

ANALYTICAL REPORT

Eurofins TestAmerica, Spokane
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Laboratory Job ID: 590-14627-1
Client Project/Site: Outfall

For:

Hart Crowser, Inc.
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Spokane, Washington 99201

Attn: Ward McDonald



*Authorized for release by:
3/1/2021 7:14:20 AM*

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



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Case Narrative

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Job ID: 590-14627-1

Laboratory: Eurofins TestAmerica, Spokane

Narrative

Receipt

The samples were received on 2/9/2021 11:40 AM; the samples arrived in good condition, and where required, properly preserved and on ice. The temperatures of the 3 coolers at receipt time were 5.7° C, 12.8° C and 13.5° C.

Receipt Exceptions

The following samples were received at the laboratory outside the required temperature criteria: Outfall 003 (590-14627-1), Outfall 001 (590-14627-2) and Outfall 006 (590-14627-3). The samples are considered acceptable since it was collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

GC/MS VOA

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

GC/MS Semi VOA

Method 625.1: The continuing calibration verification (CCV) associated with batch 580-350278 recovered above the upper control limit for Benzidine. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported. The associated samples are impacted: Outfall 001 (590-14627-2), Outfall 006 (590-14627-3) and (CCVIS 580-350278/3).

Method 625.1: The continuing calibration verification (CCV) associated with batch 580-350536 recovered above the upper control limit for Benzidine. The samples associated with this CCV were non-detect for the affected analyte; therefore, the data have been reported. The associated samples are impacted: Outfall 003 (590-14627-1), Outfall 001 (590-14627-2), Outfall 006 (590-14627-3) and (CCVIS 580-350536/3).

Method 625.1: Surrogate recovery for the following sample was outside the upper control limit: (MB 580-349675/1-A). This sample did not contain any target analytes; therefore, re-extraction and/or re-analysis was not performed.

Method 625.1: Six surrogates are used for this analysis. The laboratory's SOP allows two of these surrogates to be outside acceptance criteria without performing re-extraction/re-analysis. The following sample contained an allowable number of surrogate compounds outside limits: (LCS 580-349675/2-A).

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

GC Semi VOA

Method 608.3: The method blank for preparation batch 580-349672 and analytical batch 580-349909 contained Endrin aldehyde above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

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

Dioxin

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

Metals

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

General Chemistry

Method 420.4: In Total Recoverable Phenols batch 280-526855 the CCV failed low at 89%. Results may be biased low.

(CCV 280-526855/58)

Methods 410.2: The sample duplicate (DUP) precision for preparation batch 580-349697 and analytical batch 580-349721 was outside control limits. Sample non-homogeneity is suspected.

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

Case Narrative

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Job ID: 590-14627-1 (Continued)

Laboratory: Eurofins TestAmerica, Spokane (Continued)

Organic Prep

Method CWA_Prep: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 580-349675, so an LCS/LCSD were used instead.

Method CWA_Prep: The following samples formed emulsions during the acid and base portions of the extraction procedure: Outfall 003 (590-14627-1), Outfall 001 (590-14627-2) and Outfall 006 (590-14627-3). The emulsions were broken up using sodium sulfate and rinsed with solvent.

Method 3510C: Insufficient sample volume was available to perform a matrix spike/matrix spike duplicate/sample duplicate (MS/MSD/DUP) associated with preparation batch 580-349672, so an LCS/LCSD were used instead.

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.

Dioxin Prep

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



Sample Summary

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
590-14627-1	Outfall 003	Water	02/09/21 10:30	02/09/21 11:40	
590-14627-2	Outfall 001	Water	02/09/21 10:00	02/09/21 11:40	
590-14627-3	Outfall 006	Water	02/09/21 09:30	02/09/21 11:40	

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- 10
- 11
- 12
- 13
- 14

Definitions/Glossary

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

GC/MS Semi VOA

Qualifier	Qualifier Description
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, high biased.

GC Semi VOA

Qualifier	Qualifier Description
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
^	Continuing Calibration Verification (CCV) is outside acceptance limits, low biased.
F1	MS and/or MSD recovery exceeds control limits.
F3	Duplicate RPD exceeds the control limit
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

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

Definitions/Glossary

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
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

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Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Client Sample ID: Outfall 003

Lab Sample ID: 590-14627-1

Date Collected: 02/09/21 10:30

Matrix: Water

Date Received: 02/09/21 11:40

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.20	0.025	ug/L			02/10/21 19:22	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.056	ug/L			02/10/21 19:22	1
1,1,2-Trichloroethane	ND		0.20	0.070	ug/L			02/10/21 19:22	1
1,1-Dichloroethylene	ND		0.20	0.035	ug/L			02/10/21 19:22	1
1,1-Dichloroethane	ND		0.20	0.025	ug/L			02/10/21 19:22	1
1,2-Dichloroethane	ND		0.20	0.043	ug/L			02/10/21 19:22	1
1,2-Dichloropropane	ND		0.20	0.060	ug/L			02/10/21 19:22	1
1,2-trans-Dichloroethylene	ND		0.20	0.033	ug/L			02/10/21 19:22	1
2-Chloroethyl vinyl ether	ND		6.0	0.35	ug/L			02/10/21 19:22	1
Acrolein	ND		15	1.1	ug/L			02/10/21 19:22	1
Acrylonitrile	ND		10	0.78	ug/L			02/10/21 19:22	1
Benzene	ND		0.20	0.030	ug/L			02/10/21 19:22	1
Bromoform	ND		0.50	0.16	ug/L			02/10/21 19:22	1
Carbon tetrachloride	ND		0.20	0.025	ug/L			02/10/21 19:22	1
Chlorobenzene	0.041	J B	0.20	0.025	ug/L			02/10/21 19:22	1
Chlorobromomethane	ND		0.20	0.025	ug/L			02/10/21 19:22	1
Chloroethane	ND		0.50	0.096	ug/L			02/10/21 19:22	1
Chloroform	1.0		0.20	0.030	ug/L			02/10/21 19:22	1
cis-1,3-Dichloropropene	ND		0.20	0.090	ug/L			02/10/21 19:22	1
Dichlorobromomethane	0.13	J	0.20	0.060	ug/L			02/10/21 19:22	1
Ethylbenzene	ND		0.20	0.030	ug/L			02/10/21 19:22	1
Methyl bromide	ND		0.50	0.062	ug/L			02/10/21 19:22	1
Methyl chloride	ND		0.50	0.068	ug/L			02/10/21 19:22	1
Methylene Chloride	ND		5.0	1.2	ug/L			02/10/21 19:22	1
Tetrachloroethylene	0.28	J B	0.50	0.084	ug/L			02/10/21 19:22	1
Toluene	0.17	J	0.20	0.050	ug/L			02/10/21 19:22	1
trans-1,3-Dichloropropene	ND		0.20	0.092	ug/L			02/10/21 19:22	1
Trichloroethylene	ND		0.20	0.066	ug/L			02/10/21 19:22	1
Vinyl chloride	ND		0.020	0.013	ug/L			02/10/21 19:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	102		70 - 120					02/10/21 19:22	1
4-Bromofluorobenzene (Surr)	103		78 - 119					02/10/21 19:22	1
Dibromofluoromethane (Surr)	103		70 - 120					02/10/21 19:22	1
Toluene-d8 (Surr)	97		79 - 122					02/10/21 19:22	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.42	0.042	ug/L		02/11/21 10:16	02/16/21 22:14	1
1,2-Dichlorobenzene	ND		0.42	0.052	ug/L		02/11/21 10:16	02/16/21 22:14	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		2.1	0.062	ug/L		02/11/21 10:16	02/16/21 22:14	1
1,3-Dichlorobenzene	ND		0.42	0.042	ug/L		02/11/21 10:16	02/16/21 22:14	1
1,4-Dichlorobenzene	ND		0.42	0.042	ug/L		02/11/21 10:16	02/16/21 22:14	1
2,4,6-Trichlorophenol	ND		0.62	0.10	ug/L		02/11/21 10:16	02/16/21 22:14	1
2,4-Dichlorophenol	ND		1.0	0.21	ug/L		02/11/21 10:16	02/16/21 22:14	1
2,4-Dimethylphenol	ND		4.2	0.17	ug/L		02/11/21 10:16	02/16/21 22:14	1
2,4-Dinitrophenol	ND		5.2	1.7	ug/L		02/11/21 10:16	02/16/21 22:14	1
2,4-Dinitrotoluene	ND		1.0	0.10	ug/L		02/11/21 10:16	02/16/21 22:14	1
2,6-Dinitrotoluene	ND		0.42	0.10	ug/L		02/11/21 10:16	02/16/21 22:14	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Client Sample ID: Outfall 003

Lab Sample ID: 590-14627-1

Date Collected: 02/09/21 10:30

Matrix: Water

Date Received: 02/09/21 11:40

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Chloronaphthalene	ND		1.0	0.031	ug/L		02/11/21 10:16	02/16/21 22:14	1
2-Chlorophenol	ND		1.0	0.052	ug/L		02/11/21 10:16	02/16/21 22:14	1
2-Nitrophenol	ND		1.0	0.073	ug/L		02/11/21 10:16	02/16/21 22:14	1
3,3'-Dichlorobenzidine	ND		2.1	0.65	ug/L		02/11/21 10:16	02/16/21 22:14	1
4,6-Dinitro-o-cresol	ND		2.1	0.57	ug/L		02/11/21 10:16	02/16/21 22:14	1
4-Bromophenyl phenyl ether	ND		0.62	0.062	ug/L		02/11/21 10:16	02/16/21 22:14	1
4-Chlorophenyl phenyl ether	ND		0.62	0.052	ug/L		02/11/21 10:16	02/16/21 22:14	1
4-Nitrophenol	ND		10	1.8	ug/L		02/11/21 10:16	02/16/21 22:14	1
Acenaphthene	ND		0.42	0.052	ug/L		02/11/21 10:16	02/16/21 22:14	1
Acenaphthylene	ND		1.0	0.062	ug/L		02/11/21 10:16	02/16/21 22:14	1
Anthracene	ND		1.0	0.052	ug/L		02/11/21 10:16	02/16/21 22:14	1
Benzidine	ND		10	3.1	ug/L		02/11/21 10:16	02/25/21 17:43	1
Benzo[a]anthracene	ND		0.26	0.052	ug/L		02/11/21 10:16	02/16/21 22:14	1
Benzo[a]pyrene	ND		0.26	0.042	ug/L		02/11/21 10:16	02/16/21 22:14	1
Benzo[b]fluoranthene	ND		0.26	0.042	ug/L		02/11/21 10:16	02/16/21 22:14	1
Benzo[g,h,i]perylene	ND		0.26	0.042	ug/L		02/11/21 10:16	02/16/21 22:14	1
Benzo[k]fluoranthene	ND		0.26	0.052	ug/L		02/11/21 10:16	02/16/21 22:14	1
bis (2-chloroisopropyl) ether	ND		0.26	0.062	ug/L		02/11/21 10:16	02/16/21 22:14	1
Bis(2-chloroethoxy)methane	ND		0.62	0.052	ug/L		02/11/21 10:16	02/16/21 22:14	1
Bis(2-chloroethyl)ether	ND		0.10	0.031	ug/L		02/11/21 10:16	02/16/21 22:14	1
Bis(2-ethylhexyl) phthalate	ND		3.1	0.77	ug/L		02/11/21 10:16	02/16/21 22:14	1
Butyl benzyl phthalate	1.1	J	4.2	0.97	ug/L		02/11/21 10:16	02/16/21 22:14	1
Chrysene	ND		0.26	0.042	ug/L		02/11/21 10:16	02/16/21 22:14	1
Dibenz(a,h)anthracene	ND		0.26	0.073	ug/L		02/11/21 10:16	02/16/21 22:14	1
Diethyl phthalate	ND		1.0	0.16	ug/L		02/11/21 10:16	02/16/21 22:14	1
Dimethyl phthalate	ND		0.62	0.062	ug/L		02/11/21 10:16	02/16/21 22:14	1
Di-n-butyl phthalate	ND		3.1	0.46	ug/L		02/11/21 10:16	02/16/21 22:14	1
Di-n-octyl phthalate	ND		1.0	0.14	ug/L		02/11/21 10:16	02/16/21 22:14	1
Fluoranthene	ND		0.26	0.062	ug/L		02/11/21 10:16	02/16/21 22:14	1
Fluorene	ND		0.26	0.052	ug/L		02/11/21 10:16	02/16/21 22:14	1
Hexachlorobenzene	ND		0.62	0.042	ug/L		02/11/21 10:16	02/16/21 22:14	1
Hexachlorobutadiene	ND		1.0	0.062	ug/L		02/11/21 10:16	02/16/21 22:14	1
Hexachlorocyclopentadiene	ND		2.1	0.29	ug/L		02/11/21 10:16	02/16/21 22:14	1
Hexachloroethane	ND		1.0	0.052	ug/L		02/11/21 10:16	02/16/21 22:14	1
Indeno[1,2,3-cd]pyrene	ND		0.42	0.14	ug/L		02/11/21 10:16	02/16/21 22:14	1
Isophorone	ND		0.42	0.10	ug/L		02/11/21 10:16	02/16/21 22:14	1
Naphthalene	ND		0.42	0.16	ug/L		02/11/21 10:16	02/16/21 22:14	1
Nitrobenzene	ND		1.0	0.042	ug/L		02/11/21 10:16	02/16/21 22:14	1
N-Nitrosodimethylamine	ND		2.1	0.27	ug/L		02/11/21 10:16	02/16/21 22:14	1
N-Nitrosodi-n-propylamine	ND		0.42	0.062	ug/L		02/11/21 10:16	02/16/21 22:14	1
N-Nitrosodiphenylamine	ND		1.0	0.073	ug/L		02/11/21 10:16	02/16/21 22:14	1
p-Chloro-m-cresol	ND		0.62	0.14	ug/L		02/11/21 10:16	02/16/21 22:14	1
Pentachlorophenol	ND		10	3.3	ug/L		02/11/21 10:16	02/16/21 22:14	1
Phenanthrene	ND		1.0	0.031	ug/L		02/11/21 10:16	02/16/21 22:14	1
Phenol	ND		1.0	0.37	ug/L		02/11/21 10:16	02/16/21 22:14	1
Pyrene	ND		1.0	0.042	ug/L		02/11/21 10:16	02/16/21 22:14	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	72		47 - 137	02/11/21 10:16	02/16/21 22:14	1
2,4,6-Tribromophenol	83		47 - 137	02/11/21 10:16	02/25/21 17:43	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Client Sample ID: Outfall 003

Lab Sample ID: 590-14627-1

Date Collected: 02/09/21 10:30

Matrix: Water

Date Received: 02/09/21 11:40

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorobiphenyl	78		56 - 124	02/11/21 10:16	02/16/21 22:14	1
2-Fluorobiphenyl	82		56 - 124	02/11/21 10:16	02/25/21 17:43	1
2-Fluorophenol	49		20 - 122	02/11/21 10:16	02/16/21 22:14	1
2-Fluorophenol	57		20 - 122	02/11/21 10:16	02/25/21 17:43	1
Nitrobenzene-d5	81		59 - 123	02/11/21 10:16	02/16/21 22:14	1
Nitrobenzene-d5	119		59 - 123	02/11/21 10:16	02/25/21 17:43	1
Phenol-d5	29		20 - 123	02/11/21 10:16	02/16/21 22:14	1
Phenol-d5	42		20 - 123	02/11/21 10:16	02/25/21 17:43	1
Terphenyl-d14	88		60 - 135	02/11/21 10:16	02/16/21 22:14	1
Terphenyl-d14	101		60 - 135	02/11/21 10:16	02/25/21 17:43	1

Method: 608.3 - Organochlorine Pesticides/PCBs in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.016	0.0065	ug/L		02/11/21 10:11	02/16/21 14:49	1
4,4'-DDE	ND		0.011	0.0033	ug/L		02/11/21 10:11	02/16/21 14:49	1
4,4'-DDT	ND		0.022	0.0054	ug/L		02/11/21 10:11	02/16/21 14:49	1
Aroclor 1016	ND		0.49	0.066	ug/L		02/11/21 10:11	02/16/21 19:30	1
Aldrin	ND		0.026	0.0076	ug/L		02/11/21 10:11	02/16/21 14:49	1
alpha-BHC	ND		0.020	0.0044	ug/L		02/11/21 10:11	02/16/21 14:49	1
beta-BHC	ND		0.023	0.013	ug/L		02/11/21 10:11	02/16/21 14:49	1
cis-Chlordane	ND		0.029	0.0087	ug/L		02/11/21 10:11	02/16/21 14:49	1
Aroclor 1221	ND		0.49	0.082	ug/L		02/11/21 10:11	02/16/21 19:30	1
delta-BHC	ND		0.016	0.0054	ug/L		02/11/21 10:11	02/16/21 14:49	1
Dieldrin	ND		0.020	0.0054	ug/L		02/11/21 10:11	02/16/21 14:49	1
Endosulfan I	ND		0.022	0.0033	ug/L		02/11/21 10:11	02/16/21 14:49	1
Endosulfan II	ND		0.026	0.0054	ug/L		02/11/21 10:11	02/16/21 14:49	1
Aroclor 1232	ND		0.49	0.069	ug/L		02/11/21 10:11	02/16/21 19:30	1
Endosulfan sulfate	0.0054	J	0.022	0.0033	ug/L		02/11/21 10:11	02/16/21 14:49	1
Endrin	ND		0.013	0.0033	ug/L		02/11/21 10:11	02/16/21 14:49	1
Endrin aldehyde	0.14	B	0.065	0.037	ug/L		02/11/21 10:11	02/16/21 14:49	1
gamma-BHC (Lindane)	ND		0.022	0.0054	ug/L		02/11/21 10:11	02/16/21 14:49	1
Heptachlor	ND		0.016	0.0044	ug/L		02/11/21 10:11	02/16/21 14:49	1
Heptachlor epoxide	ND		0.022	0.0033	ug/L		02/11/21 10:11	02/16/21 14:49	1
Aroclor 1242	ND		0.49	0.064	ug/L		02/11/21 10:11	02/16/21 19:30	1
Toxaphene	ND		2.2	0.50	ug/L		02/11/21 10:11	02/16/21 14:49	1
Aroclor 1248	ND		0.49	0.057	ug/L		02/11/21 10:11	02/16/21 19:30	1
trans-Chlordane	ND		0.022	0.0033	ug/L		02/11/21 10:11	02/16/21 14:49	1
Aroclor 1254	ND		0.49	0.082	ug/L		02/11/21 10:11	02/16/21 19:30	1
Aroclor 1260	ND		0.49	0.066	ug/L		02/11/21 10:11	02/16/21 19:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	68		44 - 123	02/11/21 10:11	02/16/21 19:30	1
DCB Decachlorobiphenyl	61		37 - 156	02/11/21 10:11	02/16/21 19:30	1
DCB Decachlorobiphenyl	76		37 - 156	02/11/21 10:11	02/16/21 14:49	1
Tetrachloro-m-xylene	95		44 - 123	02/11/21 10:11	02/16/21 14:49	1

Method: 1613B - Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10	0.62	pg/L		02/12/21 08:02	02/18/21 16:47	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Client Sample ID: Outfall 003

Lab Sample ID: 590-14627-1

Date Collected: 02/09/21 10:30

Matrix: Water

Date Received: 02/09/21 11:40

Isotope Dilution	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	82		31 - 137	02/12/21 08:02	02/18/21 16:47	1
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
37Cl-4-2,3,7,8-TCDD	108		42 - 164	02/12/21 08:02	02/18/21 16:47	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND	F1	1.5	0.11	mg/L		02/16/21 12:22	02/17/21 16:12	1
Barium	0.017	J	0.020	0.0039	mg/L		02/16/21 12:22	02/17/21 16:12	1
Boron	0.17	J	2.5	0.041	mg/L		02/16/21 12:22	02/17/21 16:12	1
Cobalt	ND		0.020	0.00050	mg/L		02/16/21 12:22	02/17/21 16:12	1
Iron	1.6	F1	0.50	0.14	mg/L		02/16/21 12:22	02/17/21 16:12	1
Magnesium	15	F1	1.1	0.13	mg/L		02/16/21 12:22	02/17/21 16:12	1
Manganese	0.0026	J	0.020	0.0017	mg/L		02/16/21 12:22	02/17/21 16:12	1
Molybdenum	ND		0.040	0.0047	mg/L		02/16/21 12:22	02/17/21 16:12	1
Tin	ND		0.10	0.0028	mg/L		02/16/21 12:22	02/17/21 16:12	1
Titanium	0.0070	J	0.030	0.0039	mg/L		02/16/21 12:22	02/17/21 16:12	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00017	J	0.00080	0.00011	mg/L		02/16/21 12:22	02/18/21 13:52	1
Arsenic	0.0028		0.0010	0.00020	mg/L		02/16/21 12:22	02/18/21 13:52	1
Beryllium	ND		0.00040	0.000071	mg/L		02/16/21 12:22	02/18/21 13:52	1
Cadmium	ND		0.00080	0.00010	mg/L		02/16/21 12:22	02/18/21 13:52	1
Chromium	0.0011		0.00080	0.00017	mg/L		02/16/21 12:22	02/18/21 13:52	1
Copper	0.0025		0.0020	0.00060	mg/L		02/16/21 12:22	02/18/21 13:52	1
Lead	ND		0.00080	0.00020	mg/L		02/16/21 12:22	02/18/21 13:52	1
Nickel	0.0011	J	0.0030	0.00012	mg/L		02/16/21 12:22	02/18/21 13:52	1
Selenium	ND		0.0080	0.0021	mg/L		02/16/21 12:22	02/18/21 13:52	1
Silver	ND		0.00040	0.000055	mg/L		02/16/21 12:22	02/18/21 13:52	1
Thallium	ND		0.0010	0.000065	mg/L		02/16/21 12:22	02/18/21 13:52	1
Zinc	0.011		0.0070	0.0019	mg/L		02/16/21 12:22	02/18/21 13:52	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.090	ug/L		02/18/21 08:52	02/22/21 11:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.20	0.030	mg/L			02/11/21 19:14	1
Bromide	0.35	J	1.0	0.12	mg/L			02/11/21 19:14	1
Sulfate	22		1.5	0.80	mg/L			02/11/21 19:14	1
Cyanide, Total	ND		0.010	0.0050	mg/L		02/23/21 11:43	02/23/21 17:10	1
Ammonia	2.1		0.50	0.26	mg/L		02/11/21 14:47	02/12/21 11:44	1
Total Kjeldahl Nitrogen	2.3	F1	0.20	0.19	mg/L		02/25/21 14:12	02/26/21 06:50	1
Phenols, Total	ND		0.020	0.0068	mg/L		02/19/21 19:41	02/22/21 16:47	1
Total Suspended Solids	ND		10	4.0	mg/L			02/15/21 09:49	1
Phosphorus, Total	0.63		0.060	0.030	mg/L			02/18/21 11:30	1
Sulfide	ND		1.0	0.50	mg/L			02/12/21 10:55	1
Total Organic Carbon	4.6	^-	1.5	0.38	mg/L			02/26/21 20:06	1
Methylene Blue Active Substances	ND		0.10	0.067	mg/l LAS MW 340			02/10/21 12:00	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Client Sample ID: Outfall 003

Lab Sample ID: 590-14627-1

Date Collected: 02/09/21 10:30

Matrix: Water

Date Received: 02/09/21 11:40

General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.4	1.2	mg/L			02/11/21 08:27	1
Nitrogen, Total	3.1		1.5	1.0	mg/L			02/26/21 10:49	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		5.2	5.2	mg/L		02/11/21 13:06	02/11/21 14:58	1
Chemical Oxygen Demand	18		10	10	mg/L		02/11/21 14:06	02/11/21 20:19	1
Color, Apparent	ND		5.0	5.0	Color Units			02/11/21 08:16	1

Client Sample ID: Outfall 001

Lab Sample ID: 590-14627-2

Date Collected: 02/09/21 10:00

Matrix: Water

Date Received: 02/09/21 11:40

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.20	0.025	ug/L			02/10/21 18:56	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.056	ug/L			02/10/21 18:56	1
1,1,2-Trichloroethane	ND		0.20	0.070	ug/L			02/10/21 18:56	1
1,1-Dichloroethylene	ND		0.20	0.035	ug/L			02/10/21 18:56	1
1,1-Dichloroethane	ND		0.20	0.025	ug/L			02/10/21 18:56	1
1,2-Dichloroethane	ND		0.20	0.043	ug/L			02/10/21 18:56	1
1,2-Dichloropropane	ND		0.20	0.060	ug/L			02/10/21 18:56	1
1,2-trans-Dichloroethylene	ND		0.20	0.033	ug/L			02/10/21 18:56	1
2-Chloroethyl vinyl ether	ND		6.0	0.35	ug/L			02/10/21 18:56	1
Acrolein	ND		15	1.1	ug/L			02/10/21 18:56	1
Acrylonitrile	ND		10	0.78	ug/L			02/10/21 18:56	1
Benzene	ND		0.20	0.030	ug/L			02/10/21 18:56	1
Bromoform	ND		0.50	0.16	ug/L			02/10/21 18:56	1
Carbon tetrachloride	ND		0.20	0.025	ug/L			02/10/21 18:56	1
Chlorobenzene	0.039	J B	0.20	0.025	ug/L			02/10/21 18:56	1
Chlorobromomethane	ND		0.20	0.025	ug/L			02/10/21 18:56	1
Chloroethane	ND		0.50	0.096	ug/L			02/10/21 18:56	1
Chloroform	ND		0.20	0.030	ug/L			02/10/21 18:56	1
cis-1,3-Dichloropropene	ND		0.20	0.090	ug/L			02/10/21 18:56	1
Dichlorobromomethane	ND		0.20	0.060	ug/L			02/10/21 18:56	1
Ethylbenzene	ND		0.20	0.030	ug/L			02/10/21 18:56	1
Methyl bromide	ND		0.50	0.062	ug/L			02/10/21 18:56	1
Methyl chloride	ND		0.50	0.068	ug/L			02/10/21 18:56	1
Methylene Chloride	ND		5.0	1.2	ug/L			02/10/21 18:56	1
Tetrachloroethylene	0.29	J B	0.50	0.084	ug/L			02/10/21 18:56	1
Toluene	ND		0.20	0.050	ug/L			02/10/21 18:56	1
trans-1,3-Dichloropropene	ND		0.20	0.092	ug/L			02/10/21 18:56	1
Trichloroethylene	0.068	J B	0.20	0.066	ug/L			02/10/21 18:56	1
Vinyl chloride	ND		0.020	0.013	ug/L			02/10/21 18:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 120					02/10/21 18:56	1
4-Bromofluorobenzene (Surr)	103		78 - 119					02/10/21 18:56	1
Dibromofluoromethane (Surr)	104		70 - 120					02/10/21 18:56	1
Toluene-d8 (Surr)	96		79 - 122					02/10/21 18:56	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Client Sample ID: Outfall 001

Lab Sample ID: 590-14627-2

Date Collected: 02/09/21 10:00

Matrix: Water

Date Received: 02/09/21 11:40

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.41	0.041	ug/L		02/11/21 10:16	02/22/21 14:11	1
1,2-Dichlorobenzene	ND		0.41	0.051	ug/L		02/11/21 10:16	02/22/21 14:11	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		2.1	0.062	ug/L		02/11/21 10:16	02/22/21 14:11	1
1,3-Dichlorobenzene	ND		0.41	0.041	ug/L		02/11/21 10:16	02/22/21 14:11	1
1,4-Dichlorobenzene	ND		0.41	0.041	ug/L		02/11/21 10:16	02/22/21 14:11	1
2,4,6-Trichlorophenol	ND		0.62	0.10	ug/L		02/11/21 10:16	02/22/21 14:11	1
2,4-Dichlorophenol	ND		1.0	0.21	ug/L		02/11/21 10:16	02/22/21 14:11	1
2,4-Dimethylphenol	ND		4.1	0.16	ug/L		02/11/21 10:16	02/22/21 14:11	1
2,4-Dinitrophenol	ND		5.1	1.6	ug/L		02/11/21 10:16	02/22/21 14:11	1
2,4-Dinitrotoluene	ND		1.0	0.10	ug/L		02/11/21 10:16	02/22/21 14:11	1
2,6-Dinitrotoluene	0.29	J	0.41	0.10	ug/L		02/11/21 10:16	02/22/21 14:11	1
2-Chloronaphthalene	ND		1.0	0.031	ug/L		02/11/21 10:16	02/22/21 14:11	1
2-Chlorophenol	ND		1.0	0.051	ug/L		02/11/21 10:16	02/22/21 14:11	1
2-Nitrophenol	ND		1.0	0.072	ug/L		02/11/21 10:16	02/22/21 14:11	1
3,3'-Dichlorobenzidine	ND		2.1	0.64	ug/L		02/11/21 10:16	02/22/21 14:11	1
4,6-Dinitro-o-cresol	ND		2.1	0.56	ug/L		02/11/21 10:16	02/22/21 14:11	1
4-Bromophenyl phenyl ether	ND		0.62	0.062	ug/L		02/11/21 10:16	02/22/21 14:11	1
4-Chlorophenyl phenyl ether	ND		0.62	0.051	ug/L		02/11/21 10:16	02/22/21 14:11	1
4-Nitrophenol	ND		10	1.7	ug/L		02/11/21 10:16	02/22/21 14:11	1
Acenaphthene	0.075	J	0.41	0.051	ug/L		02/11/21 10:16	02/22/21 14:11	1
Acenaphthylene	ND		1.0	0.062	ug/L		02/11/21 10:16	02/22/21 14:11	1
Anthracene	ND		1.0	0.051	ug/L		02/11/21 10:16	02/22/21 14:11	1
Benzidine	ND		10	3.1	ug/L		02/11/21 10:16	02/25/21 18:06	1
Benzo[a]anthracene	ND		0.26	0.051	ug/L		02/11/21 10:16	02/22/21 14:11	1
Benzo[a]pyrene	ND		0.26	0.041	ug/L		02/11/21 10:16	02/22/21 14:11	1
Benzo[b]fluoranthene	ND		0.26	0.041	ug/L		02/11/21 10:16	02/22/21 14:11	1
Benzo[g,h,i]perylene	ND		0.26	0.041	ug/L		02/11/21 10:16	02/22/21 14:11	1
Benzo[k]fluoranthene	ND		0.26	0.051	ug/L		02/11/21 10:16	02/22/21 14:11	1
bis (2-chloroisopropyl) ether	ND		0.26	0.062	ug/L		02/11/21 10:16	02/22/21 14:11	1
Bis(2-chloroethoxy)methane	ND		0.62	0.051	ug/L		02/11/21 10:16	02/22/21 14:11	1
Bis(2-chloroethyl)ether	ND		0.10	0.031	ug/L		02/11/21 10:16	02/22/21 14:11	1
Bis(2-ethylhexyl) phthalate	ND		3.1	0.76	ug/L		02/11/21 10:16	02/22/21 14:11	1
Butyl benzyl phthalate	ND		4.1	0.95	ug/L		02/11/21 10:16	02/22/21 14:11	1
Chrysene	ND		0.26	0.041	ug/L		02/11/21 10:16	02/22/21 14:11	1
Dibenz(a,h)anthracene	ND		0.26	0.072	ug/L		02/11/21 10:16	02/22/21 14:11	1
Diethyl phthalate	0.18	J	1.0	0.15	ug/L		02/11/21 10:16	02/22/21 14:11	1
Dimethyl phthalate	ND		0.62	0.062	ug/L		02/11/21 10:16	02/22/21 14:11	1
Di-n-butyl phthalate	ND		3.1	0.45	ug/L		02/11/21 10:16	02/22/21 14:11	1
Di-n-octyl phthalate	ND		1.0	0.13	ug/L		02/11/21 10:16	02/22/21 14:11	1
Fluoranthene	ND		0.26	0.062	ug/L		02/11/21 10:16	02/22/21 14:11	1
Fluorene	ND		0.26	0.051	ug/L		02/11/21 10:16	02/22/21 14:11	1
Hexachlorobenzene	ND		0.62	0.041	ug/L		02/11/21 10:16	02/22/21 14:11	1
Hexachlorobutadiene	ND		1.0	0.062	ug/L		02/11/21 10:16	02/22/21 14:11	1
Hexachlorocyclopentadiene	ND		2.1	0.29	ug/L		02/11/21 10:16	02/22/21 14:11	1
Hexachloroethane	ND		1.0	0.051	ug/L		02/11/21 10:16	02/22/21 14:11	1
Indeno[1,2,3-cd]pyrene	ND		0.41	0.13	ug/L		02/11/21 10:16	02/22/21 14:11	1
Isophorone	ND		0.41	0.10	ug/L		02/11/21 10:16	02/22/21 14:11	1
Naphthalene	ND		0.41	0.16	ug/L		02/11/21 10:16	02/22/21 14:11	1
Nitrobenzene	ND		1.0	0.041	ug/L		02/11/21 10:16	02/22/21 14:11	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Client Sample ID: Outfall 001

Lab Sample ID: 590-14627-2

Date Collected: 02/09/21 10:00

Matrix: Water

Date Received: 02/09/21 11:40

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodimethylamine	ND		2.1	0.27	ug/L		02/11/21 10:16	02/22/21 14:11	1
N-Nitrosodi-n-propylamine	ND		0.41	0.062	ug/L		02/11/21 10:16	02/22/21 14:11	1
N-Nitrosodiphenylamine	ND		1.0	0.072	ug/L		02/11/21 10:16	02/22/21 14:11	1
p-Chloro-m-cresol	ND		0.62	0.13	ug/L		02/11/21 10:16	02/22/21 14:11	1
Pentachlorophenol	ND		10	3.3	ug/L		02/11/21 10:16	02/22/21 14:11	1
Phenanthrene	ND		1.0	0.031	ug/L		02/11/21 10:16	02/22/21 14:11	1
Phenol	ND		1.0	0.37	ug/L		02/11/21 10:16	02/22/21 14:11	1
Pyrene	ND		1.0	0.041	ug/L		02/11/21 10:16	02/22/21 14:11	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	88		47 - 137	02/11/21 10:16	02/22/21 14:11	1
2,4,6-Tribromophenol	85		47 - 137	02/11/21 10:16	02/25/21 18:06	1
2-Fluorobiphenyl	84		56 - 124	02/11/21 10:16	02/22/21 14:11	1
2-Fluorobiphenyl	77		56 - 124	02/11/21 10:16	02/25/21 18:06	1
2-Fluorophenol	55		20 - 122	02/11/21 10:16	02/22/21 14:11	1
2-Fluorophenol	59		20 - 122	02/11/21 10:16	02/25/21 18:06	1
Nitrobenzene-d5	93		59 - 123	02/11/21 10:16	02/22/21 14:11	1
Nitrobenzene-d5	107		59 - 123	02/11/21 10:16	02/25/21 18:06	1
Phenol-d5	32		20 - 123	02/11/21 10:16	02/22/21 14:11	1
Phenol-d5	45		20 - 123	02/11/21 10:16	02/25/21 18:06	1
Terphenyl-d14	98		60 - 135	02/11/21 10:16	02/22/21 14:11	1
Terphenyl-d14	101		60 - 135	02/11/21 10:16	02/25/21 18:06	1

Method: 608.3 - Organochlorine Pesticides/PCBs in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.015	0.0060	ug/L		02/11/21 10:11	02/16/21 15:06	1
4,4'-DDE	ND		0.010	0.0030	ug/L		02/11/21 10:11	02/16/21 15:06	1
4,4'-DDT	ND		0.020	0.0050	ug/L		02/11/21 10:11	02/16/21 15:06	1
Aroclor 1016	ND		0.45	0.061	ug/L		02/11/21 10:11	02/16/21 20:23	1
Aldrin	ND		0.024	0.0070	ug/L		02/11/21 10:11	02/16/21 15:06	1
alpha-BHC	ND		0.018	0.0040	ug/L		02/11/21 10:11	02/16/21 15:06	1
beta-BHC	ND		0.021	0.012	ug/L		02/11/21 10:11	02/16/21 15:06	1
cis-Chlordane	ND		0.027	0.0081	ug/L		02/11/21 10:11	02/16/21 15:06	1
Aroclor 1221	ND		0.45	0.076	ug/L		02/11/21 10:11	02/16/21 20:23	1
delta-BHC	ND		0.015	0.0050	ug/L		02/11/21 10:11	02/16/21 15:06	1
Dieldrin	ND		0.018	0.0050	ug/L		02/11/21 10:11	02/16/21 15:06	1
Endosulfan I	ND		0.020	0.0030	ug/L		02/11/21 10:11	02/16/21 15:06	1
Endosulfan II	ND		0.024	0.0050	ug/L		02/11/21 10:11	02/16/21 15:06	1
Aroclor 1232	ND		0.45	0.063	ug/L		02/11/21 10:11	02/16/21 20:23	1
Endosulfan sulfate	ND		0.020	0.0030	ug/L		02/11/21 10:11	02/16/21 15:06	1
Endrin	ND		0.012	0.0030	ug/L		02/11/21 10:11	02/16/21 15:06	1
Endrin aldehyde	ND		0.060	0.034	ug/L		02/11/21 10:11	02/16/21 15:06	1
gamma-BHC (Lindane)	ND		0.020	0.0050	ug/L		02/11/21 10:11	02/16/21 15:06	1
Heptachlor	ND		0.015	0.0040	ug/L		02/11/21 10:11	02/16/21 15:06	1
Heptachlor epoxide	ND		0.020	0.0030	ug/L		02/11/21 10:11	02/16/21 15:06	1
Aroclor 1242	ND		0.45	0.059	ug/L		02/11/21 10:11	02/16/21 20:23	1
Toxaphene	ND		2.0	0.46	ug/L		02/11/21 10:11	02/16/21 15:06	1
Aroclor 1248	ND		0.45	0.052	ug/L		02/11/21 10:11	02/16/21 20:23	1
trans-Chlordane	ND		0.020	0.0030	ug/L		02/11/21 10:11	02/16/21 15:06	1
Aroclor 1254	ND		0.45	0.076	ug/L		02/11/21 10:11	02/16/21 20:23	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Client Sample ID: Outfall 001

Lab Sample ID: 590-14627-2

Date Collected: 02/09/21 10:00

Matrix: Water

Date Received: 02/09/21 11:40

Method: 608.3 - Organochlorine Pesticides/PCBs in Water (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aroclor 1260	ND		0.45	0.061	ug/L		02/11/21 10:11	02/16/21 20:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	82		44 - 123				02/11/21 10:11	02/16/21 20:23	1
DCB Decachlorobiphenyl	80		37 - 156				02/11/21 10:11	02/16/21 20:23	1
DCB Decachlorobiphenyl	65		37 - 156				02/11/21 10:11	02/16/21 15:06	1
Tetrachloro-m-xylene	101		44 - 123				02/11/21 10:11	02/16/21 15:06	1

Method: 1613B - Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10	0.68	pg/L		02/12/21 08:02	02/18/21 17:32	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	74		31 - 137				02/12/21 08:02	02/18/21 17:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
37Cl4-2,3,7,8-TCDD	109		42 - 164				02/12/21 08:02	02/18/21 17:32	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1.5	0.11	mg/L		02/16/21 12:22	02/17/21 16:37	1
Barium	0.023		0.020	0.0039	mg/L		02/16/21 12:22	02/17/21 16:37	1
Boron	0.046	J	2.5	0.041	mg/L		02/16/21 12:22	02/17/21 16:37	1
Cobalt	ND		0.020	0.00050	mg/L		02/16/21 12:22	02/17/21 16:37	1
Iron	ND		0.50	0.14	mg/L		02/16/21 12:22	02/17/21 16:37	1
Magnesium	11		1.1	0.13	mg/L		02/16/21 12:22	02/17/21 16:37	1
Manganese	ND		0.020	0.0017	mg/L		02/16/21 12:22	02/17/21 16:37	1
Molybdenum	ND		0.040	0.0047	mg/L		02/16/21 12:22	02/17/21 16:37	1
Tin	ND		0.10	0.0028	mg/L		02/16/21 12:22	02/17/21 16:37	1
Titanium	0.0039	J	0.030	0.0039	mg/L		02/16/21 12:22	02/17/21 16:37	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00056	J	0.00080	0.00011	mg/L		02/16/21 12:22	02/18/21 14:36	1
Arsenic	0.0032		0.0010	0.00020	mg/L		02/16/21 12:22	02/18/21 14:36	1
Beryllium	0.00010	J	0.00040	0.000071	mg/L		02/16/21 12:22	02/18/21 14:36	1
Cadmium	0.00011	J	0.00080	0.00010	mg/L		02/16/21 12:22	02/18/21 14:36	1
Chromium	0.00076	J	0.00080	0.00017	mg/L		02/16/21 12:22	02/18/21 14:36	1
Copper	0.0020		0.0020	0.00060	mg/L		02/16/21 12:22	02/18/21 14:36	1
Lead	0.00020	J	0.00080	0.00020	mg/L		02/16/21 12:22	02/18/21 14:36	1
Nickel	0.00038	J	0.0030	0.00012	mg/L		02/16/21 12:22	02/18/21 14:36	1
Selenium	ND		0.0080	0.0021	mg/L		02/16/21 12:22	02/18/21 14:36	1
Silver	ND		0.00040	0.000055	mg/L		02/16/21 12:22	02/18/21 14:36	1
Thallium	0.000082	J	0.0010	0.000065	mg/L		02/16/21 12:22	02/18/21 14:36	1
Zinc	0.017		0.0070	0.0019	mg/L		02/16/21 12:22	02/18/21 14:36	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.090	ug/L		02/18/21 08:52	02/22/21 11:20	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Client Sample ID: Outfall 001

Lab Sample ID: 590-14627-2

Date Collected: 02/09/21 10:00

Matrix: Water

Date Received: 02/09/21 11:40

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.10	J	0.20	0.030	mg/L			02/11/21 19:49	1
Bromide	ND		1.0	0.12	mg/L			02/11/21 19:49	1
Sulfate	20		1.5	0.80	mg/L			02/11/21 19:49	1
Cyanide, Total	ND		0.010	0.0050	mg/L		02/23/21 11:43	02/23/21 17:08	1
Ammonia	ND		0.50	0.26	mg/L		02/11/21 14:47	02/12/21 11:44	1
Total Kjeldahl Nitrogen	1.9		0.20	0.19	mg/L		02/25/21 14:12	02/26/21 06:50	1
Phenols, Total	ND		0.020	0.0068	mg/L		02/19/21 19:41	02/22/21 16:51	1
Total Suspended Solids	4.0	J	10	4.0	mg/L			02/15/21 09:49	1
Phosphorus, Total	0.040	J	0.060	0.030	mg/L			02/18/21 11:30	1
Sulfide	ND		1.0	0.50	mg/L			02/12/21 10:55	1
Total Organic Carbon	3.8		1.5	0.38	mg/L			02/26/21 21:09	1
Methylene Blue Active Substances	ND		0.10	0.067	mg/l LAS MW 340			02/10/21 12:00	1
Biochemical Oxygen Demand Nitrogen, Total	2.0	J	2.4	1.2	mg/L			02/11/21 08:27	1
	7.0		1.5	1.0	mg/L			02/26/21 10:49	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		5.3	5.3	mg/L		02/11/21 13:06	02/11/21 14:58	1
Chemical Oxygen Demand	14		10	10	mg/L		02/11/21 14:06	02/11/21 20:19	1
Color, Apparent	ND		5.0	5.0	Color Units			02/11/21 08:16	1

Client Sample ID: Outfall 006

Lab Sample ID: 590-14627-3

Date Collected: 02/09/21 09:30

Matrix: Water

Date Received: 02/09/21 11:40

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		0.20	0.025	ug/L			02/10/21 18:30	1
1,1,2,2-Tetrachloroethane	ND		0.20	0.056	ug/L			02/10/21 18:30	1
1,1,2-Trichloroethane	ND		0.20	0.070	ug/L			02/10/21 18:30	1
1,1-Dichloroethylene	ND		0.20	0.035	ug/L			02/10/21 18:30	1
1,1-Dichloroethane	ND		0.20	0.025	ug/L			02/10/21 18:30	1
1,2-Dichloroethane	ND		0.20	0.043	ug/L			02/10/21 18:30	1
1,2-Dichloropropane	ND		0.20	0.060	ug/L			02/10/21 18:30	1
1,2-trans-Dichloroethylene	ND		0.20	0.033	ug/L			02/10/21 18:30	1
2-Chloroethyl vinyl ether	ND		6.0	0.35	ug/L			02/10/21 18:30	1
Acrolein	ND		15	1.1	ug/L			02/10/21 18:30	1
Acrylonitrile	ND		10	0.78	ug/L			02/10/21 18:30	1
Benzene	ND		0.20	0.030	ug/L			02/10/21 18:30	1
Bromoform	ND		0.50	0.16	ug/L			02/10/21 18:30	1
Carbon tetrachloride	ND		0.20	0.025	ug/L			02/10/21 18:30	1
Chlorobenzene	0.043	J B	0.20	0.025	ug/L			02/10/21 18:30	1
Chlorobromomethane	ND		0.20	0.025	ug/L			02/10/21 18:30	1
Chloroethane	ND		0.50	0.096	ug/L			02/10/21 18:30	1
Chloroform	0.032	J	0.20	0.030	ug/L			02/10/21 18:30	1
cis-1,3-Dichloropropene	ND		0.20	0.090	ug/L			02/10/21 18:30	1
Dichlorobromomethane	ND		0.20	0.060	ug/L			02/10/21 18:30	1
Ethylbenzene	ND		0.20	0.030	ug/L			02/10/21 18:30	1
Methyl bromide	ND		0.50	0.062	ug/L			02/10/21 18:30	1
Methyl chloride	ND		0.50	0.068	ug/L			02/10/21 18:30	1
Methylene Chloride	ND		5.0	1.2	ug/L			02/10/21 18:30	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Client Sample ID: Outfall 006

Lab Sample ID: 590-14627-3

Date Collected: 02/09/21 09:30

Matrix: Water

Date Received: 02/09/21 11:40

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethylene	0.30	J B	0.50	0.084	ug/L			02/10/21 18:30	1
Toluene	0.070	J	0.20	0.050	ug/L			02/10/21 18:30	1
trans-1,3-Dichloropropene	ND		0.20	0.092	ug/L			02/10/21 18:30	1
Trichloroethylene	0.071	J B	0.20	0.066	ug/L			02/10/21 18:30	1
Vinyl chloride	ND		0.020	0.013	ug/L			02/10/21 18:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	103		70 - 120					02/10/21 18:30	1
4-Bromofluorobenzene (Surr)	101		78 - 119					02/10/21 18:30	1
Dibromofluoromethane (Surr)	102		70 - 120					02/10/21 18:30	1
Toluene-d8 (Surr)	97		79 - 122					02/10/21 18:30	1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.40	0.040	ug/L		02/11/21 10:16	02/22/21 14:34	1
1,2-Dichlorobenzene	ND		0.40	0.050	ug/L		02/11/21 10:16	02/22/21 14:34	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		2.0	0.060	ug/L		02/11/21 10:16	02/22/21 14:34	1
1,3-Dichlorobenzene	ND		0.40	0.040	ug/L		02/11/21 10:16	02/22/21 14:34	1
1,4-Dichlorobenzene	ND		0.40	0.040	ug/L		02/11/21 10:16	02/22/21 14:34	1
2,4,6-Trichlorophenol	ND		0.60	0.10	ug/L		02/11/21 10:16	02/22/21 14:34	1
2,4-Dichlorophenol	ND		1.0	0.20	ug/L		02/11/21 10:16	02/22/21 14:34	1
2,4-Dimethylphenol	ND		4.0	0.16	ug/L		02/11/21 10:16	02/22/21 14:34	1
2,4-Dinitrophenol	ND		5.0	1.6	ug/L		02/11/21 10:16	02/22/21 14:34	1
2,4-Dinitrotoluene	ND		1.0	0.10	ug/L		02/11/21 10:16	02/22/21 14:34	1
2,6-Dinitrotoluene	0.27	J	0.40	0.10	ug/L		02/11/21 10:16	02/22/21 14:34	1
2-Chloronaphthalene	ND		1.0	0.030	ug/L		02/11/21 10:16	02/22/21 14:34	1
2-Chlorophenol	ND		1.0	0.050	ug/L		02/11/21 10:16	02/22/21 14:34	1
2-Nitrophenol	ND		1.0	0.070	ug/L		02/11/21 10:16	02/22/21 14:34	1
3,3'-Dichlorobenzidine	ND		2.0	0.62	ug/L		02/11/21 10:16	02/22/21 14:34	1
4,6-Dinitro-o-cresol	ND		2.0	0.55	ug/L		02/11/21 10:16	02/22/21 14:34	1
4-Bromophenyl phenyl ether	ND		0.60	0.060	ug/L		02/11/21 10:16	02/22/21 14:34	1
4-Chlorophenyl phenyl ether	ND		0.60	0.050	ug/L		02/11/21 10:16	02/22/21 14:34	1
4-Nitrophenol	ND		10	1.7	ug/L		02/11/21 10:16	02/22/21 14:34	1
Acenaphthene	ND		0.40	0.050	ug/L		02/11/21 10:16	02/22/21 14:34	1
Acenaphthylene	ND		1.0	0.060	ug/L		02/11/21 10:16	02/22/21 14:34	1
Anthracene	ND		1.0	0.050	ug/L		02/11/21 10:16	02/22/21 14:34	1
Benzidine	ND		10	3.0	ug/L		02/11/21 10:16	02/25/21 18:29	1
Benzo[a]anthracene	ND		0.25	0.050	ug/L		02/11/21 10:16	02/22/21 14:34	1
Benzo[a]pyrene	ND		0.25	0.040	ug/L		02/11/21 10:16	02/22/21 14:34	1
Benzo[b]fluoranthene	ND		0.25	0.040	ug/L		02/11/21 10:16	02/22/21 14:34	1
Benzo[g,h,i]perylene	ND		0.25	0.040	ug/L		02/11/21 10:16	02/22/21 14:34	1
Benzo[k]fluoranthene	ND		0.25	0.050	ug/L		02/11/21 10:16	02/22/21 14:34	1
bis (2-chloroisopropyl) ether	ND		0.25	0.060	ug/L		02/11/21 10:16	02/22/21 14:34	1
Bis(2-chloroethoxy)methane	ND		0.60	0.050	ug/L		02/11/21 10:16	02/22/21 14:34	1
Bis(2-chloroethyl)ether	ND		0.10	0.030	ug/L		02/11/21 10:16	02/22/21 14:34	1
Bis(2-ethylhexyl) phthalate	ND		3.0	0.74	ug/L		02/11/21 10:16	02/22/21 14:34	1
Butyl benzyl phthalate	ND		4.0	0.93	ug/L		02/11/21 10:16	02/22/21 14:34	1
Chrysene	ND		0.25	0.040	ug/L		02/11/21 10:16	02/22/21 14:34	1
Dibenz(a,h)anthracene	ND		0.25	0.070	ug/L		02/11/21 10:16	02/22/21 14:34	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Client Sample ID: Outfall 006

Lab Sample ID: 590-14627-3

Date Collected: 02/09/21 09:30

Matrix: Water

Date Received: 02/09/21 11:40

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diethyl phthalate	0.23	J	1.0	0.15	ug/L		02/11/21 10:16	02/22/21 14:34	1
Dimethyl phthalate	ND		0.60	0.060	ug/L		02/11/21 10:16	02/22/21 14:34	1
Di-n-butyl phthalate	ND		3.0	0.44	ug/L		02/11/21 10:16	02/22/21 14:34	1
Di-n-octyl phthalate	ND		1.0	0.13	ug/L		02/11/21 10:16	02/22/21 14:34	1
Fluoranthene	ND		0.25	0.060	ug/L		02/11/21 10:16	02/22/21 14:34	1
Fluorene	ND		0.25	0.050	ug/L		02/11/21 10:16	02/22/21 14:34	1
Hexachlorobenzene	ND		0.60	0.040	ug/L		02/11/21 10:16	02/22/21 14:34	1
Hexachlorobutadiene	ND		1.0	0.060	ug/L		02/11/21 10:16	02/22/21 14:34	1
Hexachlorocyclopentadiene	ND		2.0	0.28	ug/L		02/11/21 10:16	02/22/21 14:34	1
Hexachloroethane	ND		1.0	0.050	ug/L		02/11/21 10:16	02/22/21 14:34	1
Indeno[1,2,3-cd]pyrene	ND		0.40	0.13	ug/L		02/11/21 10:16	02/22/21 14:34	1
Isophorone	ND		0.40	0.10	ug/L		02/11/21 10:16	02/22/21 14:34	1
Naphthalene	ND		0.40	0.16	ug/L		02/11/21 10:16	02/22/21 14:34	1
Nitrobenzene	ND		1.0	0.040	ug/L		02/11/21 10:16	02/22/21 14:34	1
N-Nitrosodimethylamine	ND		2.0	0.26	ug/L		02/11/21 10:16	02/22/21 14:34	1
N-Nitrosodi-n-propylamine	ND		0.40	0.060	ug/L		02/11/21 10:16	02/22/21 14:34	1
N-Nitrosodiphenylamine	ND		1.0	0.070	ug/L		02/11/21 10:16	02/22/21 14:34	1
p-Chloro-m-cresol	ND		0.60	0.13	ug/L		02/11/21 10:16	02/22/21 14:34	1
Pentachlorophenol	ND		10	3.2	ug/L		02/11/21 10:16	02/22/21 14:34	1
Phenanthrene	ND		1.0	0.030	ug/L		02/11/21 10:16	02/22/21 14:34	1
Phenol	ND		1.0	0.36	ug/L		02/11/21 10:16	02/22/21 14:34	1
Pyrene	ND		1.0	0.040	ug/L		02/11/21 10:16	02/22/21 14:34	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	83		47 - 137	02/11/21 10:16	02/22/21 14:34	1
2,4,6-Tribromophenol	84		47 - 137	02/11/21 10:16	02/25/21 18:29	1
2-Fluorobiphenyl	75		56 - 124	02/11/21 10:16	02/22/21 14:34	1
2-Fluorobiphenyl	76		56 - 124	02/11/21 10:16	02/25/21 18:29	1
2-Fluorophenol	45		20 - 122	02/11/21 10:16	02/22/21 14:34	1
2-Fluorophenol	48		20 - 122	02/11/21 10:16	02/25/21 18:29	1
Nitrobenzene-d5	82		59 - 123	02/11/21 10:16	02/22/21 14:34	1
Nitrobenzene-d5	118		59 - 123	02/11/21 10:16	02/25/21 18:29	1
Phenol-d5	24		20 - 123	02/11/21 10:16	02/22/21 14:34	1
Phenol-d5	35		20 - 123	02/11/21 10:16	02/25/21 18:29	1
Terphenyl-d14	93		60 - 135	02/11/21 10:16	02/22/21 14:34	1
Terphenyl-d14	97		60 - 135	02/11/21 10:16	02/25/21 18:29	1

Method: 608.3 - Organochlorine Pesticides/PCBs in Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.015	0.0062	ug/L		02/11/21 10:11	02/16/21 15:22	1
4,4'-DDE	ND		0.010	0.0031	ug/L		02/11/21 10:11	02/16/21 15:22	1
4,4'-DDT	ND		0.021	0.0051	ug/L		02/11/21 10:11	02/16/21 15:22	1
Aroclor 1016	ND		0.46	0.063	ug/L		02/11/21 10:11	02/16/21 20:41	1
Aldrin	ND		0.025	0.0072	ug/L		02/11/21 10:11	02/16/21 15:22	1
alpha-BHC	ND		0.018	0.0041	ug/L		02/11/21 10:11	02/16/21 15:22	1
beta-BHC	ND		0.022	0.012	ug/L		02/11/21 10:11	02/16/21 15:22	1
cis-Chlordane	ND		0.028	0.0082	ug/L		02/11/21 10:11	02/16/21 15:22	1
Aroclor 1221	ND		0.46	0.077	ug/L		02/11/21 10:11	02/16/21 20:41	1
delta-BHC	ND		0.015	0.0051	ug/L		02/11/21 10:11	02/16/21 15:22	1
Dieldrin	ND		0.018	0.0051	ug/L		02/11/21 10:11	02/16/21 15:22	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Client Sample ID: Outfall 006

Lab Sample ID: 590-14627-3

Date Collected: 02/09/21 09:30

Matrix: Water

Date Received: 02/09/21 11:40

Method: 608.3 - Organochlorine Pesticides/PCBs in Water (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		0.021	0.0031	ug/L		02/11/21 10:11	02/16/21 15:22	1
Endosulfan II	ND		0.025	0.0051	ug/L		02/11/21 10:11	02/16/21 15:22	1
Aroclor 1232	ND		0.46	0.065	ug/L		02/11/21 10:11	02/16/21 20:41	1
Endosulfan sulfate	ND		0.021	0.0031	ug/L		02/11/21 10:11	02/16/21 15:22	1
Endrin	ND		0.012	0.0031	ug/L		02/11/21 10:11	02/16/21 15:22	1
Endrin aldehyde	ND		0.062	0.035	ug/L		02/11/21 10:11	02/16/21 15:22	1
gamma-BHC (Lindane)	ND		0.021	0.0051	ug/L		02/11/21 10:11	02/16/21 15:22	1
Heptachlor	ND		0.015	0.0041	ug/L		02/11/21 10:11	02/16/21 15:22	1
Heptachlor epoxide	ND		0.021	0.0031	ug/L		02/11/21 10:11	02/16/21 15:22	1
Aroclor 1242	ND		0.46	0.061	ug/L		02/11/21 10:11	02/16/21 20:41	1
Toxaphene	ND		2.1	0.47	ug/L		02/11/21 10:11	02/16/21 15:22	1
Aroclor 1248	ND		0.46	0.053	ug/L		02/11/21 10:11	02/16/21 20:41	1
trans-Chlordane	ND		0.021	0.0031	ug/L		02/11/21 10:11	02/16/21 15:22	1
Aroclor 1254	ND		0.46	0.077	ug/L		02/11/21 10:11	02/16/21 20:41	1
Aroclor 1260	ND		0.46	0.063	ug/L		02/11/21 10:11	02/16/21 20:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	78		44 - 123				02/11/21 10:11	02/16/21 20:41	1
DCB Decachlorobiphenyl	87		37 - 156				02/11/21 10:11	02/16/21 20:41	1
DCB Decachlorobiphenyl	69		37 - 156				02/11/21 10:11	02/16/21 15:22	1
Tetrachloro-m-xylene	88		44 - 123				02/11/21 10:11	02/16/21 15:22	1

Method: 1613B - Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS

Analyte	Result	Qualifier	RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
2,3,7,8-TCDD	ND		10	0.54	pg/L		02/12/21 08:02	02/18/21 18:17	1
Isotope Dilution	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
13C-2,3,7,8-TCDD	87		31 - 137				02/12/21 08:02	02/18/21 18:17	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
37Cl-2,3,7,8-TCDD	104		42 - 164				02/12/21 08:02	02/18/21 18:17	1

Method: 200.7 Rev 4.4 - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		1.5	0.11	mg/L		02/16/21 12:22	02/17/21 16:40	1
Barium	0.023		0.020	0.0039	mg/L		02/16/21 12:22	02/17/21 16:40	1
Boron	ND		2.5	0.041	mg/L		02/16/21 12:22	02/17/21 16:40	1
Cobalt	ND		0.020	0.00050	mg/L		02/16/21 12:22	02/17/21 16:40	1
Iron	ND		0.50	0.14	mg/L		02/16/21 12:22	02/17/21 16:40	1
Magnesium	11		1.1	0.13	mg/L		02/16/21 12:22	02/17/21 16:40	1
Manganese	ND		0.020	0.0017	mg/L		02/16/21 12:22	02/17/21 16:40	1
Molybdenum	ND		0.040	0.0047	mg/L		02/16/21 12:22	02/17/21 16:40	1
Tin	ND		0.10	0.0028	mg/L		02/16/21 12:22	02/17/21 16:40	1
Titanium	0.0062	J	0.030	0.0039	mg/L		02/16/21 12:22	02/17/21 16:40	1

Method: 200.8 - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	0.00073	J	0.00080	0.00011	mg/L		02/16/21 12:22	02/18/21 14:40	1
Arsenic	0.0033		0.0010	0.00020	mg/L		02/16/21 12:22	02/18/21 14:40	1
Beryllium	0.00034	J	0.00040	0.000071	mg/L		02/16/21 12:22	02/18/21 14:40	1
Cadmium	0.00033	J	0.00080	0.00010	mg/L		02/16/21 12:22	02/18/21 14:40	1

Eurofins TestAmerica, Spokane

Client Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Client Sample ID: Outfall 006

Lab Sample ID: 590-14627-3

Date Collected: 02/09/21 09:30

Matrix: Water

Date Received: 02/09/21 11:40

Method: 200.8 - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	0.00085		0.00080	0.00017	mg/L		02/16/21 12:22	02/18/21 14:40	1
Copper	0.0025		0.0020	0.00060	mg/L		02/16/21 12:22	02/18/21 14:40	1
Lead	0.00040	J	0.00080	0.00020	mg/L		02/16/21 12:22	02/18/21 14:40	1
Nickel	0.00060	J	0.0030	0.00012	mg/L		02/16/21 12:22	02/18/21 14:40	1
Selenium	ND		0.0080	0.0021	mg/L		02/16/21 12:22	02/18/21 14:40	1
Silver	0.00020	J	0.00040	0.000055	mg/L		02/16/21 12:22	02/18/21 14:40	1
Thallium	0.00032	J	0.0010	0.000065	mg/L		02/16/21 12:22	02/18/21 14:40	1
Zinc	0.020		0.0070	0.0019	mg/L		02/16/21 12:22	02/18/21 14:40	1

Method: 245.1 - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.090	ug/L		02/18/21 08:52	02/22/21 11:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.20	0.030	mg/L			02/11/21 20:01	1
Bromide	ND		1.0	0.12	mg/L			02/11/21 20:01	1
Sulfate	20		1.5	0.80	mg/L			02/11/21 20:01	1
Cyanide, Total	ND		0.010	0.0050	mg/L		02/23/21 11:43	02/23/21 17:12	1
Ammonia	ND		0.50	0.26	mg/L		02/11/21 14:47	02/12/21 11:44	1
Total Kjeldahl Nitrogen	0.45		0.20	0.19	mg/L		02/25/21 14:12	02/26/21 06:59	1
Phenols, Total	ND		0.020	0.0068	mg/L		02/19/21 19:41	02/22/21 16:52	1
Total Suspended Solids	ND		10	4.0	mg/L			02/15/21 09:49	1
Phosphorus, Total	ND		0.060	0.030	mg/L			02/18/21 11:30	1
Sulfide	ND		1.0	0.50	mg/L			02/12/21 10:55	1
Total Organic Carbon	3.5		1.5	0.38	mg/L			02/26/21 21:24	1
Methylene Blue Active Substances	ND		0.10	0.067	mg/l LAS MW 340			02/10/21 12:00	1
Biochemical Oxygen Demand	1.5	J	2.4	1.2	mg/L			02/11/21 08:27	1
Nitrogen, Total	1.4	J	1.5	1.0	mg/L			02/26/21 10:49	1
Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		5.0	5.0	mg/L		02/11/21 13:06	02/11/21 14:58	1
Chemical Oxygen Demand	10		10	10	mg/L		02/11/21 14:06	02/11/21 20:19	1
Color, Apparent	ND		5.0	5.0	Color Units			02/11/21 08:16	1

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 624.1 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-349620/7
Matrix: Water
Analysis Batch: 349620

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	ND		0.20	0.025	ug/L			02/10/21 11:28	1
1,1,1,2-Tetrachloroethane	ND		0.20	0.056	ug/L			02/10/21 11:28	1
1,1,2-Trichloroethane	ND		0.20	0.070	ug/L			02/10/21 11:28	1
1,1-Dichloroethylene	ND		0.20	0.035	ug/L			02/10/21 11:28	1
1,1-Dichloroethane	ND		0.20	0.025	ug/L			02/10/21 11:28	1
1,2-Dichloroethane	ND		0.20	0.043	ug/L			02/10/21 11:28	1
1,2-Dichloropropane	ND		0.20	0.060	ug/L			02/10/21 11:28	1
1,2-trans-Dichloroethylene	ND		0.20	0.033	ug/L			02/10/21 11:28	1
2-Chloroethyl vinyl ether	ND		6.0	0.35	ug/L			02/10/21 11:28	1
Acrolein	ND		15	1.1	ug/L			02/10/21 11:28	1
Acrylonitrile	ND		10	0.78	ug/L			02/10/21 11:28	1
Benzene	ND		0.20	0.030	ug/L			02/10/21 11:28	1
Bromoform	ND		0.50	0.16	ug/L			02/10/21 11:28	1
Carbon tetrachloride	ND		0.20	0.025	ug/L			02/10/21 11:28	1
Chlorobenzene	0.0613	J	0.20	0.025	ug/L			02/10/21 11:28	1
Chlorobromomethane	ND		0.20	0.025	ug/L			02/10/21 11:28	1
Chloroethane	ND		0.50	0.096	ug/L			02/10/21 11:28	1
Chloroform	ND		0.20	0.030	ug/L			02/10/21 11:28	1
cis-1,3-Dichloropropene	ND		0.20	0.090	ug/L			02/10/21 11:28	1
Dichlorobromomethane	ND		0.20	0.060	ug/L			02/10/21 11:28	1
Ethylbenzene	ND		0.20	0.030	ug/L			02/10/21 11:28	1
Methyl bromide	ND		0.50	0.062	ug/L			02/10/21 11:28	1
Methyl chloride	ND		0.50	0.068	ug/L			02/10/21 11:28	1
Methylene Chloride	ND		5.0	1.2	ug/L			02/10/21 11:28	1
Tetrachloroethylene	0.360	J	0.50	0.084	ug/L			02/10/21 11:28	1
Toluene	ND		0.20	0.050	ug/L			02/10/21 11:28	1
trans-1,3-Dichloropropene	ND		0.20	0.092	ug/L			02/10/21 11:28	1
Trichloroethylene	0.0970	J	0.20	0.066	ug/L			02/10/21 11:28	1
Vinyl chloride	ND		0.020	0.013	ug/L			02/10/21 11:28	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	100		70 - 120		02/10/21 11:28	1
4-Bromofluorobenzene (Surr)	97		78 - 119		02/10/21 11:28	1
Dibromofluoromethane (Surr)	98		70 - 120		02/10/21 11:28	1
Toluene-d8 (Surr)	95		79 - 122		02/10/21 11:28	1

Lab Sample ID: LCS 580-349620/4
Matrix: Water
Analysis Batch: 349620

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1,1,2-Tetrachloroethane	5.00	6.06		ug/L		121	60 - 140
1,1,2-Trichloroethane	5.00	6.01		ug/L		120	70 - 130
1,1-Dichloroethylene	5.00	4.49		ug/L		90	50 - 150
1,1-Dichloroethane	5.00	4.93		ug/L		99	70 - 130
1,2-Dichloroethane	5.00	5.10		ug/L		102	70 - 130
1,2-Dichloropropane	5.00	5.72		ug/L		114	35 - 165

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QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-349620/4
Matrix: Water
Analysis Batch: 349620

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2-trans-Dichloroethylene	5.00	4.73		ug/L		95	70 - 130
2-Chloroethyl vinyl ether	5.00	5.02	J	ug/L		100	10 - 225
Acrolein	30.0	33.4		ug/L		111	33 - 150
Acrylonitrile	50.0	51.7		ug/L		103	67 - 125
Benzene	5.00	5.21		ug/L		104	65 - 135
Bromoform	5.00	5.52		ug/L		110	70 - 130
Carbon tetrachloride	5.00	4.91		ug/L		98	70 - 130
Chlorobenzene	5.00	5.91		ug/L		118	65 - 135
Chlorobromomethane	5.00	5.33		ug/L		107	78 - 120
Chloroethane	5.00	3.98		ug/L		80	40 - 160
Chloroform	5.00	5.30		ug/L		106	70 - 135
cis-1,3-Dichloropropene	5.00	6.02		ug/L		120	25 - 175
Dichlorobromomethane	5.00	5.92		ug/L		118	70 - 135
Ethylbenzene	5.00	5.51		ug/L		110	60 - 140
Methyl bromide	5.00	4.30		ug/L		86	15 - 185
Methyl chloride	5.00	3.86		ug/L		77	10 - 205
Methylene Chloride	5.00	4.38	J	ug/L		88	60 - 140
Tetrachloroethylene	5.00	5.90		ug/L		118	70 - 130
Toluene	5.00	5.49		ug/L		110	70 - 130
trans-1,3-Dichloropropene	5.00	6.40		ug/L		128	50 - 150
Trichloroethylene	5.00	5.39		ug/L		108	65 - 135
Vinyl chloride	5.00	4.32		ug/L		86	10 - 195

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	96		70 - 120
4-Bromofluorobenzene (Surr)	96		78 - 119
Dibromofluoromethane (Surr)	96		70 - 120
Toluene-d8 (Surr)	98		79 - 122

Lab Sample ID: LCSD 580-349620/5
Matrix: Water
Analysis Batch: 349620

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
1,1,1-Trichloroethane	5.00	5.17		ug/L		103	70 - 130	5	18
1,1,2,2-Tetrachloroethane	5.00	6.07		ug/L		121	60 - 140	0	18
1,1,2-Trichloroethane	5.00	5.94		ug/L		119	70 - 130	1	14
1,1-Dichloroethylene	5.00	4.74		ug/L		95	50 - 150	5	27
1,1-Dichloroethane	5.00	5.11		ug/L		102	70 - 130	3	20
1,2-Dichloroethane	5.00	5.00		ug/L		100	70 - 130	2	11
1,2-Dichloropropane	5.00	5.75		ug/L		115	35 - 165	1	26
1,2-trans-Dichloroethylene	5.00	4.83		ug/L		97	70 - 130	2	21
2-Chloroethyl vinyl ether	5.00	5.11	J	ug/L		102	10 - 225	2	29
Acrolein	30.0	32.0		ug/L		107	33 - 150	4	35
Acrylonitrile	50.0	50.7		ug/L		101	67 - 125	2	35
Benzene	5.00	5.20		ug/L		104	65 - 135	0	33
Bromoform	5.00	5.80		ug/L		116	70 - 130	5	25
Carbon tetrachloride	5.00	5.14		ug/L		103	70 - 130	5	19

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QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 624.1 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-349620/5
Matrix: Water
Analysis Batch: 349620

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
Chlorobenzene	5.00	5.85		ug/L		117	65 - 135	1	15
Chlorobromomethane	5.00	5.46		ug/L		109	78 - 120	2	35
Chloroethane	5.00	4.40		ug/L		88	40 - 160	10	35
Chloroform	5.00	5.46		ug/L		109	70 - 135	3	15
cis-1,3-Dichloropropene	5.00	5.64		ug/L		113	25 - 175	7	12
Dichlorobromomethane	5.00	5.64		ug/L		113	70 - 135	5	34
Ethylbenzene	5.00	5.57		ug/L		111	60 - 140	1	14
Methyl bromide	5.00	4.44		ug/L		89	15 - 185	3	35
Methyl chloride	5.00	4.02		ug/L		80	10 - 205	4	35
Methylene Chloride	5.00	4.58	J	ug/L		92	60 - 140	4	29
Tetrachloroethylene	5.00	5.87		ug/L		117	70 - 130	0	20
Toluene	5.00	5.56		ug/L		111	70 - 130	1	13
trans-1,3-Dichloropropene	5.00	5.96		ug/L		119	50 - 150	7	13
Trichloroethylene	5.00	5.28		ug/L		106	65 - 135	2	15
Vinyl chloride	5.00	4.50		ug/L		90	10 - 195	4	35

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	96		70 - 120
4-Bromofluorobenzene (Surr)	98		78 - 119
Dibromofluoromethane (Surr)	99		70 - 120
Toluene-d8 (Surr)	98		79 - 122

Method: 625.1 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-349675/1-A
Matrix: Water
Analysis Batch: 349925

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.40	0.040	ug/L		02/11/21 10:16	02/16/21 21:08	1
1,2-Dichlorobenzene	ND		0.40	0.050	ug/L		02/11/21 10:16	02/16/21 21:08	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		2.0	0.060	ug/L		02/11/21 10:16	02/16/21 21:08	1
1,3-Dichlorobenzene	ND		0.40	0.040	ug/L		02/11/21 10:16	02/16/21 21:08	1
1,4-Dichlorobenzene	ND		0.40	0.040	ug/L		02/11/21 10:16	02/16/21 21:08	1
2,4,6-Trichlorophenol	ND		0.60	0.10	ug/L		02/11/21 10:16	02/16/21 21:08	1
2,4-Dichlorophenol	ND		1.0	0.20	ug/L		02/11/21 10:16	02/16/21 21:08	1
2,4-Dimethylphenol	ND		4.0	0.16	ug/L		02/11/21 10:16	02/16/21 21:08	1
2,4-Dinitrophenol	ND		5.0	1.6	ug/L		02/11/21 10:16	02/16/21 21:08	1
2,4-Dinitrotoluene	ND		1.0	0.10	ug/L		02/11/21 10:16	02/16/21 21:08	1
2,6-Dinitrotoluene	ND		0.40	0.10	ug/L		02/11/21 10:16	02/16/21 21:08	1
2-Chloronaphthalene	ND		1.0	0.030	ug/L		02/11/21 10:16	02/16/21 21:08	1
2-Chlorophenol	ND		1.0	0.050	ug/L		02/11/21 10:16	02/16/21 21:08	1
2-Nitrophenol	ND		1.0	0.070	ug/L		02/11/21 10:16	02/16/21 21:08	1
3,3'-Dichlorobenzidine	ND		2.0	0.62	ug/L		02/11/21 10:16	02/16/21 21:08	1
4,6-Dinitro-o-cresol	ND		2.0	0.55	ug/L		02/11/21 10:16	02/16/21 21:08	1
4-Bromophenyl phenyl ether	ND		0.60	0.060	ug/L		02/11/21 10:16	02/16/21 21:08	1
4-Chlorophenyl phenyl ether	ND		0.60	0.050	ug/L		02/11/21 10:16	02/16/21 21:08	1
4-Nitrophenol	ND		10	1.7	ug/L		02/11/21 10:16	02/16/21 21:08	1

Eurofins TestAmerica, Spokane

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-349675/1-A
Matrix: Water
Analysis Batch: 349925

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	ND		0.40	0.050	ug/L		02/11/21 10:16	02/16/21 21:08	1
Acenaphthylene	ND		1.0	0.060	ug/L		02/11/21 10:16	02/16/21 21:08	1
Anthracene	ND		1.0	0.050	ug/L		02/11/21 10:16	02/16/21 21:08	1
Benzo[a]anthracene	ND		0.25	0.050	ug/L		02/11/21 10:16	02/16/21 21:08	1
Benzo[a]pyrene	ND		0.25	0.040	ug/L		02/11/21 10:16	02/16/21 21:08	1
Benzo[b]fluoranthene	ND		0.25	0.040	ug/L		02/11/21 10:16	02/16/21 21:08	1
Benzo[g,h,i]perylene	ND		0.25	0.040	ug/L		02/11/21 10:16	02/16/21 21:08	1
Benzo[k]fluoranthene	ND		0.25	0.050	ug/L		02/11/21 10:16	02/16/21 21:08	1
bis (2-chloroisopropyl) ether	ND		0.25	0.060	ug/L		02/11/21 10:16	02/16/21 21:08	1
Bis(2-chloroethoxy)methane	ND		0.60	0.050	ug/L		02/11/21 10:16	02/16/21 21:08	1
Bis(2-chloroethyl)ether	ND		0.10	0.030	ug/L		02/11/21 10:16	02/16/21 21:08	1
Bis(2-ethylhexyl) phthalate	ND		3.0	0.74	ug/L		02/11/21 10:16	02/16/21 21:08	1
Butyl benzyl phthalate	ND		4.0	0.93	ug/L		02/11/21 10:16	02/16/21 21:08	1
Chrysene	ND		0.25	0.040	ug/L		02/11/21 10:16	02/16/21 21:08	1
Dibenz(a,h)anthracene	ND		0.25	0.070	ug/L		02/11/21 10:16	02/16/21 21:08	1
Diethyl phthalate	ND		1.0	0.15	ug/L		02/11/21 10:16	02/16/21 21:08	1
Dimethyl phthalate	ND		0.60	0.060	ug/L		02/11/21 10:16	02/16/21 21:08	1
Di-n-butyl phthalate	ND		3.0	0.44	ug/L		02/11/21 10:16	02/16/21 21:08	1
Di-n-octyl phthalate	ND		1.0	0.13	ug/L		02/11/21 10:16	02/16/21 21:08	1
Fluoranthene	ND		0.25	0.060	ug/L		02/11/21 10:16	02/16/21 21:08	1
Fluorene	ND		0.25	0.050	ug/L		02/11/21 10:16	02/16/21 21:08	1
Hexachlorobenzene	ND		0.60	0.040	ug/L		02/11/21 10:16	02/16/21 21:08	1
Hexachlorobutadiene	ND		1.0	0.060	ug/L		02/11/21 10:16	02/16/21 21:08	1
Hexachlorocyclopentadiene	ND		2.0	0.28	ug/L		02/11/21 10:16	02/16/21 21:08	1
Hexachloroethane	ND		1.0	0.050	ug/L		02/11/21 10:16	02/16/21 21:08	1
Indeno[1,2,3-cd]pyrene	ND		0.40	0.13	ug/L		02/11/21 10:16	02/16/21 21:08	1
Isophorone	ND		0.40	0.10	ug/L		02/11/21 10:16	02/16/21 21:08	1
Naphthalene	ND		0.40	0.16	ug/L		02/11/21 10:16	02/16/21 21:08	1
Nitrobenzene	ND		1.0	0.040	ug/L		02/11/21 10:16	02/16/21 21:08	1
N-Nitrosodimethylamine	ND		2.0	0.26	ug/L		02/11/21 10:16	02/16/21 21:08	1
N-Nitrosodi-n-propylamine	ND		0.40	0.060	ug/L		02/11/21 10:16	02/16/21 21:08	1
N-Nitrosodiphenylamine	ND		1.0	0.070	ug/L		02/11/21 10:16	02/16/21 21:08	1
p-Chloro-m-cresol	ND		0.60	0.13	ug/L		02/11/21 10:16	02/16/21 21:08	1
Pentachlorophenol	ND		10	3.2	ug/L		02/11/21 10:16	02/16/21 21:08	1
Phenanthrene	ND		1.0	0.030	ug/L		02/11/21 10:16	02/16/21 21:08	1
Phenol	ND		1.0	0.36	ug/L		02/11/21 10:16	02/16/21 21:08	1
Pyrene	ND		1.0	0.040	ug/L		02/11/21 10:16	02/16/21 21:08	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	66		47 - 137	02/11/21 10:16	02/16/21 21:08	1
2-Fluorobiphenyl	88		56 - 124	02/11/21 10:16	02/16/21 21:08	1
2-Fluorophenol	58		20 - 122	02/11/21 10:16	02/16/21 21:08	1
Nitrobenzene-d5	87		59 - 123	02/11/21 10:16	02/16/21 21:08	1
Phenol-d5	31		20 - 123	02/11/21 10:16	02/16/21 21:08	1
Terphenyl-d14	103		60 - 135	02/11/21 10:16	02/16/21 21:08	1

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-349675/1-A
Matrix: Water
Analysis Batch: 350536

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349675

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzidine	ND		10	3.0	ug/L		02/11/21 10:16	02/25/21 16:35	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol	90		47 - 137				02/11/21 10:16	02/25/21 16:35	1
2-Fluorobiphenyl	90		56 - 124				02/11/21 10:16	02/25/21 16:35	1
2-Fluorophenol	70		20 - 122				02/11/21 10:16	02/25/21 16:35	1
Nitrobenzene-d5	143	S1+	59 - 123				02/11/21 10:16	02/25/21 16:35	1
Phenol-d5	51		20 - 123				02/11/21 10:16	02/25/21 16:35	1
Terphenyl-d14	117		60 - 135				02/11/21 10:16	02/25/21 16:35	1

Lab Sample ID: LCS 580-349675/2-A
Matrix: Water
Analysis Batch: 349925

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349675

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
1,2,4-Trichlorobenzene	2.00	1.77		ug/L		89	57 - 130
1,2-Dichlorobenzene	2.00	1.74		ug/L		87	44 - 120
1,2-Diphenylhydrazine (as Azobenzene)	2.00	1.83	J	ug/L		92	23 - 132
1,3-Dichlorobenzene	2.00	1.76		ug/L		88	34 - 121
1,4-Dichlorobenzene	2.00	1.75		ug/L		88	40 - 120
2,4,6-Trichlorophenol	2.00	1.72		ug/L		86	55 - 129
2,4-Dichlorophenol	2.00	1.70		ug/L		85	53 - 122
2,4-Dimethylphenol	2.00	1.51	J	ug/L		76	42 - 120
2,4-Dinitrophenol	4.00	2.92	J	ug/L		73	1 - 173
2,4-Dinitrotoluene	2.00	1.68		ug/L		84	48 - 127
2,6-Dinitrotoluene	2.00	1.73		ug/L		87	68 - 137
2-Chloronaphthalene	2.00	1.72		ug/L		86	65 - 120
2-Chlorophenol	2.00	1.75		ug/L		87	36 - 120
2-Nitrophenol	2.00	1.74		ug/L		87	45 - 167
3,3'-Dichlorobenzidine	4.00	3.38		ug/L		85	8 - 213
4,6-Dinitro-o-cresol	4.00	3.11		ug/L		78	53 - 130
4-Bromophenyl phenyl ether	2.00	1.88		ug/L		94	65 - 120
4-Chlorophenyl phenyl ether	2.00	1.87		ug/L		94	38 - 145
4-Nitrophenol	4.00	ND		ug/L		36	13 - 129
Acenaphthene	2.00	1.83		ug/L		91	60 - 132
Acenaphthylene	2.00	1.81		ug/L		90	54 - 126
Anthracene	2.00	1.81		ug/L		90	43 - 120
Benzo[a]anthracene	2.00	1.74		ug/L		87	42 - 133
Benzo[a]pyrene	2.00	1.96		ug/L		98	32 - 148
Benzo[b]fluoranthene	2.00	1.89		ug/L		95	42 - 140
Benzo[g,h,i]perylene	2.00	1.86		ug/L		93	1 - 195
Benzo[k]fluoranthene	2.00	1.78		ug/L		89	25 - 146
bis (2-chloroisopropyl) ether	2.00	1.85		ug/L		93	53 - 133
Bis(2-chloroethoxy)methane	2.00	1.81		ug/L		91	49 - 165
Bis(2-chloroethyl)ether	2.00	1.81		ug/L		91	43 - 126
Bis(2-ethylhexyl) phthalate	2.00	1.98	J	ug/L		99	29 - 137
Butyl benzyl phthalate	2.00	1.81	J	ug/L		91	1 - 140

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-349675/2-A
Matrix: Water
Analysis Batch: 349925

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349675

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chrysene	2.00	1.72		ug/L		86	44 - 140
Dibenz(a,h)anthracene	2.00	1.90		ug/L		95	1 - 200
Diethyl phthalate	2.00	1.73		ug/L		87	1 - 120
Dimethyl phthalate	2.00	1.80		ug/L		90	1 - 120
Di-n-butyl phthalate	2.00	1.96	J	ug/L		98	8 - 120
Di-n-octyl phthalate	2.00	1.72		ug/L		86	19 - 132
Fluoranthene	2.00	1.87		ug/L		94	43 - 121
Fluorene	2.00	1.82		ug/L		91	70 - 120
Hexachlorobenzene	2.00	1.84		ug/L		92	8 - 142
Hexachlorobutadiene	2.00	1.70		ug/L		85	38 - 120
Hexachlorocyclopentadiene	2.00	1.55	J	ug/L		77	20 - 120
Hexachloroethane	2.00	1.73		ug/L		87	55 - 120
Indeno[1,2,3-cd]pyrene	2.00	1.59		ug/L		79	1 - 151
Isophorone	2.00	1.85		ug/L		92	47 - 180
Naphthalene	2.00	1.75		ug/L		88	36 - 120
Nitrobenzene	2.00	1.71		ug/L		85	54 - 158
N-Nitrosodimethylamine	2.00	1.24	J	ug/L		62	45 - 125
N-Nitrosodi-n-propylamine	2.00	1.79		ug/L		90	14 - 198
N-Nitrosodiphenylamine	2.00	1.82		ug/L		91	22 - 135
p-Chloro-m-cresol	2.00	1.65		ug/L		82	41 - 128
Pentachlorophenol	4.00	3.54	J	ug/L		88	38 - 152
Phenanthrene	2.00	1.88		ug/L		94	65 - 120
Phenol	2.00	0.822	J	ug/L		41	17 - 120
Pyrene	2.00	1.80		ug/L		90	70 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	85		47 - 137
2-Fluorobiphenyl	83		56 - 124
2-Fluorophenol	57		20 - 122
Nitrobenzene-d5	89		59 - 123
Phenol-d5	33		20 - 123
Terphenyl-d14	100		60 - 135

Lab Sample ID: LCS 580-349675/2-A
Matrix: Water
Analysis Batch: 350536

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349675

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzidine	4.00	3.14	J	ug/L		79	5 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2,4,6-Tribromophenol	88		47 - 137
2-Fluorobiphenyl	83		56 - 124
2-Fluorophenol	72		20 - 122
Nitrobenzene-d5	135	S1+	59 - 123
Phenol-d5	49		20 - 123
Terphenyl-d14	105		60 - 135

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-349675/3-A

Matrix: Water

Analysis Batch: 349925

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Prep Batch: 349675

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD
									Limit
1,2,4-Trichlorobenzene	2.00	1.55		ug/L		78	57 - 130	13	20
1,2-Dichlorobenzene	2.00	1.53		ug/L		76	44 - 120	13	20
1,2-Diphenylhydrazine (as Azobenzene)	2.00	1.73	J	ug/L		87	23 - 132	6	35
1,3-Dichlorobenzene	2.00	1.52		ug/L		76	34 - 121	15	29
1,4-Dichlorobenzene	2.00	1.52		ug/L		76	40 - 120	15	25
2,4,6-Trichlorophenol	2.00	1.60		ug/L		80	55 - 129	7	20
2,4-Dichlorophenol	2.00	1.56		ug/L		78	53 - 122	8	26
2,4-Dimethylphenol	2.00	1.34	J	ug/L		67	42 - 120	12	35
2,4-Dinitrophenol	4.00	2.62	J	ug/L		66	1 - 173	11	35
2,4-Dinitrotoluene	2.00	1.52		ug/L		76	48 - 127	10	29
2,6-Dinitrotoluene	2.00	1.58		ug/L		79	68 - 137	10	24
2-Chloronaphthalene	2.00	1.59		ug/L		79	65 - 120	8	20
2-Chlorophenol	2.00	1.60		ug/L		80	36 - 120	8	20
2-Nitrophenol	2.00	1.52		ug/L		76	45 - 167	14	35
3,3'-Dichlorobenzidine	4.00	3.24		ug/L		81	8 - 213	4	35
4,6-Dinitro-o-cresol	4.00	2.95		ug/L		74	53 - 130	5	35
4-Bromophenyl phenyl ether	2.00	1.70		ug/L		85	65 - 120	10	20
4-Chlorophenyl phenyl ether	2.00	1.68		ug/L		84	38 - 145	11	20
4-Nitrophenol	4.00	ND		ug/L		35	13 - 129	3	23
Acenaphthene	2.00	1.63		ug/L		82	60 - 132	11	20
Acenaphthylene	2.00	1.60		ug/L		80	54 - 126	12	20
Anthracene	2.00	1.75		ug/L		88	43 - 120	3	26
Benzo[a]anthracene	2.00	1.63		ug/L		81	42 - 133	7	20
Benzo[a]pyrene	2.00	1.81		ug/L		91	32 - 148	8	35
Benzo[b]fluoranthene	2.00	1.73		ug/L		86	42 - 140	9	20
Benzo[g,h,i]perylene	2.00	1.82		ug/L		91	1 - 195	3	20
Benzo[k]fluoranthene	2.00	1.70		ug/L		85	25 - 146	4	20
bis (2-chloroisopropyl) ether	2.00	1.65		ug/L		83	53 - 133	12	20
Bis(2-chloroethoxy)methane	2.00	1.59		ug/L		80	49 - 165	13	26
Bis(2-chloroethyl)ether	2.00	1.64		ug/L		82	43 - 126	10	20
Bis(2-ethylhexyl) phthalate	2.00	1.84	J	ug/L		92	29 - 137	7	35
Butyl benzyl phthalate	2.00	1.77	J	ug/L		88	1 - 140	2	20
Chrysene	2.00	1.60		ug/L		80	44 - 140	7	20
Dibenz(a,h)anthracene	2.00	1.75		ug/L		88	1 - 200	8	20
Diethyl phthalate	2.00	1.56		ug/L		78	1 - 120	10	20
Dimethyl phthalate	2.00	1.62		ug/L		81	1 - 120	11	20
Di-n-butyl phthalate	2.00	1.85	J	ug/L		92	8 - 120	6	20
Di-n-octyl phthalate	2.00	1.61		ug/L		81	19 - 132	6	20
Fluoranthene	2.00	1.78		ug/L		89	43 - 121	5	20
Fluorene	2.00	1.68		ug/L		84	70 - 120	8	20
Hexachlorobenzene	2.00	1.68		ug/L		84	8 - 142	9	20
Hexachlorobutadiene	2.00	1.40		ug/L		70	38 - 120	19	31
Hexachlorocyclopentadiene	2.00	1.33	J	ug/L		67	20 - 120	15	35
Hexachloroethane	2.00	1.39		ug/L		70	55 - 120	22	35
Indeno[1,2,3-cd]pyrene	2.00	1.60		ug/L		80	1 - 151	1	20
Isophorone	2.00	1.62		ug/L		81	47 - 180	13	20
Naphthalene	2.00	1.59		ug/L		80	36 - 120	10	20
Nitrobenzene	2.00	1.58		ug/L		79	54 - 158	8	20

Eurofins TestAmerica, Spokane

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 625.1 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-349675/3-A
Matrix: Water
Analysis Batch: 349925

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 349675

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
N-Nitrosodimethylamine	2.00	1.18	J	ug/L		59	45 - 125	5	25
N-Nitrosodi-n-propylamine	2.00	1.63		ug/L		82	14 - 198	9	20
N-Nitrosodiphenylamine	2.00	1.66		ug/L		83	22 - 135	9	29
p-Chloro-m-cresol	2.00	1.55		ug/L		77	41 - 128	6	20
Pentachlorophenol	4.00	3.25	J	ug/L		81	38 - 152	9	35
Phenanthrene	2.00	1.75		ug/L		87	65 - 120	7	20
Phenol	2.00	0.822	J	ug/L		41	17 - 120	0	26
Pyrene	2.00	1.66		ug/L		83	70 - 120	8	20

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol	79		47 - 137
2-Fluorobiphenyl	75		56 - 124
2-Fluorophenol	53		20 - 122
Nitrobenzene-d5	84		59 - 123
Phenol-d5	31		20 - 123
Terphenyl-d14	93		60 - 135

Lab Sample ID: LCSD 580-349675/3-A
Matrix: Water
Analysis Batch: 350536

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 349675

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzidine	4.00	3.09	J	ug/L		77	5 - 125	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
2,4,6-Tribromophenol	80		47 - 137
2-Fluorobiphenyl	85		56 - 124
2-Fluorophenol	61		20 - 122
Nitrobenzene-d5	119		59 - 123
Phenol-d5	47		20 - 123
Terphenyl-d14	99		60 - 135

Method: 608.3 - Organochlorine Pesticides/PCBs in Water

Lab Sample ID: MB 580-349672/1-A
Matrix: Water
Analysis Batch: 349909

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349672

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	ND		0.015	0.0060	ug/L		02/11/21 10:11	02/16/21 13:59	1
4,4'-DDE	ND		0.010	0.0030	ug/L		02/11/21 10:11	02/16/21 13:59	1
4,4'-DDT	ND		0.020	0.0050	ug/L		02/11/21 10:11	02/16/21 13:59	1
Aldrin	ND		0.024	0.0070	ug/L		02/11/21 10:11	02/16/21 13:59	1
alpha-BHC	ND		0.018	0.0040	ug/L		02/11/21 10:11	02/16/21 13:59	1
beta-BHC	ND		0.021	0.012	ug/L		02/11/21 10:11	02/16/21 13:59	1
cis-Chlordane	ND		0.027	0.0080	ug/L		02/11/21 10:11	02/16/21 13:59	1
delta-BHC	ND		0.015	0.0050	ug/L		02/11/21 10:11	02/16/21 13:59	1
Dieldrin	ND		0.018	0.0050	ug/L		02/11/21 10:11	02/16/21 13:59	1

Eurofins TestAmerica, Spokane

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 608.3 - Organochlorine Pesticides/PCBs in Water (Continued)

Lab Sample ID: MB 580-349672/1-A
Matrix: Water
Analysis Batch: 349909

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349672

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Endosulfan I	ND		0.020	0.0030	ug/L		02/11/21 10:11	02/16/21 13:59	1
Endosulfan II	ND		0.024	0.0050	ug/L		02/11/21 10:11	02/16/21 13:59	1
Endosulfan sulfate	ND		0.020	0.0030	ug/L		02/11/21 10:11	02/16/21 13:59	1
Endrin	ND		0.012	0.0030	ug/L		02/11/21 10:11	02/16/21 13:59	1
Endrin aldehyde	0.0500	J	0.060	0.034	ug/L		02/11/21 10:11	02/16/21 13:59	1
gamma-BHC (Lindane)	ND		0.020	0.0050	ug/L		02/11/21 10:11	02/16/21 13:59	1
Heptachlor	ND		0.015	0.0040	ug/L		02/11/21 10:11	02/16/21 13:59	1
Heptachlor epoxide	ND		0.020	0.0030	ug/L		02/11/21 10:11	02/16/21 13:59	1
Toxaphene	ND		2.0	0.46	ug/L		02/11/21 10:11	02/16/21 13:59	1
trans-Chlordane	ND		0.020	0.0030	ug/L		02/11/21 10:11	02/16/21 13:59	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl	61		37 - 156	02/11/21 10:11	02/16/21 13:59	1
Tetrachloro-m-xylene	71		44 - 123	02/11/21 10:11	02/16/21 13:59	1

Lab Sample ID: MB 580-349672/1-A
Matrix: Water
Analysis Batch: 349903

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349672

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aroclor 1016	ND		0.45	0.061	ug/L		02/11/21 10:11	02/16/21 18:37	1
Aroclor 1221	ND		0.45	0.075	ug/L		02/11/21 10:11	02/16/21 18:37	1
Aroclor 1232	ND		0.45	0.063	ug/L		02/11/21 10:11	02/16/21 18:37	1
Aroclor 1242	ND		0.45	0.059	ug/L		02/11/21 10:11	02/16/21 18:37	1
Aroclor 1248	ND		0.45	0.052	ug/L		02/11/21 10:11	02/16/21 18:37	1
Aroclor 1254	ND		0.45	0.075	ug/L		02/11/21 10:11	02/16/21 18:37	1
Aroclor 1260	ND		0.45	0.061	ug/L		02/11/21 10:11	02/16/21 18:37	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl	61		37 - 156	02/11/21 10:11	02/16/21 18:37	1
Tetrachloro-m-xylene	78		44 - 123	02/11/21 10:11	02/16/21 18:37	1

Lab Sample ID: LCS 580-349672/2-A
Matrix: Water
Analysis Batch: 349909

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349672

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	Limits
		Result	Qualifier				
4,4'-DDD	0.200	0.168		ug/L		84	31 - 141
4,4'-DDE	0.200	0.159		ug/L		79	30 - 145
4,4'-DDT	0.200	0.184		ug/L		92	25 - 160
Aldrin	0.200	0.162		ug/L		81	42 - 140
alpha-BHC	0.200	0.166		ug/L		83	37 - 140
beta-BHC	0.200	0.173		ug/L		87	17 - 147
cis-Chlordane	0.200	0.161		ug/L		81	45 - 140
delta-BHC	0.200	0.164		ug/L		82	19 - 140
Dieldrin	0.200	0.163		ug/L		82	36 - 146
Endosulfan I	0.200	0.150		ug/L		75	45 - 153
Endosulfan II	0.200	0.110		ug/L		55	0.1 - 202

Eurofins TestAmerica, Spokane

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 608.3 - Organochlorine Pesticides/PCBs in Water (Continued)

Lab Sample ID: LCS 580-349672/2-A
Matrix: Water
Analysis Batch: 349909

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349672

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Endosulfan sulfate	0.200	0.162		ug/L		81	26 - 144
Endrin	0.200	0.172		ug/L		86	30 - 147
Endrin aldehyde	0.200	0.181		ug/L		90	50 - 150
gamma-BHC (Lindane)	0.200	0.172		ug/L		86	32 - 140
Heptachlor	0.200	0.182		ug/L		91	24 - 140
Heptachlor epoxide	0.200	0.168		ug/L		84	37 - 142
trans-Chlordane	0.200	0.165		ug/L		82	45 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	71		37 - 156
Tetrachloro-m-xylene	77		44 - 123

Lab Sample ID: LCS 580-349672/4-A
Matrix: Water
Analysis Batch: 349903

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349672

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aroclor 1016	1.00	0.859		ug/L		86	50 - 140
Aroclor 1260	1.00	0.755		ug/L		76	8 - 140

Surrogate	LCS %Recovery	LCS Qualifier	Limits
DCB Decachlorobiphenyl	68		37 - 156
Tetrachloro-m-xylene	85		44 - 123

Lab Sample ID: LCSD 580-349672/3-A
Matrix: Water
Analysis Batch: 349909

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 349672

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
4,4'-DDD	0.200	0.154		ug/L		77	31 - 141	9	39
4,4'-DDE	0.200	0.145		ug/L		72	30 - 145	9	35
4,4'-DDT	0.200	0.172		ug/L		86	25 - 160	7	42
Aldrin	0.200	0.143		ug/L		72	42 - 140	12	35
alpha-BHC	0.200	0.160		ug/L		80	37 - 140	3	36
beta-BHC	0.200	0.155		ug/L		77	17 - 147	11	44
cis-Chlordane	0.200	0.160		ug/L		80	45 - 140	1	35
delta-BHC	0.200	0.155		ug/L		78	19 - 140	6	52
Dieldrin	0.200	0.157		ug/L		79	36 - 146	4	49
Endosulfan I	0.200	0.142		ug/L		71	45 - 153	5	28
Endosulfan II	0.200	0.100		ug/L		50	0.1 - 202	10	53
Endosulfan sulfate	0.200	0.152		ug/L		76	26 - 144	7	38
Endrin	0.200	0.157		ug/L		78	30 - 147	9	48
Endrin aldehyde	0.200	0.159		ug/L		79	50 - 150	13	35
gamma-BHC (Lindane)	0.200	0.160		ug/L		80	32 - 140	7	39
Heptachlor	0.200	0.161		ug/L		81	24 - 140	12	43
Heptachlor epoxide	0.200	0.159		ug/L		79	37 - 142	6	26
trans-Chlordane	0.200	0.153		ug/L		77	45 - 140	7	35

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 608.3 - Organochlorine Pesticides/PCBs in Water (Continued)

Lab Sample ID: LCSD 580-349672/3-A
Matrix: Water
Analysis Batch: 349909

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 349672

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	60		37 - 156
Tetrachloro-m-xylene	70		44 - 123

Lab Sample ID: LCSD 580-349672/5-A
Matrix: Water
Analysis Batch: 349903

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 349672

Analyte	Spike Added	LCSD		Unit	D	%Rec	%Rec.		RPD	Limit
		Result	Qualifier				Limits	RPD		
Aroclor 1016	1.00	0.915		ug/L		91	50 - 140	6	36	
Aroclor 1260	1.00	0.812		ug/L		81	8 - 140	7	38	

Surrogate	LCSD		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	89		37 - 156
Tetrachloro-m-xylene	83		44 - 123

Method: 1613B - Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS

Lab Sample ID: MB 320-461452/1-A
Matrix: Water
Analysis Batch: 463146

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 461452

Analyte	MB		RL	EDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
2,3,7,8-TCDD	ND		10	0.88	pg/L		02/12/21 08:02	02/18/21 13:02	1

Isotope Dilution	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
13C-2,3,7,8-TCDD	79		31 - 137	02/12/21 08:02	02/18/21 13:02	1

Surrogate	MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
37Cl4-2,3,7,8-TCDD	104		42 - 164	02/12/21 08:02	02/18/21 13:02	1

Lab Sample ID: LCS 320-461452/2-A
Matrix: Water
Analysis Batch: 463146

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 461452

Analyte	Spike Added	LCS		Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	
2,3,7,8-TCDD	200	234		pg/L		117	73 - 146	

Isotope Dilution	LCS		Limits
	%Recovery	Qualifier	
13C-2,3,7,8-TCDD	73		25 - 141

Surrogate	LCS		Limits
	%Recovery	Qualifier	
37Cl4-2,3,7,8-TCDD	107		37 - 158

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 1613B - Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS (Continued)

Lab Sample ID: LCSD 320-461452/3-A
Matrix: Water
Analysis Batch: 463146

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 461452

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD
							Limits	RPD	
2,3,7,8-TCDD	200	227		pg/L		113	73 - 146	3	50
LCSD LCSD									
Isotope Dilution	%Recovery	Qualifier	Limits						
13C-2,3,7,8-TCDD	82		25 - 141						
LCSD LCSD									
Surrogate	%Recovery	Qualifier	Limits						
37Cl4-2,3,7,8-TCDD	106		37 - 158						

Method: 200.7 Rev 4.4 - Metals (ICP)

Lab Sample ID: MB 580-349897/14-A
Matrix: Water
Analysis Batch: 350056

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349897

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Aluminum	ND		1.5	0.11	mg/L		02/16/21 12:22	02/17/21 16:03	1
Barium	ND		0.020	0.0039	mg/L		02/16/21 12:22	02/17/21 16:03	1
Boron	ND		2.5	0.041	mg/L		02/16/21 12:22	02/17/21 16:03	1
Cobalt	ND		0.020	0.00050	mg/L		02/16/21 12:22	02/17/21 16:03	1
Iron	ND		0.50	0.14	mg/L		02/16/21 12:22	02/17/21 16:03	1
Magnesium	ND		1.1	0.13	mg/L		02/16/21 12:22	02/17/21 16:03	1
Manganese	ND		0.020	0.0017	mg/L		02/16/21 12:22	02/17/21 16:03	1
Molybdenum	ND		0.040	0.0047	mg/L		02/16/21 12:22	02/17/21 16:03	1
Tin	ND		0.10	0.0028	mg/L		02/16/21 12:22	02/17/21 16:03	1
Titanium	ND		0.030	0.0039	mg/L		02/16/21 12:22	02/17/21 16:03	1

Lab Sample ID: LCS 580-349897/15-A
Matrix: Water
Analysis Batch: 350056

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349897

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec.	
							Limits	RPD
Aluminum	20.0	20.6		mg/L		103	85 - 115	
Barium	1.00	1.04		mg/L		104	85 - 115	
Boron	10.0	10.4		mg/L		104	85 - 115	
Cobalt	1.00	0.993		mg/L		99	85 - 115	
Iron	20.0	21.0		mg/L		105	85 - 115	
Magnesium	20.0	20.9		mg/L		104	85 - 115	
Manganese	1.00	0.975		mg/L		98	85 - 115	
Molybdenum	1.00	1.06		mg/L		106	85 - 115	
Tin	1.00	1.01		mg/L		101	85 - 115	
Titanium	1.00	1.01		mg/L		101	85 - 115	

Lab Sample ID: LCSD 580-349897/16-A
Matrix: Water
Analysis Batch: 350056

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 349897

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec.		RPD
							Limits	RPD	
Aluminum	20.0	21.1		mg/L		106	85 - 115	3	20
Barium	1.00	1.07		mg/L		107	85 - 115	3	20

Eurofins TestAmerica, Spokane

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: LCSD 580-349897/16-A
Matrix: Water
Analysis Batch: 350056

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 349897

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Boron	10.0	10.6		mg/L		106	85 - 115	2	20
Cobalt	1.00	1.02		mg/L		102	85 - 115	2	20
Iron	20.0	21.7		mg/L		109	85 - 115	3	20
Magnesium	20.0	21.5		mg/L		107	85 - 115	3	20
Manganese	1.00	1.03		mg/L		103	85 - 115	6	20
Molybdenum	1.00	1.08		mg/L		108	85 - 115	2	20
Tin	1.00	1.04		mg/L		104	85 - 115	2	20
Titanium	1.00	1.05		mg/L		105	85 - 115	4	20

Lab Sample ID: 590-14627-1 MS
Matrix: Water
Analysis Batch: 350056

Client Sample ID: Outfall 003
Prep Type: Total/NA
Prep Batch: 349897

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	ND	F1	20.0	21.0		mg/L		105	70 - 130		
Barium	0.017	J	1.00	1.08		mg/L		106	70 - 130		
Boron	0.17	J	10.0	10.7		mg/L		105	70 - 130		
Cobalt	ND		1.00	1.02		mg/L		102	70 - 130		
Iron	1.6	F1	20.0	22.8		mg/L		106	70 - 130		
Magnesium	15	F1	20.0	35.6		mg/L		101	70 - 130		
Manganese	0.0026	J	1.00	1.01		mg/L		101	70 - 130		
Molybdenum	ND		1.00	1.09		mg/L		109	70 - 130		
Tin	ND		1.00	1.05		mg/L		105	70 - 130		
Titanium	0.0070	J	1.00	1.05		mg/L		104	70 - 130		

Lab Sample ID: 590-14627-1 MSD
Matrix: Water
Analysis Batch: 350056

Client Sample ID: Outfall 003
Prep Type: Total/NA
Prep Batch: 349897

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aluminum	ND	F1	20.0	20.5		mg/L		102	70 - 130	2	20
Barium	0.017	J	1.00	1.05		mg/L		103	70 - 130	3	20
Boron	0.17	J	10.0	11.2		mg/L		110	70 - 130	5	20
Cobalt	ND		1.00	1.01		mg/L		101	70 - 130	1	20
Iron	1.6	F1	20.0	22.2		mg/L		103	70 - 130	3	20
Magnesium	15	F1	20.0	34.5		mg/L		96	70 - 130	3	20
Manganese	0.0026	J	1.00	0.976		mg/L		97	70 - 130	4	20
Molybdenum	ND		1.00	1.08		mg/L		108	70 - 130	1	20
Tin	ND		1.00	1.04		mg/L		104	70 - 130	1	20
Titanium	0.0070	J	1.00	1.02		mg/L		101	70 - 130	3	20

Lab Sample ID: 590-14627-1 DU
Matrix: Water
Analysis Batch: 350056

Client Sample ID: Outfall 003
Prep Type: Total/NA
Prep Batch: 349897

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Aluminum	ND	F1	ND		mg/L		NC	20
Barium	0.017	J	0.0161	J	mg/L		7	20
Boron	0.17	J	0.143	J	mg/L		16	20

Eurofins TestAmerica, Spokane

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 200.7 Rev 4.4 - Metals (ICP) (Continued)

Lab Sample ID: 590-14627-1 DU
Matrix: Water
Analysis Batch: 350056

Client Sample ID: Outfall 003
Prep Type: Total/NA
Prep Batch: 349897

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Cobalt	ND		ND		mg/L		NC	20
Iron	1.6	F1	1.55		mg/L		2	20
Magnesium	15	F1	15.0		mg/L		3	20
Manganese	0.0026	J	0.00260	J	mg/L		0	20
Molybdenum	ND		ND		mg/L		NC	20
Tin	ND		ND		mg/L		NC	20
Titanium	0.0070	J	0.00800	J	mg/L		13	20

Method: 200.8 - Metals (ICP/MS)

Lab Sample ID: MB 580-349897/14-A
Matrix: Water
Analysis Batch: 350137

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349897

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.00080	0.00011	mg/L		02/16/21 12:22	02/18/21 13:48	1
Arsenic	ND		0.0010	0.00020	mg/L		02/16/21 12:22	02/18/21 13:48	1
Beryllium	ND		0.00040	0.000071	mg/L		02/16/21 12:22	02/18/21 13:48	1
Cadmium	ND		0.00080	0.00010	mg/L		02/16/21 12:22	02/18/21 13:48	1
Chromium	ND		0.00080	0.00017	mg/L		02/16/21 12:22	02/18/21 13:48	1
Copper	ND		0.0020	0.00060	mg/L		02/16/21 12:22	02/18/21 13:48	1
Lead	ND		0.00080	0.00020	mg/L		02/16/21 12:22	02/18/21 13:48	1
Nickel	ND		0.0030	0.00012	mg/L		02/16/21 12:22	02/18/21 13:48	1
Selenium	ND		0.0080	0.0021	mg/L		02/16/21 12:22	02/18/21 13:48	1
Silver	ND		0.00040	0.000055	mg/L		02/16/21 12:22	02/18/21 13:48	1
Thallium	ND		0.0010	0.000065	mg/L		02/16/21 12:22	02/18/21 13:48	1
Zinc	ND		0.0070	0.0019	mg/L		02/16/21 12:22	02/18/21 13:48	1

Lab Sample ID: LCS 580-349897/15-A
Matrix: Water
Analysis Batch: 350137

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349897

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	1.00	0.982		mg/L		98	85 - 115
Arsenic	1.00	1.02		mg/L		102	85 - 115
Beryllium	1.00	1.01		mg/L		101	85 - 115
Cadmium	1.00	0.982		mg/L		98	85 - 115
Chromium	1.00	1.03		mg/L		103	85 - 115
Copper	1.00	1.04		mg/L		104	85 - 115
Lead	1.00	0.998		mg/L		100	85 - 115
Nickel	1.00	1.03		mg/L		103	85 - 115
Selenium	1.00	0.967		mg/L		97	85 - 115
Silver	1.00	0.998		mg/L		100	85 - 115
Thallium	1.00	0.999		mg/L		100	85 - 115
Zinc	1.00	1.01		mg/L		101	85 - 115

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCSD 580-349897/16-A
Matrix: Water
Analysis Batch: 350137

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 349897

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD	
									Limit	Limit
Antimony	1.00	0.975		mg/L		97	85 - 115	1		20
Arsenic	1.00	1.02		mg/L		102	85 - 115	0		20
Beryllium	1.00	1.01		mg/L		101	85 - 115	0		20
Cadmium	1.00	0.968		mg/L		97	85 - 115	1		20
Chromium	1.00	1.04		mg/L		104	85 - 115	1		20
Copper	1.00	1.04		mg/L		104	85 - 115	0		20
Lead	1.00	1.01		mg/L		101	85 - 115	2		20
Nickel	1.00	1.04		mg/L		104	85 - 115	1		20
Selenium	1.00	1.01		mg/L		101	85 - 115	4		20
Silver	1.00	0.989		mg/L		99	85 - 115	1		20
Thallium	1.00	1.02		mg/L		102	85 - 115	3		20
Zinc	1.00	1.00		mg/L		100	85 - 115	0		20

Lab Sample ID: 590-14627-1 MS
Matrix: Water
Analysis Batch: 350137

Client Sample ID: Outfall 003
Prep Type: Total/NA
Prep Batch: 349897

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits	RPD	
										Limit	Limit
Antimony	0.00017	J	1.00	0.982		mg/L		98	70 - 130		
Arsenic	0.0028		1.00	1.03		mg/L		102	70 - 130		
Beryllium	ND		1.00	1.00		mg/L		100	70 - 130		
Cadmium	ND		1.00	0.983		mg/L		98	70 - 130		
Chromium	0.0011		1.00	1.04		mg/L		104	70 - 130		
Copper	0.0025		1.00	1.03		mg/L		102	70 - 130		
Lead	ND		1.00	1.01		mg/L		101	70 - 130		
Nickel	0.0011	J	1.00	1.05		mg/L		105	70 - 130		
Selenium	ND		1.00	0.978		mg/L		98	70 - 130		
Silver	ND		1.00	1.01		mg/L		101	70 - 130		
Thallium	ND		1.00	1.02		mg/L		102	70 - 130		
Zinc	0.011		1.00	1.05		mg/L		104	70 - 130		

Lab Sample ID: 590-14627-1 MSD
Matrix: Water
Analysis Batch: 350137

Client Sample ID: Outfall 003
Prep Type: Total/NA
Prep Batch: 349897

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	RPD	
											Limit	Limit
Antimony	0.00017	J	1.00	1.01		mg/L		101	70 - 130	3		20
Arsenic	0.0028		1.00	1.03		mg/L		103	70 - 130	1		20
Beryllium	ND		1.00	1.01		mg/L		101	70 - 130	1		20
Cadmium	ND		1.00	1.02		mg/L		102	70 - 130	4		20
Chromium	0.0011		1.00	1.06		mg/L		106	70 - 130	2		20
Copper	0.0025		1.00	1.04		mg/L		104	70 - 130	1		20
Lead	ND		1.00	1.03		mg/L		103	70 - 130	2		20
Nickel	0.0011	J	1.00	1.06		mg/L		106	70 - 130	1		20
Selenium	ND		1.00	0.985		mg/L		99	70 - 130	1		20
Silver	ND		1.00	1.10		mg/L		110	70 - 130	9		20
Thallium	ND		1.00	1.03		mg/L		103	70 - 130	1		20
Zinc	0.011		1.00	1.13		mg/L		111	70 - 130	7		20

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 200.8 - Metals (ICP/MS) (Continued)

Lab Sample ID: 590-14627-1 DU
Matrix: Water
Analysis Batch: 350137

Client Sample ID: Outfall 003
Prep Type: Total/NA
Prep Batch: 349897

Analyte	Sample	Sample	DU		Unit	D	RPD	RPD	
	Result	Qualifier	Result	Qualifier				Limit	Limit
Antimony	0.00017	J	0.000261	J F5	mg/L		42	20	
Arsenic	0.0028		0.00286		mg/L		3	20	
Beryllium	ND		0.000114	J	mg/L		NC	20	
Cadmium	ND		0.000114	J	mg/L		NC	20	
Chromium	0.0011		0.000628	J F5	mg/L		54	20	
Copper	0.0025		0.00279		mg/L		9	20	
Lead	ND		0.000284	J	mg/L		NC	20	
Nickel	0.0011	J	0.00126	J	mg/L		12	20	
Selenium	ND		ND		mg/L		NC	20	
Silver	ND		ND		mg/L		NC	20	
Thallium	ND		0.0000890	J	mg/L		NC	20	
Zinc	0.011		0.0129		mg/L		17	20	

Method: 245.1 - Mercury (CVAA)

Lab Sample ID: MB 590-30619/2-A
Matrix: Water
Analysis Batch: 30651

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 30619

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	ND		0.20	0.090	ug/L		02/18/21 08:52	02/22/21 11:09	1

Lab Sample ID: LCS 590-30619/1-A
Matrix: Water
Analysis Batch: 30651

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 30619

Analyte	Spike Added	LCS	LCS	Unit	D	%Rec	%Rec.	
		Result	Qualifier				Limits	Limits
Mercury	2.00	1.93		ug/L		97	85 - 115	

Lab Sample ID: 590-14627-1 MS
Matrix: Water
Analysis Batch: 30651

Client Sample ID: Outfall 003
Prep Type: Total/NA
Prep Batch: 30619

Analyte	Sample	Sample	Spike Added	MS	MS	Unit	D	%Rec	%Rec.	
	Result	Qualifier		Result	Qualifier				Limits	Limits
Mercury	ND		2.00	2.24		ug/L		112	70 - 130	

Lab Sample ID: 590-14627-1 MSD
Matrix: Water
Analysis Batch: 30651

Client Sample ID: Outfall 003
Prep Type: Total/NA
Prep Batch: 30619

Analyte	Sample	Sample	Spike Added	MSD	MSD	Unit	D	%Rec	%Rec.		RPD
	Result	Qualifier		Result	Qualifier				Limits	Limits	RPD
Mercury	ND		2.00	2.25		ug/L		113	70 - 130	0	20

Lab Sample ID: 590-14627-1 DU
Matrix: Water
Analysis Batch: 30651

Client Sample ID: Outfall 003
Prep Type: Total/NA
Prep Batch: 30619

Analyte	Sample	Sample	DU		Unit	D	RPD	RPD	
	Result	Qualifier	Result	Qualifier				Limit	Limit
Mercury	ND		ND		ug/L		NC	20	

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 1664A - HEM and SGT-HEM

Lab Sample ID: MB 580-349691/1-A
Matrix: Water
Analysis Batch: 349711

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349691

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
HEM (Oil & Grease)	ND		5.1	5.1	mg/L		02/11/21 13:06	02/11/21 14:58	1

Lab Sample ID: LCS 580-349691/2-A
Matrix: Water
Analysis Batch: 349711

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349691

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
HEM (Oil & Grease)	41.3	34.67		mg/L		84	78 - 114

Lab Sample ID: LCSD 580-349691/3-A
Matrix: Water
Analysis Batch: 349711

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 349691

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
HEM (Oil & Grease)	40.9	34.19		mg/L		84	78 - 114	1	18

Method: 300.0 - Anions, Ion Chromatography

Lab Sample ID: MB 580-349772/12
Matrix: Water
Analysis Batch: 349772

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	ND		0.20	0.030	mg/L			02/12/21 10:18	1
Bromide	ND		1.0	0.12	mg/L			02/12/21 10:18	1
Sulfate	ND		1.5	0.80	mg/L			02/12/21 10:18	1

Lab Sample ID: LCS 580-349772/15
Matrix: Water
Analysis Batch: 349772

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	5.00	5.01		mg/L		100	90 - 110
Bromide	10.0	9.95		mg/L		100	90 - 110
Sulfate	50.0	50.4		mg/L		101	90 - 110

Lab Sample ID: LCSD 580-349772/16
Matrix: Water
Analysis Batch: 349772

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
Fluoride	5.00	5.16		mg/L		103	90 - 110	3	15
Bromide	10.0	10.4		mg/L		104	90 - 110	4	15
Sulfate	50.0	50.4		mg/L		101	90 - 110	0	15

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 300.0 - Anions, Ion Chromatography (Continued)

Lab Sample ID: 590-14627-1 MS
Matrix: Water
Analysis Batch: 349772

Client Sample ID: Outfall 003
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	ND		5.00	5.41		mg/L		108	90 - 110
Bromide	0.35	J	10.0	10.2		mg/L		98	90 - 110
Sulfate	22		50.0	72.8		mg/L		101	90 - 110

Lab Sample ID: 590-14627-1 MSD
Matrix: Water
Analysis Batch: 349772

Client Sample ID: Outfall 003
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	ND		5.00	5.40		mg/L		108	90 - 110	0	15
Bromide	0.35	J	10.0	10.4		mg/L		100	90 - 110	2	15
Sulfate	22		50.0	72.8		mg/L		101	90 - 110	0	15

Method: 335.4 - Cyanide, Total

Lab Sample ID: MB 280-527085/4-A
Matrix: Water
Analysis Batch: 527126

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 527085

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cyanide, Total	ND		0.010	0.0050	mg/L		02/23/21 11:43	02/23/21 16:38	1

Lab Sample ID: LCS 280-527085/3-A
Matrix: Water
Analysis Batch: 527126

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 527085

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cyanide, Total	0.100	0.105		mg/L		105	90 - 110

Method: 350.1 - Nitrogen, Ammonia

Lab Sample ID: MB 580-349706/1-A
Matrix: Water
Analysis Batch: 349766

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349706

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ammonia	ND		0.50	0.26	mg/L		02/11/21 14:47	02/12/21 11:44	1

Lab Sample ID: LCS 580-349706/2-A
Matrix: Water
Analysis Batch: 349766

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349706

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Ammonia	2.00	2.15		mg/L		107	90 - 110

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 351.2 - Nitrogen, Total Kjeldahl

Lab Sample ID: MB 480-570608/1-A
Matrix: Water
Analysis Batch: 570693

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 570608

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Kjeldahl Nitrogen	ND		0.20	0.19	mg/L		02/25/21 14:12	02/26/21 06:21	1

Lab Sample ID: LCS 480-570608/2-A
Matrix: Water
Analysis Batch: 570693

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 570608

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	2.50	2.66		mg/L		106	90 - 110

Lab Sample ID: 590-14627-1 MS
Matrix: Water
Analysis Batch: 570693

Client Sample ID: Outfall 003
Prep Type: Total/NA
Prep Batch: 570608

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Kjeldahl Nitrogen	2.3	F1	1.00	3.89	F1	mg/L		158	90 - 110

Lab Sample ID: 590-14627-2 DU
Matrix: Water
Analysis Batch: 570693

Client Sample ID: Outfall 001
Prep Type: Total/NA
Prep Batch: 570608

Analyte	Sample Result	Sample Qualifier	Spike Added	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Kjeldahl Nitrogen	1.9			1.67		mg/L		15	20

Method: 410.2 - COD

Lab Sample ID: MB 580-349697/3-A
Matrix: Water
Analysis Batch: 349721

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 349697

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Chemical Oxygen Demand	ND		10	10	mg/L		02/11/21 14:06	02/11/21 20:19	1

Lab Sample ID: LCS 580-349697/4-A
Matrix: Water
Analysis Batch: 349721

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 349697

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chemical Oxygen Demand	75.0	75.8		mg/L		101	80 - 120

Lab Sample ID: LCSD 580-349697/5-A
Matrix: Water
Analysis Batch: 349721

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 349697

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chemical Oxygen Demand	75.0	69.3		mg/L		92	80 - 120	9	20

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 410.2 - COD (Continued)

Lab Sample ID: 590-14627-1 MS
Matrix: Water
Analysis Batch: 349721

Client Sample ID: Outfall 003
Prep Type: Total/NA
Prep Batch: 349697
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Chemical Oxygen Demand	18		25.0	43.1		mg/L		99	75 - 125

Lab Sample ID: 590-14627-1 DU
Matrix: Water
Analysis Batch: 349721

Client Sample ID: Outfall 003
Prep Type: Total/NA
Prep Batch: 349697
RPD

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	Limit
Chemical Oxygen Demand	18		29.9	F3	mg/L		48	20

Method: 420.4 - Phenolics, Total Recoverable

Lab Sample ID: MB 280-526851/2-A
Matrix: Water
Analysis Batch: 527005

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 526851

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenols, Total	ND		0.020	0.0068	mg/L		02/19/21 19:41	02/22/21 16:46	1

Lab Sample ID: LCS 280-526851/1-A
Matrix: Water
Analysis Batch: 527005

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 526851
%Rec.

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Phenols, Total	0.201	0.204		mg/L		101	90 - 110

Lab Sample ID: 590-14627-1 MS
Matrix: Water
Analysis Batch: 527005

Client Sample ID: Outfall 003
Prep Type: Total/NA
Prep Batch: 526851
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	Limits
Phenols, Total	ND		0.201	0.199		mg/L		99	72 - 118

Lab Sample ID: 590-14627-1 MSD
Matrix: Water
Analysis Batch: 527005

Client Sample ID: Outfall 003
Prep Type: Total/NA
Prep Batch: 526851
%Rec.

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Phenols, Total	ND		0.201	0.197		mg/L		98	72 - 118	1	16

Method: SM 2120B - Color, Colorimetric

Lab Sample ID: MB 590-30566/10
Matrix: Water
Analysis Batch: 30566

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Color, Apparent	ND		5.0	5.0	Color Units			02/11/21 08:16	1

Eurofins TestAmerica, Spokane

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: SM 2120B - Color, Colorimetric (Continued)

Lab Sample ID: 590-14627-1 DU
Matrix: Water
Analysis Batch: 30566

Client Sample ID: Outfall 003
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Color, Apparent	ND		ND		Color Units		NC	7

Method: SM 2540D - Solids, Total Suspended (TSS)

Lab Sample ID: MB 590-30577/1
Matrix: Water
Analysis Batch: 30577

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Suspended Solids	ND		10	4.0	mg/L			02/15/21 09:49	1

Lab Sample ID: LCS 590-30577/2
Matrix: Water
Analysis Batch: 30577

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Suspended Solids	206	206		mg/L		100	80 - 120

Lab Sample ID: 590-14627-1 DU
Matrix: Water
Analysis Batch: 30577

Client Sample ID: Outfall 003
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Suspended Solids	ND		ND		mg/L		NC	30

Method: SM 4500 P E - Phosphorus

Lab Sample ID: MB 590-30624/8
Matrix: Water
Analysis Batch: 30624

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phosphorus, Total	ND		0.060	0.030	mg/L			02/18/21 11:29	1

Lab Sample ID: LCS 590-30624/7
Matrix: Water
Analysis Batch: 30624

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Phosphorus, Total	0.500	0.488		mg/L		98	90 - 110

Lab Sample ID: 590-14627-1 DU
Matrix: Water
Analysis Batch: 30624

Client Sample ID: Outfall 003
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Phosphorus, Total	0.63		0.629		mg/L		0.6	20

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: SM 4500 S2 F - Sulfide, Total

Lab Sample ID: MB 280-526198/1
Matrix: Water
Analysis Batch: 526198

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfide	ND		1.0	0.50	mg/L			02/12/21 10:55	1

Lab Sample ID: LCS 280-526198/2
Matrix: Water
Analysis Batch: 526198

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfide	24.5	25.0		mg/L		102	90 - 110

Lab Sample ID: LCSD 280-526198/3
Matrix: Water
Analysis Batch: 526198

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
Sulfide	24.5	24.4		mg/L		100	90 - 110	2	10

Method: SM 5310B - Organic Carbon, Total (TOC)

Lab Sample ID: MB 580-350735/13
Matrix: Water
Analysis Batch: 350735

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Total Organic Carbon	ND	^-	1.5	0.38	mg/L			02/26/21 19:19	1

Lab Sample ID: LCS 580-350735/14
Matrix: Water
Analysis Batch: 350735

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	10.0	9.87	^-	mg/L		99	85 - 115

Lab Sample ID: LCSD 580-350735/15
Matrix: Water
Analysis Batch: 350735

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
Total Organic Carbon	10.0	9.72	^-	mg/L		97	85 - 115	2	20

Lab Sample ID: 590-14627-1 MS
Matrix: Water
Analysis Batch: 350735

Client Sample ID: Outfall 003
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Total Organic Carbon	4.6	^-	10.0	14.6	^-	mg/L		100	85 - 115

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: SM 5310B - Organic Carbon, Total (TOC) (Continued)

Lab Sample ID: 590-14627-1 MSD
Matrix: Water
Analysis Batch: 350735

Client Sample ID: Outfall 003
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Total Organic Carbon	4.6	^-	10.0	14.5	^-	mg/L		99	85 - 115	0	20

Lab Sample ID: 590-14627-1 DU
Matrix: Water
Analysis Batch: 350735

Client Sample ID: Outfall 003
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Total Organic Carbon	4.6	^-	4.27	^-	mg/L		7	20

Method: SM 5540C - Methylene Blue Active Substances (MBAS)

Lab Sample ID: MB 400-520504/3
Matrix: Water
Analysis Batch: 520504

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methylene Blue Active Substances	ND		0.10	0.067	mg/l LAS MW 340			02/10/21 12:00	1

Lab Sample ID: LCS 400-520504/4
Matrix: Water
Analysis Batch: 520504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Blue Active Substances	0.500	0.497		mg/l LAS MW 340		99	90 - 110

Lab Sample ID: MRL 400-520504/2
Matrix: Water
Analysis Batch: 520504

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Methylene Blue Active Substances	0.100	0.0978	J	mg/L		98	75 - 125

Method: SM5210B - BOD, 5 Day

Lab Sample ID: SCB 590-30542/2
Matrix: Water
Analysis Batch: 30542

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	SCB Result	SCB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	1.0	mg/L			02/11/21 08:27	1

Lab Sample ID: USB 590-30542/1
Matrix: Water
Analysis Batch: 30542

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	USB Result	USB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Biochemical Oxygen Demand	ND		2.0	1.0	mg/L			02/11/21 08:27	1

Eurofins TestAmerica, Spokane

QC Sample Results

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: SM5210B - BOD, 5 Day (Continued)

Lab Sample ID: LCS 590-30542/3
Matrix: Water
Analysis Batch: 30542

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Biochemical Oxygen Demand	198	171		mg/L		86	85 - 115

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Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Client Sample ID: Outfall 003

Lab Sample ID: 590-14627-1

Date Collected: 02/09/21 10:30

Matrix: Water

Date Received: 02/09/21 11:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	10 mL	10 mL	349620	02/10/21 19:22	T1W	TAL SEA
Total/NA	Prep	CWA_Prep			961.2 mL	2 mL	349675	02/11/21 10:16	JBT	TAL SEA
Total/NA	Analysis	625.1		1			349925	02/16/21 22:14	ADB	TAL SEA
Total/NA	Prep	CWA_Prep			961.2 mL	2 mL	349675	02/11/21 10:16	JBT	TAL SEA
Total/NA	Analysis	625.1		1			350536	02/25/21 17:43	CJ	TAL SEA
Total/NA	Prep	3510C			229.5 mL	2.5 mL	349672	02/11/21 10:11	JBT	TAL SEA
Total/NA	Analysis	608.3		1			349903	02/16/21 19:30	TL1	TAL SEA
Total/NA	Prep	3510C			229.5 mL	2.5 mL	349672	02/11/21 10:11	JBT	TAL SEA
Total/NA	Analysis	608.3		1			349909	02/16/21 14:49	JKM	TAL SEA
Total/NA	Prep	1613B			980 mL	20 uL	461452	02/12/21 08:02	RDR	TAL SAC
Total/NA	Analysis	1613B		1			463146	02/18/21 16:47	ALM	TAL SAC
Total/NA	Prep	200.7			50 mL	50 mL	349897	02/16/21 12:22	JCP	TAL SEA
Total/NA	Analysis	200.7 Rev 4.4		1			350056	02/17/21 16:12	TMH	TAL SEA
Total/NA	Prep	200.7			50 mL	50 mL	349897	02/16/21 12:22	JCP	TAL SEA
Total/NA	Analysis	200.8		1	50 mL	50 mL	350137	02/18/21 13:52	FCW	TAL SEA
Total/NA	Prep	245.1			50 mL	50 mL	30619	02/18/21 08:52	AMB	TAL SPK
Total/NA	Analysis	245.1		1			30651	02/22/21 11:11	AMB	TAL SPK
Total/NA	Prep	1664A			969 mL	1000 mL	349691	02/11/21 13:06	FCG	TAL SEA
Total/NA	Analysis	1664A		1			349711	02/11/21 14:58	FCG	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	349772	02/11/21 19:14	AAC	TAL SEA
Total/NA	Prep	Distill/CN			50 mL	50 mL	527085	02/23/21 11:43	PEV	TAL DEN
Total/NA	Analysis	335.4		1	50 mL	50 mL	527126	02/23/21 17:10	CKB	TAL DEN
Total/NA	Prep	Distill/Ammonia			50 mL	50 mL	349706	02/11/21 14:47	MLT	TAL SEA
Total/NA	Analysis	350.1		1	50 mL	50 mL	349766	02/12/21 11:44	MLT	TAL SEA
Total/NA	Prep	351.2			25 mL	25 mL	570608	02/25/21 14:12	KEB	TAL BUF
Total/NA	Analysis	351.2		1			570693	02/26/21 06:50	CLT	TAL BUF
Total/NA	Prep	410.2			2 mL	2 mL	349697	02/11/21 14:06	MLT	TAL SEA
Total/NA	Analysis	410.2		1	2 mL	2 mL	349721	02/11/21 20:19	MLT	TAL SEA
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	526851	02/19/21 19:41	CKB	TAL DEN
Total/NA	Analysis	420.4		1	100 mL	100 mL	527005	02/22/21 16:47	CKB	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	30566	02/11/21 08:16	AMB	TAL SPK
Total/NA	Analysis	SM 2540D		1	100 mL	100 mL	30577	02/15/21 09:49	AMB	TAL SPK
Total/NA	Analysis	SM 4500 P E		1	5 mL	5 mL	30624	02/18/21 11:30	AMB	TAL SPK
Total/NA	Analysis	SM 4500 S2 F		1	200 mL	200 mL	526198	02/12/21 10:55	KGB	TAL DEN
Total/NA	Analysis	SM 5310B		1	50 mL	50 mL	350735	02/26/21 20:06	R1K	TAL SEA
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	520504	02/10/21 12:00	DN1	TAL PEN
Total/NA	Analysis	SM5210B		1	250 mL	300 mL	30542	02/11/21 08:27	AMB	TAL SPK
Total/NA	Analysis	Total Nitrogen		1			30715	02/26/21 10:49	REA	TAL SPK

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Client Sample ID: Outfall 001

Lab Sample ID: 590-14627-2

Date Collected: 02/09/21 10:00

Matrix: Water

Date Received: 02/09/21 11:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	10 mL	10 mL	349620	02/10/21 18:56	T1W	TAL SEA
Total/NA	Prep	CWA_Prep			974.3 mL	2 mL	349675	02/11/21 10:16	JBT	TAL SEA
Total/NA	Analysis	625.1		1			350278	02/22/21 14:11	W1T	TAL SEA
Total/NA	Prep	CWA_Prep			974.3 mL	2 mL	349675	02/11/21 10:16	JBT	TAL SEA
Total/NA	Analysis	625.1		1			350536	02/25/21 18:06	CJ	TAL SEA
Total/NA	Prep	3510C			248.3 mL	2.5 mL	349672	02/11/21 10:11	JBT	TAL SEA
Total/NA	Analysis	608.3		1			349903	02/16/21 20:23	TL1	TAL SEA
Total/NA	Prep	3510C			248.3 mL	2.5 mL	349672	02/11/21 10:11	JBT	TAL SEA
Total/NA	Analysis	608.3		1			349909	02/16/21 15:06	JKM	TAL SEA
Total/NA	Prep	1613B			990.3 mL	20 uL	461452	02/12/21 08:02	RDR	TAL SAC
Total/NA	Analysis	1613B		1			463146	02/18/21 17:32	ALM	TAL SAC
Total/NA	Prep	200.7			50 mL	50 mL	349897	02/16/21 12:22	JCP	TAL SEA
Total/NA	Analysis	200.7 Rev 4.4		1			350056	02/17/21 16:37	TMH	TAL SEA
Total/NA	Prep	200.7			50 mL	50 mL	349897	02/16/21 12:22	JCP	TAL SEA
Total/NA	Analysis	200.8		1	50 mL	50 mL	350137	02/18/21 14:36	FCW	TAL SEA
Total/NA	Prep	245.1			50 mL	50 mL	30619	02/18/21 08:52	AMB	TAL SPK
Total/NA	Analysis	245.1		1			30651	02/22/21 11:20	AMB	TAL SPK
Total/NA	Prep	1664A			950 mL	1000 mL	349691	02/11/21 13:06	FCG	TAL SEA
Total/NA	Analysis	1664A		1			349711	02/11/21 14:58	FCG	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	349772	02/11/21 19:49	AAC	TAL SEA
Total/NA	Prep	Distill/CN			50 mL	50 mL	527085	02/23/21 11:43	PEV	TAL DEN
Total/NA	Analysis	335.4		1	50 mL	50 mL	527126	02/23/21 17:08	CKB	TAL DEN
Total/NA	Prep	Distill/Ammonia			50 mL	50 mL	349706	02/11/21 14:47	MLT	TAL SEA
Total/NA	Analysis	350.1		1	50 mL	50 mL	349766	02/12/21 11:44	MLT	TAL SEA
Total/NA	Prep	351.2			25 mL	25 mL	570608	02/25/21 14:12	KEB	TAL BUF
Total/NA	Analysis	351.2		1			570693	02/26/21 06:50	CLT	TAL BUF
Total/NA	Prep	410.2			2 mL	2 mL	349697	02/11/21 14:06	MLT	TAL SEA
Total/NA	Analysis	410.2		1	2 mL	2 mL	349721	02/11/21 20:19	MLT	TAL SEA
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	526851	02/19/21 19:41	CKB	TAL DEN
Total/NA	Analysis	420.4		1	100 mL	100 mL	527005	02/22/21 16:51	CKB	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	30566	02/11/21 08:16	AMB	TAL SPK
Total/NA	Analysis	SM 2540D		1	100 mL	100 mL	30577	02/15/21 09:49	AMB	TAL SPK
Total/NA	Analysis	SM 4500 P E		1	5 mL	5 mL	30624	02/18/21 11:30	AMB	TAL SPK
Total/NA	Analysis	SM 4500 S2 F		1	200 mL	200 mL	526198	02/12/21 10:55	KGB	TAL DEN
Total/NA	Analysis	SM 5310B		1	50 mL	50 mL	350735	02/26/21 21:09	R1K	TAL SEA
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	520504	02/10/21 12:00	DN1	TAL PEN
Total/NA	Analysis	SM5210B		1	250 mL	300 mL	30542	02/11/21 08:27	AMB	TAL SPK
Total/NA	Analysis	Total Nitrogen		1			30715	02/26/21 10:49	REA	TAL SPK

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Client Sample ID: Outfall 006

Lab Sample ID: 590-14627-3

Date Collected: 02/09/21 09:30

Matrix: Water

Date Received: 02/09/21 11:40

Prep Type	Batch Type	Batch Method	Run	Dil Factor	Initial Amount	Final Amount	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624.1		1	10 mL	10 mL	349620	02/10/21 18:30	T1W	TAL SEA
Total/NA	Prep	CWA_Prep			996 mL	2 mL	349675	02/11/21 10:16	JBT	TAL SEA
Total/NA	Analysis	625.1		1			350278	02/22/21 14:34	W1T	TAL SEA
Total/NA	Prep	CWA_Prep			996 mL	2 mL	349675	02/11/21 10:16	JBT	TAL SEA
Total/NA	Analysis	625.1		1			350536	02/25/21 18:29	CJ	TAL SEA
Total/NA	Prep	3510C			243.5 mL	2.5 mL	349672	02/11/21 10:11	JBT	TAL SEA
Total/NA	Analysis	608.3		1			349903	02/16/21 20:41	TL1	TAL SEA
Total/NA	Prep	3510C			243.5 mL	2.5 mL	349672	02/11/21 10:11	JBT	TAL SEA
Total/NA	Analysis	608.3		1			349909	02/16/21 15:22	JKM	TAL SEA
Total/NA	Prep	1613B			1000 mL	20 uL	461452	02/12/21 08:02	RDR	TAL SAC
Total/NA	Analysis	1613B		1			463146	02/18/21 18:17	ALM	TAL SAC
Total/NA	Prep	200.7			50 mL	50 mL	349897	02/16/21 12:22	JCP	TAL SEA
Total/NA	Analysis	200.7 Rev 4.4		1			350056	02/17/21 16:40	TMH	TAL SEA
Total/NA	Prep	200.7			50 mL	50 mL	349897	02/16/21 12:22	JCP	TAL SEA
Total/NA	Analysis	200.8		1	50 mL	50 mL	350137	02/18/21 14:40	FCW	TAL SEA
Total/NA	Prep	245.1			50 mL	50 mL	30619	02/18/21 08:52	AMB	TAL SPK
Total/NA	Analysis	245.1		1			30651	02/22/21 11:23	AMB	TAL SPK
Total/NA	Prep	1664A			994 mL	1000 mL	349691	02/11/21 13:06	FCG	TAL SEA
Total/NA	Analysis	1664A		1			349711	02/11/21 14:58	FCG	TAL SEA
Total/NA	Analysis	300.0		1	5 mL	5 mL	349772	02/11/21 20:01	AAC	TAL SEA
Total/NA	Prep	Distill/CN			50 mL	50 mL	527085	02/23/21 11:43	PEV	TAL DEN
Total/NA	Analysis	335.4		1	50 mL	50 mL	527126	02/23/21 17:12	CKB	TAL DEN
Total/NA	Prep	Distill/Ammonia			50 mL	50 mL	349706	02/11/21 14:47	MLT	TAL SEA
Total/NA	Analysis	350.1		1	50 mL	50 mL	349766	02/12/21 11:44	MLT	TAL SEA
Total/NA	Prep	351.2			25 mL	25 mL	570608	02/25/21 14:12	KEB	TAL BUF
Total/NA	Analysis	351.2		1			570693	02/26/21 06:59	CLT	TAL BUF
Total/NA	Prep	410.2			2 mL	2 mL	349697	02/11/21 14:06	MLT	TAL SEA
Total/NA	Analysis	410.2		1	2 mL	2 mL	349721	02/11/21 20:19	MLT	TAL SEA
Total/NA	Prep	Distill/Phenol			50 mL	50 mL	526851	02/19/21 19:41	CKB	TAL DEN
Total/NA	Analysis	420.4		1	100 mL	100 mL	527005	02/22/21 16:52	CKB	TAL DEN
Total/NA	Analysis	SM 2120B		1	50 mL	50 mL	30566	02/11/21 08:16	AMB	TAL SPK
Total/NA	Analysis	SM 2540D		1	100 mL	100 mL	30577	02/15/21 09:49	AMB	TAL SPK
Total/NA	Analysis	SM 4500 P E		1	5 mL	5 mL	30624	02/18/21 11:30	AMB	TAL SPK
Total/NA	Analysis	SM 4500 S2 F		1	200 mL	200 mL	526198	02/12/21 10:55	KGB	TAL DEN
Total/NA	Analysis	SM 5310B		1	50 mL	50 mL	350735	02/26/21 21:24	R1K	TAL SEA
Total/NA	Analysis	SM 5540C		1	100 mL	100 mL	520504	02/10/21 12:00	DN1	TAL PEN
Total/NA	Analysis	SM5210B		1	250 mL	300 mL	30542	02/11/21 08:27	AMB	TAL SPK
Total/NA	Analysis	Total Nitrogen		1			30715	02/26/21 10:49	REA	TAL SPK

Lab Chronicle

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

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

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

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Accreditation/Certification Summary

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Laboratory: Eurofins TestAmerica, Spokane

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

Authority	Program	Identification Number	Expiration Date
Washington	State	C569	01-06-22
<p>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.</p>			
Analysis Method	Prep Method	Matrix	Analyte
Total Nitrogen		Water	Nitrogen, Total

Laboratory: Eurofins TestAmerica, Buffalo

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Arkansas DEQ	State	88-0686	07-07-21
California	State	2931	04-01-20 *
Connecticut	State	PH-0568	09-30-20 *
Florida	NELAP	E87672	07-01-21
Georgia	State	10026 (NY)	04-01-21
Georgia	State Program	N/A	03-31-09 *
Georgia (DW)	State	956	04-01-21
Illinois	NELAP	200003	10-01-21
Iowa	State	374	02-28-21
Kansas	NELAP	E-10187	02-02-22
Kentucky (DW)	State	90029	12-31-20 *
Kentucky (UST)	State	30	04-01-21
Kentucky (WW)	State	KY90029	01-01-22
Louisiana	NELAP	02031	07-01-21
Maine	State	NY00044	12-05-22
Maryland	State	294	04-01-21
Massachusetts	State	M-NY044	06-30-21
Michigan	State	9937	04-01-21
Michigan	State Program	9937	04-01-09 *
Minnesota	NELAP	1524384	01-01-22
New Hampshire	NELAP	2973	09-11-19 *
New Hampshire	NELAP	2337	11-19-21
New Jersey	NELAP	NY455	06-30-21
New York	NELAP	10026	03-31-21
North Dakota	State	R-176	04-01-21
Oklahoma	State	9421	09-02-21
Oregon	NELAP	NY200003	06-11-21
Pennsylvania	NELAP	68-00281	07-31-21
Rhode Island	State	LAO00328	12-30-20 *
Tennessee	State	02970	04-01-21
Texas	NELAP	T104704412-18-10	08-02-21
USDA	US Federal Programs	P330-18-00039	02-06-21 *
Virginia	NELAP	460185	09-14-21
Washington	State	C784	02-10-22
Wisconsin	State	998310390	09-01-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Accreditation/Certification Summary

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Laboratory: Eurofins TestAmerica, Denver

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
A2LA	Dept. of Defense ELAP	2907.01	10-31-21
A2LA	ISO/IEC 17025	2907.01	10-31-21
Alabama	State Program	40730	09-30-12 *
Alaska (UST)	State	18-001	02-08-21 *
Arizona	State	AZ0713	12-21-21
Arkansas DEQ	State	19-047-0	06-01-21
California	State	2513	01-08-22
Connecticut	State	PH-0686	09-30-20 *
Florida	NELAP	E87667-57	07-01-21
Georgia	State	4025-011	01-08-22
Illinois	NELAP	2000172019-1	04-30-21
Iowa	State	IA#370	12-02-21
Kansas	NELAP	E-10166	04-30-21
Louisiana	NELAP	30785	06-30-14 *
Louisiana	NELAP	30785	06-30-21
Maine	State	2019011 (231)	03-03-21
Minnesota	NELAP	1788752	12-31-21
Nevada	State	CO000262020-1	07-31-21
New Hampshire	NELAP	205319	04-29-21
New Jersey	NELAP	190002	06-30-21
New York	NELAP	59923	04-01-21
North Carolina (WW/SW)	State	358	12-31-21
North Dakota	State	R-034	01-08-21 *
Oklahoma	State	2018-006	09-01-21
Oregon	NELAP	4025-011	12-08-22
Pennsylvania	NELAP	013	07-31-21
South Carolina	State	72002001	01-08-21 *
Texas	NELAP	TX104704183-08-TX	09-30-09 *
Texas	NELAP	T104704183-20-18	09-30-21
US Fish & Wildlife	US Federal Programs	058448	08-01-21
USDA	US Federal Programs	P330-18-00099	03-26-21
Utah	NELAP	QUAN5	06-30-13 *
Utah	NELAP	CO000262019-11	07-31-21
Virginia	NELAP	10490	06-14-21
Washington	State	C583-19	08-03-21
West Virginia DEP	State	354	02-28-21
Wisconsin	State	999615430	08-31-21
Wyoming (UST)	A2LA	2907.01	10-31-21

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Spokane

Accreditation/Certification Summary

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	06-30-21
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-12-22
Arkansas DEQ	State	88-0689	09-02-21
California	State	2510	02-18-21
Florida	NELAP	E81010	06-30-21
Georgia	State	E81010(FL)	06-30-21
Illinois	NELAP	200041	10-09-21
Iowa	State	367	08-01-22
Kansas	NELAP	E-10253	10-31-21
Kentucky (UST)	State	53	06-30-21
Kentucky (WW)	State	KY98030	12-31-21
Louisiana	NELAP	30976	06-30-21
Louisiana (DW)	State	LA017	12-31-21
Maryland	State	233	09-30-21
Massachusetts	State	M-FL094	06-30-21
Michigan	State	9912	06-30-21
New Jersey	NELAP	FL006	06-30-21
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-21
Oklahoma	State	9810-186	08-31-21
Pennsylvania	NELAP	68-00467	01-31-22
Rhode Island	State	LAO00307	12-30-21
South Carolina	State	96026002	06-30-21
Tennessee	State	TN02907	06-30-21
Texas	NELAP	T104704286	09-30-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-21
Washington	State	C915	05-15-21
West Virginia DEP	State	136	06-30-21

Accreditation/Certification Summary

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Laboratory: Eurofins TestAmerica, Sacramento

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-020	02-20-24
ANAB	Dept. of Defense ELAP	L2468	01-20-24
ANAB	Dept. of Energy	L2468.01	01-20-21 *
ANAB	ISO/IEC 17025	L2468	01-20-21 *
Arizona	State	AZ0708	08-11-21
Arkansas DEQ	State	88-0691	06-17-21
California	State	2897	02-21-21
Colorado	State	CA0004	08-31-21
Connecticut	State	PH-0691	06-30-21
Florida	NELAP	E87570	06-30-21
Georgia	State	4040	01-29-22
Hawaii	State	<cert No.>	01-29-22
Illinois	NELAP	200060	03-17-21
Kansas	NELAP	E-10375	02-01-21 *
Louisiana	NELAP	01944	06-30-21
Maine	State	CA00004	04-14-22
Michigan	State	9947	01-29-21 *
Nevada	State	CA000442021-2	07-31-21
New Hampshire	NELAP	2997	04-18-21
New Jersey	NELAP	CA005	06-30-21
New York	NELAP	11666	04-01-21
Ohio	State	41252	01-29-22
Oregon	NELAP	4040	01-29-22
Pennsylvania	NELAP	68-01272	03-31-21
Texas	NELAP	T104704399-19-13	06-01-21
US Fish & Wildlife	US Federal Programs	58448	07-31-21
USDA	US Federal Programs	P330-18-00239	07-31-21
Utah	NELAP	CA000442019-01	02-28-21
Vermont	State	VT-4040	04-16-21
Virginia	NELAP	460278	03-14-21
Washington	State	C581	05-05-21
West Virginia (DW)	State	9930C	12-31-21
Wisconsin	State	998204680	08-31-21
Wyoming	State Program	8TMS-L	01-28-19 *

Laboratory: Eurofins TestAmerica, Seattle

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	17-024	02-19-22
ANAB	Dept. of Defense ELAP	L2236	01-19-22
ANAB	ISO/IEC 17025	L2236	01-19-22
California	State	2901	11-05-21
Montana (UST)	State	NA	04-13-21
Oregon	NELAP	WA100007	11-05-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-20-00031	02-10-23

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

Eurofins TestAmerica, Spokane

Method Summary

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method	Method Description	Protocol	Laboratory
624.1	Volatile Organic Compounds (GC/MS)	40CFR136A	TAL SEA
625.1	Semivolatile Organic Compounds (GC/MS)	40CFR136A	TAL SEA
608.3	Organochlorine Pesticides/PCBs in Water	40CFR136A	TAL SEA
1613B	Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS	EPA	TAL SAC
200.7 Rev 4.4	Metals (ICP)	40CFR136A	TAL SEA
200.8	Metals (ICP/MS)	EPA	TAL SEA
245.1	Mercury (CVAA)	EPA	TAL SPK
1664A	HEM and SGT-HEM	1664A	TAL SEA
300.0	Anions, Ion Chromatography	MCAWW	TAL SEA
335.4	Cyanide, Total	MCAWW	TAL DEN
350.1	Nitrogen, Ammonia	MCAWW	TAL SEA
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL BUF
410.2	COD	EPA	TAL SEA
420.4	Phenolics, Total Recoverable	MCAWW	TAL DEN
SM 2120B	Color, Colorimetric	SM	TAL SPK
SM 2540D	Solids, Total Suspended (TSS)	SM	TAL SPK
SM 4500 P E	Phosphorus	SM	TAL SPK
SM 4500 S2 F	Sulfide, Total	SM	TAL DEN
SM 5310B	Organic Carbon, Total (TOC)	SM	TAL SEA
SM 5540C	Methylene Blue Active Substances (MBAS)	SM	TAL PEN
SM5210B	BOD, 5 Day	SM	TAL SPK
Total Nitrogen	Nitrogen, Total	EPA	TAL SPK
1613B	Separatory Funnel (L/L) Extraction with Soxhlet Extraction of Dioxin and Furans	EPA	TAL SAC
1664A	HEM and SGT-HEM (SPE)	1664A	TAL SEA
200.7	Preparation, Total Metals	EPA	TAL SEA
200.8	Preparation, Total Metals	EPA	TAL SEA
245.1	Preparation, Mercury	EPA	TAL SPK
351.2	Nitrogen, Total Kjeldahl	MCAWW	TAL BUF
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	TAL SEA
410.2	COD	EPA	TAL SEA
CWA_Prep	Liquid-Liquid Extraction (Separatory Funnel)	40CFR136A	TAL SEA
Distill/Ammonia	Distillation, Ammonia	None	TAL SEA
Distill/CN	Distillation, Cyanide	None	TAL DEN
Distill/Phenol	Distillation, Phenolics	None	TAL DEN

Protocol References:

1664A = EPA-821-98-002

40CFR136A = "Methods for Organic Chemical Analysis of Municipal Industrial Wastewater", 40CFR, Part 136, Appendix A, October 26, 1984 and subsequent revisions.

EPA = US Environmental Protection Agency

MCAWW = "Methods For Chemical Analysis Of Water And Wastes", EPA-600/4-79-020, March 1983 And Subsequent Revisions.

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL BUF = Eurofins TestAmerica, Buffalo, 10 Hazelwood Drive, Amherst, NY 14228-2298, TEL (716)691-2600

TAL DEN = Eurofins TestAmerica, Denver, 4955 Yarrow Street, Arvada, CO 80002, TEL (303)736-0100

TAL PEN = Eurofins TestAmerica, Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

TAL SAC = Eurofins TestAmerica, Sacramento, 880 Riverside Parkway, West Sacramento, CA 95605, TEL (916)373-5600

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

TAL SPK = Eurofins TestAmerica, Spokane, 11922 East 1st Ave, Spokane, WA 99206, TEL (509)924-9200

Eurofins TestAmerica, Spokane

11922 East 1st Ave
Spokane, WA 99206
Phone (509) 924-9200 Fax (509) 924-9290

Chain of Custody Record

Client Information

Client Contact: Ward McDonald
Company: Hart Crowser, Inc.
Address: 505 West Riverside Avenue, Suite 205
City: Spokane
State, Zip: WA, 99201
Phone: 206-972-6521(Tel)
Email: ward.mcdonald@hartcrowser.com
Project Name: Outfall
Site

Sampler: Arrington, Rande E
Phone: Rande Arrington@Eurofins.com
PWSID:

Carrier Tracking No(s):
State of Origin:
Job #:

COC No: 590-6251-1868.2
Page: Page 2 of 2

Due Date Requested:

Analysis Requested

Preservation Codes:

TAT Requested (days): **RUSH**
Compliance Project: Yes No
PO #: 205081
WO #:
Project #: 59001802
SSOW#:

Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)
<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
608.3 - PCBs/Pesticides	<input checked="" type="checkbox"/>
625.1 - Semivolatiles	<input checked="" type="checkbox"/>
420.4 - Phenolics, Total Recoverable	<input checked="" type="checkbox"/>
335.4 - Cyanide, Total	<input checked="" type="checkbox"/>
245.1 - Mercury	<input checked="" type="checkbox"/>
350.1 - Ammonia	<input checked="" type="checkbox"/>
25400 - TSS	<input checked="" type="checkbox"/>
SM5310_TOC_B - TOC	<input checked="" type="checkbox"/>
410.2 - COD	<input checked="" type="checkbox"/>
SM5210B_BODCalc - Biochemical Oxygen Demand	<input checked="" type="checkbox"/>
2120B Color	<input checked="" type="checkbox"/>

- A - HCL
- B - NaOH
- C - Zn Acetate
- D - Nitric Acid
- E - HANISO4
- F - MeOH
- G - Amchlor
- H - Ascorbic Acid
- I - Ice
- J - DI Water
- K - EDTA
- L - EDA
- Other:
- M - Hexane
- N - None
- O - AsNaO2
- P - Na2SO3
- Q - Na2SO3
- R - Na2S2O3
- S - H2SO4
- T - TSP Dodecahydrate
- U - Acetone
- V - MCAA
- W - pH 4.5
- Z - other (Specify)

Sample Identification

Sample ID	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=Soil, O=Other)
Outfall 003	2/9/21	10:30	Water	Water
Outfall 001		10:00	Water	Water
Outfall 006		09:30	Water	Water

Field Filtered Sample (Yes or No)

Perform MS/MSD (Yes or No)

Special Instructions/Note:



590-14627 Chain of Custody

Possible Hazard Identification

Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Months

Empty Kit Relinquished by:

Date:

Time:

Method of Shipment:

Relinquished by: *Ward McDonald*

Date/Time: 2/9/21 11:40

Company: HE

Received by: *Maria Groove*

Date/Time: 2/9/21

Company: *HE*

Relinquished by: *Ward McDonald*

Date/Time: 2/9/21 11:40

Company: HE

Received by: *Maria Groove*

Date/Time: 2/9/21

Company: *HE*

Relinquished by:

Date/Time:

Company:

Received by:

Date/Time:

Company:

Custody Seals Intact: Yes No

Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: *7 12.8 18.5*

11922 East 1st Ave
Spokane, WA 99206
Phone (509) 924-9200 Fax (509) 924-9290

Chain of Custody Record



Environment Testing
America

Client Information

Client Contact: Ward McDonald
Company: Hart Crowser, Inc.
Address: 505 West Riverside Avenue, Suite 205
City: Spokane
State, Zip: WA, 99201
Phone: 206-972-6521(Tel)
Email: ward.mcdonald@hartcrowser.com
Project Name: Outfall
Site: S50W#:

Sampler: Arrington, Randee E
Phone: Randee.Arrington@Eurofins.com
E-Mail: Randee.Arrington@Eurofins.com
PWSID:

Lab P#: Arrington, Randee E
Carrier Tracking No(s):
State of Origin:

COC No: 590-6251-1868-1
Page: 1 of 2
Job #:

Due Date Requested:

Analysis Requested

Preservation Codes:

TAT Requested (days): **PUSH**
Compliance Project: Yes No
PO #: 205081
WO #:
Project #: 59001802
SSOW#:

Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)
1613B_Tetras - TCDD	<input checked="" type="checkbox"/>
903.0 - Radium 226 & Total Radium	<input checked="" type="checkbox"/>
900.0 - Gross Alpha and Beta	<input checked="" type="checkbox"/>
200.7 & 200.8 - Custom Metals List	<input checked="" type="checkbox"/>
5540C - Surfactants	<input checked="" type="checkbox"/>
SM4500SO3_B - Sulfite	<input checked="" type="checkbox"/>
SM4500_S2_F - Sulfide	<input checked="" type="checkbox"/>
300.0_28D - Bromide, Fluoride & Sulfate	<input checked="" type="checkbox"/>
4500_P_E - Phosphorus	<input checked="" type="checkbox"/>
1664A - Oil & Grease	<input checked="" type="checkbox"/>
351.2 - Nitrogen, Total Kjeldahl	<input checked="" type="checkbox"/>
Nitrogen, Total	<input checked="" type="checkbox"/>
300.0 - Nitrate & Nitrite	<input checked="" type="checkbox"/>
Total Number of containers	<input checked="" type="checkbox"/>

- A - HCL
- B - NaOH
- C - Zn Acetate
- D - Nitric Acid
- E - NaHSO4
- F - MeOH
- G - Amchlor
- H - Ascorbic Acid
- I - Ice
- J - DI Water
- K - EDTA
- L - EDA
- Other:
- M - Hexane
- N - None
- O - AsH2O2
- P - Na2OAS
- Q - Na2SO3
- R - Na2S2O3
- S - H2SO4
- T - TSP Dodecahydrate
- U - Acetone
- V - MCAA
- W - pH 4.5
- Z - other (specify)

Sample Identification

Sample ID	Sample Date	Sample Time	Sample Type (C=C Comp, G=grab)	Matrix (Water, Sediment, Swastical, In-Tissue, AAH)	Preservation Code:
Outfall 003	2/9/21	10:30		Water	
Outfall 001		10:00		Water	
Outfall 006		09:30		Water	

Special Instructions/Note: **PUSH**

Possible Hazard Identification

Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological
Deliverable Requested: I, II, III, IV, Other (specify)

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For Months
Special Instructions/QC Requirements:

Empty Kit Relinquished by:

Date:

Time:

Method of Shipment:

Relinquished by:

Date/Time:

Company:

Received by:

Date/Time:

Company:

Relinquished by:

Date/Time:

Company:

Received by:

Date/Time:

Company:

Custody Seals Intact:

Custody Seal No.:

Date/Time:

Company:

Received by:

Date/Time:

Company:

Yes No

Chain of Custody Record



Client Information (Sub Contract Lab)		Lab PM:	Carrier Tracking No(s):	
Client Contact: Shipping/Receiving		Arrington, Randee E	590-5806.1	
Company: TestAmerica Laboratories, Inc.		E-Mail: Randee.Arrington@Eurofinset.com	Page: Page 1 of 1	
Address: 880 Riverside Parkway, West Sacramento State, Zip: CA, 95605		Accreditations Required (See note): State Program - Washington		
Phone: 916-373-5600(Tel) 916-372-1059(Fax)		Job #: 590-14627-1		
Email:		Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify) Other:		
Project Name: Kaiser Outfall/River Intake/Groundwater		Analysis Requested		
Site:		Total Number of containers		
Sample Identification - Client ID (Lab ID)		Special Instructions/Note:		
Outfall 003 (590-14627-1)	Sample Date: 2/9/21	Sample Time: 10:30 Pacific	Field Filtered Sample (Yes or No):	2
Outfall 001 (590-14627-2)	Sample Date: 2/9/21	Sample Time: 10:00 Pacific	Perform MS/MSD (Yes or No):	2
Outfall 006 (590-14627-3)	Sample Date: 2/9/21	Sample Time: 09:30 Pacific	1613B_Tetra/1613B_Sox_Sep_P TCDD only	2
Matrix (W=water, S=solid, O=wastewater, BT=Issue, A=Air)		Preservation Code:		
Sample Type (C=Comp, G=grab)		Water		
Sample Time		Water		
Sample Date		Water		

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State or Origin listed above for analysis/test/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification
 Unconfirmed

Deliverable Requested: I, II, III, IV, Other (specify) _____ Primary Deliverable Rank: 2

Empty Kit Relinquished by: _____ Date: _____ Method of Shipment: _____

Relinquished by: *Maria Ojeda* Date: *2/9/21 14:56* Company: *TA*

Relinquished by: _____ Date/Time: _____ Received by: *SL* Date/Time: *2/11/21* Company: *SUD*

Relinquished by: _____ Date/Time: _____ Received by: _____ Date/Time: _____ Company: _____

Custody Seals Intact: _____ Cooler Temperature(s) °C and Other Remarks: *46*

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
 Return To Client Disposal By Lab Archive For _____ Months



Eurofins TestAmerica, Spokane

11922 East 1st Ave
 Spokane, WA 99206
 Phone: 509-924-9200 Fax: 509-924-9290

Chain of Custody Record



Environment Testing
 America

Client Information (Sub Contract Lab)	Sampler:	Lab PM:	Carrier Tracking No(s):	COC No:
Client Contact:	Phone:	Arrington, Randee E		590-5805.1
Shipping/Receiving		E-Mail:	State of Origin:	Page:
Company:		Randee.Arrington@Eurofinset.com	Washington	Page 1 of 1
TestAmerica Laboratories, Inc.	Accreditations Required (See note):			Job #:
	State Program - Washington			590-14627-1

Address:	Due Date Requested:	Analysis Requested	Preservation Codes:
5755 8th Street East,	2/22/2021		
City:	TAT Requested (days):		
Tacoma			

State, Zip:	PO #:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	410.2/410.2_Prep	SM5310_TOC_B/TOC	350.1/Distill_Ammonia Ammonia	200.8_CWA/200.8_P_TOT (MOD)	Ag/As/Be/Cd/Cr/Cu/Pb/Ni/Sb/Se/Tl/Zn	335.4/Distill_CN Cyanide, Total	624.1_LL_PREC/624_Prep_3D (MOD) Volatiles, custom list	625.1/CWA_Prep (MOD) Semivolatiles, custom list	608.3/3510C_LVI (MOD) Pesticides, standard list	608.3/3510C_LVI (MOD) PCBs, standard list	1664A/1664A_SPE (MOD) Oil & Grease	300.0_2BD (MOD) Bromide, Fluoride & Sulfate	200.7_CWA/200.7_P_TOT (MOD) Al, Ba, B, Co, Fe, Mg, Mo, Mn, Sn	Total Number of Containers	Special Instructions/Note:
WA, 98424	WO #:																	
Phone:	Project #:																	
253-922-2310(Tel) 253-922-5047(Fax)	59001802																	
Email:	SSOW#:																	
Project Name:																		
Kaiser Outfall/River Intake/Groundwater																		
Site:																		

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	410.2/410.2_Prep	SM5310_TOC_B/TOC	350.1/Distill_Ammonia Ammonia	200.8_CWA/200.8_P_TOT (MOD)	Ag/As/Be/Cd/Cr/Cu/Pb/Ni/Sb/Se/Tl/Zn	335.4/Distill_CN Cyanide, Total	624.1_LL_PREC/624_Prep_3D (MOD) Volatiles, custom list	625.1/CWA_Prep (MOD) Semivolatiles, custom list	608.3/3510C_LVI (MOD) Pesticides, standard list	608.3/3510C_LVI (MOD) PCBs, standard list	1664A/1664A_SPE (MOD) Oil & Grease	300.0_2BD (MOD) Bromide, Fluoride & Sulfate	200.7_CWA/200.7_P_TOT (MOD) Al, Ba, B, Co, Fe, Mg, Mo, Mn, Sn	Total Number of Containers	Special Instructions/Note:	
Outfall 003 (590-14627-1)	2/9/21	10:30 Pacific		Water	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	15	
Outfall 001 (590-14627-2)	2/9/21	10:00 Pacific		Water	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	14	
Outfall 006 (590-14627-3)	2/9/21	09:30 Pacific		Water	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	15	

Note: Since laboratory accreditations are subject to change, Eurofins TestAmerica places the ownership of method, analyte & accreditation compliance upon our subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the Eurofins TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to Eurofins TestAmerica attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said compliance to Eurofins TestAmerica.

Possible Hazard Identification	Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
Unconfirmed	<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months
Deliverable Requested: I, II, III, IV, Other (specify)	Special Instructions/QC Requirements:
Primary Deliverable Rank: 2	

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:
Relinquished by: <i>Maria Ozole</i>	Date/Time: 2/9/21 11:47	Company: <i>TAS</i>	Received by: <i>Timothy</i>
Relinquished by:	Date/Time:	Company:	Date/Time: 2-10-21 9:40
Relinquished by:	Date/Time:	Company:	Company: <i>TAS c2</i>

Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:
		8 = -3.1/-2.8, -1.4, -1.1



Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 590-14627-1

Login Number: 14627

List Number: 1

Creator: O'Toole, Maria C

List Source: Eurofins TestAmerica, Spokane

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	Lab does not accept radioactive samples.
The cooler's custody seal, if present, is intact.	N/A	
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?	N/A	Not present
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 <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	No analysis requiring residual chlorine check assigned.

Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 590-14627-1

Login Number: 14627
List Number: 5
Creator: Rystrom, Joshua R

List Source: Eurofins TestAmerica, Denver
List Creation: 02/11/21 04:26 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
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?	N/A	
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 590-14627-1

Login Number: 14627
List Number: 2
Creator: Avery, Kathy R

List Source: Eurofins TestAmerica, Pensacola
List Creation: 02/10/21 10:45 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= 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	0.9°C IR 9
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.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 590-14627-1

Login Number: 14627
List Number: 6
Creator: Nelson, Kym D

List Source: Eurofins TestAmerica, Sacramento
List Creation: 02/11/21 06:32 PM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	N/A	
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	4.6c
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?	False	Received project as a subcontract.
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.	False	#3, 1 of 2 Amber glass broken
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Hart Crowser, Inc.

Job Number: 590-14627-1

Login Number: 14627
List Number: 4
Creator: Hobbs, Kenneth F

List Source: Eurofins TestAmerica, Seattle
List Creation: 02/10/21 12:53 PM

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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





Job: 590-14627 Field Sheet

Tracking #: 9159 7689 4860

SO/PO/FO/SAT/2-Day/Ground/UPS/CDO/Courier
GSO/OnTrac/Goldstreak/USPS/Other

Use this form to record Sample Custody Seal, Cooler Custody Seal, Temperature & corrected Temperature & other observations.
File in the job folder with the COC.

Therm. ID: 62 Corr. Factor: (+/-) °C

Ice Wet Gel Other

Cooler Custody Seal:

Cooler ID:

Temp Observed: 4.6 °C Corrected: 4.6 °C

From: Temp Blank Sample

Opening/Processing The Shipment Yes No NA

- Cooler compromised/tampered with?
- Cooler Temperature is acceptable?
- Frozen samples show signs of thaw?

Initials: ST Date: 2/11/21

Unpacking/Labeling The Samples Yes No NA

- CoC is complete w/o discrepancies?
- Samples compromised/tampered with?
- Sample containers have legible labels?
- Sample custody seal?
- Containers are not broken or leaking?
- Sample date/times are provided?
- Appropriate containers are used?
- Sample bottles are completely filled?
- Sample preservatives verified?
- Samples w/o discrepancies?
- Zero headspace?
- Alkalinity has no headspace?
- Perchlorate has headspace?
(Methods 314, 331, 6850)
- Multiphasic samples are not present?

*Containers requiring zero headspace have no headspace, or bubble < 6 mm (1/4")

Initials: Date: 2/11/21

Notes:

#3, 1 of 2 A6B
Seal Broken 3/11/21

Trizma Lot #(s):

Login Completion Yes No NA

- Receipt Temperature on COC?
- Samples received within hold time?
- NCM Filed?
- Log Release checked in TALS?

Initials: Date: 2/11/21

Isotope Dilution Summary

Client: Hart Crowser, Inc.
Project/Site: Outfall

Job ID: 590-14627-1

Method: 1613B - Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCDD (31-137)
590-14627-1	Outfall 003	82
590-14627-2	Outfall 001	74
590-14627-3	Outfall 006	87
MB 320-461452/1-A	Method Blank	79

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD

Method: 1613B - Tetra Chlorinated Dioxins & Furans ID HRGC/HRMS

Matrix: Water

Prep Type: Total/NA

Percent Isotope Dilution Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCDD (25-141)
LCS 320-461452/2-A	Lab Control Sample	73
LCSD 320-461452/3-A	Lab Control Sample Dup	82

Surrogate Legend

TCDD = 13C-2,3,7,8-TCDD