliform/E. coli (P/A and Enumeration, Idexx Colilert, Idexx Colilert 18, Colisure)	SM 9223	x	
Total Microcystins and Nodularins	EPA 546	X	
Yeast and Mold	SM 9610	x	
1,2,3-Trichloropropane (TCP) at 5 PPT	CA SRL 524M-TCP	x	
1,4-Dioxane	EPA 522	x	
2,3,7,8-TCDD	Modified EPA 1613 B	x	
Acrylamide	* LCMS 2440)	x	
Algal Toxins/Microcystin	* LCMS 3570	x	
Alkalinity	SM 2320B	x	x
Ammonia	EPA 350.1, SM 4500-NH3 H		x
Asbestos	EPA 100.2	x	x
Bicarbonate Alkalinity as HCO3	SM 2330 B	x	x
BOD/CBOD	SM 5210 B		x
Bromate	* LCMS- 2447	x	
Carbonate as CO3	SM 2330 B	x	x
Carbonyls	EPA 556	x	x
Chemical Oxygen Demand	EPA 410.4, SM 5220D		x
Chlorinated Acids	EPA 515.4	x	
Chlorine Dioxide	Palin Test Chlordio X Plus, SM 4500-CLO2 D	x	
Chlorine, Free, Combined, Total Residual, Chloramines	SM 4500-CI G	x	
Color	SM2120B	x	
Conductivity	EPA 120.1, SM 2510B	x	x
Corrosivity (Langelier Index), Carbonate as CO3, Hydroxide as OH Calculated	SM 2330 B	x	
Cyanide (Amenable)	SM 4500-CN G	x	x
Cyanide (Free)	SM 4500CN F	x	x
Cyanide (Total)	EPA 335.4	x	x
Cyanogen Chloride (Screen)	* 335 Mod (WC-24467)	x	
Diquat and Paraquat	EPA 549.2	x	
DBP and HAA	SM 6251 B	x	
Dissolved Organic Carbon	SM 5310 C	x	
Dissolved Oxygen	SM 4500-O G		x
EDB/DCBP/TCP	EPA 504.1	x	
EDB/DBCP and Disinfection Byproducts	EPA 551.1	x	
EDTA and NTA	* WC-2454	x	
Endothall	EPA 548.1, *(LCMS-2445)	x	
Fluoride	SM 4500F C	x	x
Glyphosate	EPA 547	x	
Glyphosate and AMPA	* LCMS-3618	x	
Gross Alpha and Gross Beta	EPA 900.0	x	x

Test(s)	Method(s)	Potable Water *	Waste Water
Gross Alpha coprecipitation	SM 7110 C	x	x
Hardness	SM 2340 B	x	x
Hexavalent Chromium	EPA 218.6,	x	x
Hexavalent Chromium	EPA 218.7,	x	
Hexavalent Chromium	SM 3500-Cr B		x
Inorganic Anions and DBPs	EPA 300.0	x	x
Norganic Anions and DBPs	EPA 300.1	x	
Kjeldahl Nitrogen	EPA 351.2		x
Metals	EPA 200.7, EPA200.8	x	x
Nitrosamines	EEA-Agilent 521.1 (GCMS-24250)	x	
Nitrate/Nitrite Nitrogen	EPA 353.2	x	x
Odor	SM2150B	x	
Organohalide Pesticides and PCB	EPA 505	x	
Ortho Phosphate	SM 4500P E	x	
Oxyhalides Disinfection Byproducts	EPA 317.0	x	
Perchlorate	EPA 331.0	x	
Perchlorate (Low and High Levels)	EPA 314.0	x	
Perfluorinated Alkyl Acids	EPA 533, EPA 537, EPA 537.1	x	
PPCP and EDC	* LCMS-2443	x	
pH	EPA 150.1 SM 4500-H+ B	x	x
Phenolics – Low Level	*WC 2493 (EPA 420.2 and EPA 420.4 MOD)	x	x
Phenylurea Pesticides/Herbicides	* LCMS-2448	x	
Radium-226, Radium-228	GA Tech (Rad-2374)	x	
Radon-222	SM 7500RN	x	
Residue (Filterable)	SM 2540C	x	x
Residue (Non-Filterable)	SM 2540D		x
Residue (Total)	SM 2540B		x
Residue (Volatile)	EPA 160.4		x
Semi-Volatile Compounds	EPA 525.2	x	
Silica	SM 4500-SiO2 C	x	x
Sulfide	SM 4500-S D		x
Sulfite	SM 4500-SO3 B	x	x
Surfactants	SM 5540C	x	x
Taste and Odor	SM 6040 E	x	
Total Organic Carbon	SM 5310 C	x	x
Total Phenols	EPA 420.1		x
Total Phenols	EPA 420.4	x	x
Triazine Pesticides and their Degradates	* LCMS-3617	x	
Turbidity	EPA 180.1	x	x
Uranium by ICP/MS	EPA 200.8	x	
UV 254 Organic Constituents	SM 5910B	x	
VOCs	EPA 524.2	x	
VOCs	*(GCMS 2412) by EPA 524.2 modified	x	

(*) includes: Bottled Water, Drinking Water and Water as Component of Food & Beverage.

(+) In-House Method

Acknowledgement of Samples Received

Addr: **AECOM**
1001 Bishop Street, Suite 1600
Honolulu, HI 96813-3908

Client ID: AECOM-HI
Folder #: 977854
Project: SPECIAL
Sample Group: RUSH Testing

Attn: Frank Cioffi
Phone: 808-529-7226

Project Manager: Ivana Velez
Phone: 626-386-1123

The following samples were received from you on **December 30, 2021** at **1225**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID	Sample Date
<u>202112300357</u>	D1-DWS-TB-768-122921-N	12/29/2021 1020
	@504LOW TB C @VOASDWA TB C	
<u>202112300358</u>	D1-DWS-D1-768-122921-N	12/29/2021 1030
	@504LOW C @525_2-REG C @525PLUS C NAPHTHALENE_PLUS TIC	
	@ML505 @ML515.4 @VOASDWA C	
	Antimony Total ICAP/MS Arsenic Total ICAP/MS Barium Total ICAP/MS	
	Beryllium Total ICAP/MS Cadmium Total ICAP/MS Chromium Total ICAP/MS	
	Copper Total ICAP/MS Lead Total ICAP/MS Mercury ICPMS	
	Nickel Total ICAP/MS Selenium Total ICAP/MS Thallium Total ICAP/MS	

Test Description

@504LOW C -- EPA Method 504.1

@504LOW TB C -- EPA Method 504.1

@525_2-REG C -- Semivolatiles by GCMS

@525PLUS C NAPHTHALENE_PLUS TIC -- Semivolatiles by GCMS

@ML505 -- Organochlorine Pesticides/PCBs

@ML515.4 -- Chlorophenoxy Herbicides

@VOASDWA C -- Volatile Organics by GCMS

@VOASDWA TB C -- Volatile Organics by GCMS

hstt

LOGIN COMMENTS: no wedge plate
 SAMPLES CHECKED AGAINST COC BY: [Signature]
 SAMPLES LOGGED IN BY: [Signature]
 SAMPLE TEMP RECEIVED AT:
☐ () (Other) IR Gun ID = _____ (Observation = _____ °C) (Corr. Factor _____ °C) (Final = _____ °C) (check for yes)
☒ Monrovia IR Gun ID = 630 (Observation = 2.0 °C) (Corr. Factor -0.2 °C) (Final = 1.8 °C)
 Compliance Acceptance Criteria: (Chemistry: 4 ± 2 °C) (Microbiology: $< 10^3$ °C)

TYPE OF ICE: Real ☒ Synthetic _____ No Ice ☒ CONDITION OF ICE: Frozen ☒ Partially Frozen _____ Thawed _____ N/A _____
 METHOD OF SHIPMENT: Pick-Up / Walk-In ☒ FedEx / UPS / DHL / Area Fast / Top Line / Other: _____

750 Royal Oaks Drive, Suite 100
Monrovia, CA 91016-3629

Phone: 626 386 1100
Fax: 626 386 1101

800 566 LABS (800 566 5227)

Website:

TO BE COMPLETED BY SAMPLER:

[illegible]

* **MATRIX TYPES:** RSW = Raw Surface Water
 RGW = Raw Ground Water
 CFW = Chlor(am)inated Finished Water
 FW = Other Finished Water
 SEAW = Sea Water
 WW = Waste Water
 BW = Bottled Water
 SW = Storm Water
 SO = Soil
 SL = Sludge
 O = Other - Please Identify

SIGNATURE	PRINT NAME	COMPANY/TITLE	DATE	TIME
SAMPLED BY: <i>Conner Rothe</i>	Conner Rothe	ETHS Compliance	12/29/21	11:50
RELINQUISHED BY: <i>Conner Rothe</i>	Conner Rothe	"	12/29/21	12:20
RECEIVED BY: <i>Brandon King</i>	<i>Brandon King</i>	AFCOM scrubbing	12/29/21	12:20
RELINQUISHED BY: <i>[Signature]</i>				
RECEIVED BY: <i>[Signature]</i>	<i>Theresa Patterson</i>	GA	12.30.21	1225

Tel: (626) 386-1100
Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Laboratory Comments

Report: 977854
Project: SPECIAL
Group: RUSH Testing

AECOM
Frank Cioffi
1001 Bishop Street, Suite 1600
Honolulu, HI 96813-3908

Folder Comments

202112300358 - @525.2 - Chromatogram examined for ions 142, 141, and 115 for 1- and 2-methylnaphthalene. No peaks identified. Examined ions 94, 66, and 65 for Phenol - no peaks identified however Phenol may elute during the solvent front prior to the MS turning on.

Same result for re-extract 202112300358B.

This report format displays both the MRL and MDL. Values between the MRL and MDL are "J" flagged. Estimated data is reported between MRL and unadjusted MDL. ND values are reported down to the unadjusted MDL.

Flags Legend:

BM - Target analyte detected in method blank above the MDL, but below the minimum reporting limit (MRL) and analyte not present in the sample, no impact on data.

Tel: (626) 386-1100
Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Laboratory Hits

Report: 977854
Project: SPECIAL
Group: RUSH Testing

AECOM
Frank Cioffi
1001 Bishop Street, Suite 1600
Honolulu, HI 96813-3908

Samples Received on:
12/30/2021 1225

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
	202112300358	<u>D1-DWS-D1-768-122921-N</u>				
01/03/2022 22:48	1,2,3-Trichloropropane		0.020		ug/L	0.020
01/03/2022 16:34	Chromium Total ICAP/MS		1.5	100	ug/L	1.0
01/03/2022 16:34	Copper Total ICAP/MS		7.3	1300	ug/L	2.0

Tel: (626) 386-1100
Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Laboratory Data

Report: 977854
Project: SPECIAL
Group: RUSH Testing

AECOM
Frank Cioffi
1001 Bishop Street, Suite 1600
Honolulu, HI 96813-3908

Samples Received on:
12/30/2021 1225

Prepared	Analyzed	Prep Batch	Analyze Batch	Method	Analyte	Result	Units	MDL	MRL	Dilution
D1-DWS-TB-768-122921-N (202112300357)						Sampled on 12/29/2021 1020				
EPA 504.1 - EPA Method 504.1										
01/03/22	01/03/22 22:15	1376399	1377205	(EPA 504.1)	1,2,3-Trichloropropane	ND	ug/L	0.0090	0.020	1
01/03/22	01/03/22 22:15	1376399	1377205	(EPA 504.1)	1,2-Dibromo-3-chloropropane	ND	ug/L	0.0020	0.010	1
01/03/22	01/03/22 22:15	1376399	1377205	(EPA 504.1)	1,2-Dibromoethane	ND	ug/L	0.0050	0.010	1
01/03/22	01/03/22 22:15	1376399	1377205	(EPA 504.1)	1,2-Dibromopropane	105	%			1
EPA 524.2 - Volatile Organics by GCMS										
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.079	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.075	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.11	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.070	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.12	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.071	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	Benzene	ND	ug/L	0.12	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.087	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.066	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.14	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	Dichloromethane	ND	ug/L	0.074	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.11	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.23	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.076	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	o-Xylene	ND	ug/L	0.072	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.092	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	Styrene	ND	ug/L	0.11	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.28	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	Toluene	ND (BM)	ug/L	0.057	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	Total xylenes	ND	ug/L	0.30	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.10	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.097	0.50	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.077	0.30	1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	1,2-Dichloroethane-d4	108	%			1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	4-Bromofluorobenzene	101	%			1
01/04/22	01/04/22 16:13	1377515	1377524	(EPA 524.2)	Toluene-d8	86	%			1
D1-DWS-D1-768-122921-N (202112300358)						Sampled on 12/29/2021 1030				

ND - Analyte was not detected at the calculated MDL.

J - The analyte was either detected at or greater than the MDL and less than the MRL, or did not meet any one of the required QC criteria.

(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.

Tel: (626) 386-1100
Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Report: 977854
Project: SPECIAL
Group: RUSH Testing

AECOM
Frank Cioffi
1001 Bishop Street, Suite 1600
Honolulu, HI 96813-3908

Samples Received on:
12/30/2021 1225

Prepared	Analyzed	Prep Batch	Analyze Batch	Method	Analyte	Result	Units	MDL	MRL	Dilution
EPA 200.8 - ICPMS Metals										
01/03/22	01/03/22 16:34	1376893	1377100	(EPA 200.8)	Antimony Total ICAP/MS	ND	ug/L	0.11	1.0	1
01/03/22	01/03/22 16:34	1376893	1377100	(EPA 200.8)	Arsenic Total ICAP/MS	ND	ug/L	0.21	1.0	1
01/03/22	01/03/22 16:34	1376893	1377100	(EPA 200.8)	Barium Total ICAP/MS	1.9J	ug/L	0.082	2.0	1
01/03/22	01/03/22 16:34	1376893	1377100	(EPA 200.8)	Beryllium Total ICAP/MS	ND	ug/L	0.091	1.0	1
01/03/22	01/03/22 16:34	1376893	1377100	(EPA 200.8)	Cadmium Total ICAP/MS	ND	ug/L	0.029	0.50	1
01/03/22	01/03/22 16:34	1376893	1377100	(EPA 200.8)	Chromium Total ICAP/MS	1.5	ug/L	0.51	1.0	1
01/03/22	01/03/22 16:34	1376893	1377100	(EPA 200.8)	Copper Total ICAP/MS	7.3	ug/L	0.36	2.0	1
01/03/22	01/03/22 16:34	1376893	1377100	(EPA 200.8)	Lead Total ICAP/MS	0.061J	ug/L	0.046	0.50	1
01/03/22	01/03/22 16:34	1376893	1377100	(EPA 200.8)	Selenium Total ICAP/MS	0.48J	ug/L	0.26	5.0	1
01/03/22	01/03/22 16:34	1376893	1377100	(EPA 200.8)	Thallium Total ICAP/MS	ND	ug/L	0.041	1.0	1
EPA 200.8 - Mercury ICPMS										
01/03/22	01/03/22 16:34	1376893	1377099	(EPA 200.8)	Mercury ICPMS	ND	ug/L	0.035	0.20	1
EPA 505 - Organochlorine Pesticides/PCBs										
01/04/22	01/04/22 08:18	1377114	1377418	(EPA 505)	Alachlor (Alanex)	ND	ug/L	0.041	0.10	1
01/04/22	01/04/22 08:18	1377114	1377418	(EPA 505)	Aldrin	ND	ug/L	0.0020	0.010	1
01/04/22	01/04/22 08:18	1377114	1377418	(EPA 505)	Chlordane	ND	ug/L	0.032	0.10	1
01/04/22	01/04/22 08:18	1377114	1377418	(EPA 505)	Endrin	ND	ug/L	0.0050	0.010	1
01/04/22	01/04/22 08:18	1377114	1377418	(EPA 505)	Heptachlor	ND	ug/L	0.0030	0.010	1
01/04/22	01/04/22 08:18	1377114	1377418	(EPA 505)	Heptachlor Epoxide	ND	ug/L	0.0050	0.010	1
01/04/22	01/04/22 08:18	1377114	1377418	(EPA 505)	Lindane (gamma-BHC)	ND	ug/L	0.0070	0.010	1
01/04/22	01/04/22 08:18	1377114	1377418	(EPA 505)	Methoxychlor	ND	ug/L	0.032	0.050	1
01/04/22	01/04/22 08:18	1377114	1377418	(EPA 505)	PCB 1016 Aroclor	ND	ug/L	0.022	0.080	1
01/04/22	01/04/22 08:18	1377114	1377418	(EPA 505)	PCB 1221 Aroclor	ND	ug/L	0.079	0.10	1
01/04/22	01/04/22 08:18	1377114	1377418	(EPA 505)	PCB 1232 Aroclor	ND	ug/L	0.085	0.10	1
01/04/22	01/04/22 08:18	1377114	1377418	(EPA 505)	PCB 1242 Aroclor	ND	ug/L	0.072	0.10	1
01/04/22	01/04/22 08:18	1377114	1377418	(EPA 505)	PCB 1248 Aroclor	ND	ug/L	0.023	0.10	1
01/04/22	01/04/22 08:18	1377114	1377418	(EPA 505)	PCB 1254 Aroclor	ND	ug/L	0.035	0.10	1
01/04/22	01/04/22 08:18	1377114	1377418	(EPA 505)	PCB 1260 Aroclor	ND	ug/L	0.033	0.10	1
01/04/22	01/04/22 08:18	1377114	1377418	(EPA 505)	Total PCBs	ND	ug/L	0.022	0.10	1
01/04/22	01/04/22 08:18	1377114	1377418	(EPA 505)	Tetrachlorometaxylene	98	%			1
EPA 515.4 - Chlorophenoxy Herbicides										
01/04/22	01/05/22 11:46	1377211	1377373	(EPA 515.4)	Pentachlorophenol	ND	ug/L	0.020	0.040	1
01/04/22	01/05/22 11:46	1377211	1377373	(EPA 515.4)	2,4-Dichlorophenyl acetic acid	108	%			1

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Tel: (626) 386-1100
Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Report: 977854
Project: SPECIAL
Group: RUSH Testing

AECOM
Frank Cioffi
1001 Bishop Street, Suite 1600
Honolulu, HI 96813-3908

Samples Received on:
12/30/2021 1225

Prepared	Analyzed	Prep Batch	Analyze Batch	Method	Analyte	Result	Units	MDL	MRL	Dilution
01/04/22	01/05/22 11:46	1377211	1377373	(EPA 515.4)	4,4-Dibromooctafluorobiphenyl	106	%			1
EPA 504.1 - EPA Method 504.1										
01/03/22	01/03/22 22:48	1376399	1377205	(EPA 504.1)	1,2,3-Trichloropropane	0.020	ug/L	0.0090	0.020	1
01/03/22	01/03/22 22:48	1376399	1377205	(EPA 504.1)	1,2-Dibromo-3-chloropropane	ND	ug/L	0.0020	0.010	1
01/03/22	01/03/22 22:48	1376399	1377205	(EPA 504.1)	1,2-Dibromoethane	ND	ug/L	0.0050	0.010	1
01/03/22	01/03/22 22:48	1376399	1377205	(EPA 504.1)	1,2-Dibromopropane	106	%			1
EPA 525.2 - Semivolatiles by GCMS										
01/05/22	01/06/22 13:24	1377480	1377925	(EPA 525.2)	Alachlor	ND	ug/L	0.022	0.050	1
01/05/22	01/06/22 13:24	1377480	1377925	(EPA 525.2)	Atrazine	ND	ug/L	0.048	0.050	1
01/05/22	01/06/22 13:24	1377480	1377925	(EPA 525.2)	Benzo(a)pyrene	ND	ug/L	0.011	0.020	1
01/05/22	01/06/22 13:24	1377480	1377925	(EPA 525.2)	Di-(2-Ethylhexyl)adipate	ND	ug/L	0.063	0.60	1
01/05/22	01/06/22 13:24	1377480	1377925	(EPA 525.2)	Di-(2-Ethylhexyl)phthalate	ND	ug/L	0.15	0.60	1
01/05/22	01/06/22 13:24	1377480	1377925	(EPA 525.2)	Hexachlorobenzene	ND	ug/L	0.041	0.050	1
01/05/22	01/06/22 13:24	1377480	1377925	(EPA 525.2)	Hexachlorocyclopentadiene	ND	ug/L	0.038	0.050	1
01/05/22	01/06/22 13:24	1377480	1377925	(EPA 525.2)	Naphthalene	ND	ug/L	0.011	0.30	1
01/05/22	01/06/22 13:24	1377480	1377925	(EPA 525.2)	Simazine	ND	ug/L	0.028	0.050	1
01/05/22	01/06/22 13:24	1377480	1377925	(EPA 525.2)	1,3-Dimethyl-2-nitrobenzene	92	%			1
01/05/22	01/06/22 13:24	1377480	1377925	(EPA 525.2)	Acenaphthene-d10	82	%			1
01/05/22	01/06/22 13:24	1377480	1377925	(EPA 525.2)	Chrysene-d12	74	%			1
01/05/22	01/06/22 13:24	1377480	1377925	(EPA 525.2)	Perylene-d12	89	%			1
01/05/22	01/06/22 13:24	1377480	1377925	(EPA 525.2)	Phenanthrene-d10	83	%			1
01/05/22	01/06/22 13:24	1377480	1377925	(EPA 525.2)	Triphenylphosphate	93	%			1
EPA 524.2 - Volatile Organics by GCMS										
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.079	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.075	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.11	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.070	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.12	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.071	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	Benzene	ND	ug/L	0.12	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.087	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.066	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.14	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	Dichloromethane	ND	ug/L	0.074	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.11	0.50	1

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Laboratory Data

Report: 977854
Project: SPECIAL
Group: RUSH Testing

AECOM

Frank Cioffi
1001 Bishop Street, Suite 1600
Honolulu, HI 96813-3908

Samples Received on:
12/30/2021 1225

Prepared	Analyzed	Prep Batch	Analyze Batch	Method	Analyte	Result	Units	MDL	MRL	Dilution
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.23	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.076	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	o-Xylene	ND	ug/L	0.072	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.092	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	Styrene	ND	ug/L	0.11	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.28	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	Toluene	ND	ug/L	0.057	0.50	1
01/04/22	01/04/22 16:39	1377515	1377524	(EPA 524.2)	Total 1,3-Dichloropropene	ND	ug/L	0.11	0.50	1
01/04/22	01/04/22 16:39	1377515	1377524	(EPA 524.2)	Total xylenes	ND	ug/L	0.30	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	Total xylenes	ND	ug/L	0.30	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.10	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.097	0.50	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.077	0.30	1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	1,2-Dichloroethane-d4	110	%			1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	4-Bromofluorobenzene	88	%			1
01/05/22	01/05/22 16:00	1377790	1377793	(EPA 524.2)	Toluene-d8	88	%			1

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Laboratory QC Summary

Report: 977854
Project: SPECIAL
Group: RUSH Testing

AECOM

Mercury ICPMS

Prep Batch: 1376893 Analytical Batch: 1377099

202112300358 D1-DWS-D1-768-122921-N

Analysis Date: 01/03/2022

Analyzed by: DHX7

ICPMS Metals

Prep Batch: 1376893 Analytical Batch: 1377100

202112300358 D1-DWS-D1-768-122921-N

Analysis Date: 01/03/2022

Analyzed by: DHX7

EPA Method 504.1

Prep Batch: 1376399 Analytical Batch: 1377205

202112300357 D1-DWS-TB-768-122921-N

202112300358 D1-DWS-D1-768-122921-N

Analysis Date: 01/03/2022

Analyzed by: DYM

Analyzed by: DYM

Chlorophenoxy Herbicides

Prep Batch: 1377211 Analytical Batch: 1377373

202112300358 D1-DWS-D1-768-122921-N

Analysis Date: 01/05/2022

Analyzed by: UGB2

Organochlorine Pesticides/PCBs

Prep Batch: 1377114 Analytical Batch: 1377418

202112300358 D1-DWS-D1-768-122921-N

Analysis Date: 01/04/2022

Analyzed by: LRL

Volatile Organics by GCMS

Prep Batch: 1377515 Analytical Batch: 1377524

202112300357 D1-DWS-TB-768-122921-N

202112300358 D1-DWS-D1-768-122921-N

Analysis Date: 01/04/2022

Analyzed by: TR7W

Analyzed by: TR7W

Volatile Organics by GCMS

Prep Batch: 1377790 Analytical Batch: 1377793

202112300358 D1-DWS-D1-768-122921-N

Analysis Date: 01/05/2022

Analyzed by: TR7W

Semivolatiles by GCMS

Prep Batch: 1377480 Analytical Batch: 1377925

202112300358 D1-DWS-D1-768-122921-N

Analysis Date: 01/06/2022

Analyzed by: PAC

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1 800 566 LABS (1 800 566 5227)

Report: 977854
Project: SPECIAL
Group: RUSH Testing

AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
Mercury ICPMS by EPA 200.8									
Analytical Batch: 1377099					Analysis Date: 01/03/2022				
LCS1	Mercury ICPMS		0.75	0.744	ug/L	99	(85-115)		
LCS2	Mercury ICPMS		0.75	0.764	ug/L	102	(85-115)	20	2.6
MBLK	Mercury ICPMS			<0.1	ug/L				
MRL_CHK	Mercury ICPMS		0.2	0.157	ug/L	79	(50-150)		
MS_202112300308	Mercury ICPMS	ND	0.75	0.716	ug/L	95	(70-130)		
MSD_202112300308	Mercury ICPMS	ND	0.75	0.724	ug/L	96	(70-130)	20	1.1
ICPMS Metals by EPA 200.8									
Analytical Batch: 1377100					Analysis Date: 01/03/2022				
LCS1	Antimony Total ICAP/MS		50	52.0	ug/L	104	(85-115)		
LCS2	Antimony Total ICAP/MS		50	52.9	ug/L	106	(85-115)	20	1.7
MBLK	Antimony Total ICAP/MS			<0.2437	ug/L				
MRL_CHK	Antimony Total ICAP/MS		1	1.02	ug/L	102	(50-150)		
MS_202112300308	Antimony Total ICAP/MS	ND	50	54.8	ug/L	109	(70-130)		
MSD_202112300308	Antimony Total ICAP/MS	ND	50	55.9	ug/L	112	(70-130)	20	2.0
LCS1	Arsenic Total ICAP/MS		50	53.8	ug/L	108	(85-115)		
LCS2	Arsenic Total ICAP/MS		50	53.8	ug/L	108	(85-115)	20	0.19
MBLK	Arsenic Total ICAP/MS			<0.4134	ug/L				
MRL_CHK	Arsenic Total ICAP/MS		1	1.05	ug/L	105	(50-150)		
MS_202112300308	Arsenic Total ICAP/MS	ND	50	56.1	ug/L	112	(70-130)		
MSD_202112300308	Arsenic Total ICAP/MS	ND	50	56.4	ug/L	112	(70-130)	20	0.58
LCS1	Barium Total ICAP/MS		50	55.3	ug/L	111	(85-115)		
LCS2	Barium Total ICAP/MS		50	55.5	ug/L	111	(85-115)	20	0.36
MBLK	Barium Total ICAP/MS			<0.1886	ug/L				
MRL_CHK	Barium Total ICAP/MS		2	1.91	ug/L	95	(50-150)		
MS_202112300308	Barium Total ICAP/MS	3.7	50	58.2	ug/L	109	(70-130)		
MSD_202112300308	Barium Total ICAP/MS	3.7	50	59.2	ug/L	111	(70-130)	20	1.7
LCS1	Beryllium Total ICAP/MS		25	26.8	ug/L	107	(85-115)		
LCS2	Beryllium Total ICAP/MS		25	27.3	ug/L	109	(85-115)	20	1.9
MBLK	Beryllium Total ICAP/MS			<0.1106	ug/L				
MRL_CHK	Beryllium Total ICAP/MS		1	0.954	ug/L	95	(50-150)		
MS_202112300308	Beryllium Total ICAP/MS	ND	25	28.8	ug/L	115	(70-130)		
MSD_202112300308	Beryllium Total ICAP/MS	ND	25	28.5	ug/L	114	(70-130)	20	0.91
LCS1	Cadmium Total ICAP/MS		25	26.5	ug/L	106	(85-115)		
LCS2	Cadmium Total ICAP/MS		25	26.7	ug/L	107	(85-115)	20	0.75
MBLK	Cadmium Total ICAP/MS			<0.0546	ug/L				

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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Report: 977854
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AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MRL_CHK	Cadmium Total ICAP/MS		0.5	0.454	ug/L	91	(50-150)		
MS_202112300308	Cadmium Total ICAP/MS	ND	25	26.8	ug/L	107	(70-130)		
MSD_202112300308	Cadmium Total ICAP/MS	ND	25	27.2	ug/L	109	(70-130)	20	1.7
LCS1	Chromium Total ICAP/MS		50	54.3	ug/L	109	(85-115)		
LCS2	Chromium Total ICAP/MS		50	53.4	ug/L	107	(85-115)	20	1.7
MBLK	Chromium Total ICAP/MS			<0.580	ug/L				
MRL_CHK	Chromium Total ICAP/MS		1	0.908	ug/L	91	(50-150)		
MS_202112300308	Chromium Total ICAP/MS	1.4	50	54.2	ug/L	106	(70-130)		
MSD_202112300308	Chromium Total ICAP/MS	1.4	50	53.6	ug/L	104	(70-130)	20	1.2
LCS1	Copper Total ICAP/MS		50	56.5	ug/L	113	(85-115)		
LCS2	Copper Total ICAP/MS		50	56.1	ug/L	112	(85-115)	20	0.71
MBLK	Copper Total ICAP/MS			<1.343	ug/L				
MRL_CHK	Copper Total ICAP/MS		2	1.96	ug/L	98	(50-150)		
MS_202112300308	Copper Total ICAP/MS	2.3	50	56.3	ug/L	108	(70-130)		
MSD_202112300308	Copper Total ICAP/MS	2.3	50	56.0	ug/L	107	(70-130)	20	0.47
LCS1	Lead Total ICAP/MS		50	53.7	ug/L	107	(85-115)		
LCS2	Lead Total ICAP/MS		50	55.1	ug/L	110	(85-115)	20	2.6
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.481	ug/L	96	(50-150)		
MS_202112300308	Lead Total ICAP/MS	ND	50	52.8	ug/L	105	(70-130)		
MSD_202112300308	Lead Total ICAP/MS	ND	50	52.8	ug/L	105	(70-130)	20	0.027
LCS1	Selenium Total ICAP/MS		50	54.4	ug/L	109	(85-115)		
LCS2	Selenium Total ICAP/MS		50	54.2	ug/L	108	(85-115)	20	0.37
MBLK	Selenium Total ICAP/MS			<0.6224	ug/L				
MRL_CHK	Selenium Total ICAP/MS		5	4.93	ug/L	99	(50-150)		
MS_202112300308	Selenium Total ICAP/MS	ND	50	60.3	ug/L	120	(70-130)		
MSD_202112300308	Selenium Total ICAP/MS	ND	50	60.3	ug/L	120	(70-130)	20	0.005 0
LCS1	Thallium Total ICAP/MS		50	52.1	ug/L	104	(85-115)		
LCS2	Thallium Total ICAP/MS		50	53.1	ug/L	106	(85-115)	20	1.9
MBLK	Thallium Total ICAP/MS			<0.1449	ug/L				
MRL_CHK	Thallium Total ICAP/MS		1	0.948	ug/L	95	(50-150)		
MS_202112300308	Thallium Total ICAP/MS	ND	50	48.8	ug/L	98	(70-130)		
MSD_202112300308	Thallium Total ICAP/MS	ND	50	49.2	ug/L	98	(70-130)	20	0.78

EPA Method 504.1 by EPA 504.1

Analytical Batch: 1377205

Analysis Date: 01/03/2022

CCCH	1,2,3-Trichloropropane	1.3	1.27	ug/L	102	(70-130)
CCCM2	1,2,3-Trichloropropane	0.25	0.256	ug/L	103	(70-130)

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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Report: 977854
Project: SPECIAL
Group: RUSH Testing

AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
DUP_202112300305	1,2,3-Trichloropropane	ND		ND	ug/L		(0-20)		
LCS2	1,2,3-Trichloropropane		0.2	0.209	ug/L	105	(70-130)		
MBLK	1,2,3-Trichloropropane			0	ug/L				
MRL_CHK	1,2,3-Trichloropropane		0.05	0.0524	ug/L	105	(60-140)		
MRLLW	1,2,3-Trichloropropane		0.02	0.0249	ug/L	124	(60-140)		
MS_202112290234	1,2,3-Trichloropropane	ND	1.3	1.27	ug/L	102	(65-135)		
CCCH	1,2-Dibromo-3-chloropropane		0.25	0.250	ug/L	100	(70-130)		
CCCM2	1,2-Dibromo-3-chloropropane		0.05	0.0508	ug/L	102	(70-130)		
DUP_202112300305	1,2-Dibromo-3-chloropropane	ND		ND	ug/L		(0-20)		
LCS2	1,2-Dibromo-3-chloropropane		0.2	0.207	ug/L	103	(70-130)		
MBLK	1,2-Dibromo-3-chloropropane			0	ug/L				
MRL_CHK	1,2-Dibromo-3-chloropropane		0.01	0.0104	ug/L	104	(60-140)		
MS_202112290234	1,2-Dibromo-3-chloropropane	ND	0.25	0.249	ug/L	100	(65-135)		
CCCH	1,2-Dibromoethane		0.25	0.254	ug/L	101	(70-130)		
CCCM2	1,2-Dibromoethane		0.05	0.0515	ug/L	103	(70-130)		
DUP_202112300305	1,2-Dibromoethane	ND		ND	ug/L		(0-20)		
LCS2	1,2-Dibromoethane		0.2	0.208	ug/L	104	(70-130)		
MBLK	1,2-Dibromoethane			0	ug/L				
MRL_CHK	1,2-Dibromoethane		0.01	0.0104	ug/L	104	(60-140)		
MS_202112290234	1,2-Dibromoethane	ND	0.25	0.253	ug/L	101	(65-135)		
CCCH	1,2-Dibromopropane (S)		100	108	%	108	(60-140)		
CCCM2	1,2-Dibromopropane (S)		100	99.8	%	100	(60-140)		
DUP_202112300305	1,2-Dibromopropane (S)		100	101	%	101	(60-140)		
LCS2	1,2-Dibromopropane (S)		100	108	%	108	(60-140)		
MBLK	1,2-Dibromopropane (S)			100	%	101	(60-140)		
MRL_CHK	1,2-Dibromopropane (S)		100	105	%	105	(60-140)		
MRLLW	1,2-Dibromopropane (S)		100	104	%	104	(60-140)		
MS_202112290234	1,2-Dibromopropane (S)		100	105	%	105	(60-140)		

Chlorophenoxy Herbicides by EPA 515.4

Prep Batch: 1377211 Analytical Batch: 1377373

Analysis Date: 01/05/2022

CCC3	2,4-Dichlorophenyl acetic acid (S)	100	97.4	%	97	(70-130)
CCCH	2,4-Dichlorophenyl acetic acid (S)	10	98.0	%	98	(70-130)
CCCM	2,4-Dichlorophenyl acetic acid (S)	2.5	95.1	%	95	(70-130)
MBLK	2,4-Dichlorophenyl acetic acid (S)		110	%	110	(70-130)
MRL_CHK	2,4-Dichlorophenyl acetic acid (S)		106	%	106	(70-130)
MS1_202112170041	2,4-Dichlorophenyl acetic acid (S)		99.3	%	99	(70-130)
MSD1_202112170041	2,4-Dichlorophenyl acetic acid (S)		94.7	%	95	(70-130)

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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Report: 977854
Project: SPECIAL
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AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
CCC3	4,4-Dibromooctafluorobiphenyl (I)		100	112	%	112	(50-150)		
CCCH	4,4-Dibromooctafluorobiphenyl (I)			101	%	101	(50-150)		
CCCM	4,4-Dibromooctafluorobiphenyl (I)			104	%	104	(50-150)		
MBLK	4,4-Dibromooctafluorobiphenyl (I)			95.1	%	95	(50-150)		
MRL_CHK	4,4-Dibromooctafluorobiphenyl (I)		100	93.9	%	94	(50-150)		
MS1_202112170041	4,4-Dibromooctafluorobiphenyl (I)		100	93.2	%	93	(50-150)		
MSD1_202112170041	4,4-Dibromooctafluorobiphenyl (I)			95.4	%	95	(50-150)		
CCC3	Pentachlorophenol		0.8	0.856	ug/L	107	(70-130)		
CCCH	Pentachlorophenol		0.8	0.804	ug/L	100	(70-130)		
CCCM	Pentachlorophenol		0.2	0.201	ug/L	100	(70-130)		
MBLK	Pentachlorophenol			<0.013	ug/L				
MRL_CHK	Pentachlorophenol		0.04	0.0447	ug/L	112	(50-150)		
MS1_202112170041	Pentachlorophenol	ND	0.6	0.316	ug/L	<u>52</u>	(70-130)		
MSD1_202112170041	Pentachlorophenol	ND	0.6	0.384	ug/L	<u>63</u>	(70-130)	30	20

Organochlorine Pesticides/PCBs by EPA 505

Prep Batch: 1377114 Analytical Batch: 1377418

Analysis Date: 01/04/2022

CCCH	Alachlor (Alanex)		1	0.982	ug/L	98	(70-130)		
CCCH	Alachlor (Alanex)		1	1.01	ug/L	101	(70-130)		
LCS1	Alachlor (Alanex)		1	0.923	ug/L	92	(70-130)		
MBLK	Alachlor (Alanex)			<0.1	ug/L				
MRL_CHK	Alachlor (Alanex)		0.1	0.100	ug/L	100	(50-150)		
MS1_202112280039	Alachlor (Alanex)	ND	0.2	0.200	ug/L	100	(65-135)		
MS2_202112300354	Alachlor (Alanex)	ND	1	0.976	ug/L	98	(65-135)		
CCCH	Aldrin		0.1	0.0998	ug/L	100	(70-130)		
CCCH	Aldrin		0.1	0.0974	ug/L	97	(70-130)		
LCS1	Aldrin		0.1	0.0986	ug/L	99	(70-130)		
MBLK	Aldrin			<0.01	ug/L				
MRL_CHK	Aldrin		0.01	0.00910	ug/L	91	(50-150)		
MS1_202112280039	Aldrin	ND	0.02	0.0203	ug/L	101	(65-135)		
MS2_202112300354	Aldrin	ND	0.1	0.0972	ug/L	97	(65-135)		
CCCH	Chlordane		0.5	0.505	ug/L	101	(70-130)		
LCS1	Chlordane		0.5	0.580	ug/L	116	(70-130)		
MBLK	Chlordane			<0.1	ug/L				
MRL_CHK	Chlordane		0.1	0.0949	ug/L	95	(50-150)		
MS1_202112280039	Chlordane	ND	0.5	0.476	ug/L	95	(65-135)		
MS2_202112300354	Chlordane	ND	0.5	0.506	ug/L	101	(65-135)		
CCCH	Endrin		0.1	0.106	ug/L	106	(70-130)		

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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Report: 977854
Project: SPECIAL
Group: RUSH Testing

AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
CCCH	Endrin		0.1	0.107	ug/L	107	(70-130)		
LCS1	Endrin		0.1	0.0940	ug/L	94	(70-130)		
MBLK	Endrin			<0.01	ug/L				
MRL_CHK	Endrin		0.01	0.00940	ug/L	94	(50-150)		
MS1_202112280039	Endrin	ND	0.02	0.0193	ug/L	95	(65-135)		
MS2_202112300354	Endrin	ND	0.1	0.104	ug/L	104	(65-135)		
CCCH	Heptachlor		0.1	0.101	ug/L	101	(70-130)		
CCCH	Heptachlor		0.1	0.101	ug/L	101	(70-130)		
LCS1	Heptachlor		0.1	0.0945	ug/L	95	(70-130)		
MBLK	Heptachlor			<0.01	ug/L				
MRL_CHK	Heptachlor		0.01	0.00870	ug/L	87	(50-150)		
MS1_202112280039	Heptachlor	ND	0.02	0.0192	ug/L	96	(65-135)		
MS2_202112300354	Heptachlor	ND	0.1	0.0980	ug/L	98	(65-135)		
CCCH	Heptachlor Epoxide		0.1	0.0993	ug/L	99	(70-130)		
CCCH	Heptachlor Epoxide		0.1	0.101	ug/L	101	(70-130)		
LCS1	Heptachlor Epoxide		0.1	0.0940	ug/L	94	(70-130)		
MBLK	Heptachlor Epoxide			<0.01	ug/L				
MRL_CHK	Heptachlor Epoxide		0.01	0.0110	ug/L	110	(50-150)		
MS1_202112280039	Heptachlor Epoxide	ND	0.02	0.0219	ug/L	110	(65-135)		
MS2_202112300354	Heptachlor Epoxide	ND	0.1	0.0973	ug/L	97	(65-135)		
CCCH	Lindane (gamma-BHC)		0.1	0.0989	ug/L	99	(70-130)		
CCCH	Lindane (gamma-BHC)		0.1	0.100	ug/L	100	(70-130)		
LCS1	Lindane (gamma-BHC)		0.1	0.0956	ug/L	96	(70-130)		
MBLK	Lindane (gamma-BHC)			<0.01	ug/L				
MRL_CHK	Lindane (gamma-BHC)		0.01	0.00950	ug/L	95	(50-150)		
MS1_202112280039	Lindane (gamma-BHC)	ND	0.02	0.0192	ug/L	96	(65-135)		
MS2_202112300354	Lindane (gamma-BHC)	ND	0.1	0.0976	ug/L	98	(65-135)		
CCCH	Methoxychlor		0.5	0.505	ug/L	101	(70-130)		
CCCH	Methoxychlor		0.5	0.525	ug/L	105	(70-130)		
LCS1	Methoxychlor		0.5	0.444	ug/L	89	(70-130)		
MBLK	Methoxychlor			<0.05	ug/L				
MRL_CHK	Methoxychlor		0.05	0.0573	ug/L	115	(50-150)		
MS1_202112280039	Methoxychlor	ND	0.1	0.0971	ug/L	92	(65-135)		
MS2_202112300354	Methoxychlor	ND	0.5	0.502	ug/L	99	(65-135)		
MBLK	PCB 1016 Aroclor			<0.08	ug/L				
MBLK	PCB 1221 Aroclor			<0.1	ug/L				
MBLK	PCB 1232 Aroclor			<0.1	ug/L				
MBLK	PCB 1242 Aroclor			<0.1	ug/L				

Spike recovery is already corrected for native results.

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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Report: 977854
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AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MBLK	PCB 1248 Aroclor			<0.1	ug/L				
MBLK	PCB 1254 Aroclor			<0.1	ug/L				
MBLK	PCB 1260 Aroclor			<0.1	ug/L				
CCCH	Tetrachlorometaxylene (S)			104	%	104	(70-130)		
CCCH	Tetrachlorometaxylene (S)			98.4	%	98	(70-130)		
LCS1	Tetrachlorometaxylene (S)			95.1	%	95	(70-130)		
MBLK	Tetrachlorometaxylene (S)			104	%	104	(70-130)		
MRL_CHK	Tetrachlorometaxylene (S)			97.9	%	98	(70-130)		
MS1_202112280039	Tetrachlorometaxylene (S)			95.6	%	96	(70-130)		
MS2_202112300354	Tetrachlorometaxylene (S)			94.0	%	94	(70-130)		

Volatile Organics by GCMS by EPA 524.2

Analytical Batch: 1377524

Analysis Date: 01/04/2022

LCS1	1,1,1-Trichloroethane	5	4.28	ug/L	86	(70-130)		
LCS2	1,1,1-Trichloroethane	5	4.76	ug/L	95	(70-130)	20	11
MBLK	1,1,1-Trichloroethane		<0.5	ug/L				
MRL_CHK	1,1,1-Trichloroethane	0.5	0.520	ug/L	104	(50-150)		
LCS1	1,1,2-Trichloroethane	5	4.65	ug/L	93	(70-130)		
LCS2	1,1,2-Trichloroethane	5	5.06	ug/L	101	(70-130)	20	8.4
MBLK	1,1,2-Trichloroethane		<0.5	ug/L				
MRL_CHK	1,1,2-Trichloroethane	0.5	0.530	ug/L	106	(50-150)		
LCS1	1,1-Dichloroethylene	5	4.44	ug/L	89	(70-130)		
LCS2	1,1-Dichloroethylene	5	4.80	ug/L	96	(70-130)	20	7.8
MBLK	1,1-Dichloroethylene		<0.5	ug/L				
MRL_CHK	1,1-Dichloroethylene	0.5	0.550	ug/L	110	(50-150)		
LCS1	1,2,4-Trichlorobenzene	5	4.95	ug/L	99	(70-130)		
LCS2	1,2,4-Trichlorobenzene	5	4.76	ug/L	95	(70-130)	20	3.9
MBLK	1,2,4-Trichlorobenzene		<0.5	ug/L				
MRL_CHK	1,2,4-Trichlorobenzene	0.5	0.640	ug/L	128	(50-150)		
LCS1	1,2-Dichloroethane	5	5.07	ug/L	101	(70-130)		
LCS2	1,2-Dichloroethane	5	5.54	ug/L	111	(70-130)	20	8.9
MBLK	1,2-Dichloroethane		<0.5	ug/L				
MRL_CHK	1,2-Dichloroethane	0.5	0.500	ug/L	100	(50-150)		
LCS1	1,2-Dichloroethane-d4 (S)	5	102	%	102	(70-130)		
LCS2	1,2-Dichloroethane-d4 (S)	5	102	%	102	(70-130)		
MBLK	1,2-Dichloroethane-d4 (S)		107	%	107	(70-130)		
MRL_CHK	1,2-Dichloroethane-d4 (S)	5	98.2	%	98	(70-130)		
MRLLW	1,2-Dichloroethane-d4 (S)	5	95.0	%	95	(70-130)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
LCS1	1,2-Dichloropropane		5	4.93	ug/L	99	(70-130)		
LCS2	1,2-Dichloropropane		5	5.14	ug/L	103	(70-130)	20	4.2
MBLK	1,2-Dichloropropane			<0.5	ug/L				
MRL_CHK	1,2-Dichloropropane		0.5	0.540	ug/L	108	(50-150)		
LCS1	4-Bromofluorobenzene (S)		5	97.8	%	98	(70-130)		
LCS2	4-Bromofluorobenzene (S)		5	93.2	%	93	(70-130)		
MBLK	4-Bromofluorobenzene (S)			95.0	%	95	(70-130)		
MRL_CHK	4-Bromofluorobenzene (S)		5	105	%	105	(70-130)		
MRL_W	4-Bromofluorobenzene (S)		5	99.6	%	100	(70-130)		
LCS1	Benzene		5	4.71	ug/L	94	(70-130)		
LCS2	Benzene		5	5.04	ug/L	101	(70-130)	20	6.8
MBLK	Benzene			<0.5	ug/L				
MRL_CHK	Benzene		0.5	0.520	ug/L	104	(50-150)		
LCS1	Carbon Tetrachloride		5	4.29	ug/L	86	(70-130)		
LCS2	Carbon Tetrachloride		5	4.68	ug/L	94	(70-130)	20	8.7
MBLK	Carbon Tetrachloride			<0.5	ug/L				
MRL_CHK	Carbon Tetrachloride		0.5	0.440	ug/L	88	(50-150)		
LCS1	Chlorobenzene		5	4.95	ug/L	99	(70-130)		
LCS2	Chlorobenzene		5	5.32	ug/L	106	(70-130)	20	7.2
MBLK	Chlorobenzene			<0.5	ug/L				
MRL_CHK	Chlorobenzene		0.5	0.510	ug/L	102	(50-150)		
LCS1	cis-1,2-Dichloroethylene		5	4.83	ug/L	97	(70-130)		
LCS2	cis-1,2-Dichloroethylene		5	4.97	ug/L	99	(70-130)	20	2.9
MBLK	cis-1,2-Dichloroethylene			<0.5	ug/L				
MRL_CHK	cis-1,2-Dichloroethylene		0.5	0.520	ug/L	104	(50-150)		
LCS1	Dichloromethane		5	5.02	ug/L	100	(70-130)		
LCS2	Dichloromethane		5	5.10	ug/L	102	(70-130)	20	1.6
MBLK	Dichloromethane			<0.5	ug/L				
MRL_CHK	Dichloromethane		0.5	0.590	ug/L	118	(50-150)		
LCS1	Ethyl benzene		5	4.69	ug/L	94	(70-130)		
LCS2	Ethyl benzene		5	5.01	ug/L	100	(70-130)	20	6.6
MBLK	Ethyl benzene			<0.5	ug/L				
MRL_CHK	Ethyl benzene		0.5	0.440	ug/L	88	(50-150)		
LCS1	m,p-Xylenes		10	9.53	ug/L	95	(70-130)		
LCS2	m,p-Xylenes		10	10.4	ug/L	104	(70-130)	20	8.7
MBLK	m,p-Xylenes			<0.5	ug/L				
MRL_CHK	m,p-Xylenes		1	0.810	ug/L	81	(50-150)		
MRL_W	m,p-Xylenes		0.5	0.540	ug/L	108	(50-150)		

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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Report: 977854
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AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
LCS1	o-Dichlorobenzene (1,2-DCB)		5	4.80	ug/L	96	(70-130)		
LCS2	o-Dichlorobenzene (1,2-DCB)		5	4.96	ug/L	99	(70-130)	20	3.3
MBLK	o-Dichlorobenzene (1,2-DCB)			<0.5	ug/L				
MRL_CHK	o-Dichlorobenzene (1,2-DCB)		0.5	0.560	ug/L	112	(50-150)		
LCS1	o-Xylene		5	4.58	ug/L	92	(70-130)		
LCS2	o-Xylene		5	4.93	ug/L	99	(70-130)	20	7.4
MBLK	o-Xylene			<0.5	ug/L				
MRL_CHK	o-Xylene		0.5	0.400	ug/L	80	(50-150)		
LCS1	p-Dichlorobenzene (1,4-DCB)		5	4.81	ug/L	96	(70-130)		
LCS2	p-Dichlorobenzene (1,4-DCB)		5	4.87	ug/L	97	(70-130)	20	1.2
MBLK	p-Dichlorobenzene (1,4-DCB)			<0.5	ug/L				
MRL_CHK	p-Dichlorobenzene (1,4-DCB)		0.5	0.600	ug/L	120	(50-150)		
LCS1	Styrene		5	4.54	ug/L	91	(70-130)		
LCS2	Styrene		5	5.04	ug/L	101	(70-130)	20	10
MBLK	Styrene			<0.5	ug/L				
MRL_CHK	Styrene		0.5	0.380	ug/L	76	(50-150)		
LCS1	Tetrachloroethylene (PCE)		5	4.50	ug/L	90	(70-130)		
LCS2	Tetrachloroethylene (PCE)		5	4.88	ug/L	98	(70-130)	20	8.1
MBLK	Tetrachloroethylene (PCE)			<0.5	ug/L				
MRL_CHK	Tetrachloroethylene (PCE)		0.5	0.480	ug/L	96	(50-150)		
LCS1	Toluene		5	4.37	ug/L	87	(70-130)		
LCS2	Toluene		5	4.63	ug/L	93	(70-130)	20	5.8
MBLK	Toluene			<0.5	ug/L				
MRL_CHK	Toluene		0.5	0.650	ug/L	130	(50-150)		
LCS1	Toluene-d8 (S)		5	102	%	102	(70-130)		
LCS2	Toluene-d8 (S)		5	105	%	105	(70-130)		
MBLK	Toluene-d8 (S)			92.2	%	92	(70-130)		
MRL_CHK	Toluene-d8 (S)		5	93.4	%	93	(70-130)		
MRL_W	Toluene-d8 (S)		5	98.2	%	98	(70-130)		
LCS1	trans-1,2-Dichloroethylene		5	4.89	ug/L	98	(70-130)		
LCS2	trans-1,2-Dichloroethylene		5	4.91	ug/L	98	(70-130)	20	0.41
MBLK	trans-1,2-Dichloroethylene			<0.5	ug/L				
MRL_CHK	trans-1,2-Dichloroethylene		0.5	0.520	ug/L	104	(50-150)		
LCS1	Trichloroethylene (TCE)		5	4.59	ug/L	92	(70-130)		
LCS2	Trichloroethylene (TCE)		5	5.15	ug/L	103	(70-130)	20	12
MBLK	Trichloroethylene (TCE)			<0.5	ug/L				
MRL_CHK	Trichloroethylene (TCE)		0.5	0.540	ug/L	108	(50-150)		
LCS1	Vinyl chloride (VC)		5	5.10	ug/L	102	(70-130)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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Report: 977854
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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
LCS2	Vinyl chloride (VC)		5	5.02	ug/L	100	(70-130)	20	1.6
MBLK	Vinyl chloride (VC)			<0.3	ug/L				
MRL_CHK	Vinyl chloride (VC)		0.5	0.440	ug/L	88	(50-150)		
MRLLW	Vinyl chloride (VC)		0.25	0.220	ug/L	88	(50-150)		

Volatile Organics by GCMS by EPA 524.2

Analytical Batch: 1377793

Analysis Date: 01/05/2022

LCS1	1,1,1-Trichloroethane		5	5.08	ug/L	102	(70-130)		
LCS2	1,1,1-Trichloroethane		5	4.99	ug/L	100	(70-130)	20	1.8
MBLK	1,1,1-Trichloroethane			<0.5	ug/L				
MRL_CHK	1,1,1-Trichloroethane		0.5	0.450	ug/L	90	(50-150)		
LCS1	1,1,2-Trichloroethane		5	4.77	ug/L	95	(70-130)		
LCS2	1,1,2-Trichloroethane		5	4.83	ug/L	97	(70-130)	20	1.3
MBLK	1,1,2-Trichloroethane			<0.5	ug/L				
MRL_CHK	1,1,2-Trichloroethane		0.5	0.470	ug/L	94	(50-150)		
LCS1	1,1-Dichloroethylene		5	5.12	ug/L	102	(70-130)		
LCS2	1,1-Dichloroethylene		5	4.91	ug/L	98	(70-130)	20	4.2
MBLK	1,1-Dichloroethylene			<0.5	ug/L				
MRL_CHK	1,1-Dichloroethylene		0.5	0.540	ug/L	108	(50-150)		
LCS1	1,2,4-Trichlorobenzene		5	4.95	ug/L	99	(70-130)		
LCS2	1,2,4-Trichlorobenzene		5	4.94	ug/L	99	(70-130)	20	0.20
MBLK	1,2,4-Trichlorobenzene			<0.5	ug/L				
MRL_CHK	1,2,4-Trichlorobenzene		0.5	0.480	ug/L	96	(50-150)		
LCS1	1,2-Dichloroethane		5	4.96	ug/L	99	(70-130)		
LCS2	1,2-Dichloroethane		5	5.09	ug/L	102	(70-130)	20	2.6
MBLK	1,2-Dichloroethane			<0.5	ug/L				
MRL_CHK	1,2-Dichloroethane		0.5	0.530	ug/L	106	(50-150)		
LCS1	1,2-Dichloroethane-d4 (S)		5	99.6	%	100	(70-130)		
LCS2	1,2-Dichloroethane-d4 (S)		5	102	%	102	(70-130)		
MBLK	1,2-Dichloroethane-d4 (S)			107	%	107	(70-130)		
MRL_CHK	1,2-Dichloroethane-d4 (S)		5	108	%	108	(70-130)		
MRLLW	1,2-Dichloroethane-d4 (S)		5	103	%	103	(70-130)		
LCS1	1,2-Dichloropropane		5	4.84	ug/L	97	(70-130)		
LCS2	1,2-Dichloropropane		5	4.72	ug/L	94	(70-130)	20	2.5
MBLK	1,2-Dichloropropane			<0.5	ug/L				
MRL_CHK	1,2-Dichloropropane		0.5	0.520	ug/L	104	(50-150)		
LCS1	4-Bromofluorobenzene (S)		5	97.8	%	98	(70-130)		
LCS2	4-Bromofluorobenzene (S)		5	94.6	%	95	(70-130)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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Report: 977854
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Group: RUSH Testing

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MBLK	4-Bromofluorobenzene (S)			85.8	%	86	(70-130)		
MRL_CHK	4-Bromofluorobenzene (S)		5	93.2	%	93	(70-130)		
MRLLW	4-Bromofluorobenzene (S)		5	93.8	%	94	(70-130)		
LCS1	Benzene		5	4.90	ug/L	98	(70-130)		
LCS2	Benzene		5	4.74	ug/L	95	(70-130)	20	3.3
MBLK	Benzene			<0.5	ug/L				
MRL_CHK	Benzene		0.5	0.480	ug/L	96	(50-150)		
LCS1	Carbon Tetrachloride		5	4.88	ug/L	98	(70-130)		
LCS2	Carbon Tetrachloride		5	4.95	ug/L	99	(70-130)	20	1.4
MBLK	Carbon Tetrachloride			<0.5	ug/L				
MRL_CHK	Carbon Tetrachloride		0.5	0.500	ug/L	100	(50-150)		
LCS1	Chlorobenzene		5	4.82	ug/L	96	(70-130)		
LCS2	Chlorobenzene		5	4.79	ug/L	96	(70-130)	20	0.62
MBLK	Chlorobenzene			<0.5	ug/L				
MRL_CHK	Chlorobenzene		0.5	0.420	ug/L	84	(50-150)		
LCS1	cis-1,2-Dichloroethylene		5	4.90	ug/L	98	(70-130)		
LCS2	cis-1,2-Dichloroethylene		5	4.93	ug/L	99	(70-130)	20	0.61
MBLK	cis-1,2-Dichloroethylene			<0.5	ug/L				
MRL_CHK	cis-1,2-Dichloroethylene		0.5	0.570	ug/L	114	(50-150)		
LCS1	Dichloromethane		5	4.24	ug/L	85	(70-130)		
LCS2	Dichloromethane		5	5.14	ug/L	103	(70-130)	20	19
MBLK	Dichloromethane			<0.5	ug/L				
MRL_CHK	Dichloromethane		0.5	0.450	ug/L	90	(50-150)		
LCS1	Ethyl benzene		5	4.99	ug/L	100	(70-130)		
LCS2	Ethyl benzene		5	5.05	ug/L	101	(70-130)	20	1.2
MBLK	Ethyl benzene			<0.5	ug/L				
MRL_CHK	Ethyl benzene		0.5	0.370	ug/L	74	(50-150)		
LCS1	m,p-Xylenes		10	10.4	ug/L	105	(70-130)		
LCS2	m,p-Xylenes		10	10.2	ug/L	102	(70-130)	20	1.9
MBLK	m,p-Xylenes			<0.5	ug/L				
MRL_CHK	m,p-Xylenes		1	0.670	ug/L	67	(50-150)		
MRLLW	m,p-Xylenes		0.5	0.490	ug/L	98	(50-150)		
LCS1	o-Dichlorobenzene (1,2-DCB)		5	4.88	ug/L	98	(70-130)		
LCS2	o-Dichlorobenzene (1,2-DCB)		5	4.98	ug/L	100	(70-130)	20	2.0
MBLK	o-Dichlorobenzene (1,2-DCB)			<0.5	ug/L				
MRL_CHK	o-Dichlorobenzene (1,2-DCB)		0.5	0.440	ug/L	88	(50-150)		
LCS1	o-Xylene		5	4.95	ug/L	99	(70-130)		
LCS2	o-Xylene		5	4.92	ug/L	98	(70-130)	20	0.61

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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Report: 977854
Project: SPECIAL
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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MBLK	o-Xylene			<0.5	ug/L				
MRL_CHK	o-Xylene		0.5	0.380	ug/L	76	(50-150)		
LCS1	p-Dichlorobenzene (1,4-DCB)		5	4.85	ug/L	97	(70-130)		
LCS2	p-Dichlorobenzene (1,4-DCB)		5	4.67	ug/L	93	(70-130)	20	3.8
MBLK	p-Dichlorobenzene (1,4-DCB)			<0.5	ug/L				
MRL_CHK	p-Dichlorobenzene (1,4-DCB)		0.5	0.420	ug/L	84	(50-150)		
LCS1	Styrene		5	5.08	ug/L	102	(70-130)		
LCS2	Styrene		5	5.01	ug/L	100	(70-130)	20	1.4
MBLK	Styrene			<0.5	ug/L				
MRL_CHK	Styrene		0.5	0.350	ug/L	70	(50-150)		
LCS1	Tetrachloroethylene (PCE)		5	5.14	ug/L	103	(70-130)		
LCS2	Tetrachloroethylene (PCE)		5	4.93	ug/L	99	(70-130)	20	4.2
MBLK	Tetrachloroethylene (PCE)			<0.5	ug/L				
MRL_CHK	Tetrachloroethylene (PCE)		0.5	0.460	ug/L	92	(50-150)		
LCS1	Toluene		5	4.62	ug/L	92	(70-130)		
LCS2	Toluene		5	4.61	ug/L	92	(70-130)	20	0.22
MBLK	Toluene			<0.5	ug/L				
MRL_CHK	Toluene		0.5	0.470	ug/L	94	(50-150)		
LCS1	Toluene-d8 (S)		5	103	%	103	(70-130)		
LCS2	Toluene-d8 (S)		5	106	%	106	(70-130)		
MBLK	Toluene-d8 (S)			90.4	%	90	(70-130)		
MRL_CHK	Toluene-d8 (S)		5	94.0	%	94	(70-130)		
MRLLW	Toluene-d8 (S)		5	92.4	%	92	(70-130)		
LCS1	trans-1,2-Dichloroethylene		5	5.05	ug/L	101	(70-130)		
LCS2	trans-1,2-Dichloroethylene		5	5.07	ug/L	101	(70-130)	20	0.40
MBLK	trans-1,2-Dichloroethylene			<0.5	ug/L				
MRL_CHK	trans-1,2-Dichloroethylene		0.5	0.520	ug/L	104	(50-150)		
LCS1	Trichloroethylene (TCE)		5	5.09	ug/L	102	(70-130)		
LCS2	Trichloroethylene (TCE)		5	5.09	ug/L	102	(70-130)	20	0.0
MBLK	Trichloroethylene (TCE)			<0.5	ug/L				
MRL_CHK	Trichloroethylene (TCE)		0.5	0.440	ug/L	88	(50-150)		
LCS1	Vinyl chloride (VC)		5	4.55	ug/L	91	(70-130)		
LCS2	Vinyl chloride (VC)		5	4.70	ug/L	94	(70-130)	20	3.2
MBLK	Vinyl chloride (VC)			<0.3	ug/L				
MRL_CHK	Vinyl chloride (VC)		0.5	0.450	ug/L	90	(50-150)		
MRLLW	Vinyl chloride (VC)		0.25	0.290	ug/L	116	(50-150)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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Report: 977854
Project: SPECIAL
Group: RUSH Testing

AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
Semivolatiles by GCMS by EPA 525.2									
Prep Batch: 1377480 Analytical Batch: 1377925					Analysis Date: 01/06/2022				
LCS1	1,3-Dimethyl-2-nitrobenzene (S)		5	87.0	%	87	(70-130)		
LCS2	1,3-Dimethyl-2-nitrobenzene (S)		5	94.2	%	94	(70-130)		
MBLK	1,3-Dimethyl-2-nitrobenzene (S)			93.8	%	94	(70-130)		
MRL_CHK	1,3-Dimethyl-2-nitrobenzene (S)		5	93.8	%	94	(70-130)		
LCS1	Acenaphthene-d10 (I)		5	55.7	%	56	(50-150)		
LCS2	Acenaphthene-d10 (I)		5	88.3	%	88	(50-150)		
MBLK	Acenaphthene-d10 (I)			79.3	%	79	(50-150)		
MRL_CHK	Acenaphthene-d10 (I)		5	84.0	%	84	(50-150)		
LCS1	Alachlor		2	2.14	ug/L	107	(70-130)		
LCS2	Alachlor		2	2.17	ug/L	108	(70-130)	20	0.93
MBLK	Alachlor			<0.05	ug/L				
MRL_CHK	Alachlor		0.05	0.0610	ug/L	122	(50-150)		
LCS1	Atrazine		2	2.09	ug/L	104	(70-130)		
LCS2	Atrazine		2	2.04	ug/L	102	(70-130)	20	2.4
MBLK	Atrazine			<0.05	ug/L				
MRL_CHK	Atrazine		0.05	0.0570	ug/L	114	(50-150)		
LCS1	Benzo(a)pyrene		2	1.92	ug/L	96	(70-130)		
LCS2	Benzo(a)pyrene		2	1.96	ug/L	98	(70-130)	20	2.1
MBLK	Benzo(a)pyrene			<0.02	ug/L				
MRL_CHK	Benzo(a)pyrene		0.02	0.0210	ug/L	105	(50-150)		
LCS1	Chrysene-d12 (I)		5	58.3	%	58	(50-150)		
LCS2	Chrysene-d12 (I)		5	89.9	%	90	(50-150)		
MBLK	Chrysene-d12 (I)			74.5	%	75	(50-150)		
MRL_CHK	Chrysene-d12 (I)		5	83.2	%	83	(50-150)		
LCS1	Di-(2-Ethylhexyl)adipate		2	2.07	ug/L	103	(70-130)		
LCS2	Di-(2-Ethylhexyl)adipate		2	2.24	ug/L	112	(70-130)	20	7.9
MBLK	Di-(2-Ethylhexyl)adipate			<0.6	ug/L				
MRL_CHK	Di-(2-Ethylhexyl)adipate		0.3	0.358	ug/L	119	(50-150)		
LCS1	Di(2-Ethylhexyl)phthalate		2	2.02	ug/L	101	(70-130)		
LCS2	Di(2-Ethylhexyl)phthalate		2	2.27	ug/L	113	(70-130)	20	12
MBLK	Di(2-Ethylhexyl)phthalate			<0.6	ug/L				
MRL_CHK	Di(2-Ethylhexyl)phthalate		0.6	0.824	ug/L	137	(50-150)		
LCS1	Hexachlorobenzene		2	1.93	ug/L	96	(70-130)		
LCS2	Hexachlorobenzene		2	1.96	ug/L	98	(70-130)	20	1.5
MBLK	Hexachlorobenzene			<0.05	ug/L				

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MRL_CHK	Hexachlorobenzene		0.05	0.0630	ug/L	126	(50-150)		
LCS1	Hexachlorocyclopentadiene		2	1.66	ug/L	83	(70-130)		
LCS2	Hexachlorocyclopentadiene		2	1.80	ug/L	90	(70-130)	20	8.1
MBLK	Hexachlorocyclopentadiene			<0.05	ug/L				
MRL_CHK	Hexachlorocyclopentadiene		0.05	0.0400	ug/L	80	(50-150)		
LCS1	Naphthalene		2	1.85	ug/L	93	(70-130)		
LCS2	Naphthalene		2	1.96	ug/L	98	(70-130)	20	5.8
MBLK	Naphthalene			<0.3	ug/L				
MRL_CHK	Naphthalene		0.1	0.105	ug/L	105	(50-150)		
LCS1	Perylene-d12 (S)		5	90.2	%	90	(70-130)		
LCS2	Perylene-d12 (S)		5	93.6	%	94	(70-130)		
MBLK	Perylene-d12 (S)			82.0	%	82	(70-130)		
MRL_CHK	Perylene-d12 (S)		5	83.4	%	83	(70-130)		
LCS1	Phenanthrene-d10 (I)		5	58.7	%	59	(50-150)		
LCS2	Phenanthrene-d10 (I)		5	88.6	%	89	(50-150)		
MBLK	Phenanthrene-d10 (I)			79.1	%	79	(50-150)		
MRL_CHK	Phenanthrene-d10 (I)		5	86.6	%	87	(50-150)		
LCS1	Simazine		2	2.18	ug/L	109	(70-130)		
LCS2	Simazine		2	2.09	ug/L	104	(70-130)	20	4.2
MBLK	Simazine			<0.05	ug/L				
MRL_CHK	Simazine		0.05	0.0520	ug/L	104	(50-150)		
LCS1	Triphenylphosphate (S)		5	97.6	%	98	(70-130)		
LCS2	Triphenylphosphate (S)		5	101	%	101	(70-130)		
MBLK	Triphenylphosphate (S)			93.2	%	93	(70-130)		
MRL_CHK	Triphenylphosphate (S)		5	95.6	%	96	(70-130)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

750 Royal Oaks Drive, Suite 100
Monrovia, California 91016-3629
Tel: (626) 386-1100
Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Laboratory Report

for

AECOM
1001 Bishop Street, Suite 1600
Honolulu, HI 96813-3908
Attention: Frank Cioffi
Fax: 808-524-0246

Date of Issue
01/06/2022

Rachelle Orada
EUROFINS EATON
ANALYTICAL, LLC



Utah ELCP CA00006

SZN3: Ivana Velez
Project Manager

Report: 977829
Project: SPECIAL
Group: RUSH Testing

* Accredited in accordance with TNI 2016 and ISO/IEC 17025:2017.

* Laboratory certifies that the test results meet all **TNI 2016 and ISO/IEC 17025:2017** requirements unless noted under the individual analysis.

* As applicable, this report consists of the cover page, State Certification List, ISO 17025 Accredited Method List, Acknowledgement of Samples Received, Comments, Hits Report, Data Report, QC Summary, QC Report and Regulatory Forms.

* Test results relate only to the sample(s) tested.

* Test results apply to the sample(s) as received, unless otherwise noted in the comments report (ISO/IEC 17025:2017).

* This report shall not be reproduced except in full, without the written approval of the laboratory.

* This report includes ISO/IEC 17025 and non-ISO 17025 accredited methods.

STATE CERTIFICATION LIST

State	Certification Number	State	Certification Number
Alabama	41060	Montana	Cert 0035
Arizona	AZ0778	Nebraska	NE-OS-21-13
Arkansas	CA00006	Nevada	CA00006
California	2813	New Hampshire *	2959
Colorado	CA00006	New Jersey *	CA 008
Connecticut	PH-0107	New Mexico	CA00006
Delaware	CA 006	New York *	11320
Florida *	E871024	North Carolina	06701
Georgia	947	North Dakota	R-009
Guam	21-008R	Ohio - 537.1	87786
Hawaii	CA00006	Oregon *	4034
Idaho	CA00006	Pennsylvania *	68-00565
Illinois	200033	Puerto Rico	CA00006
Indiana	C-CA-01	Rhode Island	LAO00326
Iowa – Asbestos	413	South Carolina	87016
Kansas *	E-10268	South Dakota	CA11320
Kentucky	90107	Tennessee	TN02839
Louisiana *	LA008	Texas *	T104704230-20-18
Maine	CA00006	Utah (Primary AB) *	CA00006
Maryland	224	Vermont	VT0114
Marianas Islands	MP0004	Virginia *	460260
Massachusetts	M-CA006	Washington	C838
Michigan	9906	EPA Region 5	CA00006
Mississippi	CA00006	Los Angeles County Sanitation Districts	10264

* NELAP/TNI Recognized Accreditation Bodies

ISO/IEC 17025:2917 Accredited Method List

The test listed below are accredited and met the requirements of ISO/IEC 17025 as verify by A2LA.

Refer to our certificates and scope of accreditations (no. 5890-1 and 5890-2) found at:

<https://www.eurofinsus.com/Eaton>

Test(s)	Method(s)	Potable Water *	Waste Water
Enterococci	Enterolert	x	x
<i>Escherichia coli</i> (Enumeration)	SM 9221 B.1 SM 9221 F	x	
Fecal Coliform (P/A and Enumeration)	SM 9221 C (MTF/EC), SM 9221 E (MTF/EC)	x	x
Fecal Streptococci and Enterococci	SM 9230 B	x	x
Heterotrophic Bacteria	SM 9215 B	x	
Legionella	Legiolert®	x	
<i>Pseudomonas aeruginosa</i>	Idexx Pseudalart	x	
Total Coliform (P/A and Enumeration)	SM 9221A, SM 9221B, SM 9221 C	x	x
Total Coliform, Total Coliform with Chlorine Present	SM 9221 B	x	x
Total Coliform/E. coli (P/A and Enumeration, Idexx Colilert, Idexx Colilert 18, Colisure)	SM 9223	x	
Total Microcystins and Nodularins	EPA 546	X	
Yeast and Mold	SM 9610	x	
1,2,3-Trichloropropane (TCP) at 5 PPT	CA SRL 524M-TCP	x	
1,4-Dioxane	EPA 522	x	
2,3,7,8-TCDD	Modified EPA 1613 B	x	
Acrylamide	* LCMS 2440)	x	
Algal Toxins/Microcystin	* LCMS 3570	x	
Alkalinity	SM 2320B	x	x
Ammonia	EPA 350.1, SM 4500-NH3 H		x
Asbestos	EPA 100.2	x	x
Bicarbonate Alkalinity as HCO3	SM 2330 B	x	x
BOD/CBOD	SM 5210 B		x
Bromate	* LCMS- 2447	x	
Carbonate as CO3	SM 2330 B	x	x
Carbonyls	EPA 556	x	x
Chemical Oxygen Demand	EPA 410.4, SM 5220D		x
Chlorinated Acids	EPA 515.4	x	
Chlorine Dioxide	Palin Test Chlordio X Plus, SM 4500-CLO2 D	x	
Chlorine, Free, Combined, Total Residual, Chloramines	SM 4500-CI G	x	
Color	SM2120B	x	
Conductivity	EPA 120.1, SM 2510B	x	x
Corrosivity (Langelier Index), Carbonate as CO3, Hydroxide as OH Calculated	SM 2330 B	x	
Cyanide (Amenable)	SM 4500-CN G	x	x
Cyanide (Free)	SM 4500CN F	x	x
Cyanide (Total)	EPA 335.4	x	x
Cyanogen Chloride (Screen)	* 335 Mod (WC-24467)	x	
Diquat and Paraquat	EPA 549.2	x	
DBP and HAA	SM 6251 B	x	
Dissolved Organic Carbon	SM 5310 C	x	
Dissolved Oxygen	SM 4500-O G		x
EDB/DCBP/TCP	EPA 504.1	x	
EDB/DBCP and Disinfection Byproducts	EPA 551.1	x	
EDTA and NTA	* WC-2454	x	
Endothall	EPA 548.1, *(LCMS-2445)	x	
Fluoride	SM 4500F C	x	x
Glyphosate	EPA 547	x	
Glyphosate and AMPA	* LCMS-3618	x	
Gross Alpha and Gross Beta	EPA 900.0	x	x

Test(s)	Method(s)	Potable Water *	Waste Water
Gross Alpha coprecipitation	SM 7110 C	x	x
Hardness	SM 2340 B	x	x
Hexavalent Chromium	EPA 218.6,	x	x
Hexavalent Chromium	EPA 218.7,	x	
Hexavalent Chromium	SM 3500-Cr B		x
Inorganic Anions and DBPs	EPA 300.0	x	x
Norganic Anions and DBPs	EPA 300.1	x	
Kjeldahl Nitrogen	EPA 351.2		x
Metals	EPA 200.7, EPA200.8	x	x
Nitrosamines	EEA-Agilent 521.1 (GCMS-24250)	x	
Nitrate/Nitrite Nitrogen	EPA 353.2	x	x
Odor	SM2150B	x	
Organohalide Pesticides and PCB	EPA 505	x	
Ortho Phosphate	SM 4500P E	x	
Oxyhalides Disinfection Byproducts	EPA 317.0	x	
Perchlorate	EPA 331.0	x	
Perchlorate (Low and High Levels)	EPA 314.0	x	
Perfluorinated Alkyl Acids	EPA 533, EPA 537, EPA 537.1	x	
PPCP and EDC	* LCMS-2443	x	
pH	EPA 150.1 SM 4500-H+ B	x	x
Phenolics – Low Level	*WC 2493 (EPA 420.2 and EPA 420.4 MOD)	x	x
Phenylurea Pesticides/Herbicides	* LCMS-2448	x	
Radium-226, Radium-228	GA Tech (Rad-2374)	x	
Radon-222	SM 7500RN	x	
Residue (Filterable)	SM 2540C	x	x
Residue (Non-Filterable)	SM 2540D		x
Residue (Total)	SM 2540B		x
Residue (Volatile)	EPA 160.4		x
Semi-Volatile Compounds	EPA 525.2	x	
Silica	SM 4500-SiO2 C	x	x
Sulfide	SM 4500-S D		x
Sulfite	SM 4500-SO3 B	x	x
Surfactants	SM 5540C	x	x
Taste and Odor	SM 6040 E	x	
Total Organic Carbon	SM 5310 C	x	x
Total Phenols	EPA 420.1		x
Total Phenols	EPA 420.4	x	x
Triazine Pesticides and their Degradates	* LCMS-3617	x	
Turbidity	EPA 180.1	x	x
Uranium by ICP/MS	EPA 200.8	x	
UV 254 Organic Constituents	SM 5910B	x	
VOCs	EPA 524.2	x	
VOCs	*(GCMS 2412) by EPA 524.2 modified	x	

(*) includes: Bottled Water, Drinking Water and Water as Component of Food & Beverage.

(+) In-House Method

Acknowledgement of Samples Received

Addr: **AECOM**1001 Bishop Street, Suite 1600
Honolulu, HI 96813-3908

Client ID: AECOM-HI

Folder #: 977829

Project: SPECIAL

Sample Group: RUSH Testing

Attn: Frank Cioffi
Phone: 808-529-7226Project Manager: Ivana Velez
Phone: 626-386-1123

The following samples were received from you on **December 30, 2021 at 11:58**. They have been scheduled for the tests listed below each sample. If this information is incorrect, please contact your service representative. Thank you for using Eurofins Eaton Analytical, LLC.

Sample #	Sample ID	Sample Date
202112300307	I1-DWS-TBI1-1324-122921-A	12/29/2021 0820
	@504LOW TB C @VOASDWA TB C	
202112300308	I1-DWS-I1-1324-122921-A	12/29/2021 0830
	@504LOW C @525_2-REG C @525PLUS C NAPHTHALENE_PLUS TIC	
	@ML505 @ML515.4 @VOASDWA C	
	Antimony Total ICAP/MS Arsenic Total ICAP/MS Barium Total ICAP/MS	
	Beryllium Total ICAP/MS Cadmium Total ICAP/MS Chromium Total ICAP/MS	
	Copper Total ICAP/MS Lead Total ICAP/MS Mercury ICPMS	
	Mercury ICPMS Nickel Total ICAP/MS Selenium Total ICAP/MS	
	Thallium Total ICAP/MS	

Test Description

@504LOW C -- EPA Method 504.1

@504LOW TB C -- EPA Method 504.1

@525_2-REG C -- Semivolatiles by GCMS

@525PLUS C NAPHTHALENE_PLUS TIC -- Semivolatiles by GCMS

@ML505 -- Organochlorine Pesticides/PCBs

@ML515.4 -- Chlorophenoxy Herbicides

@VOASDWA C -- Volatile Organics by GCMS

@VOASDWA TB C -- Volatile Organics by GCMS

Tel: (626) 386-1100
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Laboratory Comments

Report: 977829
Project: SPECIAL
Group: RUSH Testing

AECOM
Frank Cioffi
1001 Bishop Street, Suite 1600
Honolulu, HI 96813-3908

Folder Comments

202112300308 - @525.2 - Chromatogram examined for ions 142, 141, and 115 for 1- and 2-methylnaphthalene. No peaks identified. Examined ions 94, 66, and 65 for Phenol - no peaks identified however Phenol may elute during the solvent front prior to the MS turning on.

Same result for re-extract 202112300308A.

This report format displays both the MRL and MDL. Values between the MRL and MDL are "J" flagged. Estimated data is reported between MRL and unadjusted MDL. ND values are reported down to the unadjusted MDL.

Flags Legend:

BM - Target analyte detected in method blank above the MDL, but below the minimum reporting limit (MRL) and analyte not present in the sample, no impact on data.

Tel: (626) 386-1100
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Laboratory Hits

Report: 977829
Project: SPECIAL
Group: RUSH Testing

AECOM
 Frank Cioffi
 1001 Bishop Street, Suite 1600
 Honolulu, HI 96813-3908

Samples Received on:
 12/30/2021 11:58

Analyzed	Analyte	Sample ID	Result	Federal MCL	Units	MRL
	202112300308	<u>I1-DWS-I1-1324-122921-A</u>				
01/03/2022 16:28	Barium Total ICAP/MS		3.7	2000	ug/L	2.0
01/03/2022 16:28	Chromium Total ICAP/MS		1.4	100	ug/L	1.0
01/03/2022 16:28	Copper Total ICAP/MS		2.3	1300	ug/L	2.0

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Laboratory Data

Report: 977829
Project: SPECIAL
Group: RUSH Testing

AECOM
Frank Cioffi
1001 Bishop Street, Suite 1600
Honolulu, HI 96813-3908

Samples Received on:
12/30/2021 11:58

Prepared	Analyzed	Prep Batch	Analyze Batch	Method	Analyte	Result	Units	MDL	MRL	Dilution
I1-DWS-TBI1-1324-122921-A (202112300307)						Sampled on 12/29/2021 0820				
EPA 504.1 - EPA Method 504.1										
01/03/22	01/03/22 20:35	1376399	1377205	(EPA 504.1)	1,2,3-Trichloropropane	ND	ug/L	0.0090	0.020	1
01/03/22	01/03/22 20:35	1376399	1377205	(EPA 504.1)	1,2-Dibromo-3-chloropropane	ND	ug/L	0.0020	0.010	1
01/03/22	01/03/22 20:35	1376399	1377205	(EPA 504.1)	1,2-Dibromoethane	ND	ug/L	0.0050	0.010	1
01/03/22	01/03/22 20:35	1376399	1377205	(EPA 504.1)	1,2-Dibromopropane	111	%			1
EPA 524.2 - Volatile Organics by GCMS										
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.079	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.075	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.11	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.070	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.12	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.071	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	Benzene	ND	ug/L	0.12	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.087	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.066	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.14	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	Dichloromethane	ND	ug/L	0.074	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.11	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.23	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.076	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	o-Xylene	ND	ug/L	0.072	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.092	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	Styrene	ND	ug/L	0.11	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.28	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	Toluene	ND (BM)	ug/L	0.057	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	Total xylenes	ND	ug/L	0.30	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.10	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.097	0.50	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.077	0.30	1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	1,2-Dichloroethane-d4	111	%			1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	4-Bromofluorobenzene	87	%			1
01/04/22	01/04/22 17:21	1377515	1377524	(EPA 524.2)	Toluene-d8	90	%			1
I1-DWS-I1-1324-122921-A (202112300308)						Sampled on 12/29/2021 0830				

ND - Analyte was not detected at the calculated MDL.

J - The analyte was either detected at or greater than the MDL and less than the MRL, or did not meet any one of the required QC criteria.

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Laboratory Data

Report: 977829
Project: SPECIAL
Group: RUSH Testing

AECOM
Frank Cioffi
1001 Bishop Street, Suite 1600
Honolulu, HI 96813-3908

Samples Received on:
12/30/2021 11:58

Prepared	Analyzed	Prep Batch	Analyze Batch	Method	Analyte	Result	Units	MDL	MRL	Dilution
EPA 200.8 - ICPMS Metals										
01/03/22	01/03/22 16:28	1376893	1377100	(EPA 200.8)	Antimony Total ICAP/MS	ND	ug/L	0.11	1.0	1
01/03/22	01/03/22 16:28	1376893	1377100	(EPA 200.8)	Arsenic Total ICAP/MS	0.22J	ug/L	0.21	1.0	1
01/03/22	01/03/22 16:28	1376893	1377100	(EPA 200.8)	Barium Total ICAP/MS	3.7	ug/L	0.082	2.0	1
01/03/22	01/03/22 16:28	1376893	1377100	(EPA 200.8)	Beryllium Total ICAP/MS	ND	ug/L	0.091	1.0	1
01/03/22	01/03/22 16:28	1376893	1377100	(EPA 200.8)	Cadmium Total ICAP/MS	ND	ug/L	0.029	0.50	1
01/03/22	01/03/22 16:28	1376893	1377100	(EPA 200.8)	Chromium Total ICAP/MS	1.4	ug/L	0.51	1.0	1
01/03/22	01/03/22 16:28	1376893	1377100	(EPA 200.8)	Copper Total ICAP/MS	2.3	ug/L	0.36	2.0	1
01/03/22	01/03/22 16:28	1376893	1377100	(EPA 200.8)	Lead Total ICAP/MS	0.28J	ug/L	0.046	0.50	1
01/03/22	01/03/22 16:28	1376893	1377100	(EPA 200.8)	Selenium Total ICAP/MS	0.48J	ug/L	0.26	5.0	1
01/03/22	01/03/22 16:28	1376893	1377100	(EPA 200.8)	Thallium Total ICAP/MS	ND	ug/L	0.041	1.0	1
EPA 200.8 - Mercury ICPMS										
01/03/22	01/03/22 16:28	1376893	1377099	(EPA 200.8)	Mercury ICPMS	ND	ug/L	0.035	0.20	1
EPA 505 - Organochlorine Pesticides/PCBs										
01/04/22	01/04/22 07:57	1377114	1377418	(EPA 505)	Alachlor (Alanex)	ND	ug/L	0.041	0.10	1
01/04/22	01/04/22 07:57	1377114	1377418	(EPA 505)	Aldrin	ND	ug/L	0.0020	0.010	1
01/04/22	01/04/22 07:57	1377114	1377418	(EPA 505)	Chlordane	ND	ug/L	0.032	0.10	1
01/04/22	01/04/22 07:57	1377114	1377418	(EPA 505)	Endrin	ND	ug/L	0.0050	0.010	1
01/04/22	01/04/22 07:57	1377114	1377418	(EPA 505)	Heptachlor	ND	ug/L	0.0030	0.010	1
01/04/22	01/04/22 07:57	1377114	1377418	(EPA 505)	Heptachlor Epoxide	ND	ug/L	0.0050	0.010	1
01/04/22	01/04/22 07:57	1377114	1377418	(EPA 505)	Lindane (gamma-BHC)	ND	ug/L	0.0070	0.010	1
01/04/22	01/04/22 07:57	1377114	1377418	(EPA 505)	Methoxychlor	ND	ug/L	0.032	0.050	1
01/04/22	01/04/22 07:57	1377114	1377418	(EPA 505)	PCB 1016 Aroclor	ND	ug/L	0.022	0.080	1
01/04/22	01/04/22 07:57	1377114	1377418	(EPA 505)	PCB 1221 Aroclor	ND	ug/L	0.079	0.10	1
01/04/22	01/04/22 07:57	1377114	1377418	(EPA 505)	PCB 1232 Aroclor	ND	ug/L	0.085	0.10	1
01/04/22	01/04/22 07:57	1377114	1377418	(EPA 505)	PCB 1242 Aroclor	ND	ug/L	0.072	0.10	1
01/04/22	01/04/22 07:57	1377114	1377418	(EPA 505)	PCB 1248 Aroclor	ND	ug/L	0.023	0.10	1
01/04/22	01/04/22 07:57	1377114	1377418	(EPA 505)	PCB 1254 Aroclor	ND	ug/L	0.035	0.10	1
01/04/22	01/04/22 07:57	1377114	1377418	(EPA 505)	PCB 1260 Aroclor	ND	ug/L	0.033	0.10	1
01/04/22	01/04/22 07:57	1377114	1377418	(EPA 505)	Total PCBs	ND	ug/L	0.022	0.10	1
01/04/22	01/04/22 07:57	1377114	1377418	(EPA 505)	Tetrachlorometaxylene	98	%			1
EPA 515.4 - Chlorophenoxy Herbicides										
01/04/22	01/05/22 11:19	1377211	1377373	(EPA 515.4)	Pentachlorophenol	ND	ug/L	0.020	0.040	1
01/04/22	01/05/22 11:19	1377211	1377373	(EPA 515.4)	2,4-Dichlorophenyl acetic acid	100	%			1

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Samples Received on:
12/30/2021 11:58

Prepared	Analyzed	Prep Batch	Analyze Batch	Method	Analyte	Result	Units	MDL	MRL	Dilution
01/04/22	01/05/22 11:19	1377211	1377373	(EPA 515.4)	4,4-Dibromooctafluorobiphenyl	101	%			1
EPA 504.1 - EPA Method 504.1										
01/03/22	01/03/22 21:08	1376399	1377205	(EPA 504.1)	1,2,3-Trichloropropane	0.014J	ug/L	0.0090	0.020	1
01/03/22	01/03/22 21:08	1376399	1377205	(EPA 504.1)	1,2-Dibromo-3-chloropropane	ND	ug/L	0.0020	0.010	1
01/03/22	01/03/22 21:08	1376399	1377205	(EPA 504.1)	1,2-Dibromoethane	ND	ug/L	0.0050	0.010	1
01/03/22	01/03/22 21:08	1376399	1377205	(EPA 504.1)	1,2-Dibromopropane	109	%			1
EPA 525.2 - Semivolatiles by GCMS										
01/05/22	01/06/22 13:04	1377480	1377925	(EPA 525.2)	Alachlor	ND	ug/L	0.022	0.050	1
01/05/22	01/06/22 13:04	1377480	1377925	(EPA 525.2)	Atrazine	ND	ug/L	0.048	0.050	1
01/05/22	01/06/22 13:04	1377480	1377925	(EPA 525.2)	Benzo(a)pyrene	ND	ug/L	0.011	0.020	1
01/05/22	01/06/22 13:04	1377480	1377925	(EPA 525.2)	Di-(2-Ethylhexyl)adipate	ND	ug/L	0.063	0.60	1
01/05/22	01/06/22 13:04	1377480	1377925	(EPA 525.2)	Di-(2-Ethylhexyl)phthalate	ND	ug/L	0.15	0.60	1
01/05/22	01/06/22 13:04	1377480	1377925	(EPA 525.2)	Hexachlorobenzene	ND	ug/L	0.041	0.050	1
01/05/22	01/06/22 13:04	1377480	1377925	(EPA 525.2)	Hexachlorocyclopentadiene	ND	ug/L	0.038	0.050	1
01/05/22	01/06/22 13:04	1377480	1377925	(EPA 525.2)	Naphthalene	ND	ug/L	0.011	0.30	1
01/05/22	01/06/22 13:04	1377480	1377925	(EPA 525.2)	Simazine	ND	ug/L	0.028	0.050	1
01/05/22	01/06/22 13:04	1377480	1377925	(EPA 525.2)	1,3-Dimethyl-2-nitrobenzene	94	%			1
01/05/22	01/06/22 13:04	1377480	1377925	(EPA 525.2)	Acenaphthene-d10	84	%			1
01/05/22	01/06/22 13:04	1377480	1377925	(EPA 525.2)	Chrysene-d12	65	%			1
01/05/22	01/06/22 13:04	1377480	1377925	(EPA 525.2)	Perylene-d12	88	%			1
01/05/22	01/06/22 13:04	1377480	1377925	(EPA 525.2)	Phenanthrene-d10	85	%			1
01/05/22	01/06/22 13:04	1377480	1377925	(EPA 525.2)	Triphenylphosphate	99	%			1
EPA 524.2 - Volatile Organics by GCMS										
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	1,1,1-Trichloroethane	ND	ug/L	0.079	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	1,1,2-Trichloroethane	ND	ug/L	0.075	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	1,1-Dichloroethylene	ND	ug/L	0.11	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	1,2,4-Trichlorobenzene	ND	ug/L	0.070	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	1,2-Dichloroethane	ND	ug/L	0.12	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	1,2-Dichloropropane	ND	ug/L	0.071	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	Benzene	ND	ug/L	0.12	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	Carbon Tetrachloride	ND	ug/L	0.087	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	Chlorobenzene	ND	ug/L	0.066	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	cis-1,2-Dichloroethylene	ND	ug/L	0.14	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	Dichloromethane	ND	ug/L	0.074	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	Ethyl benzene	ND	ug/L	0.11	0.50	1

ND - Analyte was not detected at the calculated MDL.

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(c) - indicates calculated results. Analysis is a calculated result. Reported results are not rounded until the final step before reporting. Therefore methods that use a test result with further calculation may have slight differences in final result than the component analyses.

Tel: (626) 386-1100
Fax: (866) 988-3757
1 800 566 LABS (1 800 566 5227)

Laboratory Data

Report: 977829
Project: SPECIAL
Group: RUSH Testing

AECOM

Frank Cioffi
1001 Bishop Street, Suite 1600
Honolulu, HI 96813-3908

Samples Received on:
12/30/2021 11:58

Prepared	Analyzed	Prep Batch	Analyze Batch	Method	Analyte	Result	Units	MDL	MRL	Dilution
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	m,p-Xylenes	ND	ug/L	0.23	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	o-Dichlorobenzene (1,2-DCB)	ND	ug/L	0.076	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	o-Xylene	ND	ug/L	0.072	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	p-Dichlorobenzene (1,4-DCB)	ND	ug/L	0.092	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	Styrene	ND	ug/L	0.11	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	Tetrachloroethylene (PCE)	ND	ug/L	0.28	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	Toluene	ND (BM)	ug/L	0.057	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	Total xylenes	ND	ug/L	0.30	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	trans-1,2-Dichloroethylene	ND	ug/L	0.10	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	Trichloroethylene (TCE)	ND	ug/L	0.097	0.50	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	Vinyl chloride (VC)	ND	ug/L	0.077	0.30	1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	1,2-Dichloroethane-d4	105	%			1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	4-Bromofluorobenzene	86	%			1
01/04/22	01/04/22 15:52	1377515	1377524	(EPA 524.2)	Toluene-d8	95	%			1

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Laboratory QC Summary

Report: 977829
Project: SPECIAL
Group: RUSH Testing

AECOM

Mercury ICPMS

Prep Batch: 1376893 Analytical Batch: 1377099

202112300308 I1-DWS-I1-1324-122921-A

Analysis Date: 01/03/2022

Analyzed by: DHX7

ICPMS Metals

Prep Batch: 1376893 Analytical Batch: 1377100

202112300308 I1-DWS-I1-1324-122921-A

Analysis Date: 01/03/2022

Analyzed by: DHX7

EPA Method 504.1

Prep Batch: 1376399 Analytical Batch: 1377205

202112300307 I1-DWS-TBI1-1324-122921-A
202112300308 I1-DWS-I1-1324-122921-A

Analysis Date: 01/03/2022

Analyzed by: DYM

Analyzed by: DYM

Chlorophenoxy Herbicides

Prep Batch: 1377211 Analytical Batch: 1377373

202112300308 I1-DWS-I1-1324-122921-A

Analysis Date: 01/05/2022

Analyzed by: UGB2

Organochlorine Pesticides/PCBs

Prep Batch: 1377114 Analytical Batch: 1377418

202112300308 I1-DWS-I1-1324-122921-A

Analysis Date: 01/04/2022

Analyzed by: LRL

Volatile Organics by GCMS

Prep Batch: 1377515 Analytical Batch: 1377524

202112300307 I1-DWS-TBI1-1324-122921-A
202112300308 I1-DWS-I1-1324-122921-A

Analysis Date: 01/04/2022

Analyzed by: TR7W

Analyzed by: TR7W

Semivolatiles by GCMS

Prep Batch: 1377480 Analytical Batch: 1377925

202112300308 I1-DWS-I1-1324-122921-A

Analysis Date: 01/06/2022

Analyzed by: PAC

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Report: 977829
Project: SPECIAL
Group: RUSH Testing

AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
Mercury ICPMS by EPA 200.8									
Analytical Batch: 1377099					Analysis Date: 01/03/2022				
LCS1	Mercury ICPMS		0.75	0.744	ug/L	99	(85-115)		
LCS2	Mercury ICPMS		0.75	0.764	ug/L	102	(85-115)	20	2.6
MBLK	Mercury ICPMS			<0.1	ug/L				
MRL_CHK	Mercury ICPMS		0.2	0.157	ug/L	79	(50-150)		
MS_202112300308	Mercury ICPMS	ND	0.75	0.716	ug/L	95	(70-130)		
MSD_202112300308	Mercury ICPMS	ND	0.75	0.724	ug/L	96	(70-130)	20	1.1
ICPMS Metals by EPA 200.8									
Analytical Batch: 1377100					Analysis Date: 01/03/2022				
LCS1	Antimony Total ICAP/MS		50	52.0	ug/L	104	(85-115)		
LCS2	Antimony Total ICAP/MS		50	52.9	ug/L	106	(85-115)	20	1.7
MBLK	Antimony Total ICAP/MS			<0.2437	ug/L				
MRL_CHK	Antimony Total ICAP/MS		1	1.02	ug/L	102	(50-150)		
MS_202112300308	Antimony Total ICAP/MS	ND	50	54.8	ug/L	109	(70-130)		
MSD_202112300308	Antimony Total ICAP/MS	ND	50	55.9	ug/L	112	(70-130)	20	2.0
LCS1	Arsenic Total ICAP/MS		50	53.8	ug/L	108	(85-115)		
LCS2	Arsenic Total ICAP/MS		50	53.8	ug/L	108	(85-115)	20	0.19
MBLK	Arsenic Total ICAP/MS			<0.4134	ug/L				
MRL_CHK	Arsenic Total ICAP/MS		1	1.05	ug/L	105	(50-150)		
MS_202112300308	Arsenic Total ICAP/MS	ND	50	56.1	ug/L	112	(70-130)		
MSD_202112300308	Arsenic Total ICAP/MS	ND	50	56.4	ug/L	112	(70-130)	20	0.58
LCS1	Barium Total ICAP/MS		50	55.3	ug/L	111	(85-115)		
LCS2	Barium Total ICAP/MS		50	55.5	ug/L	111	(85-115)	20	0.36
MBLK	Barium Total ICAP/MS			<0.1886	ug/L				
MRL_CHK	Barium Total ICAP/MS		2	1.91	ug/L	95	(50-150)		
MS_202112300308	Barium Total ICAP/MS	3.7	50	58.2	ug/L	109	(70-130)		
MSD_202112300308	Barium Total ICAP/MS	3.7	50	59.2	ug/L	111	(70-130)	20	1.7
LCS1	Beryllium Total ICAP/MS		25	26.8	ug/L	107	(85-115)		
LCS2	Beryllium Total ICAP/MS		25	27.3	ug/L	109	(85-115)	20	1.9
MBLK	Beryllium Total ICAP/MS			<0.1106	ug/L				
MRL_CHK	Beryllium Total ICAP/MS		1	0.954	ug/L	95	(50-150)		
MS_202112300308	Beryllium Total ICAP/MS	ND	25	28.8	ug/L	115	(70-130)		
MSD_202112300308	Beryllium Total ICAP/MS	ND	25	28.5	ug/L	114	(70-130)	20	0.91
LCS1	Cadmium Total ICAP/MS		25	26.5	ug/L	106	(85-115)		
LCS2	Cadmium Total ICAP/MS		25	26.7	ug/L	107	(85-115)	20	0.75
MBLK	Cadmium Total ICAP/MS			<0.0546	ug/L				

Spike recovery is already corrected for native results.

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Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

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Report: 977829
Project: SPECIAL
Group: RUSH Testing

AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MRL_CHK	Cadmium Total ICAP/MS		0.5	0.454	ug/L	91	(50-150)		
MS_202112300308	Cadmium Total ICAP/MS	ND	25	26.8	ug/L	107	(70-130)		
MSD_202112300308	Cadmium Total ICAP/MS	ND	25	27.2	ug/L	109	(70-130)	20	1.7
LCS1	Chromium Total ICAP/MS		50	54.3	ug/L	109	(85-115)		
LCS2	Chromium Total ICAP/MS		50	53.4	ug/L	107	(85-115)	20	1.7
MBLK	Chromium Total ICAP/MS			<0.580	ug/L				
MRL_CHK	Chromium Total ICAP/MS		1	0.908	ug/L	91	(50-150)		
MS_202112300308	Chromium Total ICAP/MS	1.4	50	54.2	ug/L	106	(70-130)		
MSD_202112300308	Chromium Total ICAP/MS	1.4	50	53.6	ug/L	104	(70-130)	20	1.2
LCS1	Copper Total ICAP/MS		50	56.5	ug/L	113	(85-115)		
LCS2	Copper Total ICAP/MS		50	56.1	ug/L	112	(85-115)	20	0.71
MBLK	Copper Total ICAP/MS			<1.343	ug/L				
MRL_CHK	Copper Total ICAP/MS		2	1.96	ug/L	98	(50-150)		
MS_202112300308	Copper Total ICAP/MS	2.3	50	56.3	ug/L	108	(70-130)		
MSD_202112300308	Copper Total ICAP/MS	2.3	50	56.0	ug/L	107	(70-130)	20	0.47
LCS1	Lead Total ICAP/MS		50	53.7	ug/L	107	(85-115)		
LCS2	Lead Total ICAP/MS		50	55.1	ug/L	110	(85-115)	20	2.6
MBLK	Lead Total ICAP/MS			<0.0608	ug/L				
MRL_CHK	Lead Total ICAP/MS		0.5	0.481	ug/L	96	(50-150)		
MS_202112300308	Lead Total ICAP/MS	ND	50	52.8	ug/L	105	(70-130)		
MSD_202112300308	Lead Total ICAP/MS	ND	50	52.8	ug/L	105	(70-130)	20	0.027
LCS1	Selenium Total ICAP/MS		50	54.4	ug/L	109	(85-115)		
LCS2	Selenium Total ICAP/MS		50	54.2	ug/L	108	(85-115)	20	0.37
MBLK	Selenium Total ICAP/MS			<0.6224	ug/L				
MRL_CHK	Selenium Total ICAP/MS		5	4.93	ug/L	99	(50-150)		
MS_202112300308	Selenium Total ICAP/MS	ND	50	60.3	ug/L	120	(70-130)		
MSD_202112300308	Selenium Total ICAP/MS	ND	50	60.3	ug/L	120	(70-130)	20	0.005 0
LCS1	Thallium Total ICAP/MS		50	52.1	ug/L	104	(85-115)		
LCS2	Thallium Total ICAP/MS		50	53.1	ug/L	106	(85-115)	20	1.9
MBLK	Thallium Total ICAP/MS			<0.1449	ug/L				
MRL_CHK	Thallium Total ICAP/MS		1	0.948	ug/L	95	(50-150)		
MS_202112300308	Thallium Total ICAP/MS	ND	50	48.8	ug/L	98	(70-130)		
MSD_202112300308	Thallium Total ICAP/MS	ND	50	49.2	ug/L	98	(70-130)	20	0.78

EPA Method 504.1 by EPA 504.1

Analytical Batch: 1377205

Analysis Date: 01/03/2022

CCCH	1,2,3-Trichloropropane	1.3	1.27	ug/L	102	(70-130)
CCCM2	1,2,3-Trichloropropane	0.25	0.256	ug/L	103	(70-130)

Spike recovery is already corrected for native results.

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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Report: 977829
Project: SPECIAL
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AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
DUP_202112300305	1,2,3-Trichloropropane	ND		ND	ug/L		(0-20)		
LCS2	1,2,3-Trichloropropane		0.2	0.209	ug/L	105	(70-130)		
MBLK	1,2,3-Trichloropropane			0	ug/L				
MRL_CHK	1,2,3-Trichloropropane		0.05	0.0524	ug/L	105	(60-140)		
MRLLW	1,2,3-Trichloropropane		0.02	0.0249	ug/L	124	(60-140)		
MS_202112290234	1,2,3-Trichloropropane	ND	1.3	1.27	ug/L	102	(65-135)		
CCCH	1,2-Dibromo-3-chloropropane		0.25	0.250	ug/L	100	(70-130)		
CCCM2	1,2-Dibromo-3-chloropropane		0.05	0.0508	ug/L	102	(70-130)		
DUP_202112300305	1,2-Dibromo-3-chloropropane	ND		ND	ug/L		(0-20)		
LCS2	1,2-Dibromo-3-chloropropane		0.2	0.207	ug/L	103	(70-130)		
MBLK	1,2-Dibromo-3-chloropropane			0	ug/L				
MRL_CHK	1,2-Dibromo-3-chloropropane		0.01	0.0104	ug/L	104	(60-140)		
MS_202112290234	1,2-Dibromo-3-chloropropane	ND	0.25	0.249	ug/L	100	(65-135)		
CCCH	1,2-Dibromoethane		0.25	0.254	ug/L	101	(70-130)		
CCCM2	1,2-Dibromoethane		0.05	0.0515	ug/L	103	(70-130)		
DUP_202112300305	1,2-Dibromoethane	ND		ND	ug/L		(0-20)		
LCS2	1,2-Dibromoethane		0.2	0.208	ug/L	104	(70-130)		
MBLK	1,2-Dibromoethane			0	ug/L				
MRL_CHK	1,2-Dibromoethane		0.01	0.0104	ug/L	104	(60-140)		
MS_202112290234	1,2-Dibromoethane	ND	0.25	0.253	ug/L	101	(65-135)		
CCCH	1,2-Dibromopropane (S)		100	108	%	108	(60-140)		
CCCM2	1,2-Dibromopropane (S)		100	99.8	%	100	(60-140)		
DUP_202112300305	1,2-Dibromopropane (S)		100	101	%	101	(60-140)		
LCS2	1,2-Dibromopropane (S)		100	108	%	108	(60-140)		
MBLK	1,2-Dibromopropane (S)			100	%	101	(60-140)		
MRL_CHK	1,2-Dibromopropane (S)		100	105	%	105	(60-140)		
MRLLW	1,2-Dibromopropane (S)		100	104	%	104	(60-140)		
MS_202112290234	1,2-Dibromopropane (S)		100	105	%	105	(60-140)		

Chlorophenoxy Herbicides by EPA 515.4

Prep Batch: 1377211 Analytical Batch: 1377373

Analysis Date: 01/05/2022

CCC3	2,4-Dichlorophenyl acetic acid (S)	100	97.4	%	97	(70-130)
CCCH	2,4-Dichlorophenyl acetic acid (S)	10	98.0	%	98	(70-130)
CCCM	2,4-Dichlorophenyl acetic acid (S)	2.5	95.1	%	95	(70-130)
MBLK	2,4-Dichlorophenyl acetic acid (S)		110	%	110	(70-130)
MRL_CHK	2,4-Dichlorophenyl acetic acid (S)		106	%	106	(70-130)
MS1_202112170041	2,4-Dichlorophenyl acetic acid (S)		99.3	%	99	(70-130)
MSD1_202112170041	2,4-Dichlorophenyl acetic acid (S)		94.7	%	95	(70-130)

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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Report: 977829
Project: SPECIAL
Group: RUSH Testing

AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
CCC3	4,4-Dibromooctafluorobiphenyl (I)		100	112	%	112	(50-150)		
CCCH	4,4-Dibromooctafluorobiphenyl (I)			101	%	101	(50-150)		
CCCM	4,4-Dibromooctafluorobiphenyl (I)			104	%	104	(50-150)		
MBLK	4,4-Dibromooctafluorobiphenyl (I)			95.1	%	95	(50-150)		
MRL_CHK	4,4-Dibromooctafluorobiphenyl (I)		100	93.9	%	94	(50-150)		
MS1_202112170041	4,4-Dibromooctafluorobiphenyl (I)		100	93.2	%	93	(50-150)		
MSD1_202112170041	4,4-Dibromooctafluorobiphenyl (I)			95.4	%	95	(50-150)		
CCC3	Pentachlorophenol		0.8	0.856	ug/L	107	(70-130)		
CCCH	Pentachlorophenol		0.8	0.804	ug/L	100	(70-130)		
CCCM	Pentachlorophenol		0.2	0.201	ug/L	100	(70-130)		
MBLK	Pentachlorophenol			<0.013	ug/L				
MRL_CHK	Pentachlorophenol		0.04	0.0447	ug/L	112	(50-150)		
MS1_202112170041	Pentachlorophenol	ND	0.6	0.316	ug/L	<u>52</u>	(70-130)		
MSD1_202112170041	Pentachlorophenol	ND	0.6	0.384	ug/L	<u>63</u>	(70-130)	30	20

Organochlorine Pesticides/PCBs by EPA 505

Prep Batch: 1377114 Analytical Batch: 1377418

Analysis Date: 01/04/2022

CCCH	Alachlor (Alanex)		1	0.982	ug/L	98	(70-130)		
CCCH	Alachlor (Alanex)		1	1.01	ug/L	101	(70-130)		
LCS1	Alachlor (Alanex)		1	0.923	ug/L	92	(70-130)		
MBLK	Alachlor (Alanex)			<0.1	ug/L				
MRL_CHK	Alachlor (Alanex)		0.1	0.100	ug/L	100	(50-150)		
MS1_202112280039	Alachlor (Alanex)	ND	0.2	0.200	ug/L	100	(65-135)		
MS2_202112300354	Alachlor (Alanex)	ND	1	0.976	ug/L	98	(65-135)		
CCCH	Aldrin		0.1	0.0998	ug/L	100	(70-130)		
CCCH	Aldrin		0.1	0.0974	ug/L	97	(70-130)		
LCS1	Aldrin		0.1	0.0986	ug/L	99	(70-130)		
MBLK	Aldrin			<0.01	ug/L				
MRL_CHK	Aldrin		0.01	0.00910	ug/L	91	(50-150)		
MS1_202112280039	Aldrin	ND	0.02	0.0203	ug/L	101	(65-135)		
MS2_202112300354	Aldrin	ND	0.1	0.0972	ug/L	97	(65-135)		
CCCH	Chlordane		0.5	0.505	ug/L	101	(70-130)		
LCS1	Chlordane		0.5	0.580	ug/L	116	(70-130)		
MBLK	Chlordane			<0.1	ug/L				
MRL_CHK	Chlordane		0.1	0.0949	ug/L	95	(50-150)		
MS1_202112280039	Chlordane	ND	0.5	0.476	ug/L	95	(65-135)		
MS2_202112300354	Chlordane	ND	0.5	0.506	ug/L	101	(65-135)		
CCCH	Endrin		0.1	0.106	ug/L	106	(70-130)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

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Report: 977829
Project: SPECIAL
Group: RUSH Testing

AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
CCCH	Endrin		0.1	0.107	ug/L	107	(70-130)		
LCS1	Endrin		0.1	0.0940	ug/L	94	(70-130)		
MBLK	Endrin			<0.01	ug/L				
MRL_CHK	Endrin		0.01	0.00940	ug/L	94	(50-150)		
MS1_202112280039	Endrin	ND	0.02	0.0193	ug/L	95	(65-135)		
MS2_202112300354	Endrin	ND	0.1	0.104	ug/L	104	(65-135)		
CCCH	Heptachlor		0.1	0.101	ug/L	101	(70-130)		
CCCH	Heptachlor		0.1	0.101	ug/L	101	(70-130)		
LCS1	Heptachlor		0.1	0.0945	ug/L	95	(70-130)		
MBLK	Heptachlor			<0.01	ug/L				
MRL_CHK	Heptachlor		0.01	0.00870	ug/L	87	(50-150)		
MS1_202112280039	Heptachlor	ND	0.02	0.0192	ug/L	96	(65-135)		
MS2_202112300354	Heptachlor	ND	0.1	0.0980	ug/L	98	(65-135)		
CCCH	Heptachlor Epoxide		0.1	0.0993	ug/L	99	(70-130)		
CCCH	Heptachlor Epoxide		0.1	0.101	ug/L	101	(70-130)		
LCS1	Heptachlor Epoxide		0.1	0.0940	ug/L	94	(70-130)		
MBLK	Heptachlor Epoxide			<0.01	ug/L				
MRL_CHK	Heptachlor Epoxide		0.01	0.0110	ug/L	110	(50-150)		
MS1_202112280039	Heptachlor Epoxide	ND	0.02	0.0219	ug/L	110	(65-135)		
MS2_202112300354	Heptachlor Epoxide	ND	0.1	0.0973	ug/L	97	(65-135)		
CCCH	Lindane (gamma-BHC)		0.1	0.0989	ug/L	99	(70-130)		
CCCH	Lindane (gamma-BHC)		0.1	0.100	ug/L	100	(70-130)		
LCS1	Lindane (gamma-BHC)		0.1	0.0956	ug/L	96	(70-130)		
MBLK	Lindane (gamma-BHC)			<0.01	ug/L				
MRL_CHK	Lindane (gamma-BHC)		0.01	0.00950	ug/L	95	(50-150)		
MS1_202112280039	Lindane (gamma-BHC)	ND	0.02	0.0192	ug/L	96	(65-135)		
MS2_202112300354	Lindane (gamma-BHC)	ND	0.1	0.0976	ug/L	98	(65-135)		
CCCH	Methoxychlor		0.5	0.505	ug/L	101	(70-130)		
CCCH	Methoxychlor		0.5	0.525	ug/L	105	(70-130)		
LCS1	Methoxychlor		0.5	0.444	ug/L	89	(70-130)		
MBLK	Methoxychlor			<0.05	ug/L				
MRL_CHK	Methoxychlor		0.05	0.0573	ug/L	115	(50-150)		
MS1_202112280039	Methoxychlor	ND	0.1	0.0971	ug/L	92	(65-135)		
MS2_202112300354	Methoxychlor	ND	0.5	0.502	ug/L	99	(65-135)		
MBLK	PCB 1016 Aroclor			<0.08	ug/L				
MBLK	PCB 1221 Aroclor			<0.1	ug/L				
MBLK	PCB 1232 Aroclor			<0.1	ug/L				
MBLK	PCB 1242 Aroclor			<0.1	ug/L				

Spike recovery is already corrected for native results.

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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Report: 977829
Project: SPECIAL
Group: RUSH Testing

AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MBLK	PCB 1248 Aroclor			<0.1	ug/L				
MBLK	PCB 1254 Aroclor			<0.1	ug/L				
MBLK	PCB 1260 Aroclor			<0.1	ug/L				
CCCH	Tetrachlorometaxylene (S)			104	%	104	(70-130)		
CCCH	Tetrachlorometaxylene (S)			98.4	%	98	(70-130)		
LCS1	Tetrachlorometaxylene (S)			95.1	%	95	(70-130)		
MBLK	Tetrachlorometaxylene (S)			104	%	104	(70-130)		
MRL_CHK	Tetrachlorometaxylene (S)			97.9	%	98	(70-130)		
MS1_202112280039	Tetrachlorometaxylene (S)			95.6	%	96	(70-130)		
MS2_202112300354	Tetrachlorometaxylene (S)			94.0	%	94	(70-130)		

Volatile Organics by GCMS by EPA 524.2

Analytical Batch: 1377524

Analysis Date: 01/04/2022

LCS1	1,1,1-Trichloroethane	5	4.28	ug/L	86	(70-130)		
LCS2	1,1,1-Trichloroethane	5	4.76	ug/L	95	(70-130)	20	11
MBLK	1,1,1-Trichloroethane		<0.5	ug/L				
MRL_CHK	1,1,1-Trichloroethane	0.5	0.520	ug/L	104	(50-150)		
LCS1	1,1,2-Trichloroethane	5	4.65	ug/L	93	(70-130)		
LCS2	1,1,2-Trichloroethane	5	5.06	ug/L	101	(70-130)	20	8.4
MBLK	1,1,2-Trichloroethane		<0.5	ug/L				
MRL_CHK	1,1,2-Trichloroethane	0.5	0.530	ug/L	106	(50-150)		
LCS1	1,1-Dichloroethylene	5	4.44	ug/L	89	(70-130)		
LCS2	1,1-Dichloroethylene	5	4.80	ug/L	96	(70-130)	20	7.8
MBLK	1,1-Dichloroethylene		<0.5	ug/L				
MRL_CHK	1,1-Dichloroethylene	0.5	0.550	ug/L	110	(50-150)		
LCS1	1,2,4-Trichlorobenzene	5	4.95	ug/L	99	(70-130)		
LCS2	1,2,4-Trichlorobenzene	5	4.76	ug/L	95	(70-130)	20	3.9
MBLK	1,2,4-Trichlorobenzene		<0.5	ug/L				
MRL_CHK	1,2,4-Trichlorobenzene	0.5	0.640	ug/L	128	(50-150)		
LCS1	1,2-Dichloroethane	5	5.07	ug/L	101	(70-130)		
LCS2	1,2-Dichloroethane	5	5.54	ug/L	111	(70-130)	20	8.9
MBLK	1,2-Dichloroethane		<0.5	ug/L				
MRL_CHK	1,2-Dichloroethane	0.5	0.500	ug/L	100	(50-150)		
LCS1	1,2-Dichloroethane-d4 (S)	5	102	%	102	(70-130)		
LCS2	1,2-Dichloroethane-d4 (S)	5	102	%	102	(70-130)		
MBLK	1,2-Dichloroethane-d4 (S)		107	%	107	(70-130)		
MRL_CHK	1,2-Dichloroethane-d4 (S)	5	98.2	%	98	(70-130)		
MRLLW	1,2-Dichloroethane-d4 (S)	5	95.0	%	95	(70-130)		

Spike recovery is already corrected for native results.

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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Report: 977829
Project: SPECIAL
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AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
LCS1	1,2-Dichloropropane		5	4.93	ug/L	99	(70-130)		
LCS2	1,2-Dichloropropane		5	5.14	ug/L	103	(70-130)	20	4.2
MBLK	1,2-Dichloropropane			<0.5	ug/L				
MRL_CHK	1,2-Dichloropropane		0.5	0.540	ug/L	108	(50-150)		
LCS1	4-Bromofluorobenzene (S)		5	97.8	%	98	(70-130)		
LCS2	4-Bromofluorobenzene (S)		5	93.2	%	93	(70-130)		
MBLK	4-Bromofluorobenzene (S)			95.0	%	95	(70-130)		
MRL_CHK	4-Bromofluorobenzene (S)		5	105	%	105	(70-130)		
MRL_W	4-Bromofluorobenzene (S)		5	99.6	%	100	(70-130)		
LCS1	Benzene		5	4.71	ug/L	94	(70-130)		
LCS2	Benzene		5	5.04	ug/L	101	(70-130)	20	6.8
MBLK	Benzene			<0.5	ug/L				
MRL_CHK	Benzene		0.5	0.520	ug/L	104	(50-150)		
LCS1	Carbon Tetrachloride		5	4.29	ug/L	86	(70-130)		
LCS2	Carbon Tetrachloride		5	4.68	ug/L	94	(70-130)	20	8.7
MBLK	Carbon Tetrachloride			<0.5	ug/L				
MRL_CHK	Carbon Tetrachloride		0.5	0.440	ug/L	88	(50-150)		
LCS1	Chlorobenzene		5	4.95	ug/L	99	(70-130)		
LCS2	Chlorobenzene		5	5.32	ug/L	106	(70-130)	20	7.2
MBLK	Chlorobenzene			<0.5	ug/L				
MRL_CHK	Chlorobenzene		0.5	0.510	ug/L	102	(50-150)		
LCS1	cis-1,2-Dichloroethylene		5	4.83	ug/L	97	(70-130)		
LCS2	cis-1,2-Dichloroethylene		5	4.97	ug/L	99	(70-130)	20	2.9
MBLK	cis-1,2-Dichloroethylene			<0.5	ug/L				
MRL_CHK	cis-1,2-Dichloroethylene		0.5	0.520	ug/L	104	(50-150)		
LCS1	Dichloromethane		5	5.02	ug/L	100	(70-130)		
LCS2	Dichloromethane		5	5.10	ug/L	102	(70-130)	20	1.6
MBLK	Dichloromethane			<0.5	ug/L				
MRL_CHK	Dichloromethane		0.5	0.590	ug/L	118	(50-150)		
LCS1	Ethyl benzene		5	4.69	ug/L	94	(70-130)		
LCS2	Ethyl benzene		5	5.01	ug/L	100	(70-130)	20	6.6
MBLK	Ethyl benzene			<0.5	ug/L				
MRL_CHK	Ethyl benzene		0.5	0.440	ug/L	88	(50-150)		
LCS1	m,p-Xylenes		10	9.53	ug/L	95	(70-130)		
LCS2	m,p-Xylenes		10	10.4	ug/L	104	(70-130)	20	8.7
MBLK	m,p-Xylenes			<0.5	ug/L				
MRL_CHK	m,p-Xylenes		1	0.810	ug/L	81	(50-150)		
MRL_W	m,p-Xylenes		0.5	0.540	ug/L	108	(50-150)		

Spike recovery is already corrected for native results.

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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Report: 977829
Project: SPECIAL
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AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
LCS1	o-Dichlorobenzene (1,2-DCB)		5	4.80	ug/L	96	(70-130)		
LCS2	o-Dichlorobenzene (1,2-DCB)		5	4.96	ug/L	99	(70-130)	20	3.3
MBLK	o-Dichlorobenzene (1,2-DCB)			<0.5	ug/L				
MRL_CHK	o-Dichlorobenzene (1,2-DCB)		0.5	0.560	ug/L	112	(50-150)		
LCS1	o-Xylene		5	4.58	ug/L	92	(70-130)		
LCS2	o-Xylene		5	4.93	ug/L	99	(70-130)	20	7.4
MBLK	o-Xylene			<0.5	ug/L				
MRL_CHK	o-Xylene		0.5	0.400	ug/L	80	(50-150)		
LCS1	p-Dichlorobenzene (1,4-DCB)		5	4.81	ug/L	96	(70-130)		
LCS2	p-Dichlorobenzene (1,4-DCB)		5	4.87	ug/L	97	(70-130)	20	1.2
MBLK	p-Dichlorobenzene (1,4-DCB)			<0.5	ug/L				
MRL_CHK	p-Dichlorobenzene (1,4-DCB)		0.5	0.600	ug/L	120	(50-150)		
LCS1	Styrene		5	4.54	ug/L	91	(70-130)		
LCS2	Styrene		5	5.04	ug/L	101	(70-130)	20	10
MBLK	Styrene			<0.5	ug/L				
MRL_CHK	Styrene		0.5	0.380	ug/L	76	(50-150)		
LCS1	Tetrachloroethylene (PCE)		5	4.50	ug/L	90	(70-130)		
LCS2	Tetrachloroethylene (PCE)		5	4.88	ug/L	98	(70-130)	20	8.1
MBLK	Tetrachloroethylene (PCE)			<0.5	ug/L				
MRL_CHK	Tetrachloroethylene (PCE)		0.5	0.480	ug/L	96	(50-150)		
LCS1	Toluene		5	4.37	ug/L	87	(70-130)		
LCS2	Toluene		5	4.63	ug/L	93	(70-130)	20	5.8
MBLK	Toluene			<0.5	ug/L				
MRL_CHK	Toluene		0.5	0.650	ug/L	130	(50-150)		
LCS1	Toluene-d8 (S)		5	102	%	102	(70-130)		
LCS2	Toluene-d8 (S)		5	105	%	105	(70-130)		
MBLK	Toluene-d8 (S)			92.2	%	92	(70-130)		
MRL_CHK	Toluene-d8 (S)		5	93.4	%	93	(70-130)		
MRL_W	Toluene-d8 (S)		5	98.2	%	98	(70-130)		
LCS1	trans-1,2-Dichloroethylene		5	4.89	ug/L	98	(70-130)		
LCS2	trans-1,2-Dichloroethylene		5	4.91	ug/L	98	(70-130)	20	0.41
MBLK	trans-1,2-Dichloroethylene			<0.5	ug/L				
MRL_CHK	trans-1,2-Dichloroethylene		0.5	0.520	ug/L	104	(50-150)		
LCS1	Trichloroethylene (TCE)		5	4.59	ug/L	92	(70-130)		
LCS2	Trichloroethylene (TCE)		5	5.15	ug/L	103	(70-130)	20	12
MBLK	Trichloroethylene (TCE)			<0.5	ug/L				
MRL_CHK	Trichloroethylene (TCE)		0.5	0.540	ug/L	108	(50-150)		
LCS1	Vinyl chloride (VC)		5	5.10	ug/L	102	(70-130)		

Spike recovery is already corrected for native results.

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RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

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Report: 977829
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AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
LCS2	Vinyl chloride (VC)		5	5.02	ug/L	100	(70-130)	20	1.6
MBLK	Vinyl chloride (VC)			<0.3	ug/L				
MRL_CHK	Vinyl chloride (VC)		0.5	0.440	ug/L	88	(50-150)		
MRLW	Vinyl chloride (VC)		0.25	0.220	ug/L	88	(50-150)		

Semivolatiles by GCMS by EPA 525.2

Prep Batch: 1377480 Analytical Batch: 1377925

Analysis Date: 01/06/2022

LCS1	1,3-Dimethyl-2-nitrobenzene (S)		5	87.0	%	87	(70-130)		
LCS2	1,3-Dimethyl-2-nitrobenzene (S)		5	94.2	%	94	(70-130)		
MBLK	1,3-Dimethyl-2-nitrobenzene (S)			93.8	%	94	(70-130)		
MRL_CHK	1,3-Dimethyl-2-nitrobenzene (S)		5	93.8	%	94	(70-130)		
LCS1	Acenaphthene-d10 (I)		5	55.7	%	56	(50-150)		
LCS2	Acenaphthene-d10 (I)		5	88.3	%	88	(50-150)		
MBLK	Acenaphthene-d10 (I)			79.3	%	79	(50-150)		
MRL_CHK	Acenaphthene-d10 (I)		5	84.0	%	84	(50-150)		
LCS1	Alachlor		2	2.14	ug/L	107	(70-130)		
LCS2	Alachlor		2	2.17	ug/L	108	(70-130)	20	0.93
MBLK	Alachlor			<0.05	ug/L				
MRL_CHK	Alachlor		0.05	0.0610	ug/L	122	(50-150)		
LCS1	Atrazine		2	2.09	ug/L	104	(70-130)		
LCS2	Atrazine		2	2.04	ug/L	102	(70-130)	20	2.4
MBLK	Atrazine			<0.05	ug/L				
MRL_CHK	Atrazine		0.05	0.0570	ug/L	114	(50-150)		
LCS1	Benzo(a)pyrene		2	1.92	ug/L	96	(70-130)		
LCS2	Benzo(a)pyrene		2	1.96	ug/L	98	(70-130)	20	2.1
MBLK	Benzo(a)pyrene			<0.02	ug/L				
MRL_CHK	Benzo(a)pyrene		0.02	0.0210	ug/L	105	(50-150)		
LCS1	Chrysene-d12 (I)		5	58.3	%	58	(50-150)		
LCS2	Chrysene-d12 (I)		5	89.9	%	90	(50-150)		
MBLK	Chrysene-d12 (I)			74.5	%	75	(50-150)		
MRL_CHK	Chrysene-d12 (I)		5	83.2	%	83	(50-150)		
LCS1	Di-(2-Ethylhexyl)adipate		2	2.07	ug/L	103	(70-130)		
LCS2	Di-(2-Ethylhexyl)adipate		2	2.24	ug/L	112	(70-130)	20	7.9
MBLK	Di-(2-Ethylhexyl)adipate			<0.6	ug/L				
MRL_CHK	Di-(2-Ethylhexyl)adipate		0.3	0.358	ug/L	119	(50-150)		
LCS1	Di(2-Ethylhexyl)phthalate		2	2.02	ug/L	101	(70-130)		
LCS2	Di(2-Ethylhexyl)phthalate		2	2.27	ug/L	113	(70-130)	20	12
MBLK	Di(2-Ethylhexyl)phthalate			<0.6	ug/L				

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.

Tel: (626) 386-1100
Fax: (626) 988-3757
1 800 566 LABS (1 800 566 5227)

Report: 977829
Project: SPECIAL
Group: RUSH Testing

AECOM

QC Type	Analyte	Native	Spiked	Recovered	Units	Yield(%)	Limits (%)	RPD Limit(%)	RPD%
MRL_CHK	Di(2-Ethylhexyl)phthalate		0.6	0.824	ug/L	137	(50-150)		
LCS1	Hexachlorobenzene		2	1.93	ug/L	96	(70-130)		
LCS2	Hexachlorobenzene		2	1.96	ug/L	98	(70-130)	20	1.5
MBLK	Hexachlorobenzene			<0.05	ug/L				
MRL_CHK	Hexachlorobenzene		0.05	0.0630	ug/L	126	(50-150)		
LCS1	Hexachlorocyclopentadiene		2	1.66	ug/L	83	(70-130)		
LCS2	Hexachlorocyclopentadiene		2	1.80	ug/L	90	(70-130)	20	8.1
MBLK	Hexachlorocyclopentadiene			<0.05	ug/L				
MRL_CHK	Hexachlorocyclopentadiene		0.05	0.0400	ug/L	80	(50-150)		
LCS1	Naphthalene		2	1.85	ug/L	93	(70-130)		
LCS2	Naphthalene		2	1.96	ug/L	98	(70-130)	20	5.8
MBLK	Naphthalene			<0.3	ug/L				
MRL_CHK	Naphthalene		0.1	0.105	ug/L	105	(50-150)		
LCS1	Perylene-d12 (S)		5	90.2	%	90	(70-130)		
LCS2	Perylene-d12 (S)		5	93.6	%	94	(70-130)		
MBLK	Perylene-d12 (S)			82.0	%	82	(70-130)		
MRL_CHK	Perylene-d12 (S)		5	83.4	%	83	(70-130)		
LCS1	Phenanthrene-d10 (I)		5	58.7	%	59	(50-150)		
LCS2	Phenanthrene-d10 (I)		5	88.6	%	89	(50-150)		
MBLK	Phenanthrene-d10 (I)			79.1	%	79	(50-150)		
MRL_CHK	Phenanthrene-d10 (I)		5	86.6	%	87	(50-150)		
LCS1	Simazine		2	2.18	ug/L	109	(70-130)		
LCS2	Simazine		2	2.09	ug/L	104	(70-130)	20	4.2
MBLK	Simazine			<0.05	ug/L				
MRL_CHK	Simazine		0.05	0.0520	ug/L	104	(50-150)		
LCS1	Triphenylphosphate (S)		5	97.6	%	98	(70-130)		
LCS2	Triphenylphosphate (S)		5	101	%	101	(70-130)		
MBLK	Triphenylphosphate (S)			93.2	%	93	(70-130)		
MRL_CHK	Triphenylphosphate (S)		5	95.6	%	96	(70-130)		

Spike recovery is already corrected for native results.

Spikes which exceed Limits and Method Blanks with positive results are highlighted by Underlining.

Criteria for MS and Dup are advisory only, batch control is based on LCS. Criteria for duplicates are advisory only, unless otherwise specified in the method.

RPD not calculated for LCS2 when different a concentration than LCS1 is used.

RPD not calculated for Duplicates when the result is not five times the MRL (Minimum Reporting Level).

(S) - Indicates surrogate compound.

(I) - Indicates internal standard compound.



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2A05051

COC# 01042022 DW-01

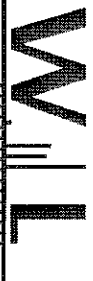
CLIENT NAME: AECOM		PROJECT: 60674414		ANALYSES REQUESTED								SPECIAL HANDLING				
ADDRESS: 1001 Bishop St., Ste. 1600 Honolulu, HI 96813		PHONE: 808-364-8050		SOCs by 525.2 (sodium sulfite + HCl) Metals by 200.8/245.1 (nitric acid) TOC by 5310B (HCl) VOC 524.2								Same Day Rush 150% 24 Hour Rush 100% 48-72 Hour Rush 75% 4 - 5 Day Rush 30% Rush Extractions 50% 10 - 15 Business Days QA/QC Data Package				
PROJECT MANAGER Margie Pascua		SAMPLER AECOM										Charges will apply for weekends/holidays Method of Shipment: FedEx				
ID# (Lab Use Only)	DATE SAMPLED	TIME SAMPLED	SMPL TYPE	CL ₂ Y/N	SAMPLE IDENTIFICATION/SITE LOCATION	# OF CONT.									COMMENTS	
	1/4/2022	1045	DW		20220104-A1-2101	1										
	1/4/2022	1050	DW		20220104-A1-2103	1	X	X	X	X						8 Containers, not 6 CR
	1/4/2022	1235	DW		20220104-D1-2104	1			X							
CR 7/4/22																
RELINQUISHED BY Mike Gavett		DATE / TIME 1/4/22 1240		RECEIVED BY Mike Easterday		DATE / TIME 1/4/22 1241		SAMPLE CONDITION: Actual Temperature: 3.6° Thermometer #: T-0230				SAMPLE TYPE CODE: DW = Drinking Water WW = Waste Water GW = Ground Water SF = Surface Water SW = Sea Water SO = Solid/Soil SL = Sludge				
RELINQUISHED BY Mike Easterday		DATE / TIME 1/4/22 1303		RECEIVED BY Conner Rothe		DATE / TIME 1/4/22 1303		Received On Ice				N				
RELINQUISHED BY Conner Rothe		DATE / TIME 1/4/22 1500		RECEIVED BY		DATE / TIME		Samples Preserved				N				
PRESCHEDULED RUSH ANALYSES WILL TAKE PRIORITY OVER UNSCHEDULED RUSH REQUESTS								SPECIAL REQUIREMENTS / BILLING INFORMATION								
Client agrees to Terms & Conditions at: www.wecklabs.com								COC version 210809								

FedEx

1/5/22

for

10:25



WECK LABORATORIES, INC.

Sample Receipt Checklist

Week WKO: 2A05051

Date/Time Received: 01/05/22 @ 10:25

WKO Logged by: Lester Abad

of Samples: 03

Samples Checked by: LKA

Delivered by: Fedex

Task	Yes	No	N/A	Comments
COC present at receipt?	☒	☐		
COC properly completed?	☒	☐		
COC matches sample labels?	☒	☐		
Project Manager notified?	☐	☐	☒	
Sample Temperature	☒	☐		3.6°C
Samples received on ice?	☒	☐		
Ice Type (Blue/Wet)	☒			WET
All samples intact?	☒	☐		
Samples in proper containers?	☒	☐		
Sufficient sample volume?	☒	☐		
Samples intact?	☒	☐		
Received within holding time?	☒	☐		
Project Manager notified?	☐	☐	☒	
Sample labels checked for correct preservation?	☒	☐	☐	
VOC Headspace: none, <6mm/<Pea size?		☒	☐	
524.2, 524.3, 624.1, 8260, 1666 P/T, LUFT	☐	☒	☐	
pH verified upon receipt?	☒	☐	☐	
Metals <2; H2SO4 pres tests <2; 522<4; TOC <2; 608.3 5-9	☒	☐	☐	
Free Chlorine Tested <0.1	☒	☐	☐	
O&G pH <2 verified?	☐	☐	☐	pH paper Lot#
pH adjusted for O&G	☐	☐	☐	pH Reading:
				Acid Lot#
				Amt added:
Project Manager notified?	☐	☐	☒	

PM Comments

Sample Receipt Checklist Prepared by:

Signature:

Date: 01/05/22

ANALYTICAL REPORT

Eurofins Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

Laboratory Job ID: 580-108808-1
Client Project/Site: CV18F0126
Revision: 2

For:
AECOM
1001 Bishop Street
Honolulu, Hawaii 96813

Attn: Margie F Pascua



Authorized for release by:
1/10/2022 4:20:14 PM
Kristine Allen, Client Service Manager
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Designee for
Elaine Walker, Project Manager II
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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Job ID: 580-108808-1

Laboratory: Eurofins Seattle

Narrative

01/04/2022 - Report was revised to change formatter and remove TIC reporting per client request.

01/10/2022 - Report was revised to change the units for GRO and DRO.

CASE NARRATIVE

Client: AECOM

Project: CV18F0126

Report Number: 580-108808-1

This case narrative is in the form of an exception report, where only the anomalies related to this report, method specific performance and/or QA/QC issues are discussed. If there are no issues to report, this narrative will include a statement that documents that there are no relevant data issues.

Following DoD QSM guidelines, manual integrations were performed only when necessary and are in compliance with the laboratory's standard operating procedure, Acceptable Manual Integration Practices, SOP No.: Q-S-002. The reason(s) for manual integration have been documented on the affected chromatogram(s), which is/are provided in the raw data package. The raw data also includes the original chromatogram(s) prior to any manual integration being performed. Manual integrations are detailed in the manual integration summary forms following this narrative.

It should be noted that samples with elevated Limits of Quantitation (LOQs) resulting from a dilution may not be able to satisfy customer reporting limits in some cases. Such increases in the LOQs are an unavoidable but acceptable consequence of sample dilution that enables quantification of target analytes within the calibration range of the instrument or that reduces the interferences thereby enabling the quantification of target analytes.

Calculations are performed before rounding to avoid round-off errors in calculated results.

All holding times were met and proper preservation noted for the methods performed on these samples, unless otherwise detailed in the individual sections below.

RECEIPT

Three samples were received on 12/29/2021 11:20 AM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was -0.2° C.

Note: All samples which require thermal preservation are considered acceptable if the arrival temperature is within 2C of the required temperature or method specified range. For samples with a specified temperature of 4C, samples with a temperature ranging from just above freezing temperature of water to 6C shall be acceptable. Samples that are hand delivered immediately following collection may not meet these criteria, however they will be deemed acceptable according to NELAC standards, if there is evidence that the chilling process has begun, such as arrival on ice, etc.

GASOLINE RANGE ORGANICS (GRO)

Samples I1-DWS-I1-1324-122821-A (580-108808-1), I1-DWS-TB-1324-122821-A (580-108808-2) and D1-DWS-D1-768-122821-N (580-108808-3) were analyzed for gasoline range organics (GRO) in accordance with 8260B CALUFT. The samples were analyzed on 12/30/2021 and 12/31/2021.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples I1-DWS-I1-1324-122821-A (580-108808-1), I1-DWS-TB-1324-122821-A (580-108808-2) and D1-DWS-D1-768-122821-N (580-108808-3) were analyzed for volatile organic compounds (GC-MS) in accordance with 8260D_DOD5. The samples were analyzed on 12/30/2021 and 12/31/2021.

Surrogate recovery for the following samples were outside control limits: I1-DWS-I1-1324-122821-A (580-108808-1) and D1-DWS-D1-768-122821-N (580-108808-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

Case Narrative

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Job ID: 580-108808-1 (Continued)

Laboratory: Eurofins Seattle (Continued)

The surrogate recovery for the blank associated with analytical batch 580-377153 was outside the upper control limits. MB is non-detect for all analytes.

The continuing calibration verification (CCV) associated with batch 580-377153 recovered above the upper control limit for Toluene. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: I1-DWS-I1-1324-122821-A (580-108808-1), I1-DWS-TB-1324-122821-A (580-108808-2), D1-DWS-D1-768-122821-N (580-108808-3) and (CCVIS 580-377153/3).

The CCV for analytical batch 580-377153 recovered outside control limits for the following analyte(s): 2-hexanone and acetone. These have been identified as a poor performing analytes when analyzed using this method; therefore, re-extraction/re-analysis was not performed. These results have been reported and qualified.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

SEMIVOLATILE ORGANIC COMPOUNDS (GC-MS)

Samples I1-DWS-I1-1324-122821-A (580-108808-1) and D1-DWS-D1-768-122821-N (580-108808-3) were analyzed for semivolatile organic compounds (GC-MS) in accordance with 8270E. The samples were prepared on 12/30/2021 and analyzed on 01/02/2022.

The following analytes have been identified in the reference method and/or via historical data to be poor and/or erratic performers: Hexachlorocyclopentadiene. These analytes may have a %D >60%.

The minimum response factor (RF) criteria for the continuing calibration verification (CCV) analyzed in batch 580-377241 was outside criteria for the following analyte: N-Nitrosodi-n-propylamine and Bis(2-chloroethyl)ether. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analyte is considered estimated.

Surrogate recovery for the following samples was outside control limits: I1-DWS-I1-1324-122821-A (580-108808-1) and D1-DWS-D1-768-122821-N (580-108808-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

The laboratory control sample and the laboratory control sample duplicate (LCS/LCSD) for preparation batch 580-377110 and analytical batch 580-377241 recovered outside control limits for the following analyte: Pentachlorophenol. Pentachlorophenol has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for preparation batch 580-377110 and analytical batch 580-377241 recovered outside control limits for the following analytes: 3,3'-Dichlorobenzidine and Nitrobenzene.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

DIESEL RANGE ORGANICS

Samples I1-DWS-I1-1324-122821-A (580-108808-1) and D1-DWS-D1-768-122821-N (580-108808-3) were analyzed for Diesel Range Organics in accordance with 8015D DRO. The samples were prepared on 12/30/2021 and analyzed on 12/31/2021.

No analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Definitions/Glossary

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
M	Manual integrated compound.
Q	One or more quality control criteria failed.
S1-	Surrogate recovery exceeds control limits, low biased.
S1+	Surrogate recovery exceeds control limits, high biased.
U	Indicates the analyte was analyzed for but not detected.

GC/MS Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.
*1	LCS/LCSD RPD exceeds control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.
S1-	Surrogate recovery exceeds control limits, low biased.
U	Indicates the analyte was analyzed for but not detected.

GC Semi VOA

Qualifier	Qualifier Description
U	Indicates the analyte was analyzed for but not detected.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Eurofins Seattle

Client Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Client Sample ID: I1-DWS-I1-1324-122821-A

Lab Sample ID: 580-108808-1

Date Collected: 12/28/21 09:15

Matrix: Water

Date Received: 12/29/21 11:20

Method: 8260/CALUFT DOD - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	31	U	100	31	ug/L			12/31/21 01:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	95		69 - 133					12/31/21 01:39	1

Method: 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.39	U	1.0	0.39	ug/L			12/31/21 01:39	1
1,1,2,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			12/31/21 01:39	1
1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L			12/31/21 01:39	1
1,1-Dichloroethane	0.22	U	1.0	0.22	ug/L			12/31/21 01:39	1
1,1-Dichloroethene	0.28	U	1.0	0.28	ug/L			12/31/21 01:39	1
1,2-Dichloroethane	0.42	U	1.0	0.42	ug/L			12/31/21 01:39	1
1,2-Dichloroethene, Total	0.39	U	1.0	0.39	ug/L			12/31/21 01:39	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			12/31/21 01:39	1
2-Hexanone	4.0	U Q	15	4.0	ug/L			12/31/21 01:39	1
4-Methyl-2-pentanone (MIBK)	2.5	U	5.0	2.5	ug/L			12/31/21 01:39	1
Acetone	3.2	U Q	15	3.2	ug/L			12/31/21 01:39	1
Benzene	0.24	U	1.0	0.24	ug/L			12/31/21 01:39	1
Bromodichloromethane	0.29	U	1.0	0.29	ug/L			12/31/21 01:39	1
Bromoform	8.1		1.0	0.51	ug/L			12/31/21 01:39	1
Bromomethane	0.21	U	1.0	0.21	ug/L			12/31/21 01:39	1
Carbon disulfide	0.53	U	1.0	0.53	ug/L			12/31/21 01:39	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			12/31/21 01:39	1
Chlorobenzene	0.44	U	1.0	0.44	ug/L			12/31/21 01:39	1
Chloroform	0.26	U	1.0	0.26	ug/L			12/31/21 01:39	1
Chloromethane	0.28	U	1.0	0.28	ug/L			12/31/21 01:39	1
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			12/31/21 01:39	1
Dibromochloromethane	1.1		1.0	0.43	ug/L			12/31/21 01:39	1
Dibromochloropropane	0.57	U	3.0	0.57	ug/L			12/31/21 01:39	1
Dichloromethane	1.4	U	3.0	1.4	ug/L			12/31/21 01:39	1
Ethyl Chloride	0.35	U	1.0	0.35	ug/L			12/31/21 01:39	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			12/31/21 01:39	1
Methyl ethyl ketone (MEK)	4.7	U	15	4.7	ug/L			12/31/21 01:39	1
m-Xylene & p-Xylene	0.53	U	2.0	0.53	ug/L			12/31/21 01:39	1
o-Xylene	0.39	U	1.0	0.39	ug/L			12/31/21 01:39	1
Styrene	0.53	U	1.0	0.53	ug/L			12/31/21 01:39	1
Tetrachloroethene	0.41	U	1.0	0.41	ug/L			12/31/21 01:39	1
Toluene	0.39	U Q	1.0	0.39	ug/L			12/31/21 01:39	1
trans-1,3-Dichloropropene	0.41	U	1.0	0.41	ug/L			12/31/21 01:39	1
Trichloroethene	0.26	U	1.0	0.26	ug/L			12/31/21 01:39	1
Vinyl chloride	0.22	U	1.0	0.22	ug/L			12/31/21 01:39	1
Xylenes, Total	0.53	U	2.0	0.53	ug/L			12/31/21 01:39	1
trans-1,2-Dichloroethene	0.39	U	1.0	0.39	ug/L			12/31/21 01:39	1
cis-1,2-Dichloroethene	0.35	U	1.0	0.35	ug/L			12/31/21 01:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		81 - 118					12/31/21 01:39	1
4-Bromofluorobenzene (Surr)	99		85 - 114					12/31/21 01:39	1
Dibromofluoromethane (Surr)	110		80 - 119					12/31/21 01:39	1

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Client Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Client Sample ID: I1-DWS-I1-1324-122821-A

Lab Sample ID: 580-108808-1

Date Collected: 12/28/21 09:15

Matrix: Water

Date Received: 12/29/21 11:20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	0.5	S1-	89 - 112		12/31/21 01:39	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.053	U	0.42	0.053	ug/L		12/30/21 12:40	01/02/22 18:44	1
Acenaphthylene	0.063	U	1.1	0.063	ug/L		12/30/21 12:40	01/02/22 18:44	1
Anthracene	0.053	U	1.1	0.053	ug/L		12/30/21 12:40	01/02/22 18:44	1
Benzo[a]anthracene	0.053	U	0.26	0.053	ug/L		12/30/21 12:40	01/02/22 18:44	1
Benzo[a]pyrene	0.042	U	0.26	0.042	ug/L		12/30/21 12:40	01/02/22 18:44	1
Benzo[b]fluoranthene	0.042	U	0.26	0.042	ug/L		12/30/21 12:40	01/02/22 18:44	1
Benzo[g,h,i]perylene	0.042	U	0.26	0.042	ug/L		12/30/21 12:40	01/02/22 18:44	1
Benzo[k]fluoranthene	0.053	U	0.26	0.053	ug/L		12/30/21 12:40	01/02/22 18:44	1
Bis(2-chloroethoxy)methane	0.053	U	0.63	0.053	ug/L		12/30/21 12:40	01/02/22 18:44	1
Bis(2-chloroethyl)ether	0.032	U *1	0.11	0.032	ug/L		12/30/21 12:40	01/02/22 18:44	1
Bis(2-ethylhexyl) phthalate	0.78	U	3.2	0.78	ug/L		12/30/21 12:40	01/02/22 18:44	1
4-Bromophenyl phenyl ether	0.063	U	0.63	0.063	ug/L		12/30/21 12:40	01/02/22 18:44	1
Butyl benzyl phthalate	0.29	U	4.2	0.29	ug/L		12/30/21 12:40	01/02/22 18:44	1
Carbazole	0.11	U	0.63	0.11	ug/L		12/30/21 12:40	01/02/22 18:44	1
4-Chloroaniline	0.62	U	2.1	0.62	ug/L		12/30/21 12:40	01/02/22 18:44	1
4-Chloro-3-methylphenol	0.14	U	0.63	0.14	ug/L		12/30/21 12:40	01/02/22 18:44	1
2-Chloronaphthalene	0.074	U	1.1	0.074	ug/L		12/30/21 12:40	01/02/22 18:44	1
2-Chlorophenol	0.053	U	1.1	0.053	ug/L		12/30/21 12:40	01/02/22 18:44	1
4-Chlorophenyl phenyl ether	0.053	U	0.63	0.053	ug/L		12/30/21 12:40	01/02/22 18:44	1
Chrysene	0.042	U	0.26	0.042	ug/L		12/30/21 12:40	01/02/22 18:44	1
Dibenz(a,h)anthracene	0.074	U	0.26	0.074	ug/L		12/30/21 12:40	01/02/22 18:44	1
Dibenzofuran	0.11	U	0.42	0.11	ug/L		12/30/21 12:40	01/02/22 18:44	1
Dibutylphthalate	0.20	U	3.2	0.20	ug/L		12/30/21 12:40	01/02/22 18:44	1
1,2-Dichlorobenzene	0.053	U	0.42	0.053	ug/L		12/30/21 12:40	01/02/22 18:44	1
1,3-Dichlorobenzene	0.042	U	0.42	0.042	ug/L		12/30/21 12:40	01/02/22 18:44	1
1,4-Dichlorobenzene	0.042	U	0.42	0.042	ug/L		12/30/21 12:40	01/02/22 18:44	1
3,3'-Dichlorobenzidine	0.27	U *1	1.1	0.27	ug/L		12/30/21 12:40	01/02/22 18:44	1
2,4-Dichlorophenol	0.21	U	1.1	0.21	ug/L		12/30/21 12:40	01/02/22 18:44	1
Diethyl phthalate	0.16	U	1.1	0.16	ug/L		12/30/21 12:40	01/02/22 18:44	1
2,4-Dimethylphenol	0.17	U	4.2	0.17	ug/L		12/30/21 12:40	01/02/22 18:44	1
Dimethyl phthalate	0.063	U	0.63	0.063	ug/L		12/30/21 12:40	01/02/22 18:44	1
4,6-Dinitro-2-methylphenol	0.58	U	2.1	0.58	ug/L		12/30/21 12:40	01/02/22 18:44	1
2,4-Dinitrophenol	1.7	U	5.3	1.7	ug/L		12/30/21 12:40	01/02/22 18:44	1
2,4-Dinitrotoluene	0.11	U	1.1	0.11	ug/L		12/30/21 12:40	01/02/22 18:44	1
2,6-Dinitrotoluene	0.11	U	0.42	0.11	ug/L		12/30/21 12:40	01/02/22 18:44	1
Di-n-octyl phthalate	0.14	U	1.1	0.14	ug/L		12/30/21 12:40	01/02/22 18:44	1
Fluoranthene	0.063	U	0.26	0.063	ug/L		12/30/21 12:40	01/02/22 18:44	1
Fluorene	0.053	U	0.26	0.053	ug/L		12/30/21 12:40	01/02/22 18:44	1
Hexachlorobenzene	0.042	U	0.63	0.042	ug/L		12/30/21 12:40	01/02/22 18:44	1
Hexachlorobutadiene	0.063	U	1.1	0.063	ug/L		12/30/21 12:40	01/02/22 18:44	1
Hexachlorocyclopentadiene	0.15	U	1.1	0.15	ug/L		12/30/21 12:40	01/02/22 18:44	1
Hexachloroethane	0.053	U	1.1	0.053	ug/L		12/30/21 12:40	01/02/22 18:44	1
Indeno[1,2,3-cd]pyrene	0.14	U	0.42	0.14	ug/L		12/30/21 12:40	01/02/22 18:44	1
Isophorone	0.11	U	0.42	0.11	ug/L		12/30/21 12:40	01/02/22 18:44	1
1-Methylnaphthalene	0.053	U	1.1	0.053	ug/L		12/30/21 12:40	01/02/22 18:44	1

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Client Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Client Sample ID: I1-DWS-I1-1324-122821-A

Lab Sample ID: 580-108808-1

Date Collected: 12/28/21 09:15

Matrix: Water

Date Received: 12/29/21 11:20

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.063	U	0.42	0.063	ug/L		12/30/21 12:40	01/02/22 18:44	1
2-Methylphenol	0.053	U	0.63	0.053	ug/L		12/30/21 12:40	01/02/22 18:44	1
3 & 4 Methylphenol	0.11	U	0.63	0.11	ug/L		12/30/21 12:40	01/02/22 18:44	1
Naphthalene	0.17	U	0.42	0.17	ug/L		12/30/21 12:40	01/02/22 18:44	1
2-Nitroaniline	0.11	U	1.1	0.11	ug/L		12/30/21 12:40	01/02/22 18:44	1
3-Nitroaniline	0.17	U	3.2	0.17	ug/L		12/30/21 12:40	01/02/22 18:44	1
4-Nitroaniline	0.22	U	2.1	0.22	ug/L		12/30/21 12:40	01/02/22 18:44	1
Nitrobenzene	0.042	U *1	1.1	0.042	ug/L		12/30/21 12:40	01/02/22 18:44	1
4-Nitrophenol	1.8	U	11	1.8	ug/L		12/30/21 12:40	01/02/22 18:44	1
N-Nitrosodi-n-propylamine	0.063	U	0.42	0.063	ug/L		12/30/21 12:40	01/02/22 18:44	1
N-Nitrosodiphenylamine	0.074	U	1.1	0.074	ug/L		12/30/21 12:40	01/02/22 18:44	1
Pentachlorophenol	0.54	U *	11	0.54	ug/L		12/30/21 12:40	01/02/22 18:44	1
Phenanthrene	0.13	U	1.1	0.13	ug/L		12/30/21 12:40	01/02/22 18:44	1
Phenol	0.38	U	1.1	0.38	ug/L		12/30/21 12:40	01/02/22 18:44	1
Pyrene	0.042	U	1.1	0.042	ug/L		12/30/21 12:40	01/02/22 18:44	1
1,2,4-Trichlorobenzene	0.095	U	0.42	0.095	ug/L		12/30/21 12:40	01/02/22 18:44	1
2,4,5-Trichlorophenol	0.11	U	0.42	0.11	ug/L		12/30/21 12:40	01/02/22 18:44	1
2,4,6-Trichlorophenol	0.11	U	0.63	0.11	ug/L		12/30/21 12:40	01/02/22 18:44	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	77		44 - 119	12/30/21 12:40	01/02/22 18:44	1
2-Fluorophenol (Surr)	0	S1-	19 - 119	12/30/21 12:40	01/02/22 18:44	1
Nitrobenzene-d5 (Surr)	90		44 - 120	12/30/21 12:40	01/02/22 18:44	1
Phenol-d5 (Surr)	0	S1-	10 - 120	12/30/21 12:40	01/02/22 18:44	1
Terphenyl-d14	108		50 - 134	12/30/21 12:40	01/02/22 18:44	1
2,4,6-Tribromophenol	118		43 - 140	12/30/21 12:40	01/02/22 18:44	1

Method: 8015D DRO - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C25	97	U	540	97	ug/L		12/30/21 10:32	12/31/21 02:14	1
C24-C40	190	U	540	190	ug/L		12/30/21 10:32	12/31/21 02:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	67		56 - 125	12/30/21 10:32	12/31/21 02:14	1

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Client Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Client Sample ID: I1-DWS-TB-1324-122821-A

Lab Sample ID: 580-108808-2

Date Collected: 12/28/21 09:10

Matrix: Water

Date Received: 12/29/21 11:20

Method: 8260/CALUFT DOD - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	31	U	100	31	ug/L			12/30/21 22:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		69 - 133					12/30/21 22:53	1

Method: 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.39	U	1.0	0.39	ug/L			12/30/21 22:53	1
1,1,2,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			12/30/21 22:53	1
1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L			12/30/21 22:53	1
1,1-Dichloroethane	0.22	U	1.0	0.22	ug/L			12/30/21 22:53	1
1,1-Dichloroethene	0.28	U	1.0	0.28	ug/L			12/30/21 22:53	1
1,2-Dichloroethane	0.42	U	1.0	0.42	ug/L			12/30/21 22:53	1
1,2-Dichloroethene, Total	0.39	U	1.0	0.39	ug/L			12/30/21 22:53	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			12/30/21 22:53	1
2-Hexanone	4.0	U Q	15	4.0	ug/L			12/30/21 22:53	1
4-Methyl-2-pentanone (MIBK)	2.5	U	5.0	2.5	ug/L			12/30/21 22:53	1
Acetone	3.2	U Q	15	3.2	ug/L			12/30/21 22:53	1
Benzene	0.24	U	1.0	0.24	ug/L			12/30/21 22:53	1
Bromodichloromethane	0.29	U	1.0	0.29	ug/L			12/30/21 22:53	1
Bromoform	0.51	U	1.0	0.51	ug/L			12/30/21 22:53	1
Bromomethane	0.21	U	1.0	0.21	ug/L			12/30/21 22:53	1
Carbon disulfide	0.53	U	1.0	0.53	ug/L			12/30/21 22:53	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			12/30/21 22:53	1
Chlorobenzene	0.44	U	1.0	0.44	ug/L			12/30/21 22:53	1
Chloroform	0.26	U	1.0	0.26	ug/L			12/30/21 22:53	1
Chloromethane	0.28	U	1.0	0.28	ug/L			12/30/21 22:53	1
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			12/30/21 22:53	1
Dibromochloromethane	0.43	U	1.0	0.43	ug/L			12/30/21 22:53	1
Dibromochloropropane	0.57	U	3.0	0.57	ug/L			12/30/21 22:53	1
Dichloromethane	1.4	U	3.0	1.4	ug/L			12/30/21 22:53	1
Ethyl Chloride	0.35	U	1.0	0.35	ug/L			12/30/21 22:53	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			12/30/21 22:53	1
Methyl ethyl ketone (MEK)	4.7	U	15	4.7	ug/L			12/30/21 22:53	1
m-Xylene & p-Xylene	0.53	U	2.0	0.53	ug/L			12/30/21 22:53	1
o-Xylene	0.39	U	1.0	0.39	ug/L			12/30/21 22:53	1
Styrene	0.53	U	1.0	0.53	ug/L			12/30/21 22:53	1
Tetrachloroethene	0.41	U	1.0	0.41	ug/L			12/30/21 22:53	1
Toluene	0.39	U Q	1.0	0.39	ug/L			12/30/21 22:53	1
trans-1,3-Dichloropropene	0.41	U	1.0	0.41	ug/L			12/30/21 22:53	1
Trichloroethene	0.26	U	1.0	0.26	ug/L			12/30/21 22:53	1
Vinyl chloride	0.22	U	1.0	0.22	ug/L			12/30/21 22:53	1
Xylenes, Total	0.53	U	2.0	0.53	ug/L			12/30/21 22:53	1
trans-1,2-Dichloroethene	0.39	U	1.0	0.39	ug/L			12/30/21 22:53	1
cis-1,2-Dichloroethene	0.35	U	1.0	0.35	ug/L			12/30/21 22:53	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	100		81 - 118					12/30/21 22:53	1
4-Bromofluorobenzene (Surr)	92		85 - 114					12/30/21 22:53	1
Dibromofluoromethane (Surr)	113		80 - 119					12/30/21 22:53	1

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Client Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Client Sample ID: I1-DWS-TB-1324-122821-A

Lab Sample ID: 580-108808-2

Date Collected: 12/28/21 09:10

Matrix: Water

Date Received: 12/29/21 11:20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

<u>Surrogate</u>	<u>%Recovery</u>	<u>Qualifier</u>	<u>Limits</u>	<u>Prepared</u>	<u>Analyzed</u>	<u>Dil Fac</u>
Toluene-d8 (Surr)	106		89 - 112		12/30/21 22:53	1

Client Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Client Sample ID: D1-DWS-D1-768-122821-N

Lab Sample ID: 580-108808-3

Date Collected: 12/28/21 10:30

Matrix: Water

Date Received: 12/29/21 11:20

Method: 8260/CALUFT DOD - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	31	U	100	31	ug/L			12/31/21 02:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	94		69 - 133					12/31/21 02:03	1

Method: 8260D - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.39	U	1.0	0.39	ug/L			12/31/21 02:03	1
1,1,2,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			12/31/21 02:03	1
1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L			12/31/21 02:03	1
1,1-Dichloroethane	0.22	U	1.0	0.22	ug/L			12/31/21 02:03	1
1,1-Dichloroethene	0.28	U	1.0	0.28	ug/L			12/31/21 02:03	1
1,2-Dichloroethane	0.42	U	1.0	0.42	ug/L			12/31/21 02:03	1
1,2-Dichloroethene, Total	0.39	U	1.0	0.39	ug/L			12/31/21 02:03	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			12/31/21 02:03	1
2-Hexanone	4.0	U Q	15	4.0	ug/L			12/31/21 02:03	1
4-Methyl-2-pentanone (MIBK)	2.5	U	5.0	2.5	ug/L			12/31/21 02:03	1
Acetone	3.2	U Q	15	3.2	ug/L			12/31/21 02:03	1
Benzene	0.24	U	1.0	0.24	ug/L			12/31/21 02:03	1
Bromodichloromethane	0.29	U	1.0	0.29	ug/L			12/31/21 02:03	1
Bromoform	0.51	U	1.0	0.51	ug/L			12/31/21 02:03	1
Bromomethane	0.21	U	1.0	0.21	ug/L			12/31/21 02:03	1
Carbon disulfide	0.53	U	1.0	0.53	ug/L			12/31/21 02:03	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			12/31/21 02:03	1
Chlorobenzene	0.44	U	1.0	0.44	ug/L			12/31/21 02:03	1
Chloroform	0.26	U	1.0	0.26	ug/L			12/31/21 02:03	1
Chloromethane	0.28	U	1.0	0.28	ug/L			12/31/21 02:03	1
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			12/31/21 02:03	1
Dibromochloromethane	0.43	U	1.0	0.43	ug/L			12/31/21 02:03	1
Dibromochloropropane	0.57	U	3.0	0.57	ug/L			12/31/21 02:03	1
Dichloromethane	1.4	U	3.0	1.4	ug/L			12/31/21 02:03	1
Ethyl Chloride	0.35	U	1.0	0.35	ug/L			12/31/21 02:03	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			12/31/21 02:03	1
Methyl ethyl ketone (MEK)	4.7	U	15	4.7	ug/L			12/31/21 02:03	1
m-Xylene & p-Xylene	0.53	U	2.0	0.53	ug/L			12/31/21 02:03	1
o-Xylene	0.39	U	1.0	0.39	ug/L			12/31/21 02:03	1
Styrene	0.53	U	1.0	0.53	ug/L			12/31/21 02:03	1
Tetrachloroethene	0.41	U	1.0	0.41	ug/L			12/31/21 02:03	1
Toluene	0.39	U Q	1.0	0.39	ug/L			12/31/21 02:03	1
trans-1,3-Dichloropropene	0.41	U	1.0	0.41	ug/L			12/31/21 02:03	1
Trichloroethene	0.26	U	1.0	0.26	ug/L			12/31/21 02:03	1
Vinyl chloride	0.22	U	1.0	0.22	ug/L			12/31/21 02:03	1
Xylenes, Total	0.53	U	2.0	0.53	ug/L			12/31/21 02:03	1
trans-1,2-Dichloroethene	0.39	U	1.0	0.39	ug/L			12/31/21 02:03	1
cis-1,2-Dichloroethene	0.35	U	1.0	0.35	ug/L			12/31/21 02:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	98		81 - 118					12/31/21 02:03	1
4-Bromofluorobenzene (Surr)	97		85 - 114					12/31/21 02:03	1
Dibromofluoromethane (Surr)	111		80 - 119					12/31/21 02:03	1

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Client Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Client Sample ID: D1-DWS-D1-768-122821-N

Lab Sample ID: 580-108808-3

Date Collected: 12/28/21 10:30

Matrix: Water

Date Received: 12/29/21 11:20

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Toluene-d8 (Surr)	0.1	S1-	89 - 112		12/31/21 02:03	1

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.051	U	0.41	0.051	ug/L		12/30/21 12:40	01/02/22 19:07	1
Acenaphthylene	0.062	U	1.0	0.062	ug/L		12/30/21 12:40	01/02/22 19:07	1
Anthracene	0.051	U	1.0	0.051	ug/L		12/30/21 12:40	01/02/22 19:07	1
Benzo[a]anthracene	0.051	U	0.26	0.051	ug/L		12/30/21 12:40	01/02/22 19:07	1
Benzo[a]pyrene	0.041	U	0.26	0.041	ug/L		12/30/21 12:40	01/02/22 19:07	1
Benzo[b]fluoranthene	0.041	U	0.26	0.041	ug/L		12/30/21 12:40	01/02/22 19:07	1
Benzo[g,h,i]perylene	0.041	U	0.26	0.041	ug/L		12/30/21 12:40	01/02/22 19:07	1
Benzo[k]fluoranthene	0.051	U	0.26	0.051	ug/L		12/30/21 12:40	01/02/22 19:07	1
Bis(2-chloroethoxy)methane	0.051	U	0.62	0.051	ug/L		12/30/21 12:40	01/02/22 19:07	1
Bis(2-chloroethyl)ether	0.031	U *1	0.10	0.031	ug/L		12/30/21 12:40	01/02/22 19:07	1
Bis(2-ethylhexyl) phthalate	0.76	U	3.1	0.76	ug/L		12/30/21 12:40	01/02/22 19:07	1
4-Bromophenyl phenyl ether	0.062	U	0.62	0.062	ug/L		12/30/21 12:40	01/02/22 19:07	1
Butyl benzyl phthalate	0.39	J	4.1	0.28	ug/L		12/30/21 12:40	01/02/22 19:07	1
Carbazole	0.10	U	0.62	0.10	ug/L		12/30/21 12:40	01/02/22 19:07	1
4-Chloroaniline	0.61	U	2.1	0.61	ug/L		12/30/21 12:40	01/02/22 19:07	1
4-Chloro-3-methylphenol	0.13	U	0.62	0.13	ug/L		12/30/21 12:40	01/02/22 19:07	1
2-Chloronaphthalene	0.072	U	1.0	0.072	ug/L		12/30/21 12:40	01/02/22 19:07	1
2-Chlorophenol	0.051	U	1.0	0.051	ug/L		12/30/21 12:40	01/02/22 19:07	1
4-Chlorophenyl phenyl ether	0.051	U	0.62	0.051	ug/L		12/30/21 12:40	01/02/22 19:07	1
Chrysene	0.041	U	0.26	0.041	ug/L		12/30/21 12:40	01/02/22 19:07	1
Dibenz(a,h)anthracene	0.072	U	0.26	0.072	ug/L		12/30/21 12:40	01/02/22 19:07	1
Dibenzofuran	0.10	U	0.41	0.10	ug/L		12/30/21 12:40	01/02/22 19:07	1
Dibutylphthalate	0.20	U	3.1	0.20	ug/L		12/30/21 12:40	01/02/22 19:07	1
1,2-Dichlorobenzene	0.051	U	0.41	0.051	ug/L		12/30/21 12:40	01/02/22 19:07	1
1,3-Dichlorobenzene	0.041	U	0.41	0.041	ug/L		12/30/21 12:40	01/02/22 19:07	1
1,4-Dichlorobenzene	0.041	U	0.41	0.041	ug/L		12/30/21 12:40	01/02/22 19:07	1
3,3'-Dichlorobenzidine	0.27	U *1	1.0	0.27	ug/L		12/30/21 12:40	01/02/22 19:07	1
2,4-Dichlorophenol	0.21	U	1.0	0.21	ug/L		12/30/21 12:40	01/02/22 19:07	1
Diethyl phthalate	0.15	U	1.0	0.15	ug/L		12/30/21 12:40	01/02/22 19:07	1
2,4-Dimethylphenol	0.16	U	4.1	0.16	ug/L		12/30/21 12:40	01/02/22 19:07	1
Dimethyl phthalate	0.062	U	0.62	0.062	ug/L		12/30/21 12:40	01/02/22 19:07	1
4,6-Dinitro-2-methylphenol	0.57	U	2.1	0.57	ug/L		12/30/21 12:40	01/02/22 19:07	1
2,4-Dinitrophenol	1.6	U	5.1	1.6	ug/L		12/30/21 12:40	01/02/22 19:07	1
2,4-Dinitrotoluene	0.10	U	1.0	0.10	ug/L		12/30/21 12:40	01/02/22 19:07	1
2,6-Dinitrotoluene	0.10	U	0.41	0.10	ug/L		12/30/21 12:40	01/02/22 19:07	1
Di-n-octyl phthalate	0.13	U	1.0	0.13	ug/L		12/30/21 12:40	01/02/22 19:07	1
Fluoranthene	0.062	U	0.26	0.062	ug/L		12/30/21 12:40	01/02/22 19:07	1
Fluorene	0.051	U	0.26	0.051	ug/L		12/30/21 12:40	01/02/22 19:07	1
Hexachlorobenzene	0.041	U	0.62	0.041	ug/L		12/30/21 12:40	01/02/22 19:07	1
Hexachlorobutadiene	0.062	U	1.0	0.062	ug/L		12/30/21 12:40	01/02/22 19:07	1
Hexachlorocyclopentadiene	0.14	U	1.0	0.14	ug/L		12/30/21 12:40	01/02/22 19:07	1
Hexachloroethane	0.051	U	1.0	0.051	ug/L		12/30/21 12:40	01/02/22 19:07	1
Indeno[1,2,3-cd]pyrene	0.13	U	0.41	0.13	ug/L		12/30/21 12:40	01/02/22 19:07	1
Isophorone	0.10	U	0.41	0.10	ug/L		12/30/21 12:40	01/02/22 19:07	1
1-Methylnaphthalene	0.051	U	1.0	0.051	ug/L		12/30/21 12:40	01/02/22 19:07	1

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Client Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Client Sample ID: D1-DWS-D1-768-122821-N

Lab Sample ID: 580-108808-3

Date Collected: 12/28/21 10:30

Matrix: Water

Date Received: 12/29/21 11:20

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Methylnaphthalene	0.062	U	0.41	0.062	ug/L		12/30/21 12:40	01/02/22 19:07	1
2-Methylphenol	0.051	U	0.62	0.051	ug/L		12/30/21 12:40	01/02/22 19:07	1
3 & 4 Methylphenol	0.10	U	0.62	0.10	ug/L		12/30/21 12:40	01/02/22 19:07	1
Naphthalene	0.16	U	0.41	0.16	ug/L		12/30/21 12:40	01/02/22 19:07	1
2-Nitroaniline	0.10	U	1.0	0.10	ug/L		12/30/21 12:40	01/02/22 19:07	1
3-Nitroaniline	0.16	U	3.1	0.16	ug/L		12/30/21 12:40	01/02/22 19:07	1
4-Nitroaniline	0.22	U	2.1	0.22	ug/L		12/30/21 12:40	01/02/22 19:07	1
Nitrobenzene	0.041	U *1	1.0	0.041	ug/L		12/30/21 12:40	01/02/22 19:07	1
4-Nitrophenol	1.7	U	10	1.7	ug/L		12/30/21 12:40	01/02/22 19:07	1
N-Nitrosodi-n-propylamine	0.062	U	0.41	0.062	ug/L		12/30/21 12:40	01/02/22 19:07	1
N-Nitrosodiphenylamine	0.072	U	1.0	0.072	ug/L		12/30/21 12:40	01/02/22 19:07	1
Pentachlorophenol	0.52	U *	10	0.52	ug/L		12/30/21 12:40	01/02/22 19:07	1
Phenanthrene	0.12	U	1.0	0.12	ug/L		12/30/21 12:40	01/02/22 19:07	1
Phenol	0.37	U	1.0	0.37	ug/L		12/30/21 12:40	01/02/22 19:07	1
Pyrene	0.041	U	1.0	0.041	ug/L		12/30/21 12:40	01/02/22 19:07	1
1,2,4-Trichlorobenzene	0.093	U	0.41	0.093	ug/L		12/30/21 12:40	01/02/22 19:07	1
2,4,5-Trichlorophenol	0.10	U	0.41	0.10	ug/L		12/30/21 12:40	01/02/22 19:07	1
2,4,6-Trichlorophenol	0.10	U	0.62	0.10	ug/L		12/30/21 12:40	01/02/22 19:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	73		44 - 119	12/30/21 12:40	01/02/22 19:07	1
2-Fluorophenol (Surr)	0	S1-	19 - 119	12/30/21 12:40	01/02/22 19:07	1
Nitrobenzene-d5 (Surr)	73		44 - 120	12/30/21 12:40	01/02/22 19:07	1
Phenol-d5 (Surr)	0	S1-	10 - 120	12/30/21 12:40	01/02/22 19:07	1
Terphenyl-d14	95		50 - 134	12/30/21 12:40	01/02/22 19:07	1
2,4,6-Tribromophenol	104		43 - 140	12/30/21 12:40	01/02/22 19:07	1

Method: 8015D DRO - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C25	90	U	500	90	ug/L		12/30/21 10:32	12/31/21 02:34	1
C24-C40	180	U	500	180	ug/L		12/30/21 10:32	12/31/21 02:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	71		56 - 125	12/30/21 10:32	12/31/21 02:34	1

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QC Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Method: 8260/CALUFT DOD - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 580-377150/4

Matrix: Water

Analysis Batch: 377150

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	31	U	100	31	ug/L			12/30/21 18:08	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	87		69 - 133					12/30/21 18:08	1

Lab Sample ID: LCS 580-377150/5

Matrix: Water

Analysis Batch: 377150

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits	
Gasoline Range Organics (C6-C12)	1000	956		ug/L		96	78 - 122	
Surrogate	LCS %Recovery	LCS Qualifier	Limits					
4-Bromofluorobenzene (Surr)	99		69 - 133					

Lab Sample ID: LCSD 580-377150/6

Matrix: Water

Analysis Batch: 377150

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (C6-C12)	1000	971		ug/L		97	78 - 122	1	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	98		69 - 133						

Method: 8260D - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-377153/7

Matrix: Water

Analysis Batch: 377153

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	0.39	U	1.0	0.39	ug/L			12/30/21 18:08	1
1,1,2,2-Tetrachloroethane	0.52	U	1.0	0.52	ug/L			12/30/21 18:08	1
1,1,2-Trichloroethane	0.24	U	1.0	0.24	ug/L			12/30/21 18:08	1
1,1-Dichloroethane	0.22	U	1.0	0.22	ug/L			12/30/21 18:08	1
1,1-Dichloroethene	0.28	U	1.0	0.28	ug/L			12/30/21 18:08	1
1,2-Dichloroethane	0.42	U	1.0	0.42	ug/L			12/30/21 18:08	1
1,2-Dichloroethene, Total	0.39	U	1.0	0.39	ug/L			12/30/21 18:08	1
1,2-Dichloropropane	0.18	U	1.0	0.18	ug/L			12/30/21 18:08	1
2-Hexanone	4.0	U	15	4.0	ug/L			12/30/21 18:08	1
4-Methyl-2-pentanone (MIBK)	2.5	U	5.0	2.5	ug/L			12/30/21 18:08	1
Acetone	3.2	U	15	3.2	ug/L			12/30/21 18:08	1
Benzene	0.24	U	1.0	0.24	ug/L			12/30/21 18:08	1
Bromodichloromethane	0.29	U	1.0	0.29	ug/L			12/30/21 18:08	1
Bromoform	0.51	U	1.0	0.51	ug/L			12/30/21 18:08	1

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QC Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-377153/7

Matrix: Water

Analysis Batch: 377153

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	0.21	U	1.0	0.21	ug/L			12/30/21 18:08	1
Carbon disulfide	0.53	U	1.0	0.53	ug/L			12/30/21 18:08	1
Carbon tetrachloride	0.30	U	1.0	0.30	ug/L			12/30/21 18:08	1
Chlorobenzene	0.44	U	1.0	0.44	ug/L			12/30/21 18:08	1
Chloroform	0.26	U	1.0	0.26	ug/L			12/30/21 18:08	1
Chloromethane	0.28	U	1.0	0.28	ug/L			12/30/21 18:08	1
cis-1,3-Dichloropropene	0.20	U	1.0	0.20	ug/L			12/30/21 18:08	1
Dibromochloromethane	0.43	U	1.0	0.43	ug/L			12/30/21 18:08	1
Dibromochloropropane	0.57	U	3.0	0.57	ug/L			12/30/21 18:08	1
Dichloromethane	1.4	U	3.0	1.4	ug/L			12/30/21 18:08	1
Ethyl Chloride	0.35	U	1.0	0.35	ug/L			12/30/21 18:08	1
Ethylbenzene	0.50	U	1.0	0.50	ug/L			12/30/21 18:08	1
Methyl ethyl ketone (MEK)	4.7	U	15	4.7	ug/L			12/30/21 18:08	1
m-Xylene & p-Xylene	0.53	U	2.0	0.53	ug/L			12/30/21 18:08	1
o-Xylene	0.39	U	1.0	0.39	ug/L			12/30/21 18:08	1
Styrene	0.53	U	1.0	0.53	ug/L			12/30/21 18:08	1
Tetrachloroethene	0.41	U	1.0	0.41	ug/L			12/30/21 18:08	1
Toluene	0.39	U	1.0	0.39	ug/L			12/30/21 18:08	1
trans-1,3-Dichloropropene	0.41	U	1.0	0.41	ug/L			12/30/21 18:08	1
Trichloroethene	0.26	U	1.0	0.26	ug/L			12/30/21 18:08	1
Vinyl chloride	0.22	U	1.0	0.22	ug/L			12/30/21 18:08	1
Xylenes, Total	0.53	U	2.0	0.53	ug/L			12/30/21 18:08	1
trans-1,2-Dichloroethene	0.39	U	1.0	0.39	ug/L			12/30/21 18:08	1
cis-1,2-Dichloroethene	0.35	U	1.0	0.35	ug/L			12/30/21 18:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	120	S1+	81 - 118		12/30/21 18:08	1
4-Bromofluorobenzene (Surr)	90		85 - 114		12/30/21 18:08	1
Dibromofluoromethane (Surr)	126	S1+	80 - 119		12/30/21 18:08	1
Toluene-d8 (Surr)	106		89 - 112		12/30/21 18:08	1

Lab Sample ID: LCS 580-377153/4

Matrix: Water

Analysis Batch: 377153

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1-Trichloroethane	10.0	8.22		ug/L		82	74 - 131
1,1,2,2-Tetrachloroethane	10.0	7.77		ug/L		78	71 - 121
1,1,2-Trichloroethane	10.0	10.5		ug/L		105	80 - 119
1,1-Dichloroethane	10.0	9.74		ug/L		97	77 - 125
1,1-Dichloroethene	10.0	9.92		ug/L		99	71 - 131
1,2-Dichloroethane	10.0	9.96		ug/L		100	73 - 128
1,2-Dichloroethene, Total	20.0	21.5		ug/L		108	78 - 123
1,2-Dichloropropane	10.0	9.94		ug/L		99	78 - 122
2-Hexanone	50.0	35.5		ug/L		71	57 - 139
4-Methyl-2-pentanone (MIBK)	50.0	38.8		ug/L		78	67 - 130
Acetone	50.0	37.5		ug/L		75	39 - 160
Benzene	10.0	10.1		ug/L		101	79 - 120

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QC Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-377153/4

Matrix: Water

Analysis Batch: 377153

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromodichloromethane	10.0	9.42		ug/L		94	79 - 125
Bromoform	10.0	8.92		ug/L		89	66 - 130
Bromomethane	10.0	10.4	M	ug/L		104	53 - 141
Carbon disulfide	10.0	8.32		ug/L		83	64 - 133
Carbon tetrachloride	10.0	10.2		ug/L		102	72 - 136
Chlorobenzene	10.0	11.1		ug/L		111	82 - 118
Chloroform	10.0	10.4		ug/L		104	79 - 124
Chloromethane	10.0	9.43		ug/L		94	50 - 139
cis-1,3-Dichloropropene	10.0	9.11		ug/L		91	75 - 124
Dibromochloromethane	10.0	9.57		ug/L		96	74 - 126
Dibromochloropropane	10.0	8.68		ug/L		87	62 - 128
Dichloromethane	10.0	9.60	M	ug/L		96	74 - 124
Ethyl Chloride	10.0	10.4		ug/L		104	60 - 138
Ethylbenzene	10.0	10.6		ug/L		106	79 - 121
Methyl ethyl ketone (MEK)	50.0	42.9		ug/L		86	56 - 143
m-Xylene & p-Xylene	10.0	10.4		ug/L		104	80 - 121
o-Xylene	10.0	10.1		ug/L		101	78 - 122
Styrene	10.0	10.1		ug/L		101	78 - 123
Tetrachloroethene	10.0	11.6		ug/L		116	74 - 129
Toluene	10.0	11.1		ug/L		111	80 - 121
trans-1,3-Dichloropropene	10.0	8.64		ug/L		86	73 - 127
Trichloroethene	10.0	11.0		ug/L		110	79 - 123
Vinyl chloride	10.0	9.74	M	ug/L		97	58 - 137
Xylenes, Total	20.0	20.5		ug/L		103	79 - 121
trans-1,2-Dichloroethene	10.0	10.9		ug/L		109	75 - 124
cis-1,2-Dichloroethene	10.0	10.6		ug/L		106	78 - 123

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		81 - 118
4-Bromofluorobenzene (Surr)	103		85 - 114
Dibromofluoromethane (Surr)	105		80 - 119
Toluene-d8 (Surr)	106		89 - 112

Lab Sample ID: LCSD 580-377153/5

Matrix: Water

Analysis Batch: 377153

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
1,1,1-Trichloroethane	10.0	9.41		ug/L		94	74 - 131	13	20
1,1,2,2-Tetrachloroethane	10.0	7.48		ug/L		75	71 - 121	4	20
1,1,2-Trichloroethane	10.0	10.3		ug/L		103	80 - 119	2	20
1,1-Dichloroethane	10.0	9.61		ug/L		96	77 - 125	1	20
1,1-Dichloroethene	10.0	9.58		ug/L		96	71 - 131	4	20
1,2-Dichloroethane	10.0	9.98		ug/L		100	73 - 128	0	20
1,2-Dichloroethene, Total	20.0	20.7		ug/L		104	78 - 123	4	20
1,2-Dichloropropane	10.0	9.41		ug/L		94	78 - 122	5	20
2-Hexanone	50.0	34.6		ug/L		69	57 - 139	2	20
4-Methyl-2-pentanone (MIBK)	50.0	37.9		ug/L		76	67 - 130	2	20

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QC Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Method: 8260D - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-377153/5

Matrix: Water

Analysis Batch: 377153

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acetone	50.0	40.6		ug/L		81	39 - 160	8	20
Benzene	10.0	9.97		ug/L		100	79 - 120	2	20
Bromodichloromethane	10.0	9.20		ug/L		92	79 - 125	2	20
Bromoform	10.0	8.82		ug/L		88	66 - 130	1	20
Bromomethane	10.0	10.6		ug/L		106	53 - 141	2	20
Carbon disulfide	10.0	8.19		ug/L		82	64 - 133	1	20
Carbon tetrachloride	10.0	10.0		ug/L		100	72 - 136	2	20
Chlorobenzene	10.0	11.0		ug/L		110	82 - 118	1	20
Chloroform	10.0	10.3		ug/L		103	79 - 124	1	20
Chloromethane	10.0	9.24		ug/L		92	50 - 139	2	20
cis-1,3-Dichloropropene	10.0	9.05		ug/L		90	75 - 124	1	20
Dibromochloromethane	10.0	9.29		ug/L		93	74 - 126	3	20
Dibromochloropropane	10.0	8.39		ug/L		84	62 - 128	3	20
Dichloromethane	10.0	8.96	M	ug/L		90	74 - 124	7	20
Ethyl Chloride	10.0	10.2	M	ug/L		102	60 - 138	2	20
Ethylbenzene	10.0	10.3		ug/L		103	79 - 121	3	20
Methyl ethyl ketone (MEK)	50.0	41.3		ug/L		83	56 - 143	4	20
m-Xylene & p-Xylene	10.0	10.1		ug/L		101	80 - 121	3	20
o-Xylene	10.0	9.88		ug/L		99	78 - 122	2	20
Styrene	10.0	9.99		ug/L		100	78 - 123	1	20
Tetrachloroethene	10.0	11.1		ug/L		111	74 - 129	4	20
Toluene	10.0	10.9		ug/L		109	80 - 121	2	20
trans-1,3-Dichloropropene	10.0	8.49		ug/L		85	73 - 127	2	20
Trichloroethene	10.0	10.8		ug/L		108	79 - 123	2	20
Vinyl chloride	10.0	9.12	M	ug/L		91	58 - 137	7	20
Xylenes, Total	20.0	20.0		ug/L		100	79 - 121	3	20
trans-1,2-Dichloroethene	10.0	10.3		ug/L		103	75 - 124	7	20
cis-1,2-Dichloroethene	10.0	10.4		ug/L		104	78 - 123	1	20

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	93		81 - 118
4-Bromofluorobenzene (Surr)	103		85 - 114
Dibromofluoromethane (Surr)	106		80 - 119
Toluene-d8 (Surr)	108		89 - 112

Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-377110/1-A

Matrix: Water

Analysis Batch: 377241

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 377110

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	0.050	U	0.40	0.050	ug/L		12/30/21 12:40	01/02/22 16:25	1
Acenaphthylene	0.060	U	1.0	0.060	ug/L		12/30/21 12:40	01/02/22 16:25	1
Anthracene	0.050	U	1.0	0.050	ug/L		12/30/21 12:40	01/02/22 16:25	1
Benzo[a]anthracene	0.050	U	0.25	0.050	ug/L		12/30/21 12:40	01/02/22 16:25	1
Benzo[a]pyrene	0.040	U	0.25	0.040	ug/L		12/30/21 12:40	01/02/22 16:25	1
Benzo[b]fluoranthene	0.040	U	0.25	0.040	ug/L		12/30/21 12:40	01/02/22 16:25	1
Benzo[g,h,i]perylene	0.040	U	0.25	0.040	ug/L		12/30/21 12:40	01/02/22 16:25	1

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QC Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-377110/1-A

Matrix: Water

Analysis Batch: 377241

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 377110

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	0.050	U	0.25	0.050	ug/L		12/30/21 12:40	01/02/22 16:25	1
Bis(2-chloroethoxy)methane	0.050	U	0.60	0.050	ug/L		12/30/21 12:40	01/02/22 16:25	1
Bis(2-chloroethyl)ether	0.030	U	0.10	0.030	ug/L		12/30/21 12:40	01/02/22 16:25	1
Bis(2-ethylhexyl) phthalate	0.74	U	3.0	0.74	ug/L		12/30/21 12:40	01/02/22 16:25	1
4-Bromophenyl phenyl ether	0.060	U	0.60	0.060	ug/L		12/30/21 12:40	01/02/22 16:25	1
Butyl benzyl phthalate	0.27	U	4.0	0.27	ug/L		12/30/21 12:40	01/02/22 16:25	1
Carbazole	0.10	U	0.60	0.10	ug/L		12/30/21 12:40	01/02/22 16:25	1
4-Chloroaniline	0.59	U	2.0	0.59	ug/L		12/30/21 12:40	01/02/22 16:25	1
4-Chloro-3-methylphenol	0.13	U	0.60	0.13	ug/L		12/30/21 12:40	01/02/22 16:25	1
2-Chloronaphthalene	0.070	U	1.0	0.070	ug/L		12/30/21 12:40	01/02/22 16:25	1
2-Chlorophenol	0.050	U	1.0	0.050	ug/L		12/30/21 12:40	01/02/22 16:25	1
4-Chlorophenyl phenyl ether	0.050	U	0.60	0.050	ug/L		12/30/21 12:40	01/02/22 16:25	1
Chrysene	0.040	U	0.25	0.040	ug/L		12/30/21 12:40	01/02/22 16:25	1
Dibenz(a,h)anthracene	0.070	U	0.25	0.070	ug/L		12/30/21 12:40	01/02/22 16:25	1
Dibenzofuran	0.10	U	0.40	0.10	ug/L		12/30/21 12:40	01/02/22 16:25	1
Dibutylphthalate	0.19	U	3.0	0.19	ug/L		12/30/21 12:40	01/02/22 16:25	1
1,2-Dichlorobenzene	0.050	U	0.40	0.050	ug/L		12/30/21 12:40	01/02/22 16:25	1
1,3-Dichlorobenzene	0.040	U	0.40	0.040	ug/L		12/30/21 12:40	01/02/22 16:25	1
1,4-Dichlorobenzene	0.040	U	0.40	0.040	ug/L		12/30/21 12:40	01/02/22 16:25	1
3,3'-Dichlorobenzidine	0.26	U	1.0	0.26	ug/L		12/30/21 12:40	01/02/22 16:25	1
2,4-Dichlorophenol	0.20	U	1.0	0.20	ug/L		12/30/21 12:40	01/02/22 16:25	1
Diethyl phthalate	0.15	U	1.0	0.15	ug/L		12/30/21 12:40	01/02/22 16:25	1
2,4-Dimethylphenol	0.16	U	4.0	0.16	ug/L		12/30/21 12:40	01/02/22 16:25	1
Dimethyl phthalate	0.060	U	0.60	0.060	ug/L		12/30/21 12:40	01/02/22 16:25	1
4,6-Dinitro-2-methylphenol	0.55	U	2.0	0.55	ug/L		12/30/21 12:40	01/02/22 16:25	1
2,4-Dinitrophenol	1.6	U	5.0	1.6	ug/L		12/30/21 12:40	01/02/22 16:25	1
2,4-Dinitrotoluene	0.10	U	1.0	0.10	ug/L		12/30/21 12:40	01/02/22 16:25	1
2,6-Dinitrotoluene	0.10	U	0.40	0.10	ug/L		12/30/21 12:40	01/02/22 16:25	1
Di-n-octyl phthalate	0.13	U	1.0	0.13	ug/L		12/30/21 12:40	01/02/22 16:25	1
Fluoranthene	0.060	U	0.25	0.060	ug/L		12/30/21 12:40	01/02/22 16:25	1
Fluorene	0.050	U	0.25	0.050	ug/L		12/30/21 12:40	01/02/22 16:25	1
Hexachlorobenzene	0.040	U	0.60	0.040	ug/L		12/30/21 12:40	01/02/22 16:25	1
Hexachlorobutadiene	0.060	U	1.0	0.060	ug/L		12/30/21 12:40	01/02/22 16:25	1
Hexachlorocyclopentadiene	0.14	U	1.0	0.14	ug/L		12/30/21 12:40	01/02/22 16:25	1
Hexachloroethane	0.050	U	1.0	0.050	ug/L		12/30/21 12:40	01/02/22 16:25	1
Indeno[1,2,3-cd]pyrene	0.13	U	0.40	0.13	ug/L		12/30/21 12:40	01/02/22 16:25	1
Isophorone	0.10	U	0.40	0.10	ug/L		12/30/21 12:40	01/02/22 16:25	1
1-Methylnaphthalene	0.050	U	1.0	0.050	ug/L		12/30/21 12:40	01/02/22 16:25	1
2-Methylnaphthalene	0.060	U	0.40	0.060	ug/L		12/30/21 12:40	01/02/22 16:25	1
2-Methylphenol	0.050	U	0.60	0.050	ug/L		12/30/21 12:40	01/02/22 16:25	1
3 & 4 Methylphenol	0.10	U	0.60	0.10	ug/L		12/30/21 12:40	01/02/22 16:25	1
Naphthalene	0.16	U	0.40	0.16	ug/L		12/30/21 12:40	01/02/22 16:25	1
2-Nitroaniline	0.10	U	1.0	0.10	ug/L		12/30/21 12:40	01/02/22 16:25	1
3-Nitroaniline	0.16	U	3.0	0.16	ug/L		12/30/21 12:40	01/02/22 16:25	1
4-Nitroaniline	0.21	U	2.0	0.21	ug/L		12/30/21 12:40	01/02/22 16:25	1
Nitrobenzene	0.040	U	1.0	0.040	ug/L		12/30/21 12:40	01/02/22 16:25	1
4-Nitrophenol	1.7	U	10	1.7	ug/L		12/30/21 12:40	01/02/22 16:25	1
N-Nitrosodi-n-propylamine	0.060	U	0.40	0.060	ug/L		12/30/21 12:40	01/02/22 16:25	1
N-Nitrosodiphenylamine	0.070	U	1.0	0.070	ug/L		12/30/21 12:40	01/02/22 16:25	1

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QC Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-377110/1-A

Matrix: Water

Analysis Batch: 377241

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 377110

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Pentachlorophenol	0.51	U	10	0.51	ug/L		12/30/21 12:40	01/02/22 16:25	1
Phenanthrene	0.12	U	1.0	0.12	ug/L		12/30/21 12:40	01/02/22 16:25	1
Phenol	0.36	U	1.0	0.36	ug/L		12/30/21 12:40	01/02/22 16:25	1
Pyrene	0.040	U	1.0	0.040	ug/L		12/30/21 12:40	01/02/22 16:25	1
1,2,4-Trichlorobenzene	0.090	U	0.40	0.090	ug/L		12/30/21 12:40	01/02/22 16:25	1
2,4,5-Trichlorophenol	0.10	U	0.40	0.10	ug/L		12/30/21 12:40	01/02/22 16:25	1
2,4,6-Trichlorophenol	0.10	U	0.60	0.10	ug/L		12/30/21 12:40	01/02/22 16:25	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	94		44 - 119	12/30/21 12:40	01/02/22 16:25	1
2-Fluorophenol (Surr)	53		19 - 119	12/30/21 12:40	01/02/22 16:25	1
Nitrobenzene-d5 (Surr)	92		44 - 120	12/30/21 12:40	01/02/22 16:25	1
Phenol-d5 (Surr)	27		10 - 120	12/30/21 12:40	01/02/22 16:25	1
Terphenyl-d14	117		50 - 134	12/30/21 12:40	01/02/22 16:25	1
2,4,6-Tribromophenol	88		43 - 140	12/30/21 12:40	01/02/22 16:25	1

Lab Sample ID: LCS 580-377110/2-A

Matrix: Water

Analysis Batch: 377241

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 377110

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	2.00	1.65		ug/L		83	47 - 122
Acenaphthylene	2.00	1.67		ug/L		84	41 - 130
Anthracene	2.00	1.64		ug/L		82	57 - 123
Benzo[a]anthracene	2.00	1.77		ug/L		88	58 - 125
Benzo[a]pyrene	2.00	1.80		ug/L		90	54 - 128
Benzo[b]fluoranthene	2.00	1.90		ug/L		95	53 - 131
Benzo[g,h,i]perylene	2.00	1.82		ug/L		91	50 - 134
Benzo[k]fluoranthene	2.00	1.69		ug/L		85	57 - 129
Bis(2-chloroethoxy)methane	2.00	1.91		ug/L		96	48 - 120
Bis(2-ethylhexyl) phthalate	2.00	1.99	J	ug/L		99	55 - 135
4-Bromophenyl phenyl ether	2.00	1.71		ug/L		85	55 - 124
Butyl benzyl phthalate	2.00	2.03	J	ug/L		102	53 - 134
Carbazole	2.00	1.85		ug/L		93	60 - 122
4-Chloroaniline	2.00	1.42	J	ug/L		71	33 - 117
4-Chloro-3-methylphenol	2.00	1.64		ug/L		82	52 - 119
2-Chloronaphthalene	2.00	1.72		ug/L		86	40 - 116
2-Chlorophenol	2.00	1.65		ug/L		83	38 - 117
4-Chlorophenyl phenyl ether	2.00	1.75		ug/L		87	53 - 121
Chrysene	2.00	1.86		ug/L		93	59 - 123
Dibenz(a,h)anthracene	2.00	1.70		ug/L		85	51 - 134
Dibenzofuran	2.00	1.75		ug/L		87	53 - 118
Dibutylphthalate	2.00	1.86	J	ug/L		93	59 - 127
1,2-Dichlorobenzene	2.00	1.77		ug/L		89	32 - 111
1,3-Dichlorobenzene	2.00	1.73		ug/L		87	28 - 110
1,4-Dichlorobenzene	2.00	1.68		ug/L		84	29 - 112
3,3'-Dichlorobenzidine	4.00	3.70		ug/L		92	27 - 129
2,4-Dichlorophenol	2.00	1.62		ug/L		81	47 - 121

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QC Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-377110/2-A

Matrix: Water

Analysis Batch: 377241

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 377110

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diethyl phthalate	2.00	1.98		ug/L		99	56 - 125
2,4-Dimethylphenol	2.00	1.74	J	ug/L		87	31 - 124
Dimethyl phthalate	2.00	1.88		ug/L		94	45 - 127
4,6-Dinitro-2-methylphenol	4.00	3.09		ug/L		77	44 - 137
2,4-Dinitrophenol	4.00	2.98	J	ug/L		75	23 - 143
2,4-Dinitrotoluene	2.00	1.76		ug/L		88	57 - 128
2,6-Dinitrotoluene	2.00	1.73		ug/L		86	57 - 124
Di-n-octyl phthalate	2.00	1.96		ug/L		98	51 - 140
Fluoranthene	2.00	1.78		ug/L		89	57 - 128
Fluorene	2.00	1.81		ug/L		91	52 - 124
Hexachlorobenzene	2.00	1.61		ug/L		80	53 - 125
Hexachlorobutadiene	2.00	1.63		ug/L		81	22 - 124
Hexachlorocyclopentadiene	2.00	1.17		ug/L		59	20 - 125
Hexachloroethane	2.00	1.86		ug/L		93	21 - 115
Indeno[1,2,3-cd]pyrene	2.00	1.75		ug/L		87	52 - 134
Isophorone	2.00	1.87		ug/L		94	42 - 124
1-Methylnaphthalene	2.00	1.65		ug/L		82	41 - 119
2-Methylnaphthalene	2.00	1.76		ug/L		88	40 - 121
2-Methylphenol	2.00	1.57		ug/L		79	30 - 117
3 & 4 Methylphenol	2.00	1.49		ug/L		74	29 - 110
Naphthalene	2.00	1.61		ug/L		81	40 - 121
2-Nitroaniline	2.00	1.78		ug/L		89	55 - 127
3-Nitroaniline	2.00	1.61	J	ug/L		81	41 - 128
4-Nitroaniline	2.00	1.68	J	ug/L		84	70 - 125
Nitrobenzene	2.00	2.03		ug/L		102	45 - 121
4-Nitrophenol	4.00	1.71	J	ug/L		43	35 - 145
N-Nitrosodi-n-propylamine	2.00	1.99		ug/L		100	49 - 119
N-Nitrosodiphenylamine	2.00	1.66		ug/L		83	51 - 123
Pentachlorophenol	4.00	1.02	J *	ug/L		26	35 - 138
Phenanthrene	2.00	1.70		ug/L		85	59 - 120
Phenol	2.00	0.844	J	ug/L		42	13 - 120
Pyrene	2.00	1.78		ug/L		89	57 - 126
1,2,4-Trichlorobenzene	2.00	1.67		ug/L		83	29 - 116
2,4,5-Trichlorophenol	2.00	1.73		ug/L		87	53 - 123
2,4,6-Trichlorophenol	2.00	1.58		ug/L		79	50 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorobiphenyl	81		44 - 119
2-Fluorophenol (Surr)	56		19 - 119
Nitrobenzene-d5 (Surr)	90		44 - 120
Phenol-d5 (Surr)	39		10 - 120
Terphenyl-d14	97		50 - 134
2,4,6-Tribromophenol	88		43 - 140

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QC Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-377110/3-A

Matrix: Water

Analysis Batch: 377241

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 377110

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Acenaphthene	2.00	1.56		ug/L		78	47 - 122	6	20
Acenaphthylene	2.00	1.59		ug/L		80	41 - 130	5	20
Anthracene	2.00	1.47		ug/L		74	57 - 123	11	20
Benzo[a]anthracene	2.00	1.65		ug/L		83	58 - 125	7	20
Benzo[a]pyrene	2.00	1.70		ug/L		85	54 - 128	5	20
Benzo[b]fluoranthene	2.00	1.79		ug/L		89	53 - 131	6	20
Benzo[g,h,i]perylene	2.00	1.70		ug/L		85	50 - 134	7	20
Benzo[k]fluoranthene	2.00	1.63		ug/L		82	57 - 129	4	20
Bis(2-chloroethoxy)methane	2.00	1.64		ug/L		82	48 - 120	15	20
Bis(2-ethylhexyl) phthalate	2.00	1.85	J	ug/L		92	55 - 135	7	20
4-Bromophenyl phenyl ether	2.00	1.56		ug/L		78	55 - 124	9	20
Butyl benzyl phthalate	2.00	1.95	J	ug/L		98	53 - 134	4	20
Carbazole	2.00	1.70		ug/L		85	60 - 122	9	20
4-Chloroaniline	2.00	1.21	J	ug/L		61	33 - 117	16	20
4-Chloro-3-methylphenol	2.00	1.57		ug/L		78	52 - 119	5	20
2-Chloronaphthalene	2.00	1.65		ug/L		83	40 - 116	4	20
2-Chlorophenol	2.00	1.47		ug/L		73	38 - 117	12	20
4-Chlorophenyl phenyl ether	2.00	1.63		ug/L		81	53 - 121	7	20
Chrysene	2.00	1.73		ug/L		87	59 - 123	7	20
Dibenz(a,h)anthracene	2.00	1.61		ug/L		81	51 - 134	5	20
Dibenzofuran	2.00	1.64		ug/L		82	53 - 118	6	20
Dibutylphthalate	2.00	1.77	J	ug/L		88	59 - 127	5	20
1,2-Dichlorobenzene	2.00	1.53		ug/L		76	32 - 111	15	20
1,3-Dichlorobenzene	2.00	1.49		ug/L		75	28 - 110	15	20
1,4-Dichlorobenzene	2.00	1.51		ug/L		76	29 - 112	11	20
3,3'-Dichlorobenzidine	4.00	2.76	*1	ug/L		69	27 - 129	29	20
2,4-Dichlorophenol	2.00	1.48		ug/L		74	47 - 121	9	20
Diethyl phthalate	2.00	1.82		ug/L		91	56 - 125	8	20
2,4-Dimethylphenol	2.00	1.68	J	ug/L		84	31 - 124	4	20
Dimethyl phthalate	2.00	1.75		ug/L		88	45 - 127	7	20
4,6-Dinitro-2-methylphenol	4.00	2.84		ug/L		71	44 - 137	8	20
2,4-Dinitrophenol	4.00	2.68	J	ug/L		67	23 - 143	11	20
2,4-Dinitrotoluene	2.00	1.63		ug/L		81	57 - 128	8	20
2,6-Dinitrotoluene	2.00	1.66		ug/L		83	57 - 124	4	20
Di-n-octyl phthalate	2.00	1.88		ug/L		94	51 - 140	4	20
Fluoranthene	2.00	1.70		ug/L		85	57 - 128	5	20
Fluorene	2.00	1.69		ug/L		85	52 - 124	7	20
Hexachlorobenzene	2.00	1.49		ug/L		74	53 - 125	8	20
Hexachlorobutadiene	2.00	1.54		ug/L		77	22 - 124	6	20
Hexachlorocyclopentadiene	2.00	1.13		ug/L		57	20 - 125	3	20
Hexachloroethane	2.00	1.64		ug/L		82	21 - 115	13	20
Indeno[1,2,3-cd]pyrene	2.00	1.60		ug/L		80	52 - 134	9	20
Isophorone	2.00	1.65		ug/L		83	42 - 124	12	20
1-Methylnaphthalene	2.00	1.53		ug/L		76	41 - 119	8	20
2-Methylnaphthalene	2.00	1.67		ug/L		84	40 - 121	5	20
2-Methylphenol	2.00	1.33		ug/L		66	30 - 117	17	20
3 & 4 Methylphenol	2.00	1.33		ug/L		67	29 - 110	11	20
Naphthalene	2.00	1.55		ug/L		77	40 - 121	4	20

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QC Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-377110/3-A

Matrix: Water

Analysis Batch: 377241

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 377110

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
2-Nitroaniline	2.00	1.64		ug/L		82	55 - 127	8	20
3-Nitroaniline	2.00	1.35	J	ug/L		68	41 - 128	17	20
4-Nitroaniline	2.00	1.40	J	ug/L		70	70 - 125	18	20
Nitrobenzene	2.00	1.59	*1	ug/L		79	45 - 121	24	20
4-Nitrophenol	4.00	1.89	J	ug/L		47	35 - 145	10	20
N-Nitrosodi-n-propylamine	2.00	1.79		ug/L		89	49 - 119	11	20
N-Nitrosodiphenylamine	2.00	1.52		ug/L		76	51 - 123	9	20
Pentachlorophenol	4.00	1.13	J *	ug/L		28	35 - 138	10	20
Phenanthrene	2.00	1.55		ug/L		77	59 - 120	9	20
Phenol	2.00	0.770	J	ug/L		39	13 - 120	9	20
Pyrene	2.00	1.70		ug/L		85	57 - 126	5	20
1,2,4-Trichlorobenzene	2.00	1.61		ug/L		81	29 - 116	3	20
2,4,5-Trichlorophenol	2.00	1.54		ug/L		77	53 - 123	12	20
2,4,6-Trichlorophenol	2.00	1.48		ug/L		74	50 - 125	6	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2-Fluorobiphenyl	71		44 - 119
2-Fluorophenol (Surr)	49		19 - 119
Nitrobenzene-d5 (Surr)	83		44 - 120
Phenol-d5 (Surr)	34		10 - 120
Terphenyl-d14	87		50 - 134
2,4,6-Tribromophenol	79		43 - 140

Method: 8015D DRO - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 580-377081/1-A

Matrix: Water

Analysis Batch: 377121

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 377081

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C25	90	U	500	90	ug/L		12/30/21 10:32	12/30/21 18:51	1
C24-C40	180	U	500	180	ug/L		12/30/21 10:32	12/30/21 18:51	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	85		56 - 125	12/30/21 10:32	12/30/21 18:51	1

Lab Sample ID: LCS 580-377081/2-A

Matrix: Water

Analysis Batch: 377121

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 377081

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
C9-C25	4000	2680		ug/L		67	36 - 132
C24-C40	4000	3730		ug/L		93	41 - 113

Surrogate	LCS %Recovery	LCS Qualifier	Limits
o-Terphenyl	74		56 - 125

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QC Sample Results

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Method: 8015D DRO - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCSD 580-377081/3-A

Matrix: Water

Analysis Batch: 377121

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 377081

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
C9-C25	4000	2960		ug/L		74	36 - 132	10	20
C24-C40	4000	3730		ug/L		93	41 - 113	0	20
Surrogate	%Recovery	LCSD Qualifier	LCSD Limits						
<i>o</i> -Terphenyl	82		56 - 125						

Lab Chronicle

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Client Sample ID: I1-DWS-I1-1324-122821-A

Lab Sample ID: 580-108808-1

Date Collected: 12/28/21 09:15

Matrix: Water

Date Received: 12/29/21 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260/CALUFT DOD		1	377150	12/31/21 01:39	JSM	FGS SEA
Total/NA	Analysis	8260D		1	377153	12/31/21 01:39	JSM	FGS SEA
Total/NA	Prep	3510C			377110	12/30/21 12:40	M1E	FGS SEA
Total/NA	Analysis	8270E		1	377241	01/02/22 18:44	E1L	FGS SEA
Total/NA	Prep	3510C			377081	12/30/21 10:32	JHR	FGS SEA
Total/NA	Analysis	8015D DRO		1	377121	12/31/21 02:14	JAE	FGS SEA

Client Sample ID: I1-DWS-TB-1324-122821-A

Lab Sample ID: 580-108808-2

Date Collected: 12/28/21 09:10

Matrix: Water

Date Received: 12/29/21 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260/CALUFT DOD		1	377150	12/30/21 22:53	JSM	FGS SEA
Total/NA	Analysis	8260D		1	377153	12/30/21 22:53	JSM	FGS SEA

Client Sample ID: D1-DWS-D1-768-122821-N

Lab Sample ID: 580-108808-3

Date Collected: 12/28/21 10:30

Matrix: Water

Date Received: 12/29/21 11:20

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260/CALUFT DOD		1	377150	12/31/21 02:03	JSM	FGS SEA
Total/NA	Analysis	8260D		1	377153	12/31/21 02:03	JSM	FGS SEA
Total/NA	Prep	3510C			377110	12/30/21 12:40	M1E	FGS SEA
Total/NA	Analysis	8270E		1	377241	01/02/22 19:07	E1L	FGS SEA
Total/NA	Prep	3510C			377081	12/30/21 10:32	JHR	FGS SEA
Total/NA	Analysis	8015D DRO		1	377121	12/31/21 02:34	JAE	FGS SEA

Laboratory References:

FGS SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Laboratory: Eurofins Seattle

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2236	01-19-22
The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.			
Analysis Method	Prep Method	Matrix	Analyte
8260D		Water	1,2-Dichloroethene, Total

Sample Summary

Client: AECOM
Project/Site: CV18F0126

Job ID: 580-108808-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-108808-1	I1-DWS-I1-1324-122821-A	Water	12/28/21 09:15	12/29/21 11:20
580-108808-2	I1-DWS-TB-1324-122821-A	Water	12/28/21 09:10	12/29/21 11:20
580-108808-3	D1-DWS-D1-768-122821-N	Water	12/28/21 10:30	12/29/21 11:20

1

2

3

4

5

6

7

8

9

10

11

5755 8th Street East
Tacoma, WA 98424

Chain of Custody Record

Therm. ID: SCM Cor: 0, 2 Unc: 0, 3
Cooler Desc: large fed FedEx: _____
Packing: Bubble wrap UPS: _____
Cust. Seal: Yes ☒ No _____ Lab Cour: _____



Environment Testing
America

[illegible]

Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-108808-1

Login Number: 108808

List Number: 1

Creator: Grable, Heather D

List Source: Eurofins Seattle

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

ANALYTICAL REPORT

Eurofins Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

Laboratory Job ID: 580-108842-1
Client Project/Site: CV22F0106-RHSF

For:
AECOM
1001 Bishop Street
Honolulu, Hawaii 96813

Attn: Margie F Pascua



Authorized for release by:
1/7/2022 9:46:32 AM
Kristine Allen, Client Service Manager
(253)248-4970

Kristine.Allen@Eurofinset.com

Designee for
Elaine Walker, Project Manager II
(253)248-4972
m.elaine.walker@eurofinset.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.



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Case Narrative

Client: AECOM
Project/Site: CV22F0106-RHSF

Job ID: 580-108842-1

Job ID: 580-108842-1

Laboratory: Eurofins Seattle

Narrative

Job Narrative 580-108842-1

Comments

No additional comments.

Receipt

The samples were received on 12/30/2021 3:00 PM. Unless otherwise noted below, the samples arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 7.8° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 580-377200. Laboratory control sample/laboratory control sample duplicate were created and substituted for MS/MSD/DUP.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

VOA Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: AECOM
Project/Site: CV22F0106-RHSF

Job ID: 580-108842-1

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
□	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Client Sample Results

Client: AECOM
Project/Site: CV22F0106-RHSF

Job ID: 580-108842-1

Client Sample ID: I1-DWS-I1-1324-122921-A

Lab Sample ID: 580-108842-1

Date Collected: 12/29/21 08:30

Matrix: Water

Date Received: 12/30/21 15:00

Method: 8260/CALUFT DOD - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	ND		0.10	0.031	mg/L	-		12/31/21 12:12	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		69 - 133		12/31/21 12:12	1

Method: 8015D DRO - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C25	ND		0.54	0.097	mg/L	-	12/31/21 15:08	01/02/22 16:02	1
C24-C40	ND		0.54	0.19	mg/L	-	12/31/21 15:08	01/02/22 16:02	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	84		56 - 125	12/31/21 15:08	01/02/22 16:02	1

Client Sample Results

Client: AECOM
Project/Site: CV22F0106-RHSF

Job ID: 580-108842-1

Client Sample ID: D1-DWS-TB-768-122921-N

Lab Sample ID: 580-108842-2

Date Collected: 12/29/21 10:20

Matrix: Water

Date Received: 12/30/21 15:00

Method: 8260/CALUFT DOD - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	ND		0.10	0.031	mg/L			12/31/21 11:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	89		69 - 133					12/31/21 11:48	1

Client Sample Results

Client: AECOM
Project/Site: CV22F0106-RHSF

Job ID: 580-108842-1

Client Sample ID: D1-DWS-D1-768-122921-N

Lab Sample ID: 580-108842-3

Date Collected: 12/29/21 10:30

Matrix: Water

Date Received: 12/30/21 15:00

Method: 8260/CALUFT DOD - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	ND		0.10	0.031	mg/L	-		12/31/21 12:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	90		69 - 133		12/31/21 12:35	1

Method: 8015D DRO - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C25	ND		0.55	0.099	mg/L	-	12/31/21 15:08	01/02/22 16:22	1
C24-C40	ND		0.55	0.20	mg/L	-	12/31/21 15:08	01/02/22 16:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
o-Terphenyl	84		56 - 125	12/31/21 15:08	01/02/22 16:22	1

QC Sample Results

Client: AECOM
Project/Site: CV22F0106-RHSF

Job ID: 580-108842-1

Method: 8260/CALUFT DOD - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 580-377173/4

Matrix: Water

Analysis Batch: 377173

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (C6-C12)	ND		0.10	0.031	mg/L			12/31/21 10:12	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene (Surr)	91		69 - 133					12/31/21 10:12	1

Lab Sample ID: LCS 580-377173/5

Matrix: Water

Analysis Batch: 377173

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (C6-C12)	1.00	0.968		mg/L		97	78 - 122		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene (Surr)	97		69 - 133						

Lab Sample ID: LCSD 580-377173/6

Matrix: Water

Analysis Batch: 377173

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (C6-C12)	1.00	0.961		mg/L		96	78 - 122	1	30
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene (Surr)	97		69 - 133						

Method: 8015D DRO - Diesel Range Organics (DRO) (GC)

Lab Sample ID: MB 580-377200/1-A

Matrix: Water

Analysis Batch: 377236

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 377200

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
C9-C25	ND		0.50	0.090	mg/L		12/31/21 15:08	01/01/22 21:33	1
C24-C40	ND		0.50	0.18	mg/L		12/31/21 15:08	01/01/22 21:33	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
o-Terphenyl	96		56 - 125				12/31/21 15:08	01/01/22 21:33	1

Lab Sample ID: LCS 580-377200/2-A

Matrix: Water

Analysis Batch: 377236

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 377200

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
C9-C25	4.00	3.10		mg/L		77	36 - 132		
C24-C40	4.00	3.88		mg/L		97	41 - 113		

Eurofins Seattle

QC Sample Results

Client: AECOM
Project/Site: CV22F0106-RHSF

Job ID: 580-108842-1

Method: 8015D DRO - Diesel Range Organics (DRO) (GC) (Continued)

Lab Sample ID: LCS 580-377200/2-A

Matrix: Water

Analysis Batch: 377236

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 377200

	LCS	LCS	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	82		56 - 125

Lab Sample ID: LCSD 580-377200/3-A

Matrix: Water

Analysis Batch: 377236

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 377200

			Spike	LCSD	LCSD				%Rec.		RPD	
Analyte			Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit	
C9-C25			4.00	3.20		mg/L		80	36 - 132	3	20	
C24-C40			4.00	3.88		mg/L		97	41 - 113	0	20	

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
<i>o</i> -Terphenyl	83		56 - 125

Lab Chronicle

Client: AECOM
Project/Site: CV22F0106-RHSF

Job ID: 580-108842-1

Client Sample ID: I1-DWS-I1-1324-122921-A

Lab Sample ID: 580-108842-1

Date Collected: 12/29/21 08:30

Matrix: Water

Date Received: 12/30/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260/CALUFT DOD		1	377173	12/31/21 12:12	JBT	FGS SEA
Total/NA	Prep	3510C			377200	12/31/21 15:08	JHR	FGS SEA
Total/NA	Analysis	8015D DRO		1	377250	01/02/22 16:02	JAE	FGS SEA

Client Sample ID: D1-DWS-TB-768-122921-N

Lab Sample ID: 580-108842-2

Date Collected: 12/29/21 10:20

Matrix: Water

Date Received: 12/30/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260/CALUFT DOD		1	377173	12/31/21 11:48	JBT	FGS SEA

Client Sample ID: D1-DWS-D1-768-122921-N

Lab Sample ID: 580-108842-3

Date Collected: 12/29/21 10:30

Matrix: Water

Date Received: 12/30/21 15:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260/CALUFT DOD		1	377173	12/31/21 12:35	JBT	FGS SEA
Total/NA	Prep	3510C			377200	12/31/21 15:08	JHR	FGS SEA
Total/NA	Analysis	8015D DRO		1	377250	01/02/22 16:22	JAE	FGS SEA

Laboratory References:

FGS SEA = Eurofins Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: AECOM
Project/Site: CV22F0106-RHSF

Job ID: 580-108842-1

Laboratory: Eurofins Seattle

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2236	01-19-22

- 1
- 2
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- 10
- 11

Sample Summary

Client: AECOM
Project/Site: CV22F0106-RHSF

Job ID: 580-108842-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-108842-1	I1-DWS-I1-1324-122921-A	Water	12/29/21 08:30	12/30/21 15:00
580-108842-2	D1-DWS-TB-768-122921-N	Water	12/29/21 10:20	12/30/21 15:00
580-108842-3	D1-DWS-D1-768-122921-N	Water	12/29/21 10:30	12/30/21 15:00

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America

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Login Sample Receipt Checklist

Client: AECOM

Job Number: 580-108842-1

Login Number: 108842

List Source: Eurofins Seattle

List Number: 1

Creator: Vallelunga, Diana L

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Memorandum

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To	Karen Mixon, Data Validation Manager	Info	Complete
Subject	Summary Data Quality Review Joint Base Pearl Harbor-Hickam, Hawaii Red Hill Bulk Fuel Storage Facility		
From	Chelsey Cook, Chemist		
Date	January 15, 2022		

The summary data quality review of 4 water samples and 3 trip blanks collected on December 28 and December 29, 2021, has been completed. The samples were collected by AECOM personnel and were analyzed at Eurofins TestAmerica, in Seattle, Washington, for volatile organic compounds (VOCs) by EPA Method 8260D, semivolatile organic compounds (SVOCs) by EPA Method 8270E, and total petroleum hydrocarbons (TPHs) by EPA Method 8260/CALUFT (gasoline-range, C6-C12 hydrocarbons) and EPA Method 8015D (diesel range, C9-C25 hydrocarbons, and motor oil range, C24-C40 hydrocarbons) and Eurofins Eaton Analytical, LLC in Monrovia, California, for VOCs by EPA Method 524.2, 1,2-dibromoethane (EDB) by EPA Method 504.1, SVOCs by EPA Method 525.2, total metals by EPA Method 200.8, organochlorine pesticides and PCB (Aroclors) by EPA Method 505, and chlorophenoxy herbicides by EPA Method 515.4. The analyses were performed in general accordance with the methods specified in EPA's *Test Methods for Evaluating Solid Waste (SW-846)* and EPA's drinking water program. The laboratory provided summary reports containing sample results and associated quality assurance (QA) and quality control (QC) data. The following samples are associated with Eurofins TestAmerica-Seattle laboratory groups 580-108808-1 and 580-108842-1 and Eurofins Eaton Analytical, LLC laboratory groups 977854 and 977829:

Sample ID	Laboratory IDs	Requested Analyses
I1-DWS-I1-1324-122821-A	580-108808-1	VOCs, SVOCs, TPH
I1-DWS-TB-1324-122821-A (trip blank)	580-108808-2	VOCs, GRO
D1-DWS-D1-768-122821-N	580-108808-3	VOCs, SVOCs, TPH
I1-DWS-I1-1324-122921-A	580-108842-1 / 202112300308	TPH, VOCs, EDB, SVOCs, Metals, Pesticides, PCB (Aroclors), Herbicides
D1-DWS-TB-768-122921-N (trip blank)	580-108842-2 / 202112300357	VOCs, TPH (gasoline-range), EDB
D1-DWS-D1-768-122921-N	580-108842-3 / 202112300358	GRO, DRO+RRO, VOCs, EDB, SVOCs, Metals, Pests, PCBs, Herbs
I1-DWS-TBI1-1324-122921-A (trip blank)	202112300307	VOCs, EDB

Upon receipt by the laboratories, the sample jar information was compared to the associated chain-of-custody (COC) and the cooler temperatures were recorded. No discrepancies relating to sample identification were noted by the laboratory. One cooler was received by Eurofins-Seattle at a temperature below the EPA-recommended limits of greater than 0°C and less than or equal to 6°C at -0.2°C. The laboratory did not note that any samples were received frozen; therefore, data were not qualified based on the cooler temperature.

Data validation is based on method performance criteria and QC criteria documented in the laboratory reports. Holding times, field/method/trip blanks, surrogate recoveries, laboratory control sample results, and reporting limits were reviewed to assess compliance with applicable methods and laboratory control criteria. If data qualification was required, data were qualified based on the definitions and use of qualifying flags outlined in the EPA documents *National Functional Guidelines for Organic Superfund Methods Data Review*, November 2020,

**Summary Data Quality Review
Joint Base Pearl Harbor-Hickam, Hawaii
Red Hill Bulk Fuel Storage Facility**

and *National Functional Guidelines for Inorganic Superfund Methods Data Review*, November 2020. The following results required qualification:

- The following percent recoveries for the SVOC surrogates were below the laboratory control limits:

Sample	Surrogate	%Recovery	Control Limits
I1-DWS-I1-1324-122821-A	2-Fluorophenol	0%	19-119%
	Phenol-d5	0%	10-120%
D1-DWS-D1-768-122821-N	2-Fluorophenol	0%	19-119%
	Phenol-d5	0%	10-120%

The acid analytes in all of the samples noted in the table above were rejected and flagged 'R' based on the acid surrogate recoveries. The compounds are listed below:

2,4,5-Trichlorophenol
2,4,6-Trichlorophenol
2,4-Dichlorophenol
2,4-Dimethylphenol
2,4-Dinitrophenol
2-Chlorophenol
2-Methylphenol
3 & 4 Methylphenol
4,6-Dinitro-2-methylphenol
4-Chloro-3-methylphenol
4-Nitrophenol
Pentachlorophenol
Phenol

- The following percent recoveries for the VOC surrogates were below the laboratory control limits:

Sample	Surrogate	%Recovery	Control Limits
I1-DWS-I1-1324-122821-A	Toluene-d8	0.5%	89-112%
D1-DWS-D1-768-122821-N	Toluene-d8	0.1%	89-112%

All non-detect analytes in the samples listed above were flagged 'R', and the detected analytes were flagged 'J' based on the surrogate recoveries.

- The laboratory noted that the percent differences (%Ds) for 2-hexanone and acetone recovered below the method control limits in the continuing calibration verification (CCV) associated with analytical batch 377153; therefore, the results for 2-hexanone and acetone were qualified as estimated and flagged 'UJ' in I1-DWS-TB-1324-122821-A based on the CCV %Ds.
- The laboratory noted that the minimum response factors (RFs) for n-nitroso-di-n-propylamine and bis(2-chloroethyl)ether were outside the method control criteria in the CCV associated with analysis batch 377241.



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Joint Base Pearl Harbor-Hickam, Hawaii
Red Hill Bulk Fuel Storage Facility

The results for n-nitroso-di-n-propylamine and bis(2-chloroethyl)ether in I1-DWS-I1-1324-122821-A and D1-DWS-D1-768-122821-N were qualified as estimated and flagged 'UJ.'

- The following analytes exceeded the Incident Specific Screening Criteria:

Sample Name	Analyte	Result	MDL	Incident Specific Screening Criteria	Units
20220104-A1-ZT03	Hexachlorobenzene	ND	0.098	0.0003	µg/L
D1-DWS-D1-768-122821-N	Hexachlorobenzene	ND	0.041	0.0003	µg/L
I1-DWS-I1-1324-122821-A	Hexachlorobenzene	ND	0.042	0.0003	µg/L
20220104-A1-ZT03	Endrin	ND	0.0099	0.0023	µg/L
20220104-A1-ZT03	Heptachlor	ND	0.0096	0.0036	µg/L
20220104-A1-ZT03	Heptachlor epoxide	ND	0.012	0.0036	µg/L
D1-DWS-D1-768-122921-N	Hexachlorobenzene	ND	0.041	0.0003	µg/L
D1-DWS-D1-768-122921-N	Heptachlor Epoxide	ND	0.005	0.0036	µg/L
D1-DWS-D1-768-122921-N	Endrin	ND	0.005	0.0023	µg/L
D1-DWS-D1-768-122921-N	Methoxychlor	ND	0.032	0.03	µg/L
I1-DWS-I1-1324-122921-A	Hexachlorobenzene	ND	0.041	0.0003	µg/L
I1-DWS-I1-1324-122921-A	Heptachlor Epoxide	ND	0.005	0.0036	µg/L
I1-DWS-I1-1324-122921-A	Endrin	ND	0.005	0.0023	µg/L
I1-DWS-I1-1324-122921-A	Methoxychlor	ND	0.032	0.03	µg/L

Memorandum

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To	Karen Mixon, Data Validation Manager	Info	Complete
Subject	Summary Data Quality Review Joint Base Pearl Harbor-Hickam, Hawaii Red Hill Bulk Fuel Storage Facility		
From	Chelsey Cook, Chemist		
Date	January 15, 2022		

The summary data quality review of 3 water samples collected on January 4, 2022, has been completed. The samples were collected by AECOM personnel and were analyzed at Week Laboratories, Inc. (Week) in City of Industry, CA for volatile organic compounds (VOCs) by EPA Method 524.2, semivolatile organic compounds (SVOCs) by EPA Method 525.2, polychlorinated biphenyls (PCBs) by EPA Method 508.1, total metals by EPA Method 200.8, mercury by EPA Method 245.1, and total organic carbon (TOC) by EPA Method 5310B. The analyses were performed in general accordance with the methods specified in EPA's drinking water program. The laboratory provided a summary report containing sample results and associated quality assurance (QA) and quality control (QC) data. The following samples are associated with Week laboratory group 2A05051:

Sample ID	Laboratory IDs	Requested Analyses
20220104-A1-ZT01	2A05051-01	VOCs
20220104-A1-ZT03	2A05051-02	PCBs, SVOCs, Metals, TOC, VOCs
20220104-D1-ZT04	2A05051-03	TOC

Upon receipt by the laboratory, the sample jar information was compared to the associated chain-of-custody (COC) and the cooler temperatures were recorded. No discrepancies relating to sample identification were noted by the laboratory. The cooler was received by Week within the EPA-recommended limits of greater than 0°C and less than or equal to 6°C.

Data validation is based on method performance criteria and QC criteria documented in the laboratory reports. Holding times, field/method/trip blanks, surrogate recoveries, laboratory control sample results, and reporting limits were reviewed to assess compliance with applicable methods and laboratory control criteria. If data qualification was required, data were qualified based on the definitions and use of qualifying flags outlined in the EPA documents *National Functional Guidelines for Organic Superfund Methods Data Review*, November 2020, and *National Functional Guidelines for Inorganic Superfund Methods Data Review*, November 2020. The following results required qualification:

- The following percent recoveries and or relative percent differences (RPDs) in the LCS/LCSD associated with batch W2A0245 were outside of the control limits:

Analyte	LCS	LCSD	RPD	Control Limits (LCS / RPD)
Benzo (a) pyrene	57%	20%	96%	60-130%/30%
Endrin	ok	51%	41%	70-130%/30%
Methoxychlor	ok	64%	33%	70-130%/30%

The results for benzo(a)pyrene, endrin, and methoxychlor were qualified as estimated and flagged 'UJ' in 20220104-A1-ZT03.



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Red Hill Bulk Fuel Storage Facility

- The following analytes exceeded the Incident Specific Screening Criteria:

Sample Name	Analyte	Result	MDL	Incident Specific Screening Criteria	Units
20220104-A1-ZT03	Endrin	ND	0.0099	0.0023	µg/L
20220104-A1-ZT03	Heptachlor	ND	0.0096	0.0036	µg/L
20220104-A1-ZT03	Heptachlor epoxide	ND	0.012	0.0036	µg/L
20220104-A1-ZT03	Hexachlorobenzene	ND	0.098	0.0003	µg/L