Transmittal

Carson Dorn, Inc.

712 West 12th Street
Juneau, Alaska 99801

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DATE: May 20, 2014

TO: Bruce Wanstall

FROM: Jolene Cox, Environmental Professional

RE: 2013 Annual Groundwater Monitoring Report MWWTP

Attached are the following items:

ITEM	DESCRIPTION
1	One copy of 2013 Annual Groundwater Monitoring Report, Mendenhall Wastewater Treatment, Juneau, Alaska, May 2014.

2013 ANNUAL GROUNDWATER MONITORING REPORT

Mendenhall River Wastewater Treatment Plant
Juneau, Alaska

Carson Dorn, Inc.

2013 ANNUAL GROUNDWATER MONITORING REPORT

Mendenhall River Wastewater Treatment Plant
Juneau, Alaska

Prepared for:

City and Borough of Juneau
155 S. Seward Street
Juneau, Alaska 99801

Submitted to:

Alaska Department of Environmental Conservation
Division of Spill Prevention and Response
Contaminated Sites Program
410 Willoughby Ave., Ste. 303
P.O. Box 111800
Juneau, AK 99811

May 2014

2013 ANNUAL GROUNDWATER MONITORING REPORT

Mendenhall River Wastewater Treatment Plant

Juneau, Alaska

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1.0 Introduction

This report summarizes the results of groundwater sampling conducted by Carson Dorn, Inc. (CDI), weekly gauging of monitoring wells and observation of the Mendenhall River for sheens by City and Borough of Juneau (CBJ) personnel, and free product recovery at the Mendenhall Valley Wastewater Treatment Plant (MWWTP) during 2013.

2.0 Annual Groundwater Sampling

On August 27, 2013, groundwater sampling was conducted at MW-1, MW-2, and MW-11 for diesel range organics (DRO) and residual range organics (RRO) by Alaska Methods 102 & 103; volatile organic compounds (VOCs) and total aromatic hydrocarbons (TAH) by USEPA Method 624; semi-volatile organic compounds (SVOCs) and total polyaromatic hydrocarbons (TPAH) by USEPA Method 625; and total aqueous hydrocarbons (TAqH) was calculated from the results by the laboratory. MW-3, MW-7, MW-10, MW-13, and NMW-2 were analyzed for DRO and RRO by Alaska Methods 102 & 103.

Table 1, *2013 Annual Groundwater Monitoring Well Sampling Results* in Appendix A summarizes the annual groundwater sampling results relative to ADEC groundwater cleanup levels (presented in Table C, 18 AAC 75.341). The laboratory analytical reports and laboratory data review checklists are presented in Appendix B. The locations of the groundwater monitoring wells are shown on Figure 1, *Site Plan* (Appendix A).

3.0 Annual Groundwater Analytical Results

DRO was detected at a concentration of 1.9 mg/L in MW-1, 0.61 mg/L in MW-2, 12.2 mg/L in MW-3, 0.29 mg/L in MW-11 and 35.4 mg/L in NMW-2. Light sheen was observed in MW-3 and NMW-2 during the sampling. Neither a sheen nor free product was observed in MW-1, MW-2, or MW-11 during the sampling. RRO was detected at a concentration of 1.08 mg/L in MW-3 and 1.17 mg/L in NMW-2. Benzene was detected at a concentration of 3.2 µg/L in MW-1. Ethylbenzene was detected at a concentration of 5.5 µg/L in MW-1

and 3.8 µg/L in MW-11. Xylenes were detected at a concentration of 2.6 µg/L in MW-1 and 23.2 µg/L in MW-11. 1-methylnaphthalene was detected at a concentration of 2.1 µg/L in MW-2 and 0.72 µg/L in MW-11. 2-methylnaphthalene was detected at a concentration of 0.31 µg/L in MW-11. 2-methylphenol was detected at a concentration of 0.79 µg/L in MW-1. Acenaphthene was detected at a concentration of 0.41 µg/L in MW-1 and 0.13 µg/L in MW-11. Bis(2-ethylhexyl)phthalate was detected at a concentration of 3.6 µg/L in MW-1. Chrysene was detected at a concentration of 0.13 µg/L in MW-2. Dibenzofuran was detected at a concentration of 0.53 µg/L in MW-1. Di-n-butyl phthalate was detected at a concentration of 0.81 µg/L in MW-2. Fluorene was detected at a concentration of 1.4 µg/L in MW-1 and 0.22 µg/L in MW-11. Nitrobenzene was detected at a concentration of 1.2 µg/L in MW-1. Octadecane was detected at a concentration of 0.47 µg/L in MW-11. Phenanthrene was detected at a concentration of 0.49 µg/L in MW-1. TAH was detected at a concentration of 11 µg/L in MW-1 and 27 µg/L in MW-11. TPAH was detected at a concentration of 2.3 µg/L in MW-11, 0.13 µg/L in MW-2, and 0.35 µg/L in MW-11. TqAH was calculated to be 13 µg/L in MW-1, <1 µg/L in MW-2, and 27 µg/L in MW-11.

4.0 Weekly Gauging of Wells and Mendenhall River Observations

Weekly gauging of groundwater monitoring wells for depth to product, depth to groundwater, oil sheen, and product thickness was conducted by CBJ MWWTP personnel. The weekly observation results for 2013 are included in Appendix C.

Observations of the Mendenhall River were conducted weekly by CBJ MWWTP personnel. No river sheen was observed by CBJ personnel during the year.

5.0 Free Product Recovery

Approximately 5-10 gallons of free product was recovered from MW-8 and 13 gallons was recovered from MW-9 during 2013. Oil sheen and product were observed in MW-4 (0.01 feet to 0.26 feet), MW-8 (0.02 feet to 0.06 feet), MW-9 (0.02 feet to 1.04 feet), and NMW-1 (0.14 feet to 1.7 feet) throughout the year. CDI and CBJ initiated a preliminary recovery project on NMW-1 during the last quarter of 2013 which continues to date. R&M

Engineering will be installing a 4-inch monitoring well to allow for increased efficiency of recovery in this location in June 2014.

6.0 Summary

This report summarizes the results of groundwater sampling conducted by CDI, weekly gauging of monitoring wells and Mendenhall River by CBJ personnel, and free product recovery at the MWWTP during 2013. DRO was detected above the ADEC groundwater cleanup level of 1.5 mg/L in three samples (MW-1, MW-3 and NMW-2). TAqH was calculated to be 27 µg/L in MW-11 which exceeds the ADEC standard of 15 µg/L.

No sheen was observed on the Mendenhall River by CBJ personnel during 2013. CBJ will continue monthly gauging of onsite monitoring wells and weekly gauging of NMW-1, observation of the Mendenhall River for sheens, and its efforts to recovery free product. The next round of groundwater sampling will be conducted by CDI in August 2014.

APPENDIX A
TABLES & FIGURES

Table 1. 2013 Annual Groundwater Monitoring Well Sampling Results

Analyte	Units	ADEC Cleanup Level	MW-1 8/27/2013	MW-2 8/27/2013	MW-3 8/27/2013	MW-7 8/27/2013	MW-10 8/27/2013	MW-13 8/27/2013	MW-11 8/27/2013	NMW-2 8/27/2013
USEPA Method 625 - SVOCs										
1,2,4-Trichlorobenzene	ug/L		< 0.39	< 0.39 H					< 0.38	
1,2-Dichlorobenzene	ug/L		< 0.39	< 0.39 H					< 0.38	
1,2-Diphenylhydrazine (as Azobenzene)	ug/L		< 0.97	< 0.97 H					< 0.96	
1,3-Dichlorobenzene	ug/L		< 0.39	< 0.39 H					< 0.38	
1,4-Dichlorobenzene	ug/L		< 0.39	< 0.39 H					< 0.38	
1-Methylnaphthalene	ug/L	150	2.1	< 0.058 H					0.72	
2,4,5-Trichlorophenol	ug/L		< 0.39	< 0.39 H					< 0.38	
2,4,6-Trichlorophenol	ug/L		< 0.58	< 0.58 H					< 0.58	
2,4-Dichlorophenol	ug/L		< 0.39	< 0.39 H					< 0.38	
2,4-Dimethylphenol	ug/L		< 1.9	< 1.9 H					< 1.9	
2,4-Dinitrophenol	ug/L		< 4.9	< 4.9 H					< 4.8	
2,4-Dinitrotoluene	ug/L		< 0.39	< 0.39 H					< 0.38	
2,6-Dinitrotoluene	ug/L		< 0.39	< 0.39 H					< 0.38	
2-Chloronaphthalene	ug/L		< 0.058	< 0.058 H					< 0.058	
2-Chlorophenol	ug/L		< 0.39	< 0.39 H					< 0.38	
2-Methylnaphthalene	ug/L	150	< 0.19	< 0.19 H					0.31	
2-Methylphenol	ug/L	1800	0.79	< 0.39 H					< 0.38	
2-Nitrophenol	ug/L		< 0.39	< 0.39 H					< 0.38	
3,3'-Dichlorobenzidine	ug/L		< 1.9	< 1.9 H					< 1.9	
4,6-Dinitro-2-methylphenol	ug/L		< 3.9	< 3.9 H					< 3.8	
4-Bromophenyl phenyl ether	ug/L		< 0.39	< 0.39 H					< 0.38	
4-Chloro-3-methylphenol	ug/L		< 0.39	< 0.39 H					< 0.38	
4-Chlorophenyl phenyl ether	ug/L		< 0.39	< 0.39 H					< 0.38	
4-Nitrophenol	ug/L		< 2.9	< 2.9 H					< 2.9	
Acenaphthene	ug/L	2200	0.41	< 0.097 H					0.13	
Acenaphthylene	ug/L		< 0.078	< 0.078 H					< 0.077	
Anthracene	ug/L		< 0.039	< 0.039 H					< 0.038	
Benzo[a]anthracene	ug/L		< 0.058	< 0.058 H					< 0.058	
Benzo[a]pyrene	ug/L		< 0.039	< 0.039 H					< 0.038	
Benzo[b]fluoranthene	ug/L		< 0.078	< 0.078 H					< 0.077	
Benzo[g,h,i]perylene	ug/L		< 0.058	< 0.058 H					< 0.058	
Benzo[k]fluoranthene	ug/L		< 0.058	< 0.058 H					< 0.058	
bis (2-chloroisopropyl) ether	ug/L		< 0.39	< 0.39 H					< 0.38	
Bis(2-chloroethoxy)methane	ug/L		< 0.39	< 0.39 H					< 0.38	
Bis(2-chloroethyl)ether	ug/L		< 0.39	< 0.39 H					< 0.38	
Bis(2-ethylhexyl) phthalate	ug/L	6	3.6 *	< 2.9 H *					< 2.9 *	
Butyl benzyl phthalate	ug/L		< 0.58	< 0.58 H					< 0.58	
Carbazole	ug/L		< 0.39	< 0.39 H					< 0.38	
Chrysene	ug/L		< 0.039	0.13 H					< 0.038	

Table 1. 2013 Annual Groundwater Monitoring Well Sampling Results

Analyte	Units	ADEC Cleanup Level	MW-1 8/27/2013	MW-2 8/27/2013	MW-3 8/27/2013	MW-7 8/27/2013	MW-10 8/27/2013	MW-13 8/27/2013	MW-11 8/27/2013	NMW-2 8/27/2013
Dibenz(a,h)anthracene	ug/L		< 0.058	< 0.058 H					< 0.058	
Dibenzofuran	ug/L	73	0.53	< 0.39 H					< 0.38	
Diethyl phthalate	ug/L		< 0.39	< 0.39 H *					< 0.38	
Dimethyl phthalate	ug/L		< 0.39 *	< 0.39 H *					< 0.38 *	
Di-n-butyl phthalate	ug/L		< 0.39 *	0.81 H *					< 0.38 *	
Di-n-octyl phthalate	ug/L		< 0.39	< 0.39 H					< 0.38	
Fluoranthene	ug/L		< 0.049	< 0.049 H					< 0.048	
Fluorene	ug/L	1500	1.4	< 0.058 H					0.22	
Hexachlorobenzene	ug/L		< 0.39	< 0.39 H					< 0.38	
Hexachlorobutadiene	ug/L		< 0.58	< 0.58 H					< 0.58	
Hexachlorocyclopentadiene	ug/L		< 1.9	< 1.9 H					< 1.9	
Hexachloroethane	ug/L		< 0.58	< 0.58 H					< 0.58	
Indeno[1,2,3-cd]pyrene	ug/L		< 0.058	< 0.058 H					< 0.058	
Isophorone	ug/L		< 0.39	< 0.39 H					< 0.38	
Naphthalene	ug/L		< 0.39	< 0.39 H					< 0.38	
n-Decane	ug/L		6.8	< 0.58 H					< 0.58	
Nitrobenzene	ug/L	18	1.2	< 0.39 H					< 0.38	
N-Nitrosodimethylamine	ug/L		< 1.9	< 1.9 H					< 1.9	
N-Nitrosodiphenylamine	ug/L		< 0.39	< 0.39 H					< 0.38	
Octadecane	ug/L		< 0.39	< 0.39 H					0.47	
Pentachlorophenol	ug/L		< 0.68	< 0.68 H					< 0.67	
Phenanthrene	ug/L	11000	0.49	< 0.078 H					< 0.077	
Phenol	ug/L		< 0.58	< 0.58 H					< 0.58	
Pyrene	ug/L		< 0.058	< 0.058 H					< 0.058	
USEPA Method 624 - VOCs										
1,1,1-Trichloroethane	ug/L		< 1	< 1					< 1	
1,1,2,2-Tetrachloroethane	ug/L		< 1	< 1					< 1	
1,1,2-Trichloroethane	ug/L		< 1	< 1					< 1	
1,1-Dichloroethane	ug/L		< 1	< 1					< 1	
1,1-Dichloroethene	ug/L		< 1	< 1					< 1	
1,2-Dichlorobenzene	ug/L		< 1	< 1					< 1	
1,2-Dichloroethane	ug/L		< 1	< 1					< 1	
1,2-Dichloropropane	ug/L		< 1	< 1					< 1	
1,3-Dichlorobenzene	ug/L		< 1	< 1					< 1	

Table 1. 2013 Annual Groundwater Monitoring Well Sampling Results

Analyte	Units	ADEC Cleanup Level	MW-1 8/27/2013	MW-2 8/27/2013	MW-3 8/27/2013	MW-7 8/27/2013	MW-10 8/27/2013	MW-13 8/27/2013	MW-11 8/27/2013	NMW-2 8/27/2013
Benzene	ug/L	5	3.2	< 1					< 1	
Bromodichloromethane	ug/L		< 1	< 1					< 1	
Bromoform	ug/L		< 1	< 1					< 1	
Bromomethane	ug/L		< 5	< 5					< 5	
Carbon tetrachloride	ug/L		< 1	< 1					< 1	
Chlorobenzene	ug/L		< 1	< 1					< 1	
Chloroethane	ug/L		< 5	< 5					< 5	
Chloroform	ug/L		< 1	< 1					< 1	
Chloromethane	ug/L		< 5	< 5					< 5	
cis-1,3-Dichloropropene	ug/L		< 1	< 1					< 1	
Dibromochloromethane	ug/L		< 1	< 1					< 1	
Ethylbenzene	ug/L	700	5.5	< 1					3.8	
Methylene Chloride	ug/L		< 3	< 3					< 3	
m-Xylene & p-Xylene	ug/L	10000	< 2	< 2					6.2	
o-Xylene	ug/L	10000	2.6	< 1					17	
Tetrachloroethene	ug/L		< 1	< 1					< 1	
Toluene	ug/L		< 1	< 1					< 1	
trans-1,2-Dichloroethene	ug/L		< 1	< 1					< 1	
trans-1,3-Dichloropropene	ug/L		< 1	< 1					< 1	
Trichloroethene	ug/L		< 1	< 1					< 1	
Trichlorofluoromethane	ug/L		< 1	< 1					< 1	
Vinyl chloride	ug/L		< 1	< 1					< 1	
AK Method 102 & 103										
DRO (nC10-<nC25)	mg/L	1.5	**1.9** * Y	0.61 * Y	**12.2**	<0.400	<0.391	<0.382	0.29 * Y	**35.4** Q2
RRO (nC25-nC36)	mg/L	1.1	< 0.11	< 0.096	1.08	<0.400	<0.391	<0.382	< 0.097	**1.17**
TAH Method 624	ug/L	10	**11**	< 1					**27**	
TPAH Method 625	ug/L		2.3	0.13 H					0.35	
TAqH	ug/L	15	13	< 1					**27**	

Notes:

Results in **bold** above ADEC Groundwater Cleanup Level, Table C 18 AAC 75.341

Q2 - Typical pattern for diesel.

Q11 - Detected hydrocarbons in the diesel range do not have a distinct diesel pattern and may be due to heavily weathered diesel.

* - LCS or LCSD exceeds the control limits / RPD of the LCS and LCSD exceeds the control limits

H - Sample was prepped or analyzed beyond the specified holding time.

Y - The chromotographic response resembles a typical fuel pattern.

MW–11
LOCATION NOT TO SCALE

NMW–2

NMW–1

6" OIL RECOVERY WELL

8" WATER DRAWDOWN WELL

MW–8

NORTH

Mendenhall River

MW–9

MW–12

UST

UST

CONCRETE PAD

BURIED FUEL LINES

MH–3

INFLUENT PUMP STATION

GENERATOR ROOM

MW–13

MW–4

DISINFECTION BUILDING

UV ROOM

GARAGE

MH–1

SBR BUILDING

EBB

FLOOD

MW–1

CONTROL BUILDING

BURIED FUEL LINES

TEST HOLES

ABF PLANT

8" WATER DRAWDOWN WELL

MW–6 (BH–3)

6" OIL RECOVERY WELL

BOILER ROOM

PROPERTY LINE

BH–7

BURIED FUEL LINES

RS–2

MW–5 (BH–8)

RS–3

CHILLER UNIT

SUPPLY LINE LEAK AREA (NOT EXTENT OF CONTAMINATION)

ELECTRIC PAD

SLUDGE DEWATERING BUILDING

DRIVEWAY

CHLORINE BUILDING

BH–2

MW–10

GARAGE

MW–2

MW–3

BH–4

BH–5

GRAVEL PARKING

BH–1

PROPERTY LINE

EXISTING CULVERT

P.P.

P.P.

RADCLIFFE ROAD

MW–7 (BH–6)

RADCLIFFE ROAD

ASPHALT PARKING

20 0 20 40 FEET

LEGEND

- MONITOR WELL (MW)
- OIL RECOVERY WELL
- WATER DRAWDOWN WELL
- BORE HOLE (BH)
- TEST HOLE 3/14/08
- MANHOLE (MH, RS)
- UST
- FUEL LINE
- SUSPECTED SUPPLY–LINE LEAK AREA

Path/File Name: \2cad\CBJ\MWTP\MWs & Oil Recovery Wells\2009 COMPOSIT.V8
Date Plotted: 4/28/2012
Time Plotted: 8:16:02 AM

REV	DATE	BY	DESCRIPTION

SCALE GRAPHIC
DESIGNED SJH
DRAWN EHH
CHECKED
DATE APRIL 2012

CITY/BOROUGH OF JUNEAU
ALASKA'S CAPITAL CITY

CITY AND BOROUGH OF JUNEAU

MWWTP OIL INVESTIGATION

Carson Dorn Inc.
712 WEST 12TH STREET
JUNEAU, ALASKA 99801
(907) 586–4447

MWWTP SITE PLAN
MONITORING WELLS
&
OIL RECOVERY WELLS

Figure 1

SHEET No.
of

APPENDIX B
LABORATORY ANALYTICAL REPORT

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-40019-1
Client Project/Site: MWWTP Juneau, AK

For:
Carson Dorn, Inc
712 West 12th Street
Juneau, Alaska 99801

Attn: Jolene Cox

Pamela R. Johnson

Authorized for release by:
9/19/2013 3:54:43 PM

Pam Johnson, Project Manager I
pamr.johnson@testamericainc.com

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Job ID: 580-40019-1

Laboratory: TestAmerica Seattle

Narrative

Receipt

The samples were received on 8/28/2013 4:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.2º C.

GC/MS VOA - Method 624

The method blank for preparation batch 144457 contained methylene chloride above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

No other analytical or quality issues were noted.

GC/MS Semi VOA - Method 625

Surrogate recovery for the following sample MW-1 (580-40019-1) was outside control limits. Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed. The data have been qualified “X” and reported.

Octadecane was detected in method blank MB 580-144300/1-A at a level that was above the reporting limit (RL). None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

The laboratory control sample (LCS) and / or the laboratory control sample duplicate (LCSD) for prep batch 144051 recovered outside control limits for 3 analytes. The associated samples are non detect for the affected analytes except for sample MW-1 (580-40019-1) which has a hit above the RL for bis-2-ethyl hexyl phthalate. This is a known lab contaminant and is probably high in the LCS due to lab contamination. There is no additional sample remaining, so the data have qualified “*” and reported.

The laboratory control sample (LCS) for prep batch 144300 recovered outside acceptance limits high for 4 analytes. The associated sample is non detect for all failing analytes except di-n-butyl phthalate, which has a detection above the RL. There was insufficient sample to perform a re-extraction or re-analysis; therefore, the data have been qualified “*” and reported.

The continuing calibration verification (CCV) for analytical batch 144719 recovered high for benzo(b) fluoranthene. The associated sample is non detect for this analyte and the LCS/LCSD recovery is not affected by the high bias. The data have been qualified “^” and reported.

No other analytical or quality issues were noted.

GC Semi VOA - Method AK102/AK103

In analytical batch 144568, the laboratory control sample (LCS) and the laboratory control sample duplicated (LCSD) for analytical batch 144589 recovered below the lower control limits for DRO (nC10->nC25). The data have been qualified “*” and reported. The associated samples MW-1 (580-40019-1) and MW-11 (580-40019-3) were re-prepared outside holding time. The data have been qualified “H” and reported. Both sets of data will be reported.

In analytical batch 144568, the laboratory control sample (LCS) and laboratory control sample duplicated (LCSD) for preparation batch 144589 recovered below the lower acceptance limits for DRO (nC10->nC25). There was insufficient sample volume for sample MW-2 (580-40019-2) to perform a re-extraction or re-analysis; therefore, the data have been qualified “*” and reported.

In analytical batch 144568, for the following samples MW-1 (580-40019-1) and MW-11 (580-40019-3) from preparation batch 144589, the results in the DRO (nC10->nC25) range are due to what most closely resembles a complex mixture of heavily weathered/degraded diesel fuel and/or a mineral/transformer oil range product, and possible biogenic interference.

The affected analyte range is qualified "Y" and has been reported.

In analytical batch 144568, for the following sample MW-11 (580-40019-3) from preparation batch 144589, the results in the DRO (nC10->nC25) range are due to what most closely resembles a complex mixture of a weathered gasoline product, heavily weathered/degraded diesel fuel and/or a mineral/transformer oil range product, possible biogenic interference, and a grouping of individual peaks that may be due to 8270/PAH analytes.

The affected analyte range is qualified "Y" and has been reported.

Job ID: 580-40019-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

In analytical batch 144769, the following samples MW-1 (580-40019-1) and MW-11 (580-40019-3) from preparation batch 144764 was re-prepared outside of preparation holding time due to laboratory control sample and laboratory control sample duplicated (LCS/LCSD) were failing low for DRO (nC10->nC25) range in original preparation batch 144568. The data have been qualified “H” and reported. The LCS and LCSD meet acceptance criteria in the re-extracted results, and both sets of data have been reported.

In analytical batch 144769, for the following sample MW-1 (580-40019-1) from preparation batch 144764, the results in the DRO (nC10->nC25) and RRO (>nC25-nC36) ranges are due to what most closely resembles heavily weathered/degraded diesel fuel.

The affected analyte ranges are qualified "Y" and have been reported.

In analytical batch 144769, for the following sample MW-11 (580-40019-3) from preparation batch 144764, the results in the DRO (nC10->nC25) and RRO (>nC25-nC36) ranges are due to what most closely resembles a complex mixture of a weathered gasoline product, heavily weathered/degraded diesel fuel and/or a mineral/transformer oil range product, motor oil, possible biogenic interference, and a grouping of individual peaks that may be due to 8270/PAH analytes.

No other analytical or quality issues were noted.

Organic Prep

Method CWA_Prep: Batch 144300

The sample MW-2 (580-40019-2) was prepared outside of hold for re-extraction. In the original batch the extract boiled dry while extracting the basic portion because the condenser was not properly on the extraction body. The data have been qualified "H" and reported.

No other analytical or quality issues were noted.

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
*	RPD of the LCS and LCSD exceeds the control limits
X	Surrogate is outside control limits
H	Sample was prepped or analyzed beyond the specified holding time
^	ICV,CCV,ICB,CCB, ISA, ISB, CRI, CRA, DLCK or MRL standard: Instrument related QC exceeds the control limits.

GC Semi VOA

Qualifier	Qualifier Description
*	LCS or LCSD exceeds the control limits
Y	The chromatographic response resembles a typical fuel pattern.
H	Sample was prepped or analyzed beyond the specified holding time

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
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)

Client: Carson Dorn, Inc
Project/Site: MWWTP Juneau, AK

TestAmerica Job ID: 580-40019-1

Client Sample ID: MW-1
Date Collected: 08/27/13 12:05
Date Received: 08/28/13 16:45

Lab Sample ID: 580-40019-1
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		5.0		ug/L			09/10/13 00:51	1
Vinyl chloride	ND		1.0		ug/L			09/10/13 00:51	1
Bromomethane	ND		5.0		ug/L			09/10/13 00:51	1
Chloroethane	ND		5.0		ug/L			09/10/13 00:51	1
Trichlorofluoromethane	ND		1.0		ug/L			09/10/13 00:51	1
1,1-Dichloroethene	ND		1.0		ug/L			09/10/13 00:51	1
Methylene Chloride	ND		3.0		ug/L			09/10/13 00:51	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/10/13 00:51	1
1,1-Dichloroethane	ND		1.0		ug/L			09/10/13 00:51	1
Chloroform	ND		1.0		ug/L			09/10/13 00:51	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/10/13 00:51	1
Carbon tetrachloride	ND		1.0		ug/L			09/10/13 00:51	1
Benzene	**3.2**		1.0		ug/L			09/10/13 00:51	1
1,2-Dichloroethane	ND		1.0		ug/L			09/10/13 00:51	1
Trichloroethene	ND		1.0		ug/L			09/10/13 00:51	1
1,2-Dichloropropane	ND		1.0		ug/L			09/10/13 00:51	1
Bromodichloromethane	ND		1.0		ug/L			09/10/13 00:51	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/10/13 00:51	1
Toluene	ND		1.0		ug/L			09/10/13 00:51	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/10/13 00:51	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/10/13 00:51	1
Tetrachloroethene	ND		1.0		ug/L			09/10/13 00:51	1
Dibromochloromethane	ND		1.0		ug/L			09/10/13 00:51	1
Chlorobenzene	ND		1.0		ug/L			09/10/13 00:51	1
Ethylbenzene	**5.5**		1.0		ug/L			09/10/13 00:51	1
m-Xylene & p-Xylene	ND		2.0		ug/L			09/10/13 00:51	1
o-Xylene	**2.6**		1.0		ug/L			09/10/13 00:51	1
Bromoform	ND		1.0		ug/L			09/10/13 00:51	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/10/13 00:51	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/10/13 00:51	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/10/13 00:51	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/10/13 00:51	1
TAH	**11**		1.0		ug/L			09/10/13 00:51	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*114*		*74 - 123*		*09/10/13 00:51*	*1*
Toluene-d8 (Surr)	*100*		*79 - 122*		*09/10/13 00:51*	*1*
Fluorobenzene (Surr)	*96*		*77 - 121*		*09/10/13 00:51*	*1*
Ethylbenzene-d10	*102*		*78 - 117*		*09/10/13 00:51*	*1*
4-Bromofluorobenzene (Surr)	*97*		*78 - 119*		*09/10/13 00:51*	*1*

Method: TAqH - Total Aqueous Hydrocarbons

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TAqH	**13**		1.0		ug/L			09/18/13 12:53	1

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
1,2-Dichlorobenzene	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
1,3-Dichlorobenzene	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1

Client: Carson Dorn, Inc
Project/Site: MWWTP Juneau, AK

TestAmerica Job ID: 580-40019-1

Client Sample ID: MW-1
Date Collected: 08/27/13 12:05
Date Received: 08/28/13 16:45

Lab Sample ID: 580-40019-1
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
2,4,5-Trichlorophenol	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
2,4,6-Trichlorophenol	ND		0.58		ug/L		09/03/13 10:32	09/06/13 22:26	1
2,4-Dichlorophenol	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
2,4-Dimethylphenol	ND		1.9		ug/L		09/03/13 10:32	09/06/13 22:26	1
2,4-Dinitrophenol	ND		4.9		ug/L		09/03/13 10:32	09/06/13 22:26	1
2,4-Dinitrotoluene	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
2,6-Dinitrotoluene	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
2-Chloronaphthalene	ND		0.058		ug/L		09/03/13 10:32	09/06/13 22:26	1
2-Chlorophenol	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
2-Methylphenol	**0.79**		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
2-Nitrophenol	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
3,3'-Dichlorobenzidine	ND		1.9		ug/L		09/03/13 10:32	09/06/13 22:26	1
4,6-Dinitro-2-methylphenol	ND		3.9		ug/L		09/03/13 10:32	09/06/13 22:26	1
4-Bromophenyl phenyl ether	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
4-Chloro-3-methylphenol	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
4-Chlorophenyl phenyl ether	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
4-Nitrophenol	ND		2.9		ug/L		09/03/13 10:32	09/06/13 22:26	1
Acenaphthene	**0.41**		0.097		ug/L		09/03/13 10:32	09/06/13 22:26	1
Acenaphthylene	ND		0.078		ug/L		09/03/13 10:32	09/06/13 22:26	1
Anthracene	ND		0.039		ug/L		09/03/13 10:32	09/06/13 22:26	1
2-Methylnaphthalene	ND		0.19		ug/L		09/03/13 10:32	09/06/13 22:26	1
Benzo[a]anthracene	ND		0.058		ug/L		09/03/13 10:32	09/06/13 22:26	1
Benzo[a]pyrene	ND		0.039		ug/L		09/03/13 10:32	09/06/13 22:26	1
Benzo[b]fluoranthene	ND		0.078		ug/L		09/03/13 10:32	09/06/13 22:26	1
Benzo[g,h,i]perylene	ND		0.058		ug/L		09/03/13 10:32	09/06/13 22:26	1
Benzo[k]fluoranthene	ND		0.058		ug/L		09/03/13 10:32	09/06/13 22:26	1
Bis(2-chloroethoxy)methane	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
Bis(2-chloroethyl)ether	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
Bis(2-ethylhexyl) phthalate	**3.6**	*	2.9		ug/L		09/03/13 10:32	09/06/13 22:26	1
Butyl benzyl phthalate	ND		0.58		ug/L		09/03/13 10:32	09/06/13 22:26	1
Carbazole	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
Chrysene	ND		0.039		ug/L		09/03/13 10:32	09/06/13 22:26	1
n-Decane	**6.8**		0.58		ug/L		09/03/13 10:32	09/06/13 22:26	1
Di-n-butyl phthalate	ND	*	0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
Di-n-octyl phthalate	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
Dibenz(a,h)anthracene	ND		0.058		ug/L		09/03/13 10:32	09/06/13 22:26	1
Dibenzofuran	**0.53**		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
Diethyl phthalate	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
Dimethyl phthalate	ND	*	0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
Fluoranthene	ND		0.049		ug/L		09/03/13 10:32	09/06/13 22:26	1
Fluorene	**1.4**		0.058		ug/L		09/03/13 10:32	09/06/13 22:26	1
Hexachlorobenzene	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
Hexachlorobutadiene	ND		0.58		ug/L		09/03/13 10:32	09/06/13 22:26	1
Hexachlorocyclopentadiene	ND		1.9		ug/L		09/03/13 10:32	09/06/13 22:26	1
Hexachloroethane	ND		0.58		ug/L		09/03/13 10:32	09/06/13 22:26	1
Indeno[1,2,3-cd]pyrene	ND		0.058		ug/L		09/03/13 10:32	09/06/13 22:26	1
Isophorone	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
N-Nitrosodimethylamine	ND		1.9		ug/L		09/03/13 10:32	09/06/13 22:26	1

Client: Carson Dorn, Inc
Project/Site: MWWTP Juneau, AK

TestAmerica Job ID: 580-40019-1

Client Sample ID: MW-1
Date Collected: 08/27/13 12:05
Date Received: 08/28/13 16:45

Lab Sample ID: 580-40019-1
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
Octadecane	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
Naphthalene	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
Nitrobenzene	**1.2**		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
Pentachlorophenol	ND		0.68		ug/L		09/03/13 10:32	09/06/13 22:26	1
Phenanthrene	**0.49**		0.078		ug/L		09/03/13 10:32	09/06/13 22:26	1
Phenol	ND		0.58		ug/L		09/03/13 10:32	09/06/13 22:26	1
Pyrene	ND		0.058		ug/L		09/03/13 10:32	09/06/13 22:26	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		0.97		ug/L		09/03/13 10:32	09/06/13 22:26	1
bis (2-chloroisopropyl) ether	ND		0.39		ug/L		09/03/13 10:32	09/06/13 22:26	1
1-Methylnaphthalene	**2.1**		0.058		ug/L		09/03/13 10:32	09/06/13 22:26	1
TPAH	**2.3**		0.039		ug/L		09/03/13 10:32	09/06/13 22:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*109*		*47 - 137*	*09/03/13 10:32*	*09/06/13 22:26*	*1*
2-Fluorobiphenyl	*72*		*56 - 124*	*09/03/13 10:32*	*09/06/13 22:26*	*1*
2-Fluorophenol	*81*		*20 - 122*	*09/03/13 10:32*	*09/06/13 22:26*	*1*
Nitrobenzene-d5	*320*	*X*	*59 - 123*	*09/03/13 10:32*	*09/06/13 22:26*	*1*
Phenol-d5	*90*		*20 - 123*	*09/03/13 10:32*	*09/06/13 22:26*	*1*
Terphenyl-d14	*100*		*60 - 135*	*09/03/13 10:32*	*09/06/13 22:26*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**1.9**	*** Y**	0.11		mg/L		09/10/13 10:09	09/10/13 16:44	1
RRO (nC25-nC36)	ND		0.11		mg/L		09/10/13 10:09	09/10/13 16:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*65*		*50 - 150*	*09/10/13 10:09*	*09/10/13 16:44*	*1*
n-Triacontane-d62	*64*		*50 - 150*	*09/10/13 10:09*	*09/10/13 16:44*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**0.97**	**H Y**	0.098		mg/L		09/12/13 08:30	09/12/13 15:15	1
RRO (nC25-nC36)	ND	H Y	0.098		mg/L		09/12/13 08:30	09/12/13 15:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*50 - 150*	*09/12/13 08:30*	*09/12/13 15:15*	*1*
n-Triacontane-d62	*69*		*50 - 150*	*09/12/13 08:30*	*09/12/13 15:15*	*1*

Client: Carson Dorn, Inc
Project/Site: MWWTP Juneau, AK

TestAmerica Job ID: 580-40019-1

Client Sample ID: MW-2
Date Collected: 08/27/13 11:00
Date Received: 08/28/13 16:45

Lab Sample ID: 580-40019-2
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		5.0		ug/L			09/10/13 01:20	1
Vinyl chloride	ND		1.0		ug/L			09/10/13 01:20	1
Bromomethane	ND		5.0		ug/L			09/10/13 01:20	1
Chloroethane	ND		5.0		ug/L			09/10/13 01:20	1
Trichlorofluoromethane	ND		1.0		ug/L			09/10/13 01:20	1
1,1-Dichloroethene	ND		1.0		ug/L			09/10/13 01:20	1
Methylene Chloride	ND		3.0		ug/L			09/10/13 01:20	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/10/13 01:20	1
1,1-Dichloroethane	ND		1.0		ug/L			09/10/13 01:20	1
Chloroform	ND		1.0		ug/L			09/10/13 01:20	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/10/13 01:20	1
Carbon tetrachloride	ND		1.0		ug/L			09/10/13 01:20	1
Benzene	ND		1.0		ug/L			09/10/13 01:20	1
1,2-Dichloroethane	ND		1.0		ug/L			09/10/13 01:20	1
Trichloroethene	ND		1.0		ug/L			09/10/13 01:20	1
1,2-Dichloropropane	ND		1.0		ug/L			09/10/13 01:20	1
Bromodichloromethane	ND		1.0		ug/L			09/10/13 01:20	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/10/13 01:20	1
Toluene	ND		1.0		ug/L			09/10/13 01:20	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/10/13 01:20	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/10/13 01:20	1
Tetrachloroethene	ND		1.0		ug/L			09/10/13 01:20	1
Dibromochloromethane	ND		1.0		ug/L			09/10/13 01:20	1
Chlorobenzene	ND		1.0		ug/L			09/10/13 01:20	1
Ethylbenzene	ND		1.0		ug/L			09/10/13 01:20	1
m-Xylene & p-Xylene	ND		2.0		ug/L			09/10/13 01:20	1
o-Xylene	ND		1.0		ug/L			09/10/13 01:20	1
Bromoform	ND		1.0		ug/L			09/10/13 01:20	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/10/13 01:20	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/10/13 01:20	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/10/13 01:20	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/10/13 01:20	1
TAH	ND		1.0		ug/L			09/10/13 01:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*112*		*74 - 123*		*09/10/13 01:20*	*1*
Toluene-d8 (Surr)	*100*		*79 - 122*		*09/10/13 01:20*	*1*
Fluorobenzene (Surr)	*99*		*77 - 121*		*09/10/13 01:20*	*1*
Ethylbenzene-d10	*105*		*78 - 117*		*09/10/13 01:20*	*1*
4-Bromofluorobenzene (Surr)	*98*		*78 - 119*		*09/10/13 01:20*	*1*

Method: TAqH - Total Aqueous Hydrocarbons

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TAqH	ND		1.0		ug/L			09/18/13 12:53	1

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
1,2-Dichlorobenzene	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
1,3-Dichlorobenzene	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1

Client: Carson Dorn, Inc
Project/Site: MWWTP Juneau, AK

TestAmerica Job ID: 580-40019-1

Client Sample ID: MW-2
Date Collected: 08/27/13 11:00
Date Received: 08/28/13 16:45

Lab Sample ID: 580-40019-2
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
2,4,5-Trichlorophenol	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
2,4,6-Trichlorophenol	ND	H	0.58		ug/L		09/05/13 17:15	09/11/13 20:16	1
2,4-Dichlorophenol	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
2,4-Dimethylphenol	ND	H	1.9		ug/L		09/05/13 17:15	09/11/13 20:16	1
2,4-Dinitrophenol	ND	H	4.9		ug/L		09/05/13 17:15	09/11/13 20:16	1
2,4-Dinitrotoluene	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
2,6-Dinitrotoluene	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
2-Chloronaphthalene	ND	H	0.058		ug/L		09/05/13 17:15	09/11/13 20:16	1
2-Chlorophenol	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
2-Methylphenol	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
2-Nitrophenol	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
3,3'-Dichlorobenzidine	ND	H	1.9		ug/L		09/05/13 17:15	09/11/13 20:16	1
4,6-Dinitro-2-methylphenol	ND	H	3.9		ug/L		09/05/13 17:15	09/11/13 20:16	1
4-Bromophenyl phenyl ether	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
4-Chloro-3-methylphenol	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
4-Chlorophenyl phenyl ether	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
4-Nitrophenol	ND	H	2.9		ug/L		09/05/13 17:15	09/11/13 20:16	1
Acenaphthene	ND	H	0.097		ug/L		09/05/13 17:15	09/11/13 20:16	1
Acenaphthylene	ND	H	0.078		ug/L		09/05/13 17:15	09/11/13 20:16	1
Anthracene	ND	H	0.039		ug/L		09/05/13 17:15	09/11/13 20:16	1
2-Methylnaphthalene	ND	H	0.19		ug/L		09/05/13 17:15	09/11/13 20:16	1
Benzo[a]anthracene	ND	H	0.058		ug/L		09/05/13 17:15	09/11/13 20:16	1
Benzo[a]pyrene	ND	H	0.039		ug/L		09/05/13 17:15	09/11/13 20:16	1
Benzo[b]fluoranthene	ND	H ^	0.078		ug/L		09/05/13 17:15	09/11/13 20:16	1
Benzo[g,h,i]perylene	ND	H	0.058		ug/L		09/05/13 17:15	09/11/13 20:16	1
Benzo[k]fluoranthene	ND	H	0.058		ug/L		09/05/13 17:15	09/11/13 20:16	1
Bis(2-chloroethoxy)methane	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
Bis(2-chloroethyl)ether	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
Bis(2-ethylhexyl) phthalate	ND	H *	2.9		ug/L		09/05/13 17:15	09/11/13 20:16	1
Butyl benzyl phthalate	ND	H	0.58		ug/L		09/05/13 17:15	09/11/13 20:16	1
Carbazole	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
Chrysene	**0.13**	**H**	0.039		ug/L		09/05/13 17:15	09/11/13 20:16	1
n-Decane	ND	H	0.58		ug/L		09/05/13 17:15	09/11/13 20:16	1
Di-n-butyl phthalate	**0.81**	**H ***	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
Di-n-octyl phthalate	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
Dibenz(a,h)anthracene	ND	H	0.058		ug/L		09/05/13 17:15	09/11/13 20:16	1
Dibenzofuran	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
Diethyl phthalate	ND	H *	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
Dimethyl phthalate	ND	H *	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
Fluoranthene	ND	H	0.049		ug/L		09/05/13 17:15	09/11/13 20:16	1
Fluorene	ND	H	0.058		ug/L		09/05/13 17:15	09/11/13 20:16	1
Hexachlorobenzene	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
Hexachlorobutadiene	ND	H	0.58		ug/L		09/05/13 17:15	09/11/13 20:16	1
Hexachlorocyclopentadiene	ND	H	1.9		ug/L		09/05/13 17:15	09/11/13 20:16	1
Hexachloroethane	ND	H	0.58		ug/L		09/05/13 17:15	09/11/13 20:16	1
Indeno[1,2,3-cd]pyrene	ND	H	0.058		ug/L		09/05/13 17:15	09/11/13 20:16	1
Isophorone	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
N-Nitrosodimethylamine	ND	H	1.9		ug/L		09/05/13 17:15	09/11/13 20:16	1

Client: Carson Dorn, Inc
Project/Site: MWWTP Juneau, AK

TestAmerica Job ID: 580-40019-1

Client Sample ID: MW-2
Date Collected: 08/27/13 11:00
Date Received: 08/28/13 16:45

Lab Sample ID: 580-40019-2
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
Octadecane	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
Naphthalene	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
Nitrobenzene	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
Pentachlorophenol	ND	H	0.68		ug/L		09/05/13 17:15	09/11/13 20:16	1
Phenanthrene	ND	H	0.078		ug/L		09/05/13 17:15	09/11/13 20:16	1
Phenol	ND	H	0.58		ug/L		09/05/13 17:15	09/11/13 20:16	1
Pyrene	ND	H	0.058		ug/L		09/05/13 17:15	09/11/13 20:16	1
1,2-Diphenylhydrazine (as Azobenzene)	ND	H	0.97		ug/L		09/05/13 17:15	09/11/13 20:16	1
bis (2-chloroisopropyl) ether	ND	H	0.39		ug/L		09/05/13 17:15	09/11/13 20:16	1
1-Methylnaphthalene	ND	H	0.058		ug/L		09/05/13 17:15	09/11/13 20:16	1
TPAH	**0.13**	**H**	0.039		ug/L		09/05/13 17:15	09/11/13 20:16	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*118*		*47 - 137*	*09/05/13 17:15*	*09/11/13 20:16*	*1*
2-Fluorobiphenyl	*78*		*56 - 124*	*09/05/13 17:15*	*09/11/13 20:16*	*1*
2-Fluorophenol	*71*		*20 - 122*	*09/05/13 17:15*	*09/11/13 20:16*	*1*
Nitrobenzene-d5	*80*		*59 - 123*	*09/05/13 17:15*	*09/11/13 20:16*	*1*
Phenol-d5	*72*		*20 - 123*	*09/05/13 17:15*	*09/11/13 20:16*	*1*
Terphenyl-d14	*115*		*60 - 135*	*09/05/13 17:15*	*09/11/13 20:16*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**0.61**	*** Y**	0.096		mg/L		09/10/13 10:09	09/10/13 17:02	1
RRO (nC25-nC36)	ND		0.096		mg/L		09/10/13 10:09	09/10/13 17:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*50 - 150*	*09/10/13 10:09*	*09/10/13 17:02*	*1*
n-Triacontane-d62	*71*		*50 - 150*	*09/10/13 10:09*	*09/10/13 17:02*	*1*

Client: Carson Dorn, Inc
Project/Site: MWWTP Juneau, AK

TestAmerica Job ID: 580-40019-1

Client Sample ID: MW-11
Date Collected: 08/27/13 13:20
Date Received: 08/28/13 16:45

Lab Sample ID: 580-40019-3
Matrix: Water

Method: 624 - Volatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		5.0		ug/L			09/10/13 01:50	1
Vinyl chloride	ND		1.0		ug/L			09/10/13 01:50	1
Bromomethane	ND		5.0		ug/L			09/10/13 01:50	1
Chloroethane	ND		5.0		ug/L			09/10/13 01:50	1
Trichlorofluoromethane	ND		1.0		ug/L			09/10/13 01:50	1
1,1-Dichloroethene	ND		1.0		ug/L			09/10/13 01:50	1
Methylene Chloride	ND		3.0		ug/L			09/10/13 01:50	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/10/13 01:50	1
1,1-Dichloroethane	ND		1.0		ug/L			09/10/13 01:50	1
Chloroform	ND		1.0		ug/L			09/10/13 01:50	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/10/13 01:50	1
Carbon tetrachloride	ND		1.0		ug/L			09/10/13 01:50	1
Benzene	ND		1.0		ug/L			09/10/13 01:50	1
1,2-Dichloroethane	ND		1.0		ug/L			09/10/13 01:50	1
Trichloroethene	ND		1.0		ug/L			09/10/13 01:50	1
1,2-Dichloropropane	ND		1.0		ug/L			09/10/13 01:50	1
Bromodichloromethane	ND		1.0		ug/L			09/10/13 01:50	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/10/13 01:50	1
Toluene	ND		1.0		ug/L			09/10/13 01:50	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/10/13 01:50	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/10/13 01:50	1
Tetrachloroethene	ND		1.0		ug/L			09/10/13 01:50	1
Dibromochloromethane	ND		1.0		ug/L			09/10/13 01:50	1
Chlorobenzene	ND		1.0		ug/L			09/10/13 01:50	1
Ethylbenzene	**3.8**		1.0		ug/L			09/10/13 01:50	1
m-Xylene & p-Xylene	**6.2**		2.0		ug/L			09/10/13 01:50	1
o-Xylene	**17**		1.0		ug/L			09/10/13 01:50	1
Bromoform	ND		1.0		ug/L			09/10/13 01:50	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/10/13 01:50	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/10/13 01:50	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/10/13 01:50	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/10/13 01:50	1
TAH	**27**		1.0		ug/L			09/10/13 01:50	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*111*		*74 - 123*		*09/10/13 01:50*	*1*
Toluene-d8 (Surr)	*99*		*79 - 122*		*09/10/13 01:50*	*1*
Fluorobenzene (Surr)	*98*		*77 - 121*		*09/10/13 01:50*	*1*
Ethylbenzene-d10	*104*		*78 - 117*		*09/10/13 01:50*	*1*
4-Bromofluorobenzene (Surr)	*100*		*78 - 119*		*09/10/13 01:50*	*1*

Method: TAqH - Total Aqueous Hydrocarbons

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
TAqH	**27**		1.0		ug/L			09/18/13 12:53	1

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
1,2-Dichlorobenzene	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
1,3-Dichlorobenzene	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1

Client: Carson Dorn, Inc
Project/Site: MWWTP Juneau, AK

TestAmerica Job ID: 580-40019-1

Client Sample ID: MW-11
Date Collected: 08/27/13 13:20
Date Received: 08/28/13 16:45

Lab Sample ID: 580-40019-3
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dichlorobenzene	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
2,4,5-Trichlorophenol	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
2,4,6-Trichlorophenol	ND		0.58		ug/L		09/03/13 10:32	09/06/13 22:53	1
2,4-Dichlorophenol	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
2,4-Dimethylphenol	ND		1.9		ug/L		09/03/13 10:32	09/06/13 22:53	1
2,4-Dinitrophenol	ND		4.8		ug/L		09/03/13 10:32	09/06/13 22:53	1
2,4-Dinitrotoluene	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
2,6-Dinitrotoluene	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
2-Chloronaphthalene	ND		0.058		ug/L		09/03/13 10:32	09/06/13 22:53	1
2-Chlorophenol	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
2-Methylphenol	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
2-Nitrophenol	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
3,3'-Dichlorobenzidine	ND		1.9		ug/L		09/03/13 10:32	09/06/13 22:53	1
4,6-Dinitro-2-methylphenol	ND		3.8		ug/L		09/03/13 10:32	09/06/13 22:53	1
4-Bromophenyl phenyl ether	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
4-Chloro-3-methylphenol	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
4-Chlorophenyl phenyl ether	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
4-Nitrophenol	ND		2.9		ug/L		09/03/13 10:32	09/06/13 22:53	1
Acenaphthene	**0.13**		0.096		ug/L		09/03/13 10:32	09/06/13 22:53	1
Acenaphthylene	ND		0.077		ug/L		09/03/13 10:32	09/06/13 22:53	1
Anthracene	ND		0.038		ug/L		09/03/13 10:32	09/06/13 22:53	1
2-Methylnaphthalene	**0.31**		0.19		ug/L		09/03/13 10:32	09/06/13 22:53	1
Benzo[a]anthracene	ND		0.058		ug/L		09/03/13 10:32	09/06/13 22:53	1
Benzo[a]pyrene	ND		0.038		ug/L		09/03/13 10:32	09/06/13 22:53	1
Benzo[b]fluoranthene	ND		0.077		ug/L		09/03/13 10:32	09/06/13 22:53	1
Benzo[g,h,i]perylene	ND		0.058		ug/L		09/03/13 10:32	09/06/13 22:53	1
Benzo[k]fluoranthene	ND		0.058		ug/L		09/03/13 10:32	09/06/13 22:53	1
Bis(2-chloroethoxy)methane	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
Bis(2-chloroethyl)ether	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
Bis(2-ethylhexyl) phthalate	ND	*	2.9		ug/L		09/03/13 10:32	09/06/13 22:53	1
Butyl benzyl phthalate	ND		0.58		ug/L		09/03/13 10:32	09/06/13 22:53	1
Carbazole	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
Chrysene	ND		0.038		ug/L		09/03/13 10:32	09/06/13 22:53	1
n-Decane	ND		0.58		ug/L		09/03/13 10:32	09/06/13 22:53	1
Di-n-butyl phthalate	ND	*	0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
Di-n-octyl phthalate	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
Dibenz(a,h)anthracene	ND		0.058		ug/L		09/03/13 10:32	09/06/13 22:53	1
Dibenzofuran	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
Diethyl phthalate	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
Dimethyl phthalate	ND	*	0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
Fluoranthene	ND		0.048		ug/L		09/03/13 10:32	09/06/13 22:53	1
Fluorene	**0.22**		0.058		ug/L		09/03/13 10:32	09/06/13 22:53	1
Hexachlorobenzene	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
Hexachlorobutadiene	ND		0.58		ug/L		09/03/13 10:32	09/06/13 22:53	1
Hexachlorocyclopentadiene	ND		1.9		ug/L		09/03/13 10:32	09/06/13 22:53	1
Hexachloroethane	ND		0.58		ug/L		09/03/13 10:32	09/06/13 22:53	1
Indeno[1,2,3-cd]pyrene	ND		0.058		ug/L		09/03/13 10:32	09/06/13 22:53	1
Isophorone	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
N-Nitrosodimethylamine	ND		1.9		ug/L		09/03/13 10:32	09/06/13 22:53	1

Client: Carson Dorn, Inc
Project/Site: MWWTP Juneau, AK

TestAmerica Job ID: 580-40019-1

Client Sample ID: MW-11
Date Collected: 08/27/13 13:20
Date Received: 08/28/13 16:45

Lab Sample ID: 580-40019-3
Matrix: Water

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
Octadecane	**0.47**		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
Naphthalene	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
Nitrobenzene	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
Pentachlorophenol	ND		0.67		ug/L		09/03/13 10:32	09/06/13 22:53	1
Phenanthrene	ND		0.077		ug/L		09/03/13 10:32	09/06/13 22:53	1
Phenol	ND		0.58		ug/L		09/03/13 10:32	09/06/13 22:53	1
Pyrene	ND		0.058		ug/L		09/03/13 10:32	09/06/13 22:53	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		0.96		ug/L		09/03/13 10:32	09/06/13 22:53	1
bis (2-chloroisopropyl) ether	ND		0.38		ug/L		09/03/13 10:32	09/06/13 22:53	1
1-Methylnaphthalene	**0.72**		0.058		ug/L		09/03/13 10:32	09/06/13 22:53	1
TPAH	**0.35**		0.038		ug/L		09/03/13 10:32	09/06/13 22:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*110*		*47 - 137*	*09/03/13 10:32*	*09/06/13 22:53*	*1*
2-Fluorobiphenyl	*76*		*56 - 124*	*09/03/13 10:32*	*09/06/13 22:53*	*1*
2-Fluorophenol	*80*		*20 - 122*	*09/03/13 10:32*	*09/06/13 22:53*	*1*
Nitrobenzene-d5	*89*		*59 - 123*	*09/03/13 10:32*	*09/06/13 22:53*	*1*
Phenol-d5	*77*		*20 - 123*	*09/03/13 10:32*	*09/06/13 22:53*	*1*
Terphenyl-d14	*107*		*60 - 135*	*09/03/13 10:32*	*09/06/13 22:53*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**0.29**	*** Y**	0.097		mg/L		09/10/13 10:09	09/10/13 17:20	1
RRO (nC25-nC36)	ND		0.097		mg/L		09/10/13 10:09	09/10/13 17:20	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*65*		*50 - 150*	*09/10/13 10:09*	*09/10/13 17:20*	*1*
n-Triacontane-d62	*64*		*50 - 150*	*09/10/13 10:09*	*09/10/13 17:20*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC) - RE

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	**0.45**	**H Y**	0.097		mg/L		09/12/13 08:30	09/12/13 15:33	1
RRO (nC25-nC36)	**0.10**	**H Y**	0.097		mg/L		09/12/13 08:30	09/12/13 15:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*50 - 150*	*09/12/13 08:30*	*09/12/13 15:33*	*1*
n-Triacontane-d62	*77*		*50 - 150*	*09/12/13 08:30*	*09/12/13 15:33*	*1*

Method: 624 - Volatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-144457/27
Matrix: Water
Analysis Batch: 144457

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		5.0		ug/L			09/09/13 20:22	1
Vinyl chloride	ND		1.0		ug/L			09/09/13 20:22	1
Bromomethane	ND		5.0		ug/L			09/09/13 20:22	1
Chloroethane	ND		5.0		ug/L			09/09/13 20:22	1
Trichlorofluoromethane	ND		1.0		ug/L			09/09/13 20:22	1
1,1-Dichloroethene	ND		1.0		ug/L			09/09/13 20:22	1
Methylene Chloride	3.92		3.0		ug/L			09/09/13 20:22	1
trans-1,2-Dichloroethene	ND		1.0		ug/L			09/09/13 20:22	1
1,1-Dichloroethane	ND		1.0		ug/L			09/09/13 20:22	1
Chloroform	ND		1.0		ug/L			09/09/13 20:22	1
1,1,1-Trichloroethane	ND		1.0		ug/L			09/09/13 20:22	1
Carbon tetrachloride	ND		1.0		ug/L			09/09/13 20:22	1
Benzene	ND		1.0		ug/L			09/09/13 20:22	1
1,2-Dichloroethane	ND		1.0		ug/L			09/09/13 20:22	1
Trichloroethene	ND		1.0		ug/L			09/09/13 20:22	1
1,2-Dichloropropane	ND		1.0		ug/L			09/09/13 20:22	1
Bromodichloromethane	ND		1.0		ug/L			09/09/13 20:22	1
cis-1,3-Dichloropropene	ND		1.0		ug/L			09/09/13 20:22	1
Toluene	ND		1.0		ug/L			09/09/13 20:22	1
trans-1,3-Dichloropropene	ND		1.0		ug/L			09/09/13 20:22	1
1,1,2-Trichloroethane	ND		1.0		ug/L			09/09/13 20:22	1
Tetrachloroethene	ND		1.0		ug/L			09/09/13 20:22	1
Dibromochloromethane	ND		1.0		ug/L			09/09/13 20:22	1
Chlorobenzene	ND		1.0		ug/L			09/09/13 20:22	1
Ethylbenzene	ND		1.0		ug/L			09/09/13 20:22	1
m-Xylene & p-Xylene	ND		2.0		ug/L			09/09/13 20:22	1
o-Xylene	ND		1.0		ug/L			09/09/13 20:22	1
Bromoform	ND		1.0		ug/L			09/09/13 20:22	1
1,1,2,2-Tetrachloroethane	ND		1.0		ug/L			09/09/13 20:22	1
1,3-Dichlorobenzene	ND		1.0		ug/L			09/09/13 20:22	1
1,4-Dichlorobenzene	ND		1.0		ug/L			09/09/13 20:22	1
1,2-Dichlorobenzene	ND		1.0		ug/L			09/09/13 20:22	1
TAH	ND		1.0		ug/L			09/09/13 20:22	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Trifluorotoluene (Surr)	*102*		*74 - 123*		*09/09/13 20:22*	*1*
Toluene-d8 (Surr)	*101*		*79 - 122*		*09/09/13 20:22*	*1*
Fluorobenzene (Surr)	*97*		*77 - 121*		*09/09/13 20:22*	*1*
Ethylbenzene-d10	*106*		*78 - 117*		*09/09/13 20:22*	*1*
4-Bromofluorobenzene (Surr)	*99*		*78 - 119*		*09/09/13 20:22*	*1*

Lab Sample ID: LCS 580-144457/28
Matrix: Water
Analysis Batch: 144457

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloromethane	20.1	19.8		ug/L		99	1 - 273
Vinyl chloride	20.1	21.0		ug/L		105	1 - 251

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-144457/28
Matrix: Water
Analysis Batch: 144457

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Bromomethane	20.1	21.7		ug/L		108	1 - 242
Chloroethane	20.1	20.7		ug/L		103	14 - 230
Trichlorofluoromethane	20.1	23.1		ug/L		115	17 - 181
1,1-Dichloroethene	20.1	21.6		ug/L		108	1 - 234
Methylene Chloride	20.1	21.2		ug/L		106	1 - 221
trans-1,2-Dichloroethene	20.1	20.9		ug/L		104	54 - 156
1,1-Dichloroethane	20.1	20.3		ug/L		101	59 - 155
Chloroform	20.1	20.5		ug/L		102	51 - 138
1,1,1-Trichloroethane	20.1	21.3		ug/L		106	52 - 162
Carbon tetrachloride	20.1	20.6		ug/L		103	70 - 140
Benzene	20.1	20.5		ug/L		102	37 - 151
1,2-Dichloroethane	20.1	20.2		ug/L		101	49 - 155
Trichloroethene	20.1	21.2		ug/L		106	71 - 157
1,2-Dichloropropane	20.1	20.5		ug/L		102	1 - 210
Bromodichloromethane	20.1	20.5		ug/L		102	35 - 155
cis-1,3-Dichloropropene	20.1	21.1		ug/L		105	1 - 227
Toluene	20.1	20.6		ug/L		103	47 - 150
trans-1,3-Dichloropropene	20.1	20.6		ug/L		103	17 - 183
1,1,2-Trichloroethane	20.1	20.5		ug/L		102	52 - 150
Tetrachloroethene	20.1	21.2		ug/L		106	64 - 148
Dibromochloromethane	20.1	19.7		ug/L		98	53 - 149
Chlorobenzene	20.1	19.4		ug/L		97	37 - 160
Ethylbenzene	20.1	20.7		ug/L		103	37 - 162
m-Xylene & p-Xylene	20.1	19.9		ug/L		99	78 - 114
o-Xylene	20.1	20.6		ug/L		103	77 - 116
Bromoform	20.1	17.9		ug/L		89	45 - 169
1,1,2,2-Tetrachloroethane	20.1	17.6		ug/L		88	46 - 157
1,3-Dichlorobenzene	20.1	20.2		ug/L		101	59 - 156
1,4-Dichlorobenzene	20.1	20.1		ug/L		100	18 - 190
1,2-Dichlorobenzene	20.1	20.0		ug/L		100	18 - 190
TAH	100	102		ug/L		102	

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Trifluorotoluene (Surr)	*106*		*74 - 123*
Toluene-d8 (Surr)	*101*		*79 - 122*
Fluorobenzene (Surr)	*99*		*77 - 121*
Ethylbenzene-d10	*102*		*78 - 117*
4-Bromofluorobenzene (Surr)	*101*		*78 - 119*

Lab Sample ID: LCSD 580-144457/29
Matrix: Water
Analysis Batch: 144457

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
Chloromethane	20.1	21.4		ug/L		107	1 - 273	8	30
Vinyl chloride	20.1	23.2		ug/L		116	1 - 251	10	30
Bromomethane	20.1	23.2		ug/L		116	1 - 242	7	30
Chloroethane	20.1	23.5		ug/L		117	14 - 230	13	30

Method: 624 - Volatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-144457/29
Matrix: Water
Analysis Batch: 144457

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
Trichlorofluoromethane			20.1	23.7		ug/L		118	17 - 181	2	30
1,1-Dichloroethene			20.1	24.3		ug/L		121	1 - 234	12	30
Methylene Chloride			20.1	22.3		ug/L		111	1 - 221	5	30
trans-1,2-Dichloroethene			20.1	22.8		ug/L		113	54 - 156	8	30
1,1-Dichloroethane			20.1	22.0		ug/L		110	59 - 155	8	30
Chloroform			20.1	22.2		ug/L		111	51 - 138	8	30
1,1,1-Trichloroethane			20.1	23.0		ug/L		115	52 - 162	8	30
Carbon tetrachloride			20.1	22.7		ug/L		113	70 - 140	10	30
Benzene			20.1	21.9		ug/L		109	37 - 151	6	30
1,2-Dichloroethane			20.1	21.2		ug/L		106	49 - 155	5	30
Trichloroethene			20.1	22.9		ug/L		114	71 - 157	8	30
1,2-Dichloropropane			20.1	21.5		ug/L		107	1 - 210	5	30
Bromodichloromethane			20.1	22.1		ug/L		110	35 - 155	8	30
cis-1,3-Dichloropropene			20.1	22.4		ug/L		112	1 - 227	6	30
Toluene			20.1	21.8		ug/L		109	47 - 150	6	30
trans-1,3-Dichloropropene			20.1	21.3		ug/L		106	17 - 183	4	30
1,1,2-Trichloroethane			20.1	21.3		ug/L		106	52 - 150	4	30
Tetrachloroethene			20.1	22.6		ug/L		112	64 - 148	6	30
Dibromochloromethane			20.1	20.7		ug/L		103	53 - 149	5	30
Chlorobenzene			20.1	20.4		ug/L		102	37 - 160	5	30
Ethylbenzene			20.1	22.1		ug/L		110	37 - 162	6	30
m-Xylene & p-Xylene			20.1	21.4		ug/L		107	78 - 114	7	30
o-Xylene			20.1	21.9		ug/L		109	77 - 116	6	30
Bromoform			20.1	18.9		ug/L		94	45 - 169	6	30
1,1,2,2-Tetrachloroethane			20.1	18.7		ug/L		93	46 - 157	6	30
1,3-Dichlorobenzene			20.1	21.8		ug/L		109	59 - 156	8	30
1,4-Dichlorobenzene			20.1	21.4		ug/L		107	18 - 190	6	30
1,2-Dichlorobenzene			20.1	21.1		ug/L		105	18 - 190	5	30
TAH			100	109		ug/L		109		6	

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Trifluorotoluene (Surr)	*112*		*74 - 123*
Toluene-d8 (Surr)	*101*		*79 - 122*
Fluorobenzene (Surr)	*99*		*77 - 121*
Ethylbenzene-d10	*102*		*78 - 117*
4-Bromofluorobenzene (Surr)	*102*		*78 - 119*

Method: 625 - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 580-144051/1-A
Matrix: Water
Analysis Batch: 144400

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 144051

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
1,2-Dichlorobenzene	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
1,3-Dichlorobenzene	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
1,4-Dichlorobenzene	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-144051/1-A
Matrix: Water
Analysis Batch: 144400

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 144051

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4,5-Trichlorophenol	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
2,4,6-Trichlorophenol	ND		0.60		ug/L		09/03/13 10:32	09/06/13 18:29	1
2,4-Dichlorophenol	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
2,4-Dimethylphenol	ND		2.0		ug/L		09/03/13 10:32	09/06/13 18:29	1
2,4-Dinitrophenol	ND		5.0		ug/L		09/03/13 10:32	09/06/13 18:29	1
2,4-Dinitrotoluene	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
2,6-Dinitrotoluene	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
2-Chloronaphthalene	ND		0.060		ug/L		09/03/13 10:32	09/06/13 18:29	1
2-Chlorophenol	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
2-Methylphenol	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
2-Nitrophenol	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
3,3'-Dichlorobenzidine	ND		2.0		ug/L		09/03/13 10:32	09/06/13 18:29	1
4,6-Dinitro-2-methylphenol	ND		4.0		ug/L		09/03/13 10:32	09/06/13 18:29	1
4-Bromophenyl phenyl ether	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
4-Chloro-3-methylphenol	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
4-Chlorophenyl phenyl ether	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
4-Nitrophenol	ND		3.0		ug/L		09/03/13 10:32	09/06/13 18:29	1
Acenaphthene	ND		0.10		ug/L		09/03/13 10:32	09/06/13 18:29	1
Acenaphthylene	ND		0.080		ug/L		09/03/13 10:32	09/06/13 18:29	1
Anthracene	ND		0.040		ug/L		09/03/13 10:32	09/06/13 18:29	1
2-Methylnaphthalene	ND		0.20		ug/L		09/03/13 10:32	09/06/13 18:29	1
Benzo[a]anthracene	ND		0.060		ug/L		09/03/13 10:32	09/06/13 18:29	1
Benzo[a]pyrene	ND		0.040		ug/L		09/03/13 10:32	09/06/13 18:29	1
Benzo[b]fluoranthene	ND		0.080		ug/L		09/03/13 10:32	09/06/13 18:29	1
Benzo[g,h,i]perylene	ND		0.060		ug/L		09/03/13 10:32	09/06/13 18:29	1
Benzo[k]fluoranthene	ND		0.060		ug/L		09/03/13 10:32	09/06/13 18:29	1
Bis(2-chloroethoxy)methane	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
Bis(2-chloroethyl)ether	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
Bis(2-ethylhexyl) phthalate	ND		3.0		ug/L		09/03/13 10:32	09/06/13 18:29	1
Butyl benzyl phthalate	ND		0.60		ug/L		09/03/13 10:32	09/06/13 18:29	1
Carbazole	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
Chrysene	ND		0.040		ug/L		09/03/13 10:32	09/06/13 18:29	1
n-Decane	ND		0.60		ug/L		09/03/13 10:32	09/06/13 18:29	1
Di-n-butyl phthalate	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
Di-n-octyl phthalate	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
Dibenz(a,h)anthracene	ND		0.060		ug/L		09/03/13 10:32	09/06/13 18:29	1
Dibenzofuran	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
Diethyl phthalate	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
Dimethyl phthalate	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
Fluoranthene	ND		0.050		ug/L		09/03/13 10:32	09/06/13 18:29	1
Fluorene	ND		0.060		ug/L		09/03/13 10:32	09/06/13 18:29	1
Hexachlorobenzene	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
Hexachlorobutadiene	ND		0.60		ug/L		09/03/13 10:32	09/06/13 18:29	1
Hexachlorocyclopentadiene	ND		2.0		ug/L		09/03/13 10:32	09/06/13 18:29	1
Hexachloroethane	ND		0.60		ug/L		09/03/13 10:32	09/06/13 18:29	1
Indeno[1,2,3-cd]pyrene	ND		0.060		ug/L		09/03/13 10:32	09/06/13 18:29	1
Isophorone	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
N-Nitrosodimethylamine	ND		2.0		ug/L		09/03/13 10:32	09/06/13 18:29	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-144051/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 144400 — **Prep Batch: 144051**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
N-Nitrosodiphenylamine	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
Octadecane	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
Naphthalene	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
Nitrobenzene	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
Pentachlorophenol	ND		0.70		ug/L		09/03/13 10:32	09/06/13 18:29	1
Phenanthrene	ND		0.080		ug/L		09/03/13 10:32	09/06/13 18:29	1
Phenol	ND		0.60		ug/L		09/03/13 10:32	09/06/13 18:29	1
Pyrene	ND		0.060		ug/L		09/03/13 10:32	09/06/13 18:29	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		1.0		ug/L		09/03/13 10:32	09/06/13 18:29	1
bis (2-chloroisopropyl) ether	ND		0.40		ug/L		09/03/13 10:32	09/06/13 18:29	1
1-Methylnaphthalene	ND		0.060		ug/L		09/03/13 10:32	09/06/13 18:29	1
TPAH	ND		0.040		ug/L		09/03/13 10:32	09/06/13 18:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*67*		*47 - 137*	*09/03/13 10:32*	*09/06/13 18:29*	*1*
2-Fluorobiphenyl	*77*		*56 - 124*	*09/03/13 10:32*	*09/06/13 18:29*	*1*
2-Fluorophenol	*74*		*20 - 122*	*09/03/13 10:32*	*09/06/13 18:29*	*1*
Nitrobenzene-d5	*78*		*59 - 123*	*09/03/13 10:32*	*09/06/13 18:29*	*1*
Phenol-d5	*64*		*20 - 123*	*09/03/13 10:32*	*09/06/13 18:29*	*1*
Terphenyl-d14	*99*		*60 - 135*	*09/03/13 10:32*	*09/06/13 18:29*	*1*

Lab Sample ID: LCS 580-144051/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 144400 — **Prep Batch: 144051**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	2.00	1.69		ug/L		84	44 - 142
1,2-Dichlorobenzene	2.00	1.65		ug/L		83	32 - 129
1,3-Dichlorobenzene	2.00	1.58		ug/L		79	1 - 172
1,4-Dichlorobenzene	2.00	1.61		ug/L		81	20 - 124
2,4,5-Trichlorophenol	2.00	1.89		ug/L		94	50 - 150
2,4,6-Trichlorophenol	1.99	1.90		ug/L		96	37 - 144
2,4-Dichlorophenol	1.98	1.80		ug/L		91	39 - 135
2,4-Dimethylphenol	1.98	ND		ug/L		71	32 - 119
2,4-Dinitrophenol	9.87	7.74		ug/L		78	1 - 191
2,4-Dinitrotoluene	2.00	2.22		ug/L		111	39 - 139
2,6-Dinitrotoluene	2.00	2.03		ug/L		102	50 - 158
2-Chloronaphthalene	2.00	1.75		ug/L		87	60 - 118
2-Chlorophenol	1.98	1.89		ug/L		96	23 - 134
2-Methylphenol	2.00	1.76		ug/L		88	44 - 113
2-Nitrophenol	1.98	1.85		ug/L		94	29 - 182
3,3'-Dichlorobenzidine	3.97	2.71		ug/L		68	1 - 262
4,6-Dinitro-2-methylphenol	9.95	9.13		ug/L		92	1 - 181
4-Bromophenyl phenyl ether	2.00	2.00		ug/L		100	53 - 127
4-Chloro-3-methylphenol	2.04	1.92		ug/L		94	22 - 147
4-Chlorophenyl phenyl ether	2.00	1.86		ug/L		93	25 - 158
4-Nitrophenol	10.1	9.87		ug/L		98	1 - 132

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-144051/2-A
Matrix: Water
Analysis Batch: 144400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 144051

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Acenaphthene	2.00	1.81		ug/L		90	47 - 145
Acenaphthylene	2.00	1.88		ug/L		94	33 - 145
Anthracene	2.00	1.66		ug/L		83	27 - 133
2-Methylnaphthalene	2.00	1.81		ug/L		91	20 - 150
Benzo[a]anthracene	2.00	1.96		ug/L		98	33 - 143
Benzo[a]pyrene	2.00	1.56		ug/L		78	17 - 163
Benzo[b]fluoranthene	2.00	2.27		ug/L		114	24 - 159
Benzo[g,h,i]perylene	2.00	2.05		ug/L		103	1 - 219
Benzo[k]fluoranthene	2.00	2.17		ug/L		108	11 - 162
Bis(2-chloroethoxy)methane	2.00	1.93		ug/L		96	33 - 184
Bis(2-chloroethyl)ether	2.00	1.80		ug/L		90	12 - 158
Bis(2-ethylhexyl) phthalate	1.99	5.08	*	ug/L		255	8 - 158
Butyl benzyl phthalate	2.00	2.15		ug/L		107	1 - 152
Carbazole	2.00	2.09		ug/L		104	45 - 135
Chrysene	1.93	1.92		ug/L		100	17 - 168
n-Decane	1.99	1.60		ug/L		81	20 - 150
Di-n-butyl phthalate	2.00	2.28		ug/L		114	1 - 118
Di-n-octyl phthalate	2.00	1.79		ug/L		90	4 - 146
Dibenz(a,h)anthracene	2.00	1.98		ug/L		99	1 - 227
Dibenzofuran	2.00	1.89		ug/L		94	50 - 150
Diethyl phthalate	2.01	2.08		ug/L		103	1 - 114
Dimethyl phthalate	2.00	2.17		ug/L		108	1 - 112
Fluoranthene	2.00	2.10		ug/L		105	26 - 137
Fluorene	2.02	1.99		ug/L		98	59 - 121
Hexachlorobenzene	2.00	1.77		ug/L		89	1 - 152
Hexachlorobutadiene	2.00	1.48		ug/L		74	24 - 116
Hexachlorocyclopentadiene	2.00	ND		ug/L		49	20 - 150
Hexachloroethane	2.00	1.38		ug/L		69	40 - 113
Indeno[1,2,3-cd]pyrene	2.01	2.04		ug/L		101	1 - 171
Isophorone	2.00	1.88		ug/L		94	21 - 196
N-Nitrosodimethylamine	9.93	7.56		ug/L		76	20 - 150
N-Nitrosodiphenylamine	2.00	1.94		ug/L		97	50 - 150
Octadecane	1.99	1.80		ug/L		90	20 - 150
Naphthalene	2.01	1.79		ug/L		89	21 - 133
Nitrobenzene	2.01	1.84		ug/L		92	35 - 180
Pentachlorophenol	1.97	1.10		ug/L		56	14 - 176
Phenanthrene	2.01	1.90		ug/L		94	54 - 120
Phenol	2.03	1.61		ug/L		80	5 - 112
Pyrene	2.00	2.01		ug/L		101	52 - 115
1,2-Diphenylhydrazine (as Azobenzene)	1.99	1.96		ug/L		98	20 - 150
bis (2-chloroisopropyl) ether	2.00	1.82		ug/L		91	36 - 166
1-Methylnaphthalene	2.01	1.88		ug/L		93	20 - 150
TPAH	32.0	31.1		ug/L		97	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*93*		*47 - 137*
2-Fluorobiphenyl	*83*		*56 - 124*

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-144051/2-A
Matrix: Water
Analysis Batch: 144400

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 144051

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2-Fluorophenol	*79*		*20 - 122*
Nitrobenzene-d5	*93*		*59 - 123*
Phenol-d5	*82*		*20 - 123*
Terphenyl-d14	*98*		*60 - 135*

Lab Sample ID: LCSD 580-144051/3-A
Matrix: Water
Analysis Batch: 144400

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 144051

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene	2.00	1.72		ug/L		86	44 - 142	2	50
1,2-Dichlorobenzene	2.00	1.80		ug/L		90	32 - 129	9	50
1,3-Dichlorobenzene	2.00	1.79		ug/L		89	1 - 172	12	50
1,4-Dichlorobenzene	2.00	1.66		ug/L		83	20 - 124	3	50
2,4,5-Trichlorophenol	2.00	2.11		ug/L		105	50 - 150	11	50
2,4,6-Trichlorophenol	1.99	2.05		ug/L		103	37 - 144	8	50
2,4-Dichlorophenol	1.98	1.94		ug/L		98	39 - 135	7	50
2,4-Dimethylphenol	1.98	ND		ug/L		76	32 - 119	7	50
2,4-Dinitrophenol	9.87	8.28		ug/L		84	1 - 191	7	50
2,4-Dinitrotoluene	2.00	2.41		ug/L		120	39 - 139	8	50
2,6-Dinitrotoluene	2.00	2.12		ug/L		106	50 - 158	4	50
2-Chloronaphthalene	2.00	1.81		ug/L		91	60 - 118	3	50
2-Chlorophenol	1.98	1.99		ug/L		101	23 - 134	5	50
2-Methylphenol	2.00	1.73		ug/L		86	44 - 113	2	50
2-Nitrophenol	1.98	1.89		ug/L		95	29 - 182	2	50
3,3'-Dichlorobenzidine	3.97	2.71		ug/L		68	1 - 262	0	50
4,6-Dinitro-2-methylphenol	9.95	10.4		ug/L		104	1 - 181	13	50
4-Bromophenyl phenyl ether	2.00	2.17		ug/L		108	53 - 127	8	50
4-Chloro-3-methylphenol	2.04	2.07		ug/L		101	22 - 147	7	50
4-Chlorophenyl phenyl ether	2.00	1.99		ug/L		100	25 - 158	7	50
4-Nitrophenol	10.1	9.85		ug/L		98	1 - 132	0	50
Acenaphthene	2.00	1.92		ug/L		96	47 - 145	6	50
Acenaphthylene	2.00	1.98		ug/L		99	33 - 145	5	50
Anthracene	2.00	1.70		ug/L		85	27 - 133	3	50
2-Methylnaphthalene	2.00	1.88		ug/L		94	20 - 150	4	50
Benzo[a]anthracene	2.00	1.95		ug/L		97	33 - 143	1	50
Benzo[a]pyrene	2.00	1.72		ug/L		86	17 - 163	9	50
Benzo[b]fluoranthene	2.00	2.40		ug/L		120	24 - 159	5	50
Benzo[g,h,i]perylene	2.00	2.10		ug/L		105	1 - 219	2	50
Benzo[k]fluoranthene	2.00	2.33		ug/L		116	11 - 162	7	50
Bis(2-chloroethoxy)methane	2.00	2.01		ug/L		100	33 - 184	4	50
Bis(2-chloroethyl)ether	2.00	1.83		ug/L		91	12 - 158	2	50
Bis(2-ethylhexyl) phthalate	1.99	ND	*	ug/L		124	8 - 158	69	50
Butyl benzyl phthalate	2.00	2.24		ug/L		112	1 - 152	4	50
Carbazole	2.00	2.33		ug/L		116	45 - 135	11	50
Chrysene	1.93	1.98		ug/L		103	17 - 168	3	50
n-Decane	1.99	1.70		ug/L		85	20 - 150	6	50
Di-n-butyl phthalate	2.00	2.42	*	ug/L		121	1 - 118	6	50

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-144051/3-A
Matrix: Water
Analysis Batch: 144400

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 144051

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Di-n-octyl phthalate	2.00	2.07		ug/L		103	4 - 146	14	50
Dibenz(a,h)anthracene	2.00	2.11		ug/L		105	1 - 227	6	50
Dibenzofuran	2.00	1.97		ug/L		98	50 - 150	4	50
Diethyl phthalate	2.01	2.25		ug/L		112	1 - 114	8	50
Dimethyl phthalate	2.00	2.30	*	ug/L		115	1 - 112	6	50
Fluoranthene	2.00	2.23		ug/L		111	26 - 137	6	50
Fluorene	2.02	2.13		ug/L		106	59 - 121	7	50
Hexachlorobenzene	2.00	1.90		ug/L		95	1 - 152	7	50
Hexachlorobutadiene	2.00	1.59		ug/L		80	24 - 116	8	50
Hexachlorocyclopentadiene	2.00	ND		ug/L		54	20 - 150	11	50
Hexachloroethane	2.00	1.59		ug/L		80	40 - 113	14	50
Indeno[1,2,3-cd]pyrene	2.01	2.17		ug/L		108	1 - 171	6	50
Isophorone	2.00	1.96		ug/L		98	21 - 196	4	50
N-Nitrosodimethylamine	9.93	7.76		ug/L		78	20 - 150	3	50
N-Nitrosodiphenylamine	2.00	2.11		ug/L		105	50 - 150	8	50
Octadecane	1.99	2.02		ug/L		101	20 - 150	12	50
Naphthalene	2.01	1.87		ug/L		93	21 - 133	4	50
Nitrobenzene	2.01	1.93		ug/L		96	35 - 180	5	50
Pentachlorophenol	1.97	1.34		ug/L		68	14 - 176	20	50
Phenanthrene	2.01	2.04		ug/L		102	54 - 120	7	50
Phenol	2.03	1.74		ug/L		86	5 - 112	8	50
Pyrene	2.00	2.13		ug/L		107	52 - 115	6	50
1,2-Diphenylhydrazine (as Azobenzene)	1.99	2.05		ug/L		103	20 - 150	5	50
bis (2-chloroisopropyl) ether	2.00	1.84		ug/L		92	36 - 166	1	50
1-Methylnaphthalene	2.01	1.93		ug/L		96	20 - 150	3	50
TPAH	32.0	32.8		ug/L		102	50 - 150	5	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*100*		*47 - 137*
2-Fluorobiphenyl	*86*		*56 - 124*
2-Fluorophenol	*89*		*20 - 122*
Nitrobenzene-d5	*100*		*59 - 123*
Phenol-d5	*89*		*20 - 123*
Terphenyl-d14	*106*		*60 - 135*

Lab Sample ID: MB 580-144300/1-A
Matrix: Water
Analysis Batch: 144719

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 144300

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
1,2-Dichlorobenzene	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
1,3-Dichlorobenzene	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
1,4-Dichlorobenzene	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
2,4,5-Trichlorophenol	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
2,4,6-Trichlorophenol	ND		0.60		ug/L		09/05/13 17:15	09/11/13 18:57	1
2,4-Dichlorophenol	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-144300/1-A
Matrix: Water
Analysis Batch: 144719

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 144300

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2,4-Dimethylphenol	ND		2.0		ug/L		09/05/13 17:15	09/11/13 18:57	1
2,4-Dinitrophenol	ND		5.0		ug/L		09/05/13 17:15	09/11/13 18:57	1
2,4-Dinitrotoluene	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
2,6-Dinitrotoluene	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
2-Chloronaphthalene	ND		0.060		ug/L		09/05/13 17:15	09/11/13 18:57	1
2-Chlorophenol	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
2-Methylphenol	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
2-Nitrophenol	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
3,3'-Dichlorobenzidine	ND		2.0		ug/L		09/05/13 17:15	09/11/13 18:57	1
4,6-Dinitro-2-methylphenol	ND		4.0		ug/L		09/05/13 17:15	09/11/13 18:57	1
4-Bromophenyl phenyl ether	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
4-Chloro-3-methylphenol	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
4-Chlorophenyl phenyl ether	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
4-Nitrophenol	ND		3.0		ug/L		09/05/13 17:15	09/11/13 18:57	1
Acenaphthene	ND		0.10		ug/L		09/05/13 17:15	09/11/13 18:57	1
Acenaphthylene	ND		0.080		ug/L		09/05/13 17:15	09/11/13 18:57	1
Anthracene	ND		0.040		ug/L		09/05/13 17:15	09/11/13 18:57	1
2-Methylnaphthalene	ND		0.20		ug/L		09/05/13 17:15	09/11/13 18:57	1
Benzo[a]anthracene	ND		0.060		ug/L		09/05/13 17:15	09/11/13 18:57	1
Benzo[a]pyrene	ND		0.040		ug/L		09/05/13 17:15	09/11/13 18:57	1
Benzo[b]fluoranthene	ND	^	0.080		ug/L		09/05/13 17:15	09/11/13 18:57	1
Benzo[g,h,i]perylene	ND		0.060		ug/L		09/05/13 17:15	09/11/13 18:57	1
Benzo[k]fluoranthene	ND		0.060		ug/L		09/05/13 17:15	09/11/13 18:57	1
Bis(2-chloroethoxy)methane	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
Bis(2-chloroethyl)ether	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
Bis(2-ethylhexyl) phthalate	ND		3.0		ug/L		09/05/13 17:15	09/11/13 18:57	1
Butyl benzyl phthalate	ND		0.60		ug/L		09/05/13 17:15	09/11/13 18:57	1
Carbazole	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
Chrysene	ND		0.040		ug/L		09/05/13 17:15	09/11/13 18:57	1
n-Decane	ND		0.60		ug/L		09/05/13 17:15	09/11/13 18:57	1
Di-n-butyl phthalate	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
Di-n-octyl phthalate	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
Dibenz(a,h)anthracene	ND		0.060		ug/L		09/05/13 17:15	09/11/13 18:57	1
Dibenzofuran	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
Diethyl phthalate	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
Dimethyl phthalate	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
Fluoranthene	ND		0.050		ug/L		09/05/13 17:15	09/11/13 18:57	1
Fluorene	ND		0.060		ug/L		09/05/13 17:15	09/11/13 18:57	1
Hexachlorobenzene	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
Hexachlorobutadiene	ND		0.60		ug/L		09/05/13 17:15	09/11/13 18:57	1
Hexachlorocyclopentadiene	ND		2.0		ug/L		09/05/13 17:15	09/11/13 18:57	1
Hexachloroethane	ND		0.60		ug/L		09/05/13 17:15	09/11/13 18:57	1
Indeno[1,2,3-cd]pyrene	ND		0.060		ug/L		09/05/13 17:15	09/11/13 18:57	1
Isophorone	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
N-Nitrosodimethylamine	ND		2.0		ug/L		09/05/13 17:15	09/11/13 18:57	1
N-Nitrosodiphenylamine	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
Octadecane	0.505		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
Naphthalene	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 580-144300/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 144719 — **Prep Batch: 144300**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nitrobenzene	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
Pentachlorophenol	ND		0.70		ug/L		09/05/13 17:15	09/11/13 18:57	1
Phenanthrene	ND		0.080		ug/L		09/05/13 17:15	09/11/13 18:57	1
Phenol	ND		0.60		ug/L		09/05/13 17:15	09/11/13 18:57	1
Pyrene	ND		0.060		ug/L		09/05/13 17:15	09/11/13 18:57	1
1,2-Diphenylhydrazine (as Azobenzene)	ND		1.0		ug/L		09/05/13 17:15	09/11/13 18:57	1
bis (2-chloroisopropyl) ether	ND		0.40		ug/L		09/05/13 17:15	09/11/13 18:57	1
1-Methylnaphthalene	ND		0.060		ug/L		09/05/13 17:15	09/11/13 18:57	1
TPAH	ND		0.040		ug/L		09/05/13 17:15	09/11/13 18:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4,6-Tribromophenol	*79*		*47 - 137*	*09/05/13 17:15*	*09/11/13 18:57*	*1*
2-Fluorobiphenyl	*74*		*56 - 124*	*09/05/13 17:15*	*09/11/13 18:57*	*1*
2-Fluorophenol	*70*		*20 - 122*	*09/05/13 17:15*	*09/11/13 18:57*	*1*
Nitrobenzene-d5	*86*		*59 - 123*	*09/05/13 17:15*	*09/11/13 18:57*	*1*
Phenol-d5	*73*		*20 - 123*	*09/05/13 17:15*	*09/11/13 18:57*	*1*
Terphenyl-d14	*102*		*60 - 135*	*09/05/13 17:15*	*09/11/13 18:57*	*1*

Lab Sample ID: LCS 580-144300/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 144719 — **Prep Batch: 144300**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,2,4-Trichlorobenzene	2.00	1.53		ug/L		77	44 - 142
1,2-Dichlorobenzene	2.00	1.57		ug/L		78	32 - 129
1,3-Dichlorobenzene	2.00	1.55		ug/L		78	1 - 172
1,4-Dichlorobenzene	2.00	1.44		ug/L		72	20 - 124
2,4,5-Trichlorophenol	2.00	2.19		ug/L		109	50 - 150
2,4,6-Trichlorophenol	1.99	2.11		ug/L		106	37 - 144
2,4-Dichlorophenol	1.98	1.80		ug/L		91	39 - 135
2,4-Dimethylphenol	1.98	2.09		ug/L		106	32 - 119
2,4-Dinitrophenol	9.87	7.54		ug/L		76	1 - 191
2,4-Dinitrotoluene	2.00	2.38		ug/L		119	39 - 139
2,6-Dinitrotoluene	2.00	2.16		ug/L		108	50 - 158
2-Chloronaphthalene	2.00	1.77		ug/L		89	60 - 118
2-Chlorophenol	1.98	1.84		ug/L		93	23 - 134
2-Methylphenol	2.00	1.73		ug/L		87	44 - 113
2-Nitrophenol	1.98	1.73		ug/L		88	29 - 182
3,3'-Dichlorobenzidine	3.97	2.52		ug/L		64	1 - 262
4,6-Dinitro-2-methylphenol	9.95	10.0		ug/L		101	1 - 181
4-Bromophenyl phenyl ether	2.00	2.25		ug/L		112	53 - 127
4-Chloro-3-methylphenol	2.04	2.03		ug/L		100	22 - 147
4-Chlorophenyl phenyl ether	2.00	2.03		ug/L		102	25 - 158
4-Nitrophenol	10.1	10.2		ug/L		101	1 - 132
Acenaphthene	2.00	1.94		ug/L		97	47 - 145
Acenaphthylene	2.00	2.07		ug/L		103	33 - 145
Anthracene	2.00	2.19		ug/L		110	27 - 133

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-144300/2-A
Matrix: Water
Analysis Batch: 144719

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 144300

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
2-Methylnaphthalene	2.00	1.74		ug/L		87	20 - 150
Benzo[a]anthracene	2.00	2.22		ug/L		111	33 - 143
Benzo[a]pyrene	2.00	2.08		ug/L		104	17 - 163
Benzo[b]fluoranthene	2.00	2.47	^	ug/L		123	24 - 159
Benzo[g,h,i]perylene	2.00	2.20		ug/L		110	1 - 219
Benzo[k]fluoranthene	2.00	2.32		ug/L		116	11 - 162
Bis(2-chloroethoxy)methane	2.00	1.89		ug/L		94	33 - 184
Bis(2-chloroethyl)ether	2.00	1.47		ug/L		74	12 - 158
Bis(2-ethylhexyl) phthalate	1.99	4.15	*	ug/L		208	8 - 158
Butyl benzyl phthalate	2.00	2.83		ug/L		141	1 - 152
Carbazole	2.00	2.45		ug/L		122	45 - 135
Chrysene	1.93	2.13		ug/L		111	17 - 168
n-Decane	1.99	1.54		ug/L		77	20 - 150
Di-n-butyl phthalate	2.00	2.75	*	ug/L		137	1 - 118
Di-n-octyl phthalate	2.00	2.23		ug/L		111	4 - 146
Dibenz(a,h)anthracene	2.00	2.11		ug/L		106	1 - 227
Dibenzofuran	2.00	1.99		ug/L		99	50 - 150
Diethyl phthalate	2.01	2.49	*	ug/L		124	1 - 114
Dimethyl phthalate	2.00	2.50	*	ug/L		125	1 - 112
Fluoranthene	2.00	2.36		ug/L		118	26 - 137
Fluorene	2.02	2.12		ug/L		105	59 - 121
Hexachlorobenzene	2.00	2.08		ug/L		104	1 - 152
Hexachlorobutadiene	2.00	1.42		ug/L		71	24 - 116
Hexachlorocyclopentadiene	2.00	ND		ug/L		49	20 - 150
Hexachloroethane	2.00	1.36		ug/L		68	40 - 113
Indeno[1,2,3-cd]pyrene	2.01	2.22		ug/L		110	1 - 171
Isophorone	2.00	2.02		ug/L		101	21 - 196
N-Nitrosodimethylamine	9.93	7.11		ug/L		72	20 - 150
N-Nitrosodiphenylamine	2.00	2.46		ug/L		123	50 - 150
Octadecane	1.99	2.70		ug/L		135	20 - 150
Naphthalene	2.01	1.68		ug/L		83	21 - 133
Nitrobenzene	2.01	1.80		ug/L		90	35 - 180
Pentachlorophenol	1.97	1.67		ug/L		85	14 - 176
Phenanthrene	2.01	2.18		ug/L		108	54 - 120
Phenol	2.03	1.88		ug/L		93	5 - 112
Pyrene	2.00	2.30		ug/L		115	52 - 115
1,2-Diphenylhydrazine (as Azobenzene)	1.99	2.15		ug/L		108	20 - 150
bis (2-chloroisopropyl) ether	2.00	1.67		ug/L		84	36 - 166
1-Methylnaphthalene	2.01	1.86		ug/L		93	20 - 150
TPAH	32.0	34.6		ug/L		108	50 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4,6-Tribromophenol	*104*		*47 - 137*
2-Fluorobiphenyl	*85*		*56 - 124*
2-Fluorophenol	*72*		*20 - 122*
Nitrobenzene-d5	*89*		*59 - 123*
Phenol-d5	*78*		*20 - 123*

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCS 580-144300/2-A
Matrix: Water
Analysis Batch: 144719

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 144300

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Terphenyl-d14	110		60 - 135

Lab Sample ID: LCSD 580-144300/3-A
Matrix: Water
Analysis Batch: 144719

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 144300

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
1,2,4-Trichlorobenzene			2.00	1.64		ug/L		82	44 - 142	6	50
1,2-Dichlorobenzene			2.00	1.69		ug/L		84	32 - 129	7	50
1,3-Dichlorobenzene			2.00	1.61		ug/L		81	1 - 172	4	50
1,4-Dichlorobenzene			2.00	1.55		ug/L		77	20 - 124	7	50
2,4,5-Trichlorophenol			2.00	2.14		ug/L		107	50 - 150	2	50
2,4,6-Trichlorophenol			1.99	2.14		ug/L		108	37 - 144	1	50
2,4-Dichlorophenol			1.98	1.76		ug/L		89	39 - 135	2	50
2,4-Dimethylphenol			1.98	ND		ug/L		96	32 - 119	9	50
2,4-Dinitrophenol			9.87	7.39		ug/L		75	1 - 191	2	50
2,4-Dinitrotoluene			2.00	2.35		ug/L		117	39 - 139	1	50
2,6-Dinitrotoluene			2.00	2.20		ug/L		110	50 - 158	2	50
2-Chloronaphthalene			2.00	1.82		ug/L		91	60 - 118	2	50
2-Chlorophenol			1.98	1.89		ug/L		96	23 - 134	3	50
2-Methylphenol			2.00	1.79		ug/L		90	44 - 113	3	50
2-Nitrophenol			1.98	1.64		ug/L		83	29 - 182	6	50
3,3'-Dichlorobenzidine			3.97	2.87		ug/L		72	1 - 262	13	50
4,6-Dinitro-2-methylphenol			9.95	9.15		ug/L		92	1 - 181	9	50
4-Bromophenyl phenyl ether			2.00	2.18		ug/L		109	53 - 127	3	50
4-Chloro-3-methylphenol			2.04	1.92		ug/L		94	22 - 147	5	50
4-Chlorophenyl phenyl ether			2.00	2.03		ug/L		102	25 - 158	0	50
4-Nitrophenol			10.1	10.4		ug/L		103	1 - 132	2	50
Acenaphthene			2.00	1.98		ug/L		99	47 - 145	2	50
Acenaphthylene			2.00	2.02		ug/L		101	33 - 145	2	50
Anthracene			2.00	1.95		ug/L		97	27 - 133	12	50
2-Methylnaphthalene			2.00	1.71		ug/L		85	20 - 150	2	50
Benzo[a]anthracene			2.00	2.12		ug/L		106	33 - 143	5	50
Benzo[a]pyrene			2.00	2.06		ug/L		103	17 - 163	1	50
Benzo[b]fluoranthene			2.00	2.24	^	ug/L		112	24 - 159	10	50
Benzo[g,h,i]perylene			2.00	2.12		ug/L		106	1 - 219	4	50
Benzo[k]fluoranthene			2.00	2.11		ug/L		106	11 - 162	10	50
Bis(2-chloroethoxy)methane			2.00	2.05		ug/L		102	33 - 184	8	50
Bis(2-chloroethyl)ether			2.00	1.56		ug/L		78	12 - 158	6	50
Bis(2-ethylhexyl) phthalate			1.99	6.23	*	ug/L		312	8 - 158	40	50
Butyl benzyl phthalate			2.00	2.57		ug/L		128	1 - 152	10	50
Carbazole			2.00	2.29		ug/L		115	45 - 135	6	50
Chrysene			1.93	1.99		ug/L		103	17 - 168	7	50
n-Decane			1.99	1.57		ug/L		79	20 - 150	2	50
Di-n-butyl phthalate			2.00	2.50	*	ug/L		125	1 - 118	9	50
Di-n-octyl phthalate			2.00	2.11		ug/L		105	4 - 146	5	50
Dibenz(a,h)anthracene			2.00	2.07		ug/L		104	1 - 227	2	50
Dibenzofuran			2.00	2.00		ug/L		100	50 - 150	1	50

Method: 625 - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: LCSD 580-144300/3-A
Matrix: Water
Analysis Batch: 144719

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 144300

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diethyl phthalate	2.01	2.26		ug/L		112	1 - 114	10	50
Dimethyl phthalate	2.00	2.40	*	ug/L		120	1 - 112	4	50
Fluoranthene	2.00	2.21		ug/L		110	26 - 137	7	50
Fluorene	2.02	2.17		ug/L		107	59 - 121	2	50
Hexachlorobenzene	2.00	1.90		ug/L		95	1 - 152	9	50
Hexachlorobutadiene	2.00	1.47		ug/L		74	24 - 116	4	50
Hexachlorocyclopentadiene	2.00	ND		ug/L		57	20 - 150	15	50
Hexachloroethane	2.00	1.44		ug/L		72	40 - 113	6	50
Indeno[1,2,3-cd]pyrene	2.01	2.12		ug/L		105	1 - 171	5	50
Isophorone	2.00	2.01		ug/L		101	21 - 196	0	50
N-Nitrosodimethylamine	9.93	6.90		ug/L		69	20 - 150	3	50
N-Nitrosodiphenylamine	2.00	2.39		ug/L		120	50 - 150	3	50
Octadecane	1.99	2.52		ug/L		126	20 - 150	7	50
Naphthalene	2.01	1.77		ug/L		88	21 - 133	5	50
Nitrobenzene	2.01	1.90		ug/L		95	35 - 180	5	50
Pentachlorophenol	1.97	1.43		ug/L		73	14 - 176	16	50
Phenanthrene	2.01	2.06		ug/L		102	54 - 120	6	50
Phenol	2.03	1.73		ug/L		85	5 - 112	8	50
Pyrene	2.00	2.12		ug/L		106	52 - 115	8	50
1,2-Diphenylhydrazine (as Azobenzene)	1.99	2.05		ug/L		103	20 - 150	5	50
bis (2-chloroisopropyl) ether	2.00	1.73		ug/L		87	36 - 166	3	50
1-Methylnaphthalene	2.01	1.91		ug/L		95	20 - 150	2	50
TPAH	32.0	33.1		ug/L		104	50 - 150	4	50

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4,6-Tribromophenol	*97*		*47 - 137*
2-Fluorobiphenyl	*90*		*56 - 124*
2-Fluorophenol	*85*		*20 - 122*
Nitrobenzene-d5	*91*		*59 - 123*
Phenol-d5	*82*		*20 - 123*
Terphenyl-d14	*105*		*60 - 135*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC)

Lab Sample ID: MB 580-144589/1-A
Matrix: Water
Analysis Batch: 144568

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 144589

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		0.10		mg/L		09/10/13 10:09	09/10/13 16:27	1
RRO (nC25-nC36)	ND		0.10		mg/L		09/10/13 10:09	09/10/13 16:27	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*68*		*50 - 150*	*09/10/13 10:09*	*09/10/13 16:27*	*1*
n-Triacontane-d62	*72*		*50 - 150*	*09/10/13 10:09*	*09/10/13 16:27*	*1*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC) (Continued)

Lab Sample ID: LCS 580-144589/2-A
Matrix: Water
Analysis Batch: 144568

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 144589

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (nC10-<nC25)			0.500	0.322	*	mg/L		64	75 - 125		
RRO (nC25-nC36)			0.500	0.410		mg/L		82	60 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*67*		*50 - 150*
n-Triacontane-d62	*63*		*50 - 150*

Lab Sample ID: LCSD 580-144589/3-A
Matrix: Water
Analysis Batch: 144568

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 144589

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (nC10-<nC25)			0.500	0.358	*	mg/L		72	75 - 125	11	20
RRO (nC25-nC36)			0.500	0.453		mg/L		91	60 - 120	10	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*71*		*50 - 150*
n-Triacontane-d62	*67*		*50 - 150*

Lab Sample ID: MB 580-144764/1-A
Matrix: Water
Analysis Batch: 144769

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 144764

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
DRO (nC10-<nC25)	ND		0.10		mg/L		09/12/13 08:30	09/12/13 14:57	1
RRO (nC25-nC36)	ND		0.10		mg/L		09/12/13 08:30	09/12/13 14:57	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*81*		*50 - 150*	*09/12/13 08:30*	*09/12/13 14:57*	*1*
n-Triacontane-d62	*70*		*50 - 150*	*09/12/13 08:30*	*09/12/13 14:57*	*1*

Lab Sample ID: LCS 580-144764/2-A
Matrix: Water
Analysis Batch: 144769

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 144764

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
DRO (nC10-<nC25)			0.500	0.434		mg/L		87	75 - 125		
RRO (nC25-nC36)			0.500	0.428		mg/L		86	60 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*89*		*50 - 150*
n-Triacontane-d62	*76*		*50 - 150*

Method: AK102 & 103 - Alaska - Diesel Range Organics & Residual Range Organics (GC) (Continued)

Lab Sample ID: LCSD 580-144764/3-A
Matrix: Water
Analysis Batch: 144769

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 144764

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
DRO (nC10-<nC25)			0.500	0.447		mg/L		89	75 - 125	3	20
RRO (nC25-nC36)			0.500	0.439		mg/L		88	60 - 120	3	20

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*91*		*50 - 150*
n-Triacontane-d62	*79*		*50 - 150*

Lab Chronicle

Client: Carson Dorn, Inc
Project/Site: MWWTP Juneau, AK

TestAmerica Job ID: 580-40019-1

Client Sample ID: MW-1

Lab Sample ID: 580-40019-1

Date Collected: 08/27/13 12:05

Matrix: Water

Date Received: 08/28/13 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	144457	09/10/13 00:51	EB1	TAL SEA
Total/NA	Analysis	TAqH		1	145251	09/18/13 12:53	PRJ	TAL SEA
Total/NA	Prep	CWA_Prep			144051	09/03/13 10:32	ALC	TAL SEA
Total/NA	Analysis	625		1	144400	09/06/13 22:26	ERB	TAL SEA
Total/NA	Prep	3510C			144589	09/10/13 10:09	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	144568	09/10/13 16:44	JL1	TAL SEA
Total/NA	Prep	3510C	RE		144764	09/12/13 08:30	EKK	TAL SEA
Total/NA	Analysis	AK102 & 103	RE	1	144769	09/12/13 15:15	JL1	TAL SEA

Client Sample ID: MW-2

Lab Sample ID: 580-40019-2

Date Collected: 08/27/13 11:00

Matrix: Water

Date Received: 08/28/13 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	144457	09/10/13 01:20	EB1	TAL SEA
Total/NA	Analysis	TAqH		1	145251	09/18/13 12:53	PRJ	TAL SEA
Total/NA	Prep	CWA_Prep			144300	09/05/13 17:15	ALC	TAL SEA
Total/NA	Analysis	625		1	144719	09/11/13 20:16	ERB	TAL SEA
Total/NA	Prep	3510C			144589	09/10/13 10:09	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	144568	09/10/13 17:02	JL1	TAL SEA

Client Sample ID: MW-11

Lab Sample ID: 580-40019-3

Date Collected: 08/27/13 13:20

Matrix: Water

Date Received: 08/28/13 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	624		1	144457	09/10/13 01:50	EB1	TAL SEA
Total/NA	Analysis	TAqH		1	145251	09/18/13 12:53	PRJ	TAL SEA
Total/NA	Prep	CWA_Prep			144051	09/03/13 10:32	ALC	TAL SEA
Total/NA	Analysis	625		1	144400	09/06/13 22:53	ERB	TAL SEA
Total/NA	Prep	3510C			144589	09/10/13 10:09	RBL	TAL SEA
Total/NA	Analysis	AK102 & 103		1	144568	09/10/13 17:20	JL1	TAL SEA
Total/NA	Prep	3510C	RE		144764	09/12/13 08:30	EKK	TAL SEA
Total/NA	Analysis	AK102 & 103	RE	1	144769	09/12/13 15:33	JL1	TAL SEA

Laboratory References:

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

Certification Summary

Client: Carson Dorn, Inc
Project/Site: MWWTP Juneau, AK

TestAmerica Job ID: 580-40019-1

Laboratory: TestAmerica Seattle

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-022	03-04-14
California	NELAP	9	01115CA	01-31-14
L-A-B	DoD ELAP		L2236	01-19-16
L-A-B	ISO/IEC 17025		L2236	01-19-16
Montana (UST)	State Program	8	N/A	04-30-20
Oregon	NELAP	10	WA100007	11-06-13
USDA	Federal		P330-11-00222	05-20-14
Washington	State Program	10	C553	02-17-14

Sample Summary

Client: Carson Dorn, Inc
Project/Site: MWWTP Juneau, AK

TestAmerica Job ID: 580-40019-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-40019-1	MW-1	Water	08/27/13 12:05	08/28/13 16:45
580-40019-2	MW-2	Water	08/27/13 11:00	08/28/13 16:45
580-40019-3	MW-11	Water	08/27/13 13:20	08/28/13 16:45

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericainc.com

☐ Rush
☐ Short Hold

Chain of Custody Record

Client: CARSON DORN, INC.	Client Contact: JOLENE COX	Date: 8.27.13	Chain of Custody Number: 19673
Address: 712 W 12th St.	Telephone Number (Area Code)/Fax Number: 907.586.4447	Lab Number: 39 40019	Page 1 of 1
City: JUNEAU	State: AK	Zip Code: 99801	
Project Name and Location (State): MMWTP JUNEAU (AK)	Sampler: J. COX	Lab Contact:	
Contract/Purchase Order/Quote No.:	Billing Contact:		

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Analysis (Attach list if more space is needed): AK102/103	EPA 602+TAH	EPA 625+TAH	Calc. TRPH	Special Instructions/ Conditions of Receipt
MW-1	8.27.13	12:05		X			X			X			X	X	X	X	3-1L Amber HCl
MW-2	8.27.13	11:00		X			X			X			X	X	X	X	2-1L Amber
MW-11	8.27.13	13:20		X			X			X			X	X	X	X	3-40mL HCl

580-40019 Chain of Custody

Cooler/IR Dig/IR cor 4.2°C unc 4.2°C
Cooler Dsc Ls Red/White @ Lab 1645
Wet/Packs Packing Bubble
w/o AI

Cooler: ☒ Yes ☐ No Cooler Temp: _____

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

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

Turn Around Time Required (business days): ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☒ 15 Days ☐ Other _____

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished By Sign/Print: JOLENE COX	8.27.13	14:00	1. Received By Sign/Print: Francisco Luna, Jr.	8/28/13	1645
2. Relinquished By Sign/Print:			2. Received By Sign/Print:		
3. Relinquished By Sign/Print:			3. Received By Sign/Print:		

Comments:

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

TAL-8274-580 (0210)

Login Sample Receipt Checklist

Client: Carson Dorn, Inc

Job Number: 580-40019-1

Login Number: 40019

List Source: TestAmerica Seattle

List Number: 1

Creator: Blankinship, Tom X

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?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time.	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	

Laboratory Data Review Checklist

Completed by:	Jolene Cox		
Title:	Environmental Professional	Date:	May 20, 2014
CS Report Name:	Mendenhall Waste Water Treatment Plant	Report Date:	Sep 19, 2013
Consultant Firm:	Carson Dorn, Inc.		
Laboratory Name:	TestAmerica	Laboratory Report Number:	580-40019-1
ADEC File Number:		ADEC RecKey Number:	

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

(•) Yes ( ) No ( ) NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

( ) Yes ( ) No ( ) NA (Please explain) Comments:

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. Correct analyses requested?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

d. If there were any discrepancies, were they documented? - For example, incorrect sample containers/ preservation, sample temperature outside of acceptance range, insufficient or missing samples, etc.?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

e. Data quality or usability affected? (Please explain)

Comments:

4. Case Narrative

a. Present and understandable?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

(•) Yes (•) No ( ) NA (Please explain) Comments:

The method blank for preparation batch 144457 contained methylene chloride above the reporting limit.

c. Were all corrective actions documented?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

None of the samples associated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. All applicable holding times met?

( ) Yes (•) No ( ) NA (Please explain) Comments:

In analytical batch 144769, the following samples MW-1 and MW-11 from preparation batch 144764 was re-prepared outside of preparation holding time due to LCS/LCSD were failing low for DRO range in original preparation batch 144568. The data have been qualified “H” and reported. The LCS and LCSD meet acceptance criteria in the re-extracted results, and both sets of data have been reported. The sample MW-2 was prepared outside of hold for re-extraction. In the original batch the extract boiled dry while extracting the basic portion because the condenser was not properly on the extraction body. The data have been qualified "H" and reported.

c. All soils reported on a dry weight basis?

( ) Yes ( ) No ( ) NA (Please explain) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

e. Data quality or usability affected? (Please explain)

Comments:

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. All method blank results less than PQL?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

Octadecane was detected in method blank MB 580-144300/1-A at a level that was above the reporting limit (RL).

iii. If above PQL, what samples are affected? Comments:

None of the samplesassociated with this method blank contained the target compound; therefore, re-extraction and/or re-analysis of samples were not performed.

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

( ) Yes ( ) No ( ) NA (Please explain) Comments:

v. Data quality or usability affected? (Please explain) Comments:

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples?

( ) Yes ( ) No ( ) NA (Please explain) Comments:

iii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

The LCS and / or the LCSD for prep batch 144051 recovered outside control limits for 3 analytes. The associated samples are non detect for the affected analytes except for sample MW-1 (580-40019-1) which has a hit above the RL for bis-2-ethyl hexyl phthalate. This is a known lab contaminant and is probably high in the LCS due to lab contamination. There is no additional sample remaining, so the data have qualified "*" and reported. The LCS for prep batch 144300 recovered outside acceptance limits high for 4 analytes. The associated sample is non detect for all failing analytes except di-n-butyl phthalate, which has a detection above the RL. There was insufficient sample to perform a re-extraction or re-analysis; therefore, the data have been qualified "*" and reported. The continuing calibration verification (CCV) for analytical batch 144719 recovered high for benzo(b) fluoranthene. The associated sample is non detect for this analyte and the LCS/LCSD recovery is not affected by the high bias. The data have been qualified "^" and reported. In analytical batch 144568, the LCS and the LCSD for analytical batch 144589 recovered below the lower control limits for DRO. The data have been qualified "*" and reported. The associated samples MW-1 and MW-11 were re-prepared outside holding time. The data have been qualified "H" and reported. Both sets of data will be reported. In analytical batch 144568, the LCS and LCSD for preparation batch 144589 recovered below the lower acceptance limits for DRO. There was insufficient sample volume for sample MW-2 to perform a re-extraction or re-analysis; therefore, the data have been qualified "*" and reported.

iv. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/DMSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ○ NA (Please explain) Comments:

vii. Data quality or usability affected? (Please explain)

Comments:

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses - field, QC and laboratory samples?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

(•) Yes ( ) No ( ) NA (Please explain) Comments:

Surrogate recovery for the following sample MW-1 (580-40019-1) was outside control limits.

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

Evidence of matrix interference is present;therefore, re-extraction and/or re-analysis was not performed.

iv. Data quality or usability affected? (Use the comment box to explain.).

Comments:

The data have been qualified “X” and reported.

d. Trip Blank - Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

( ) Yes ( ) No ( ) NA (Please explain.) Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

( ) Yes ( ) No ( ) NA (Please explain.) Comments:

iii. All results less than PQL?

( ) Yes ( ) No ( ) NA (Please explain.) Comments:

iv. If above PQL, what samples are affected?

Comments:

v. Data quality or usability affected? (Please explain.)

Comments:

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Submitted blind to lab?

◉ Yes ○ No ○ NA (Please explain.) Comments:

iii. Precision - All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute Value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

◉ Yes ○ No ○ NA (Please explain) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

○ Yes ◉ No ○ NA (Please explain) Comments:

f. Decontamination or Equipment Blank (if applicable)

○ Yes ○ No ○ NA (Please explain) Comments:

i. All results less than PQL?

○ Yes ○ No ○ NA (Please explain) Comments:

ii. If above PQL, what samples are affected?

Comments:

iii. Data quality or usability affected? (Please explain.)

Comments:

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

○ Yes ○ No ○ NA (Please explain) Comments:

Reset Form

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Anchorage
2000 West International Airport Road Suite A10
Anchorage, AK 99502-1119
Tel: (907) 563-9200

TestAmerica Job ID: AWH0065
Client Project/Site: [none]
Client Project Description: MWWTP

For:
Carson Dorn, Inc.
712 W. 12th Street
Juneau, AK/USA 99801

Attn: Jolene Cox

Johanna Dreher

Authorized for release by:
9/5/2013 10:38:55 AM

Johanna L Dreher, Client Services Manager
johanna.dreher@testamericainc.com

Table of Contents

Definitions/Glossary

Client: Carson Dorn, Inc.
Project/Site: [none]

TestAmerica Job ID: AWH0065

Qualifiers

Fuels

Qualifier	Qualifier Description
Q2	Typical pattern for diesel
Q11	Detected hydrocarbons in the diesel range do not have a distinct diesel pattern and may be due to heavily weathered diesel.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
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)

Case Narrative

Client: Carson Dorn, Inc.
Project/Site: [none]

TestAmerica Job ID: AWH0065

Job ID: AWH0065

Laboratory: TestAmerica Anchorage

Narrative

Receipt

Samples were received on 08/28/2013 at 11:47 AM; the samples arrived in good condition, properly preserved and, where required, on ice.

The temperature of the cooler at receipt was 3.7º C.

Detection Summary

Client: Carson Dorn, Inc.
Project/Site: [none]

TestAmerica Job ID: AWH0065

Client Sample ID: MW-10 — Lab Sample ID: AWH0065-01

No Detections.

Client Sample ID: MW-13 — Lab Sample ID: AWH0065-02

No Detections.

Client Sample ID: MW-7 — Lab Sample ID: AWH0065-03

No Detections.

Client Sample ID: MW-3 — Lab Sample ID: AWH0065-04

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics	11.3		0.394		mg/l	1.00		AK102/103	Total
Residual Range Organics	0.979		0.394		mg/l	1.00		AK102/103	Total

Client Sample ID: NMW-2 — Lab Sample ID: AWH0065-05

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics	35.4	Q2	0.407		mg/l	1.00		AK102/103	Total
Residual Range Organics	1.17		0.407		mg/l	1.00		AK102/103	Total

Client Sample ID: MW-D — Lab Sample ID: AWH0065-06

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics	12.2	Q11	0.403		mg/l	1.00		AK102/103	Total
Residual Range Organics	1.08		0.403		mg/l	1.00		AK102/103	Total

This Detection Summary does not include radiochemical test results.

Client: Carson Dorn, Inc.
Project/Site: [none]

TestAmerica Job ID: AWH0065

Client Sample ID: MW-10

Lab Sample ID: AWH0065-01

Date Collected: 08/27/13 10:10

Matrix: Water

Date Received: 08/28/13 11:47

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		0.391		mg/l		09/03/13 08:55	09/03/13 16:24	1.00
Residual Range Organics	ND		0.391		mg/l		09/03/13 08:55	09/03/13 16:24	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*95.5*		*50 - 150*	*09/03/13 08:55*	*09/03/13 16:24*	*1.00*
Triacontane	*101*		*50 - 150*	*09/03/13 08:55*	*09/03/13 16:24*	*1.00*

Client Sample ID: MW-13

Lab Sample ID: AWH0065-02

Date Collected: 08/27/13 14:25

Matrix: Water

Date Received: 08/28/13 11:47

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		0.382		mg/l		09/03/13 08:55	09/03/13 16:56	1.00
Residual Range Organics	ND		0.382		mg/l		09/03/13 08:55	09/03/13 16:56	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*98.7*		*50 - 150*	*09/03/13 08:55*	*09/03/13 16:56*	*1.00*
Triacontane	*104*		*50 - 150*	*09/03/13 08:55*	*09/03/13 16:56*	*1.00*

Client Sample ID: MW-7

Lab Sample ID: AWH0065-03

Date Collected: 08/27/13 14:50

Matrix: Water

Date Received: 08/28/13 11:47

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		0.400		mg/l		09/03/13 08:55	09/03/13 17:29	1.00
Residual Range Organics	ND		0.400		mg/l		09/03/13 08:55	09/03/13 17:29	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*93.6*		*50 - 150*	*09/03/13 08:55*	*09/03/13 17:29*	*1.00*
Triacontane	*99.0*		*50 - 150*	*09/03/13 08:55*	*09/03/13 17:29*	*1.00*

Client Sample ID: MW-3

Lab Sample ID: AWH0065-04

Date Collected: 08/27/13 15:12

Matrix: Water

Date Received: 08/28/13 11:47

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	**11.3**		0.394		mg/l		09/03/13 08:55	09/03/13 18:01	1.00
Residual Range Organics	**0.979**		0.394		mg/l		09/03/13 08:55	09/03/13 18:01	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*101*		*50 - 150*	*09/03/13 08:55*	*09/03/13 18:01*	*1.00*
Triacontane	*105*		*50 - 150*	*09/03/13 08:55*	*09/03/13 18:01*	*1.00*

Client: Carson Dorn, Inc.
Project/Site: [none]

TestAmerica Job ID: AWH0065

Client Sample ID: NMW-2 — **Lab Sample ID: AWH0065-05**
Date Collected: 08/27/13 13:55 — **Matrix: Water**
Date Received: 08/28/13 11:47

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	35.4	Q2	0.407		mg/l		09/03/13 08:55	09/03/13 18:33	1.00
Residual Range Organics	1.17		0.407		mg/l		09/03/13 08:55	09/03/13 18:33	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*111*		*50 - 150*	*09/03/13 08:55*	*09/03/13 18:33*	*1.00*
Triacontane	*107*		*50 - 150*	*09/03/13 08:55*	*09/03/13 18:33*	*1.00*

Client Sample ID: MW-D — **Lab Sample ID: AWH0065-06**
Date Collected: 08/27/13 15:20 — **Matrix: Water**
Date Received: 08/28/13 11:47

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	12.2	Q11	0.403		mg/l		09/03/13 08:55	09/03/13 19:05	1.00
Residual Range Organics	1.08		0.403		mg/l		09/03/13 08:55	09/03/13 19:05	1.00

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*96.7*		*50 - 150*	*09/03/13 08:55*	*09/03/13 19:05*	*1.00*
Triacontane	*101*		*50 - 150*	*09/03/13 08:55*	*09/03/13 19:05*	*1.00*

Surrogate Summary

Client: Carson Dorn, Inc.
Project/Site: [none]

TestAmerica Job ID: AWH0065

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Matrix: Water **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	1COD (50-150)	TC (50-150)										
13I0002-BLK1	Method Blank	98.5	106										
13I0002-DUP1	Duplicate	87.9	97.0										
13I0002-MS1	Matrix Spike	105	97.9										
13I0002-MSD1	Matrix Spike Duplicate	99.6	104										
AWH0065-01	MW-10	95.5	101										
AWH0065-02	MW-13	98.7	104										
AWH0065-03	MW-7	93.6	99.0										
AWH0065-04	MW-3	101	105										
AWH0065-05	NMW-2	111	107										
AWH0065-06	MW-D	96.7	101										

Surrogate Legend

1COD = 1-Chlorooctadecane

TC = Triacontane

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Matrix: Water **Prep Type: Total**

		Percent Surrogate Recovery (Acceptance Limits)											
Lab Sample ID	Client Sample ID	1COD (60-120)	TC (60-120)										
13I0002-BS1	Lab Control Sample	106	105										
13I0002-BSD1	Lab Control Sample Dup	92.8	92.5										

Surrogate Legend

1COD = 1-Chlorooctadecane

TC = Triacontane

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO

Lab Sample ID: 13I0002-BLK1
Matrix: Water
Analysis Batch: W000464

Client Sample ID: Method Blank
Prep Type: Total
Prep Batch: 13I0002_P

Analyte	Blank Result	Blank Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics	ND		0.500		mg/l		09/03/13 08:55	09/03/13 14:48	1.00
Residual Range Organics	ND		0.500		mg/l		09/03/13 08:55	09/03/13 14:48	1.00

Surrogate	*Blank %Recovery*	*Blank Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1-Chlorooctadecane	*98.5*		*50 - 150*	*09/03/13 08:55*	*09/03/13 14:48*	*1.00*
Triacontane	*106*		*50 - 150*	*09/03/13 08:55*	*09/03/13 14:48*	*1.00*

Lab Sample ID: 13I0002-BS1
Matrix: Water
Analysis Batch: W000464

Client Sample ID: Lab Control Sample
Prep Type: Total
Prep Batch: 13I0002_P

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics	10.3	9.80		mg/l		95.1	75 - 125
Residual Range Organics	10.3	10.6		mg/l		103	60 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1-Chlorooctadecane	*106*		*60 - 120*
Triacontane	*105*		*60 - 120*

Lab Sample ID: 13I0002-BSD1
Matrix: Water
Analysis Batch: W000464

Client Sample ID: Lab Control Sample Dup
Prep Type: Total
Prep Batch: 13I0002_P

Analyte	Spike Added	LCS Dup Result	LCS Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics	10.3	8.81		mg/l		85.5	75 - 125	10.6	20
Residual Range Organics	10.3	9.59		mg/l		93.2	60 - 120	9.94	20

Surrogate	*LCS Dup %Recovery*	*LCS Dup Qualifier*	*Limits*
1-Chlorooctadecane	*92.8*		*60 - 120*
Triacontane	*92.5*		*60 - 120*

Lab Sample ID: 13I0002-MS1
Matrix: Water
Analysis Batch: W000463

Client Sample ID: Matrix Spike
Prep Type: Total
Prep Batch: 13I0002_P

Analyte	Sample Result	Sample Qualifier	Spike Added	Matrix Spike Result	Matrix Spike Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel Range Organics	14.5		8.17	21.6		mg/l		86.3	75 - 125
Residual Range Organics	1.03		8.17	7.97		mg/l		85.0	60 - 120

Surrogate	*Matrix Spike %Recovery*	*Matrix Spike Qualifier*	*Limits*
1-Chlorooctadecane	*105*		*50 - 150*
Triacontane	*97.9*		*50 - 150*

Method: AK102/103 - Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO (Continued)

Lab Sample ID: 13I0002-MSD1
Matrix: Water
Analysis Batch: W000463

Client Sample ID: Matrix Spike Duplicate
Prep Type: Total
Prep Batch: 13I0002_P

Analyte	Sample Result	Sample Qualifier	Spike Added	trix Spike Dup Result	Matrix Spike Dup Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel Range Organics	14.5		8.17	21.7		mg/l		87.6	75 - 125	0.496	25
Residual Range Organics	1.03		8.17	8.23		mg/l		88.1	60 - 120	3.19	25

Surrogate	*Matrix Spike Dup %Recovery*	*Matrix Spike Dup Qualifier*	*Limits*
1-Chlorooctadecane	*99.6*		*50 - 150*
Triacontane	*104*		*50 - 150*

Lab Sample ID: 13I0002-DUP1
Matrix: Water
Analysis Batch: W000463

Client Sample ID: Duplicate
Prep Type: Total
Prep Batch: 13I0002_P

Analyte	Sample Result	Sample Qualifier		Duplicate Result	Duplicate Qualifier	Unit	D			RPD	RPD Limit
Diesel Range Organics	14.5			14.4		mg/l				0.696	20
Residual Range Organics	1.03			1.11		mg/l				7.60	20

Surrogate	*Duplicate %Recovery*	*Duplicate Qualifier*	*Limits*
1-Chlorooctadecane	*87.9*		*50 - 150*
Triacontane	*97.0*		*50 - 150*

Client: Carson Dorn, Inc.
Project/Site: [none]

TestAmerica Job ID: AWH0065

Fuels

Analysis Batch: W000463

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
13I0002-DUP1	Duplicate	Total	Water	AK102/103	13I0002_P
13I0002-MS1	Matrix Spike	Total	Water	AK102/103	13I0002_P
13I0002-MSD1	Matrix Spike Duplicate	Total	Water	AK102/103	13I0002_P

Analysis Batch: W000464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
13I0002-BLK1	Method Blank	Total	Water	AK102/103	13I0002_P
13I0002-BS1	Lab Control Sample	Total	Water	AK102/103	13I0002_P
13I0002-BSD1	Lab Control Sample Dup	Total	Water	AK102/103	13I0002_P
AWH0065-01	MW-10	Total	Water	AK102/103	13I0002_P
AWH0065-02	MW-13	Total	Water	AK102/103	13I0002_P
AWH0065-03	MW-7	Total	Water	AK102/103	13I0002_P
AWH0065-04	MW-3	Total	Water	AK102/103	13I0002_P
AWH0065-05	NMW-2	Total	Water	AK102/103	13I0002_P
AWH0065-06	MW-D	Total	Water	AK102/103	13I0002_P

Prep Batch: 13I0002_P

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
13I0002-BLK1	Method Blank	Total	Water	EPA 3510	
13I0002-BS1	Lab Control Sample	Total	Water	EPA 3510	
13I0002-BSD1	Lab Control Sample Dup	Total	Water	EPA 3510	
13I0002-DUP1	Duplicate	Total	Water	EPA 3510	
13I0002-MS1	Matrix Spike	Total	Water	EPA 3510	
13I0002-MSD1	Matrix Spike Duplicate	Total	Water	EPA 3510	
AWH0065-01	MW-10	Total	Water	EPA 3510	
AWH0065-02	MW-13	Total	Water	EPA 3510	
AWH0065-03	MW-7	Total	Water	EPA 3510	
AWH0065-04	MW-3	Total	Water	EPA 3510	
AWH0065-05	NMW-2	Total	Water	EPA 3510	
AWH0065-06	MW-D	Total	Water	EPA 3510	

Lab Chronicle

Client: Carson Dorn, Inc.
Project/Site: [none]

TestAmerica Job ID: AWH0065

Client Sample ID: MW-10
Lab Sample ID: AWH0065-01
Date Collected: 08/27/13 10:10
Matrix: Water
Date Received: 08/28/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3510		0.781	13I0002_P	09/03/13 08:55	KDC	TAL ANC
Total	Analysis	AK102/103		1.00	W000464	09/03/13 16:24	KDC	TAL ANC

Client Sample ID: MW-13
Lab Sample ID: AWH0065-02
Date Collected: 08/27/13 14:25
Matrix: Water
Date Received: 08/28/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3510		0.763	13I0002_P	09/03/13 08:55	KDC	TAL ANC
Total	Analysis	AK102/103		1.00	W000464	09/03/13 16:56	KDC	TAL ANC

Client Sample ID: MW-7
Lab Sample ID: AWH0065-03
Date Collected: 08/27/13 14:50
Matrix: Water
Date Received: 08/28/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3510		0.800	13I0002_P	09/03/13 08:55	KDC	TAL ANC
Total	Analysis	AK102/103		1.00	W000464	09/03/13 17:29	KDC	TAL ANC

Client Sample ID: MW-3
Lab Sample ID: AWH0065-04
Date Collected: 08/27/13 15:12
Matrix: Water
Date Received: 08/28/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3510		0.787	13I0002_P	09/03/13 08:55	KDC	TAL ANC
Total	Analysis	AK102/103		1.00	W000464	09/03/13 18:01	KDC	TAL ANC

Client Sample ID: NMW-2
Lab Sample ID: AWH0065-05
Date Collected: 08/27/13 13:55
Matrix: Water
Date Received: 08/28/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3510		0.813	13I0002_P	09/03/13 08:55	KDC	TAL ANC
Total	Analysis	AK102/103		1.00	W000464	09/03/13 18:33	KDC	TAL ANC

Client Sample ID: MW-D
Lab Sample ID: AWH0065-06
Date Collected: 08/27/13 15:20
Matrix: Water
Date Received: 08/28/13 11:47

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total	Prep	EPA 3510		0.806	13I0002_P	09/03/13 08:55	KDC	TAL ANC
Total	Analysis	AK102/103		1.00	W000464	09/03/13 19:05	KDC	TAL ANC

Lab Chronicle

Client: Carson Dorn, Inc.
Project/Site: [none]

TestAmerica Job ID: AWH0065

Laboratory References:

TAL ANC = TestAmerica Anchorage, 2000 West International Airport Road Suite A10, Anchorage, AK 99502-1119, TEL (907) 563-9200

Certification Summary

Client: Carson Dorn, Inc.
Project/Site: [none]

TestAmerica Job ID: AWH0065

Laboratory: TestAmerica Anchorage

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska	State Program	10	AK00975	06-30-14
Alaska (UST)	State Program	10	UST-067	06-16-14

Method Summary

Client: Carson Dorn, Inc.
Project/Site: [none]

TestAmerica Job ID: AWH0065

Method	Method Description	Protocol	Laboratory
AK102/103	Diesel Range Organics (C10-C25) and Residual Range Organics (C25-C36) per AK102/RRO		TAL ANC

Protocol References:

Laboratory References:

TAL ANC = TestAmerica Anchorage, 2000 West International Airport Road Suite A10, Anchorage, AK 99502-1119, TEL (907) 563-9200

Sample Summary

Client: Carson Dorn, Inc.
Project/Site: [none]

TestAmerica Job ID: AWH0065

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
AWH0065-01	MW-10	Water	08/27/13 10:10	08/28/13 11:47
AWH0065-02	MW-13	Water	08/27/13 14:25	08/28/13 11:47
AWH0065-03	MW-7	Water	08/27/13 14:50	08/28/13 11:47
AWH0065-04	MW-3	Water	08/27/13 15:12	08/28/13 11:47
AWH0065-05	NMW-2	Water	08/27/13 13:55	08/28/13 11:47
AWH0065-06	MW-D	Water	08/27/13 15:20	08/28/13 11:47

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericainc.com

☐ Rush
☐ Short Hold

Chain of Custody Record

AWH0065

Client: CARSON DORN, INC.	Client Contact: JOLENE COX	Date: 8.27.13	Chain of Custody Number: 19674
Address: 712 W 12th St.	Telephone Number (Area Code)/Fax Number: 907.586.4447	Lab Number	Page 1 of 1
City: JUNEAU State: AK Zip Code: 99801	Sampler: J. COX	Lab Contact	
Project Name and Location (State): MWWTP JUNEAU (AK)	Billing Contact		
Contract/Purchase Order/Quote No.			

	Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil		Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: AK102/103	Special Instructions/ Conditions of Receipt
01	MW-10	8.27.13	10:10		X							X			X	2-150mL HCl
02	MW-13	8.27.13	14:25		X							X			X	↓
03	MW-7	8.27.13	14:50		X							X			X	↓
04	MW-3	8.27.13	15:12		X							X			X	↓
05	NMW-2	8.27.13	13:55 (17:00 struck)		X							X			X	↓
06	MW-B	8.27.13	15:20		X							X			X	↓

Cooler ☒ Yes ☐ No Cooler Temp: ______

Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

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

Turn Around Time Required (business days) ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☒ 15 Days ☐ Other ______

QC Requirements (Specify) T: 3.7°C

1. Relinquished By Sign/Print: JCox Jolene Cox	Date: 8.27.13	Time: 17:00	1. Received By Sign/Print: [signature] Andrew Pick — Date: 8/28/13 — Time: 11:47
2. Relinquished By Sign/Print	Date	Time	2. Received By Sign/Print — Date — Time
3. Relinquished By Sign/Print	Date	Time	3. Received By Sign/Print — Date — Time

Comments

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

TAL-8274-580 (0210)

1 2 3 4 5 6 7 8 9 10 11 12 13 14

Test America Cooler Receipt Form

(Army Corps. Compliant)

WORK ORDER # AWH0065 CLIENT: Carson Dorn PROJECT: MWWTP

Date /Time Cooler Arrived 8 / 28 / 13 11 : 47 Cooler signed for by: Andrew Pilch (Print name)

Preliminary Examination Phase:

Date cooler opened: ☒ same as date received or ___/___/___

Cooler opened by (print) Andrew Pilch (sign) [signature]

1. Delivered by ☒ ALASKA AIRLINES ☐ Fed-Ex ☐ UPS ☐ NAC ☐ LYNDEN ☐ CLIENT ☐ Other:

Shipment Tracking # if applicable 027-8698 046.0 (include copy of shipping papers in file)

2. Number of Custody Seals 0 Signed by ___ Date ___/___/___

Were custody seals unbroken and intact on arrival?	☐ Yes	☐ No	
3. Were custody papers sealed in a plastic bag?	☒ Yes	☐ No	
4. Were custody papers filled out properly (ink, signed, etc.)?	☒ Yes	☐ No	
5. Did you sign the custody papers in the appropriate place?	☒ Yes	☐ No	

6. Was ice used? ☒ Yes ☐ No Type of ice: ☐ blue ice ☒ gel ice ☐ real ice ☐ dry ice Condition of Ice: Mostly melted

Temperature 3.7 °C (corrected) Thermometer # IR Gun

7. Packing in Cooler: ☒ bubble wrap ☐ styrofoam ☐ cardboard ☐ Other:

8. Did samples arrive in plastic bags?	☒ Yes	☐ No	
9. Did all bottles arrive unbroken, and with labels in good condition?	☒ Yes	☐ No	
10. Are all bottle labels complete (ID, date, time, etc.)	☒ Yes	☐ No	
11. Do bottle labels and Chain of Custody agree?	☒ Yes	☐ No	
12. Are the containers and preservatives correct for the tests indicated?	☒ Yes	☐ No	
13. Conoco Phillips, Alyeska, BP H2O samples only, pH <2?	☐ Yes	☐ No	☒ N/A
14. Is there adequate volume for the tests requested?	☒ Yes	☐ No	
14. Is there dry weight volume provided?	☒ Yes	☐ No	
15. Were VOA vials free of bubbles? ☒ N/A	☐ Yes	☐ No	

If "NO" which containers contained "head space" or bubbles? ___

16. Are methanol soils immersed in methanol?	☐ Yes	☐ No	☒ N/A

Log-in Phase:

Date of sample log-in 8 / 28 / 13

Samples logged in by (print) Andrew Pilch (sign) [signature]

1. Was project identifiable from custody papers?	☒ Yes	☐ No
2. Do Turn Around Times and Due Dates agree?	☒ Yes	☐ No
3. Was the Project Manager notified of status?	☒ Yes	☐ No
4. Was the Lab notified of status?	☒ Yes	☐ No
5. Was the COC scanned and copied?	☒ Yes	☐ No

AK-FORM-SPL-005 5 October 2011

Laboratory Data Review Checklist

Completed by:	Jolene Cox		
Title:	Environmental Professional	Date:	May 20, 2014
CS Report Name:	Mendenhall Waste Water Treatment Plant	Report Date:	Sep 5, 2013
Consultant Firm:	Carson Dorn, Inc.		
Laboratory Name:	TestAmerica	Laboratory Report Number:	AWH0065
ADEC File Number:		ADEC RecKey Number:	

1. Laboratory

a. Did an ADEC CS approved laboratory receive and perform all of the submitted sample analyses?

(●) Yes ( ) No ( ) NA (Please explain.) Comments:

b. If the samples were transferred to another "network" laboratory or sub-contracted to an alternate laboratory, was the laboratory performing the analyses ADEC CS approved?

( ) Yes ( ) No ( ) NA (Please explain) Comments:

2. Chain of Custody (COC)

a. COC information completed, signed, and dated (including released/received by)?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

b. Correct analyses requested?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

3. Laboratory Sample Receipt Documentation

a. Sample/cooler temperature documented and within range at receipt (4° ± 2° C)?

(●) Yes ( ) No ( ) NA (Please explain) Comments:

b. Sample preservation acceptable - acidified waters, Methanol preserved VOC soil (GRO, BTEX, Volatile Chlorinated Solvents, etc.)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

c. Sample condition documented - broken, leaking (Methanol), zero headspace (VOC vials)?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

d. If there were any discrepancies, were they documented? - For example, incorrect sample containers/ preservation, sample temperature outside of acceptance range, insufficient or missing samples, etc.?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

e. Data quality or usability affected? (Please explain)

Comments:

4. Case Narrative

a. Present and understandable?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. Discrepancies, errors or QC failures identified by the lab?

( ) Yes (•) No ( ) NA (Please explain) Comments:

c. Were all corrective actions documented?

( ) Yes ( ) No ( ) NA (Please explain) Comments:

d. What is the effect on data quality/usability according to the case narrative?

Comments:

5. Samples Results

a. Correct analyses performed/reported as requested on COC?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

b. All applicable holding times met?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

c. All soils reported on a dry weight basis?

( ) Yes ( ) No ( ) NA (Please explain) Comments:

d. Are the reported PQLs less than the Cleanup Level or the minimum required detection level for the project?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

e. Data quality or usability affected? (Please explain)

Comments:

6. QC Samples

a. Method Blank

i. One method blank reported per matrix, analysis and 20 samples?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

ii. All method blank results less than PQL?

(•) Yes ( ) No ( ) NA (Please explain) Comments:

iii. If above PQL, what samples are affected? Comments:

iv. Do the affected sample(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ○ NA (Please explain) Comments:

v. Data quality or usability affected? (Please explain) Comments:

b. Laboratory Control Sample/Duplicate (LCS/LCSD)

i. Organics - One LCS/LCSD reported per matrix, analysis and 20 samples? (LCS/LCSD required per AK methods, LCS required per SW846)

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Metals/Inorganics - One LCS and one sample duplicate reported per matrix, analysis and 20 samples?

○ Yes ○ No ○ NA (Please explain) Comments:

iii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods: AK101 60%-120%, AK102 75%-125%, AK103 60%-120%; all other analyses see the laboratory QC pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

iv. Precision - All relative percent differences (RPD) reported and less than method or laboratory limits? And project specified DQOs, if applicable. RPD reported from LCS/LCSD, MS/DMSD, and or sample/sample duplicate. (AK Petroleum methods 20%; all other analyses see the laboratory QC pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

v. If %R or RPD is outside of acceptable limits, what samples are affected?

Comments:

vi. Do the affected samples(s) have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ○ NA (Please explain) Comments:

vii. Data quality or usability affected? (Please explain) Comments:

c. Surrogates - Organics Only

i. Are surrogate recoveries reported for organic analyses - field, QC and laboratory samples?

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Accuracy - All percent recoveries (%R) reported and within method or laboratory limits? And project specified DQOs, if applicable. (AK Petroleum methods 50-150 %R; all other analyses see the laboratory report pages)

◉ Yes ○ No ○ NA (Please explain) Comments:

iii. Do the sample results with failed surrogate recoveries have data flags? If so, are the data flags clearly defined?

○ Yes ○ No ○ NA (Please explain) Comments:

iv. Data quality or usability affected? (Use the comment box to explain.).

Comments:

d. Trip Blank - Volatile analyses only (GRO, BTEX, Volatile Chlorinated Solvents, etc.): Water and Soil

i. One trip blank reported per matrix, analysis and for each cooler containing volatile samples? (If not, enter explanation below.)

○ Yes ○ No ○ NA (Please explain.) Comments:

ii. Is the cooler used to transport the trip blank and VOA samples clearly indicated on the COC? (If not, a comment explaining why must be entered below)

○ Yes ○ No ○ NA (Please explain.) Comments:

iii. All results less than PQL?

○ Yes ○ No ○ NA (Please explain.) Comments:

iv. If above PQL, what samples are affected?

Comments:

v. Data quality or usability affected? (Please explain.)

Comments:

e. Field Duplicate

i. One field duplicate submitted per matrix, analysis and 10 project samples?

◉ Yes ○ No ○ NA (Please explain) Comments:

ii. Submitted blind to lab?

◉ Yes ○ No ○ NA (Please explain.) Comments:

iii. Precision - All relative percent differences (RPD) less than specified DQOs?
(Recommended: 30% water, 50% soil)

$$\text{RPD (\%)} = \text{Absolute Value of: } \frac{(R_1 - R_2)}{((R_1 + R_2)/2)} \times 100$$

Where R_1 = Sample Concentration

R_2 = Field Duplicate Concentration

◉ Yes ○ No ○ NA (Please explain) Comments:

iv. Data quality or usability affected? (Use the comment box to explain why or why not.)

○ Yes ◉ No ○ NA (Please explain) Comments:

f. Decontamination or Equipment Blank (if applicable)

○ Yes ○ No ○ NA (Please explain) Comments:

i. All results less than PQL?

○ Yes ○ No ○ NA (Please explain) Comments:

ii. If above PQL, what samples are affected?

Comments:

iii. Data quality or usability affected? (Please explain.)

Comments:

7. Other Data Flags/Qualifiers (ACOE, AFCEE, Lab Specific, etc.)

a. Defined and appropriate?

○ Yes ○ No ○ NA (Please explain) Comments:

Reset Form

APPENDIX C
WEEKLY OBSERVATIONS

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	12-26-13 / 1315	0654 AM / 14.28				GA	
MW-2						GA	
MW-3						GA	
MW-4						GA	
MW-5						GA	
MW-6						GA	
MW-7						GA	
MW-8						GA	
MW-9						GA	
MW-10						GA	
MW-11						GA	
MW-12						GA	
MW-13						GA	
790177902						GA	
NMW-1	12-26-13 / 1315		14.81	15.16		GA	0.35'
NMW-2						GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8		
Product MW-9		
Product MW-3		

Additional Comments:

GAUGING 1315 ⟶ 1350 HRS

TRIED 4 TIMES PER JOLENE COX HER INSTRUCTIONS. GOT ~ 150 mL OF OIL WATER MIX

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	12.19.19	1352 / 17.0'				GA	
MW-2						GA	
MW-3						GA	
MW-4						GA	
MW-5						GA	
MW-6						GA	
MW-7						GA	
MW-8						GA	
MW-9						GA	
MW-10						GA	
MW-11						GA	
MW-12						GA	
MW-13						GA	
790177902						GA	
NMW-1		1352 / 17.0'	11.94	12.96		GA	/ CF PUMPED ~ 350 mL OF oil
NMW-2						GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8		
Product MW-9		
Product MW-3		

Additional Comments:

GAUGING ISD → 1525

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	12-10-13					GA	
MW-2						GA	
MW-3						GA	
MW-4						GA	
MW-5						GA	
MW-6						GA	
MW-7						GA	
MW-8						GA	
MW-9						GA	
MW-10						GA	
MW-11						GA	
MW-12						GA	
MW-13						GA	
7901/7902						GA	
NMW-1	12-10-13/1320		14.95	15.45		GA/AJC	
NMW-2						GA	

MENDENHALL RIVER OBSERVATIONS	*Date/Time*	*High Tide/Height*	*Visible Sheen*	*Seeps*

FREE PRODUCT RECOVERY	*Date/Time*	*Free Product Level (gallons)*
Product MW-8		
Product MW-9		
Product MW-3		

Additional Comments:

GAUGING →

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	12/8/13 - 1350	1412 pm / 18.86				GA	
MW-2						GA	
MW-3						GA	
MW-4						GA	
MW-5						GA	
MW-6						GA	
MW-7						GA	
MW-8						GA	
MW-9						GA	
MW-10						GA	
MW-11						GA	
MW-12						GA	
MW-13						GA	
7901/7902						GA	
NMW-1			12.51	14.22		GA	1.71
NMW-2						GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8		
Product MW-9		
Product MW-3		

Additional Comments:

GAUGING 1350 ⟶ 1410 HWS

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	11-15-13 1300	11:13 / 17.9	—	15.85		GA	CF
MW-2	↑	↑	—	15.30		GA	CF
MW-3			—	16.50		GA	CF
MW-4			15.55	15.60		GA	CF
MW-5			—	14.86		GA	CF
MW-6			—	14.32		GA	CF
MW-7			—	13.78		GA	CF
MW-8			—	13.61		GA	CF
MW-9			—	14.05		GA	CF
MW-10			—	16.32		GA	CF
MW-11			—	12.10		GA	CF
MW-12			—	13.59		GA	CF
MW-13			—	13.87		GA	CF
7901/7902			—	10.66		GA	CF
NMW-1	↓	↓	12.03	11.52		GA	CF
NMW-2			—	13.32		GA	CF

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	11-15-13 1300	11:13 / 17.9	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	11-15-13 1400	178
Product MW-9	11-15-13 1400	33
Product MW-3	≤	—

Additional Comments:

GAUGING 1300 →

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil	T.O.C. To Water (feet)	Visible Sheen	Initials	Product Observed (Inches)
MW-1	11/7/13 - 1345Hr	1516Hr / 18.0	-	14.01		GA	
MW-2			-	14.18		GA	
MW-3			-	16.16		GA	
MW-4			-	14.31		GA	
MW-5			-	13.57		GA	
MW-6			-	13.82		GA	
MW-7			-	13.14		GA	
MW-8			-	23.52		GA	
MW-9			-	13.52		GA	
MW-10			-	14.12		GA	
MW-11			-	12.98		GA	
MW-12			-	13.26		GA	
MW-13			-	13.21		GA	
7901/7902			-	10.56		GA	
NMW-1			12.52	14.22		GA	
NMW-2	11/7/13 - 1545Hr	1516Hr / 18.0	-	17.14		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	11/7/13 - 1350Hr	1516Hr / 18.0	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	11/7/13 - 1535	184
Product MW-9	11/7/13 - 1535	33
Product MW-3	-	-

Additional Comments:

GAUGING 1345 Hrs → 1545 Hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	11-1-13/1345 HR	1210P/17.3'	–	16.82		GA	
MW-2	↑	↑	–	16.11		GA	
MW-3			–	17.12		GA	
MW-4			–	14.48		GA	
MW-5			–	14.77		GA	
MW-6			–	14.23		GA	
MW-7			–	13.52		GA	
MW-8			–	R22δ		GA	
MW-9			–	16.12		GA	
MW-10			–	15.73		GA	
MW-11			–	14.01		GA	
MW-12			–	14.52		GA	
MW-13			–	13.61		GA	
790177902			–	10.32		GA	
NMW-1	↓	↓	14.01	14.76		GA	0.75'
NMW-2	11-1-13/1515 HR	1210P/17.3'	–	15.08		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	11-1-13/1350	1210P/17.3	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	11-1-13/1505	184
Product MW-9	11-1-13/1505	33
Product MW-3	–	–

Additional Comments:

GAUGING 1345 ⟶ 1515 HRS

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	10-24-13/1430	1648 Hrs / 14.8'	—	16.46		GA	
MW-2			—	16.41		GA	
MW-3			—	16.29		GA	
MW-4			—	13.77		GA	
MW-5			—	13.78		GA	
MW-6			—	13.62		GA	
MW-7			—	12.92		GA	
MW-8			—	23.06		GA	
MW-9			—	14.89		GA	
MW-10			—	15.22		GA	
MW-11			—	13.82		GA	
MW-12			—	13.67		GA	
MW-13			—	12.78		GA	
790177902			—	10.47		GA	
NMW-1			13.16	14.04		GA	0.88'
NMW-2	10-24-13/1600	1648 Hrs / 14.8'	—	14.57		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	10-24-13/1640	1648 Hrs / 14.8'	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	10-24-13/1550	184
Product MW-9	10-24-13/1556	33
Product MW-3		

Additional Comments:

GAUGING 1430 ⟶ 1600 Hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	10/17/13-1330	1242 Hrs - 18.2'	-	14.57		GA	
MW-2	↑	↑	-	14.32		GA	
MW-3			-			GA	
MW-4			-	14-29		GA	
MW-5			-	14.05		GA	
MW-6			-	13.06		GA	
MW-7			-	12.98		GA	
MW-8	1435 Hrs		-	14-01		GA	Well pump @ 13' bgs
MW-9			-	13.12		GA	
MW-10			-	15.07		GA	
MW-11			-	10-38		GA	
MW-12			-	12.85		GA	
MW-13			-	13.06		GA	
790177902			-	10-6		GA	
NMW-1	↓	↓	-	11.03		GA	
NMW-2	10/17/13-1530	1242 Hrs - 18.2'	-	12.76		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	10/17/13 - 1450	1242 Hrs - 18.2'	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	10/17/13 -	184
Product MW-9	10/17/13 -	33
Product MW-3		

Additional Comments:

GAUGING 1330 ⟶ 1530 Hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	10-10-13/1330	1720 Hrs / 16.3'	-	17.61		GA	
MW-2	↑	↑	-	17.31		GA	
MW-3			-	16.62		GA	
MW-4			-	14.17		GA	
MW-5			-	14.11		GA	
MW-6			-	13.90		GA	
MW-7			-	13.07		GA	
MW-8			-	16.57		GA	
MW-9			-	15.85		GA	
MW-10			-	15.54		GA	
MW-11			-	14.92		GA	
MW-12			-	14.31		GA	
MW-13			-	13.08		GA	
79017902			-	12.93		GA	
NMW-1	↓	↓	14.31	15.21		GA	
NMW-2	10-10-13/1530	1720/16.3'	-	15.49		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	10-10-13/	1720 Hrs / 16.3'	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	10-10-13/	184
Product MW-9	10-10-13/	37
Product MW-3	-	-

Additional Comments:

GAUGING 1330 Hrs ⟶ 1530 Hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	10/3/13-1300	1252 Hr / 16.8'	-	15.29		GA	
MW-2	↑	↑	-	15.03		GA	
MW-3			-	16.46		GA	
MW-4			-	14.61		GA	
MW-5			-	14.72		GA	
MW-6			-	14.36		GA	
MW-7			-	13.64		GA	
MW-8			-	22.36		GA	
MW-9			-	13.92		GA	
MW-10			-	16.20		GA	
MW-11			-	12.48		GA	
MW-12			-	12.62		GA	
MW-13			-	13.76		GA	
7901/7902				10.63		GA	
NMW-1	↓	↓	12.08	13.07		GA	
NMW-2	10/3/13-1500	1252 Hr / 16.8'	-	13.60		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	10/3/13-1445	1252 Hr / 16.8'	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	10/3/13	104
Product MW-9	10/3/13	33
Product MW-3	-	-

Additional Comments:

GAUGING 1300 Hr → 1500 Hr

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)	Visible Sheen	Initials	Product Observed (Inches)
MW-1	9-26-13/1330	9-26-13/13.4'	— 17.96		GA	
MW-2	↓	↓	— 17.66		GA	
MW-3			— 16.99		GA	
MW-4			— 14.27		GA	
MW-5			— 14.27		GA	
MW-6			— 14.16		GA	
MW-7			— 13.37		GA	
MW-8			— 24.00		GA	
MW-9			— 16.23		GA	
MW-10			— 15.72		GA	
MW-11			— 14.52		GA	
MW-12			— 14.61		GA	
MW-13			— 13.22		GA	
790177902			— 10.62		GA	
NMW-1	↓	↓	14.42 15.21		GA	
NMW-2	9-26-13/1530	9-26-13/13.4'	— 15.66		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	9-26-13@1510	N	N	

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	9-26-13@1530	184
Product MW-9	9-26-13@1530	33
Product MW-3		

Additional Comments:

GAUGING 1330 HRS → 1530 HRS

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	9-19-13/1330	1348 Hrs/18.7'	–	12.51		GA	
MW-2			–	12.51		GA	
MW-3			–	15.11		GA	
MW-4			–	13.61		GA	
MW-5			–	13.71		GA	
MW-6			–	13.13		GA	
MW-7			–	12.28		GA	
MW-8			–	20.08		GA	
MW-9			–	11.77		GA	
MW-10			–	15.30		GA	
MW-11			–	10.76		GA	
MW-12			–	10.89		GA	
MW-13			–	12.82		GA	
790177902			–	10.44		GA	
NMW-1			–	10.59		GA	
NMW-2	9-19-13/1500	1348 Hrs/18.7'	–	12.06		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	9-19-13/1330	9-19-13/18.7	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	9-19-13	184
Product MW-9	9-19-13	33
Product MW-3		

Additional Comments:

GAUGING 1330 → 1500 Hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)	Visible Sheen	Initials	Product Observed (Inches)
MW-1	9-12-13/1300	1841 Hrs / 15.2	- 17.19		GA	
MW-2			- 16.89		GA	
MW-3			- 16.27		GA	
MW-4			- 13.56		GA	
MW-5			- 13.82		GA	
MW-6			- 13.51		GA	
MW-7			- 12.97		GA	
MW-8			- 23.08		GA	
MW-9			- 15.02		GA	
MW-10			- 15.23		GA	
MW-11			- 13.62		GA	
MW-12			- 13.71		GA	
MW-13			- 12.74		GA	
7901/7902			- 10.58		GA	
NMW-1			- 13.41		GA	
NMW-2	9.12.13/1500	1841 Hrs / 15.2	- 14.61		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	9-12-13/	1841 Hrs/15.2	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	9/12/13 -	184
Product MW-9	9/12/13 -	33
Product MW-3		-

Additional Comments:

Gauging 1315 → 1500 Hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)	Visible Sheen	Initials	Product Observed (Inches)
MW-1	9-5-13 / 1330	1402 Hrs / 16.7'	- 13.79		GA	
MW-2			- 13.66		GA	
MW-3			- 15.22		GA	
MW-4			- 13.39		GA	
MW-5			- 13.69		GA	
MW-6			- 12.97		GA	
MW-7			- 12.66		GA	
MW-8			- 20.98		GA	
MW-9			- 12.69		GA	
MW-10			- 14.97		GA	
MW-11			- 11.53		GA	
MW-12			- 12.31		GA	
MW-13			* * -		GA	
790177902			- 10.64		GA	
NMW-1			- 11.02		GA	
NMW-2	9-5-13 / 1530	1402 Hrs / 16.7'	- 12.54		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	9-15-13 /	1402 Hrs / 16.7	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	9-5-13 / 1500 Hrs	184
Product MW-9	9-5-13 / 1500 Hrs	33
Product MW-3	-	-

Additional Comments: * UNKNOWN VEHICLE PARKED OVER WELL

GAUGING 1330 → 1530 Hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	8-27-13/1430	6:13 pm / 14.7'	-	17.24		GA	
MW-2	↑	↑	-	16.88		GA	
MW-3			-	16.50		GA	
MW-4			-	13.67		GA	
MW-5			-	14.06		GA	
MW-6			-	13.70		GA	
MW-7			-	13.25		GA	
MW-8			-	23.20		GA	
MW-9			-	15.59		GA	
MW-10			-	15.57		GA	
MW-11			-	14.18		GA	
MW-12			-	14.00		GA	
MW-13			-	13.12		GA	
7901/7902			-	10.69		GA	
NMW-1	↓	↓	13.70	14.69		GA	
NMW-2	8-27-13/1600	6:13pm / 14.7	-	14.79		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	8-27-13/1310 hrs	6:13 pm / 14.7	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	8-27-13/1545	~ 184
Product MW-9	8-27-13/1545	~ 33
Product MW-3		

Additional Comments: GAUGING 1430 → 1600 hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)	Visible Sheen	Initials	Product Observed (Inches)
MW-1	8/22/13/1315	1456/ 18.6'	— 13.57		GA	
MW-2	↓	↓	— 13.79		GA	
MW-3			— 15.46		GA	
MW-4			— 13.41		GA	
MW-5			— 13.72		GA	
MW-6			— 13.26	1"	GA	
MW-7			— 12.53		GA	
MW-8			— 20.66		GA	
MW-9			— 12.48		GA	
MW-10			— 15.21		GA	
MW-11			— 12.71		GA	
MW-12			— 12.91		GA	
MW-13			— 12.91		GA	
7901/7902			— 10.72		GA	
NMW-1	↓	↓	12.15 12.36		GA	1.21'
NMW-2	8/22/13/1515	1456/ 18.6'	— 13.59		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	8/22/1340	1456/18.6'	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	8/22/13/1435	184
Product MW-9	8/22/13/1435	33
Product MW-3	—	—

Additional Comments:

Gauged 1315 Hrs → 1500 Hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	8-15-13 / 1330	2020 Hr / 15.2'	–	17.54		GA	
MW-2			–	17.12		GA	
MW-3			–	17.02		GA	
MW-4			–	14.35		GA	
MW-5			–	14.92		GA	
MW-6				13.88		GA	
MW-7			–	14.51		GA	
MW-8			–	23.88		GA	
MW-9				15.88		GA	
MW-10			–	16.44		GA	
MW-11			–	14.28		GA	
MW-12			–	13.37		GA	
MW-13			–	14.11		GA	
790177902			–	10.72		GA	
NMW-1			13.64	14.76		GA	
NMW-2	8-15-13 / 1530	2020 Hr / 15.2'	–	15.08		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	8-15-13 / 1330	2020 Hr / 15.2	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	8-15-13 / 1460	184
Product MW-9	8-15-13 / 1460	33
Product MW-3	–	–

Additional Comments:

GAUGING 1330 → 1515 hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)	Visible Sheen	Initials	Product Observed (Inches)
MW-1	8.7.13 / 1339 Hrs	1439 Hrs / 15.8'	-		GA	
MW-2			- 16.55		GA	
MW-3			- 15.61		GA	
MW-4			- 14.31		GA	
MW-5			- 14.68		GA	
MW-6			- 14.18		GA	
MW-7			- 13.57		GA	
MW-8			- 22.48		GA	
MW-9			- 14.26		GA	
MW-10			- 16.16		GA	
MW-11			- 13.29		GA	
MW-12			- 13.82		GA	
MW-13			- 15.84		GA	
7901/7902			- 10.77		GA	
NMW-1			12.69 13.46		GA	
NMW-2			- 14.31		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	8.7.13 / 1330	1439 Hrs / 15.8	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	8.7.13 / 1420 Hrs	184
Product MW-9	8.7.13 / 1420 Hrs	33
Product MW-3	-	- 0

Additional Comments:

GAUGING 1330 → 1500 Hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	8-15-13 / 1330	2020 Hr / 15.2'	—	17.54		GA	
MW-2			—	17.12		GA	
MW-3			—	17.02		GA	
MW-4			—	14.35		GA	
MW-5			—	14.92		GA	
MW-6				13.88		GA	
MW-7			—	14.51		GA	
MW-8			—	13.88		GA	
MW-9				15.88		GA	
MW-10			—	16.44		GA	
MW-11			—	16.28		GA	
MW-12			—	13.37		GA	
MW-13			—	14.11		GA	
7901/7902			—	10.72		GA	
NMW-1			13.64	14.76		GA	
NMW-2	8-15-13 / 1530	2020 Hr / 15.2'	—	15.08		GA	

MENDENHALL RIVER OBSERVATIONS	*Date/Time*	*High Tide/Height*	*Visible Sheen*	*Seeps*
	8-15-13 / 1330	2020 Hr / 15.2'	N	N

FREE PRODUCT RECOVERY	*Date/Time*	*Free Product Level (gallons)*
Product MW-8	8-15-13 / 1460	104
Product MW-9	8-15-13 / 1460	33
Product MW-3	—	—

Additional Comments:

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	8.7.13 / 1339 Hrs	1439 Hrs / 15.8'	-			GA	
MW-2	↓	↓	-	16.55		GA	
MW-3			-	15.61		GA	
MW-4			-	14.31		GA	
MW-5			-	14.68		GA	
MW-6			-	14.18		GA	
MW-7			-	13.57		GA	
MW-8			-	22.48		GA	
MW-9			-	14.26		GA	
MW-10			-	16.16		GA	
MW-11			-	13.29		GA	
MW-12			-	13.82		GA	
MW-13			-	15.84		GA	
7901/7902			-	10.77		GA	
NMW-1	↓	↓	12.69	13.46		GA	
NMW-2			-	14.31		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	8.7.13 / 1330	1439 Hrs / 15.8	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	8.7.13 / 1420 Hrs	184
Product MW-9	8.7.13 / 1420 Hrs	33
Product MW-3	-	-

Additional Comments:

GAUGING 1330 → 1500 Hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	7.31.12 / 1300	0921 Am / 11.0'	—	16.63		GA	
MW-2	↑	↑	—	16.97		GA	
MW-3			—	16.82		GA	
MW-4			—	14.23		GA	
MW-5			—	14.64		GA	
MW-6			—	14.27		GA	
MW-7			—	14.71		GA	
MW-8			—	23.57		GA	
MW-9			—	15.56		GA	
MW-10			—	16.12		GA	
MW-11			—	13.91		GA	
MW-12			—	14.23		GA	
MW-13			—	13.76		GA	
7901/7902			—	10.77		GA	
NMW-1	↓	↓	13.39	14.46		GA	1.07'
NMW-2	7.31.12 / 1500	0921 Am / 11.0'	—	14.77		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	7.31.13 /	
Product MW-9	7.31.13 /	
Product MW-3	—	—

Additional Comments:

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	7-24-13/1300	1526 Hrs/ 18.0'	—	14.11		GA	
MW-2	↓	↓	—	14.26		GA	
MW-3			—	15.46		GA	
MW-4			—	13.31		GA	
MW-5			—	13.73		GA	
MW-6			—	13.24		GA	
MW-7			—	12.49		GA	
MW-8			—	13.78		GA	WELL PUMP OFF
MW-9			—	12.67		GA	
MW-10			—	15.17		GA	
MW-11			—	13.26		GA	
MW-12			—	12.60		GA	
MW-13			—	12.91		GA	
7901/7902			—	10.75		GA	
NMW-1	↓	↓	12.42	12.72		GA	0.3'
NMW-2	7-24-13/1500 Hrs		—	14.00		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	7-24-13/1445	1526 Hrs/ 18.0'	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	7-24-13/1450	104
Product MW-9	7-24-13/1450	37
Product MW-3	—	—

Additional Comments:

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil	T.O.C. To Water (feet)	Visible Sheen	Initials	Product Observed (Inches)
MW-1	7.17.13 / 1300	2048 / 15.5'	—	17.67	N	GA	
MW-2	↓	↓	—	17.34	N	GA	
MW-3			—	17.08	N	GA	
MW-4			—	14.24	N	GA	
MW-5			—	14.77	N	GA	
MW-6			—	14.42	N	GA	
MW-7			—	13.86	N	GA	
MW-8			—	23.73	N	GA	
MW-9			15.84	15.83	N	GA	0.02'
MW-10			—	16.26	N	GA	
MW-11			—	14.31	N	GA	
MW-12			—	14.46	N	GA	
MW-13			—	13.78	N	GA	
7901/7902			—	10.71	N	GA	
NMW-1	↓	↓	13.77	14.67	Y	GA	0.90'
NMW-2	7.17.13		—	15.19	N	GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	7.17.13	15.5'	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	7.17.13 / 1400 HRS	1 3/4
Product MW-9	7.17.13 / 1400 HRS	3
Product MW-3	—	—

Additional Comments:

GAUGING 1300 HRS → 1435 HRS

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	7.11.13 / 1250	1611 HRS / 15.3'	—	16.83		GA	
MW-2			—	16.56		GA	
MW-3			—	16.03		GA	
MW-4			—	13.43		GA	
MW-5			—	15.26		GA	
MW-6			—	13.41		GA	
MW-7			—	12.78		GA	
MW-8			—	23.01		GA	
MW-9			15.10	15.12		GA	
MW-10			—	15.79		GA	
MW-11			—	13-64		GA	
MW-12			—	13.52		GA	
MW-13			—	12.82		GA	
7901/7902			—	10.71		GA	
NMW-1			13.23	13.48		GA	0.25
NMW-2			—	14.48		GA	

MENDENHALL RIVER OBSERVATIONS	*Date/Time*	*High Tide/Height*	*Visible Sheen*	*Seeps*
	7.11.13			

FREE PRODUCT RECOVERY	*Date/Time*	*Free Product Level (gallons)*
Product MW-8	7.11.13 / 1410	188
Product MW-9	7.11.13 / 1410	33
Product MW-3		

Additional Comments:

GAUGING 1250 → 1415 HRS

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	7.5.13 / 1300	7.5.13 / 13.1	—	15.96		GA	
MW-2			—	15.88		GA	
MW-3			—	16.31		GA	
MW-4			—	13.90		GA	
MW-5			—	14.22		GA	
MW-6			—	13.82		GA	
MW-7			—	13.18		GA	
MW-8			—	22.71		GA	
MW-9			—	14.53		GA	
MW-10			—	15.68		GA	
MW-11			—	13.07		GA	
MW-12			—	13.52		GA	
MW-13			—	13.26		GA	
7901/7902			—	10.82		GA	
NMW-1			10.51	13.21		GA	0.7
NMW-2	7.5.13 / 1515	7.5.13 / 13.1'	—	14.01		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	7-5-13 / 1320	1251 Hrs / 13.1	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	7.5.13 / 1420	184
Product MW-9	7.5.13 / 1420	33
Product MW-3		—

Additional Comments:

OIL WELL MONITORING 1330 - 1445 Hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil	/ Water (feet)	Visible Sheen	Initials	Product Observed (Inches)
MW-1	6-27-13/1345	1722Hrs/16.8'	-	15.97		GA	
MW-2	↓	↓	-	15.78		GA	
MW-3			-	15.53		GA	
MW-4			-	12.87		GA	
MW-5			-	14.98		GA	
MW-6			-	13.07		GA	
MW-7			-	12.34		GA	
MW-8			-	22.63		GA	
MW-9			14.14	14.16		GA	0.02'
MW-10			-	16.56		GA	
MW-11			-	12.96		GA	
MW-12			-	13.07		GA	
MW-13			-	12.71		GA	
7901/7902			-	10.76		GA	
NMW-1	↓	↓	12.51	13.24		GA	0.73'
NMW-2	6-27-13/1532		-	13.83		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	6-27-13/1520	1722/16.8'	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	6-27-13/1510	184
Product MW-9	6-27-13/1510	33
Product MW-3	-	-

Additional Comments:

GAUGED 1345 → 1530 Hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	6-20-13/1315	1135Am/13.4'	–	16.31		GA	
MW-2			–	16.02		GA	
MW-3			–	16-31		GA	
MW-4			–	14.23		GA	
MW-5			–	14.48		GA	
MW-6			–	13.87		GA	
MW-7			–	13.39		GA	
MW-8	1450 HRS		14.62	15.42		GA	Well pump OFF @ 1430 HRS
MW-9				14.67		GA	
MW-10			–	15.91		GA	
MW-11			–	12.73		GA	
MW-12			–	13.51		GA	
MW-13			–	13.51		GA	
7901/7902			–	10.72		GA	
NMW-1			12.35	12.91		GA	0.56
NMW-2			–	13.82		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	6-20-13/1315	1135Am/13.4'	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	6-20-13/1510	184
Product MW-9	6-20-13/1510	33
Product MW-3		

Additional Comments:

START @ 1315 HRS → 1515 HRS

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	6-13-13 1330 HRS	5:15P / 14.0'	–	17.63		GA	
MW-2	↑	↑	–	17.63		GA	
MW-3			–	16.87		GA	
MW-4			–	14.27		GA	
MW-5			–	14.52		GA	
MW-6			–	14.21		GA	
MW-7			–	13.56		GA	
MW-8			–	24.11		GA	
MW-9			15.96	16.02		GA	0.06'
MW-10			–	15.96		GA	
MW-11			–	14.18		GA	
MW-12			–	14.37		GA	
MW-13			–	13.48		GA	
7901/7902			–	10.75		GA	
NMW-1	↓	↓	13.91	14.70		GA	0.79'
NMW-2	6-13-13 /	5:15P / 14.0'	–	15.25		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	6.13.13 / 1505 HRS	184
Product MW-9	6.13.13 / 1505 HRS	33
Product MW-3		–

Additional Comments:

WELL GAUGING FROM 1330 HRS → 1515 HRS

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	6.6.13 / 1300	1305 / 13.9'	–	15.77		GA	
MW-2	↑	↑	–	15.66		GA	
MW-3	↑	↑	–	16.51		GA	
MW-4	↑	↑	–	14.48		GA	
MW-5	↑	↑	–	14.47		GA	
MW-6	↑	↑	–	14.09		GA	
MW-7	↑	↑	–	13.52		GA	
MW-8	↑	↑	–	22.71		GA	
MW-9	↑	↑	14.41	14.49		GA	
MW-10	↑	↑	–	15.96		GA	
MW-11	↑	↑	–	13.12		GA	
MW-12	↑	↑	–	13.67		GA	
MW-13	↑	↑	–	13.47		GA	
7901/7902	↑	↑	–	10.71		GA	
NMW-1	↓	↓	12.58	13.23		GA	0.65
NMW-2	6.6.13 / 1500	1305 / 13.9'	–	14.18		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	6.6.13 / 1445 HRS	182
Product MW-9	6.6.13 / 1445 HRS	33
Product MW-3		–

Additional Comments:

GAUGING FROM 1300 → 1500 HRS.

↓ BAILED ~ 300 mL OF PRODUCTS OUT OF NMW-1

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	5/28/13 / 1415	16.2'@1453	–	15.92		GA	
MW-2			–	16.03		GA	
MW-3			–	16.34		GA	
MW-4			–	13.97		GA	
MW-5			–	14.28		GA	
MW-6			–	13.79		GA	
MW-7			–	13.08		GA	
MW-8			–	15.71*		GA	* DEPRESSION PUMP OFF (15.15 hrs)
MW-9			–	14.82		GA	
MW-10			–	15.61		GA	
MW-11			–	14.21		GA	
MW-12			–	13.92		GA	
MW-13			–	13.38		GA	
7901/7902			–	10.62		GA	
NMW-1			14.6	14.74		GA	0.14'
NMW-2	5/28/13 / 1615	16.2'@1453	–	14.95		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	5/28/13 / 1500	1453 / 16.2'	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	5-28.13/1530	184
Product MW-9	5-28.13 / 1520	33
Product MW-3	–	0

Additional Comments:

GAUGING 1415 → 1615 HRS.

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil	/ Water (feet)	Visible Sheen	Initials	Product Observed (Inches)
MW-1	5-21-13 / 11:01Am	11:01am / 13.2'	-	17.21'	N	GA	
MW-2				17.01	N	GA	
MW-3				17.44	N	GA	
MW-4			-	15.23	N	GA	
MW-5			-	15.23	N	GA	
MW-6			-	14.98	N	GA	
MW-7			-	14.41	N	GA	
MW-8			-	24.02	N	GA	
MW-9			15.69	16.00	Y	GA	0.31'
MW-10			-	16.71	N	GA	
MW-11			-	14.41	N	GA	
MW-12			-	14.86	N	GA	
MW-13			-	14.20	N	GA	
7901/7902			-	10.59	N	GA	
NMW-1			13.80	15.21	Y	GA	1.41'
NMW-2	5-21-13 / 11:01A	11:01am / 13.2'	-	15.41	N	GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	5-21-13 / 12pm	182
Product MW-9	5-21-13 / 12pm	33
Product MW-3	5-21-13 / 12pm	0

Additional Comments: MONITOR / GAUGE 1040 Am → 1230 pm

OIL TOTES 1" = 7.7 GAL

Mendenhall Facility Oil Monitoring Well Data

Well #	/ Water (feet)	Visible Sheen	Initials	Product Observed (Inches)
MW-1			GA	
MW-2			GA	
MW-3			GA	
MW-4			GA	
MW-5			GA	
MW-6			GA	
MW-7			GA	
MW-8			GA	
MW-9			GA	
MW-10			GA	
MW-11			GA	
MW-12			GA	
MW-13			GA	
790177902			GA	
NMW-1			GA	
NMW-2			GA	
MENDENHALL RIVER OBSERVAT	Sheen	Seeps		
FREE PRODUCT RECOVERY				
Product MW-8				
Product MW-9				
Product MW-3				

JuneauDistrict

May 13

		HIGH TIDES AM	FT	PM	FT	LOW TIDES AM	FT	PM	FT
1	W	5:46	15.9	7:08	14.1	.....	.....	12:20	-0.3
2	T	6:57	14.5	8:22	14.0	0:58	4.0	1:28	0.9
3	F	8:19	13.6	9:30	14.5	2:18	3.9	2:41	1.6
4	S	9:39	13.5	10:28	15.2	3:35	3.0	3:50	1.9
5	S	10:49	13.8	11:17	16.0	4:40	1.8	4:50	1.9
6	M	11:46	14.3	11:59	16.6	5:33	0.5	5:41	1.8
7	T	.....	.....	12:35	14.8	6:19	-0.6	6:25	1.8
8	W	0:36	17.0	1:19	15.1	6:59	-1.3	7:05	1.9
9	T	1:11	17.3	1:58	15.3	7:36	-1.8	7:42	2.1
10	F	1:45	17.3	2:35	15.2	8:11	-1.9	8:18	2.4
11	S	2:17	17.1	3:10	15.0	8:45	-1.7	8:53	2.9
12	S	2:50	16.7	3:45	14.6	9:19	-1.3	9:27	3.4
13	M	3:24	16.2	4:21	14.1	9:53	-0.7	10:03	4.0
14	T	3:59	15.4	5:00	13.5	10:29	0.0	10:42	4.6
15	W	4:37	14.5	5:43	13.0	11:09	0.9	11:28	5.2
16	T	5:22	13.5	6:34	12.6	11:54	1.7	.....	.....
17	F	6:17	12.6	7:32	12.6	0:25	5.5	12:46	2.5
18	S	7:27	12.0	8:33	13.1	1:34	5.4	1:47	3.0
19	S	8:45	11.9	9:29	13.9	2:47	4.6	2:52	3.2
20	M	9:58	12.4	10:19	15.1	3:52	3.3	3:55	3.1
21	T	11:01	13.2	11:06	16.3	4:49	1.6	4:52	2.7
22	W	11:56	14.3	11:51	17.6	5:38	-0.2	5:44	2.2
23	T	.....	.....	12:48	15.2	6:25	-1.9	6:33	1.6
24	F	0:36	18.6	1:37	16.0	7:10	-3.3	7:20	1.2
25	S	1:22	19.3	2:25	16.5	7:55	-4.2	8:07	1.0
26	S	2:09	19.6	3:14	16.7	8:41	-4.6	8:55	1.1
27	M	2:56	19.4	4:03	16.6	9:27	-4.4	9:45	1.4
28	T	3:46	18.6	4:53	16.2	10:16	-3.6	10:39	1.9
29	W	4:38	17.4	5:47	15.8	11:06	-2.3	11:38	2.4
30	T	5:35	15.9	6:45	15.3	.....	.....	12:01	-0.9
31	F	6:40	14.4	7:46	15.0	0:43	2.8	1:00	0.6

10 Juneau, Alaska — 2 9 17 24 31

Additional Comments:

NO GAUGING THIS WEEK DUE TO HIGH TIDE HOURS OUTSIDE WORKING HOURS.

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	5-8-13 / 1319 Hr	1319 Hr. 15.1'	—	15.81	N	GA	
MW-2	↓	↓	—	15.87	N	GA	
MW-3			—	16.83	N	GA	
MW-4			—	14.81	N	GA	
MW-5			—	14.63	N	GA	
MW-6			—	14.41	N	GA	
MW-7			13.85	13.87	Y	GA	0.02'
MW-8			—	23.49	N	GA	
MW-9			14.62	14.90	Y	GA	0.28'
MW-10			—	16.09	N	GA	
MW-11			—	13.37	N	GA	
MW-12			—	14.11	N	GA	
MW-13			—	13.62	N	GA	
790177902			—	10.52	N	GA	
NMW-1	↓	↓	13.07	14.72	Y	GA	1.65'
NMW-2	5-8-13 / 1319 Hr	1319 / 15.1'	—	14.66	N	GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	5-8-13 / 1319	1319 / 15.1'	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	5-8-13 / 1319	170
Product MW-9	"	30
Product MW-3	"	0

Additional Comments:

GAUGING 1319 → 1510 Hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	5.2.13/0657A	0657/ 14.5	-	16.12	N	GA	
MW-2	↓	↓	-	17.81	N	GA	
MW-3			-	15.64	N	GA	
MW-4			-	15.76	N	GA	
MW-5			-	15.92	N	GA	
MW-6			-	14.71	N	GA	
MW-7			-	14.00	N	GA	
MW-8			-	15.73	N	GA	PUMP NOT PUMPING ?
MW-9			14.74	15.02	Y	GA	
MW-10			-	16.49	N	GA	
MW-11			-	13.58	N	GA	
MW-12			-	15.27	N	GA	
MW-13			-	14.07	N	GA	
790177902			-	10.74	N	GA	
NMW-1	↓	↓	13.20	14.84	Y	GA	1.64
NMW-2	5.2.13/0657A	0657A/14.5	-	14.71	N	GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	5.2.13/0755	0657/14.5'	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8		178
Product MW-9		30
Product MW-3		—

Additional Comments: GAUGING FROM 0615 → 0830 HRS

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	4.23.13 / 1222	1222 / 15.3'	–	17.19	N	GA	
MW-2			–	17.09	N	GA	
MW-3			–	~~15.93~~ 18.12	N	GA	
MW-4			–	15.87	N	GA	
MW-5			–	16.39	N	GA	
MW-6			–	15.93	N	GA	
MW-7			–	15.31	N	GA	
MW-8			–	16.87	N	GA	
MW-9			15.81	16.85	Y	GA	1.04'
MW-10			–	~~16.39~~ 17.81	N	GA	
MW-11			–	14.44	N	GA	
MW-12			–	15.39	N	GA	
MW-13			–	14.47	N	GA	
790177902			–	10.72	N	GA	
NMW-1			13.94	15.28	Y	GA	1.34'
NMW-2	4.23.13 / 1222	1222 / 15.3'	–	15.57	N	GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	4.23.13 / 1400	15.3'	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	4.23.13 / 1400	178
Product MW-9	4.23.13 / 1400	30
Product MW-3		–

Additional Comments:

GAUGING 1130 → 1410 hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	4.19.13 / 0819 Am	0819 Am / 12.4'	–	17.46		GA	
MW-2	↓	↓	–	~~18.24~~ 17.43		GA	
MW-3			–	18.24		GA	
MW-4						GA	
MW-5						GA	
MW-6						GA	
MW-7						GA	
MW-8						GA	
MW-9						GA	
MW-10			–	17.57		GA	
MW-11			–	14.79		GA	
MW-12						GA	
MW-13						GA	
790177902						GA	
NMW-1			14.20'	15.41		GA	1.13'
NMW-2	4.19.13 / 0819 Am	0819 Am / 12.4'	–	15.77		GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	4-19-13 / 1010	0819 am / 12.4'	N	N

FREE PRODUCT RECOVERY	Date/ Time	Free Product Level (gallons)
Product MW-8	4.19.13 / 0819 Am	178
Product MW-9	"	30
Product MW-3	"	0

Additional Comments:

GAUGING 0820 → 1030 Am

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	4-11-13/1449	1449 Hrs / 16.3'	–	17.16	N	GA	
MW-2			–	17.06	N	GA	
MW-3			–	17.37	N	GA	
MW-4			–	15.12	Y	GA	
MW-5			–	16.98	N	GA	
MW-6			–	15.01	N	GA	
MW-7			–	14.06	N	GA	
MW-8			–	24.61	N	GA	
MW-9			15.93	16.38	Y	GA	0 - 41"
MW-10			–	15.38	N	GA	
MW-11			–	13.78	NO	GA	
MW-12			–	14.93	N	GA	
MW-13			–	14.59	N	GA	
790177902			–	10.79	N	GA	
NMW-1			13.47	15.08	Y	GA	1.6"
NMW-2	4.11.13 / 1449	1449 Hrs / 16.3'	–	14.99	N	GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	4-11-13 /	1449 Hrs / 16.3	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	4.11.13	178
Product MW-9	4-11-13	30
Product MW-3	4-11-13	0

Additional Comments:

GAUGING TIME 1200 Hrs → 1500 Hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	4.4.13 / 0835	0835 / 14.2	—	16.88	N	GA	
MW-2	↓	↓	—	17.98	N	GA	
MW-3			—	15.61	N	GA	
MW-4			15.81	15.82	Y	GA	
MW-5			—	16.09	N	GA	
MW-6			—	15.68	N	GA	
MW-7			—	15.04	N	GA	
MW-8			—	24.64	N	GA	
MW-9			—	16.80	N	GA	
MW-10			—	17.51	N	GA	
MW-11			—	14.48	N	GA	
MW-12			—	15.36	N	GA	
MW-13			—	15.32	N	GA	
790177902			—	10.82	N	GA	
NMW-1	↓	↓	14.07	15.31	Y	GA	1.42' (~ 14 3/4")
NMW-2	4.4.13 / 1030	0835 / 14.2	—	15.59	N	GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	4.4.13 /	0835 / 14.2'	N	N

FREE PRODUCT RECOVERY	Date/ Time	Free Product Level (gallons)
Product MW-8	4.4.13 / 0950	~ 178
Product MW-9	4.4.13 / 0950	~ 30
Product MW-3	"	0

Additional Comments:

GAUGING 0830 → 1045 HRS

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)	Visible Sheen	Initials	Product Observed (Inches)
MW-1	3-27-13 / 1 PM	1408 Hrs / 17.3'	- / 15.95	N	GA	
MW-2	↑	↑	- / 16.27	N	GA	
MW-3			- / 17.62	N	GA	
MW-4			- / 15.56	N	GA	
MW-5			- / 15.71	N	GA	
MW-6			- / 15.18	N	GA	
MW-7			- / 14.47	N	GA	
MW-8			- / 24.05	N	GA	
MW-9			14.97 / 15.41	Y	GA	5.28"
MW-10			- / 17.11	N	GA	
MW-11			- / 13.19	N	GA	
MW-12			- / 14.90	N	GA	
MW-13			- / 14.91	N	GA	
7901/7902			- / 10.91	N	GA	
NMW-1	↓	↓	12.87 / 14.13	Y	GA	15.12"
NMW-2	3-27-13 / 3 PM	1408 Hrs / 17.3'	- / 14.58	N	GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	3.27.13 / 1400 Hrs	1408 / 17.3'	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	3.27.13 / 1345 Hrs	~ 178
Product MW-9	"	~ 30
Product MW-3	"	0

Additional Comments: TESTING DONE 1PM → 3 PM

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)	Visible Sheen	Initials	Product Observed (Inches)
MW-1	3/12/13 1335 Hrs	1428 Hrs / 18.0	- / 15.69	N	GT	
MW-2			- / 14.69	N	GT	
MW-3			- / 17.02	N	GT	
MW-4			- / 15.11	N	GT	
MW-5			- / 15.08	N	GT	
MW-6			- / 14.62	N	GT	
MW-7			- / 13.88	N	GT	
MW-8			- / 23.67	N	GT	
MW-9			14.61 / 15.11	N	GT	0.50' 5 7/8"
MW-10			- / 16.46	N	GT	
MW-11			- / 14.37	N	GT	
MW-12			- / 14.36	N	GT	
MW-13			- / 14.21	N	GT	
7901/7902			- / 10.75	N	GT	
NMW-1			14.0 / 15.23	N	GT	~~1.33'~~ = 14 3/4"
NMW-2	3/12/13 1535 Hrs	1428 Hrs / 18.0	- / 15.41	N	GT	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	3/12/13 1340	SAME	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	3/12/13 1405	1 77
Product MW-9	3/12/13 1410	20
Product MW-3	3/12/13 1410	0

Additional Comments:

MONITORING TIME 1335 Hrs → 1535 Hrs

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time		High Tide / Height (feet)		T.O.C. To Oil / Water (feet)	Visible Sheen	Initials	Product Observed (Inches)
MW-1	2.26.13	1326	1326	17.6	– / 14.33	N	GT	
MW-2	↑	↑	↑	↑	– / 14.31	N	GT	
MW-3	↑	↑	↑	↑	– / 16.47	N	GT	
MW-4	↑	↑	↑	↑	– / 14.93	N	GT	
MW-5	↑	↑	↑	↑	– / 14.74	N	GT	
MW-6	↑	↑	↑	↑	– / 14.39	N	GT	
MW-7	↑	↑	↑	↑	– / 15.67	N	GT	
MW-8	↑	↑	↑	↑	– / 22.17	N	GT	
MW-9	↑	↑	↑	↑	13.45 / 13.47	N	GT	0.02
MW-10	↑	↑	↑	↑	– / 16.17	N	GT	
MW-11	↑	↑	↑	↑	– / 12.33	N	GT	
MW-12	↑	↑	↑	↑	– / 13.42	N	GT	
MW-13	↑	↑	↑	↑	– / 13.81	N	GT	
7901/7902	↑	↑	↑	↑	– / 10.71	N	GT	
NMW-1	↓	↓	↓	↓	12.09 / 12.91	N	GT	0.90
NMW-2	2.26.13	1326	1326	17.6	– / 13.67	N	GT	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	2.26.13 / 1245	1326 / 17.6'	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	2-26-13 / 1410	177
Product MW-9	2.26.13 / 1410	20
Product MW-3		–

Additional Comments: TESTING 1245 PM → 1430 HRS.

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time		High Tide / Height (feet)		T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	2-20.13	0830	0859	13.4'	-	16.71	N	GT	
MW-2	↑	0835	↑	↑	-	17.52	N	GT	
MW-3		0905			-	16.54	N	GT	
MW-4		0945			14.97	15.23	N	GT	0.26
MW-5		0915			-	15.14	N	GT	
MW-6		0925			-	14.92	N	GT	
MW-7		0855			-	14.21	N	GT	
MW-8		0955			-	14.64	N	GT	
MW-9		1005			15.51	16.06	N	GT	0.55
MW-10		0905			-	16.56	N	GT	
MW-11		0820			-	13.65	N	GT	
MW-12		0935			-	13.87	N	GT	
MW-13		0845			-	13.97	N	GT	
7901/7902		1015			10.65	-	N	GT	
NMW-1	↓	1025	↓	↓	13.29	14.65	N	GT	1.36
NMW-2	2-20.13	1035	0859	13.4'	-	14.82	N	GT	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	2.20.13/1035	0859 / 13.4'	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	2-20.13/0955	177
Product MW-9	2.20.13/0955	20
Product MW-3	2-20.13/0955	0

Additional Comments:

GAUGING 0830 → 1040AM

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)		Visible Sheen	Initials	Product Observed (Inches)
MW-1	2.12.13/1424P	1424P/18.2	-	15.72	N	GA	
MW-2	"	"	-	14.81	N	GA	
MW-3	"	"	-	16.59	N	GA	
MW-4	"	"	-	15.62	N	GA	
MW-5	"	"	-	15.06	N	GA	
MW-6	"	"	-	14.73	N	GA	
MW-7	"	"	-	13.99	N	GA	
MW-8	"	"	-	23.42	N	GA	
MW-9	"	"	14.92	15.23	Y	GA	0.31'
MW-10	"	"	-	16.52	N	GA	
MW-11	"	"	-	14.42	N	GA	
MW-12	"	"	-	14.33	N	GA	
MW-13	"	"	-	14.48	N	GA	
7901/7902	"	"	-	11.02	N	GA	
NMW-1	"	"	14.64	15.44	Y	GA	0.8'
NMW-2	2.12.13/1424P	1424P/18.2	-	15.61	N	GA	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	2.12.13/1424P	1424P/18.2	N	N

FREE PRODUCT RECOVERY	Date/ Time	Free Product Level (gallons)
Product MW-8	2.12.13/1424P	177
Product MW-9	2.12.13/1424P	20
Product MW-3	"	0

Additional Comments:

GAUGED 1310 → 1525P

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)	Visible Sheen	Initials	Product Observed (Inches)
MW-1	2.5.13	0912 AM / 16.0'	- / 16.47	NO	CJ	0
MW-2	2.5.13	- " -	- / 16.62	NO	CJ	0
MW-3	2.5.13	- " -	- / 16.86	NO	CJ	0
MW-4	2.5.13	- " -	15.52 / 15.54	NO	CJ	0.02
MW-5	2.5.13	- " -	- / 15.21	NO	CJ	0
MW-6	2.5.13	- " -	- / 14.83	NO	CJ	0
MW-7	2.5.13	- " -	- / 14.03	NO	CJ	0
MW-8	2.5.13	- " -	17.92 / 17.98	NO	CJ	0.06
MW-9	2.5.13	- " -	16.54 / 16.90	NO	CJ	0.36
MW-10	2.5.13	- " -	- / 16.81	NO	CJ	0
MW-11	2.5.13	- " -	- / 12.53	NO	CJ	0
MW-12	2.5.13	- " -	- / 14.49	NO	CJ	0
MW-13	2.5.13	- " -	- / 13.71	NO	CJ	0
7901/7902	2.5.13	- " -	- / 10.52	NO	CJ	0
NMW-1	2.5.13	- " -	12.11 / 12.60	NO	CJ	0.49
NMW-2	2.5.13	- " -	- / 13.55	NO	CJ	0

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	2.5.13	0912 / 16.0'	NO	NO

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	2.5.13	175
Product MW-9	2.5.13	20
Product MW-3	2.5.13	0

Additional Comments:

WELL TESTING @ 0930 AM

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)	Visible Sheen	Initials	Product Observed (Inches)
MW-1	1.22.13 /	0931 / 14.2				
MW-2	1.22.13 /	0931 / 14.2				
MW-3	1.22.13 /	0931 / 14.2				
MW-4	1.22.13 /	0931 / 14.2				
MW-5	1.22.13 /	0931 / 14.2				
MW-6	1.22.13 /	0931 / 14.2				
MW-7	1.22.13 /	0931 / 14.2	/ 14.60			
MW-8	1.22.13 /	0931 / 14.2				
MW-9	1.22.13 /	0931 / 14.2				
MW-10	1.22.13 /	0931 / 14.2	/ 16.97			
MW-11	1.22.13 /	0931 / 14.2	/ 13.50	N		
MW-12	1.22.13 /	0931 / 14.2				
MW-18	1.22.13 /	0931 / 14.2				
790177902	1.22.13 /	0931 / 14.2				
NMW-1	1.22.13 /	0931 / 14.2	13.16 / 13.60			0.44
NMW-2	1.22.13 /	0931 / 14.2				

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	1.22.13 /	0931 / 14.2	N	N

FREE PRODUCT RECOVERY	Date/ Time	Free Product Level (gallons)
Product MW-8	1.22.13 /	
Product MW-9	1.22.13 /	
Product MW-3	1.22.13 /	

Additional Comments:

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)	Visible Sheen	Initials	Product Observed (Inches)
MW-1	1-15-13/1526 Hr	1526 Hr/17.8	- / 16.42	N	GT	
MW-2	↑	↑	- / 16.48	N	GT	
MW-3			- / 17.12	N	GT	
MW-4			- / 15.22	N	GT	
MW-5			- / 14.91	N	GT	
MW-6			- / 14.62	N	GT	
MW-7			- / 14.09	N	GT	
MW-8			- / 22.26	N	GT	
MW-9			15.12 / 15.68	Y	GT	Ø-56'
MW-10			- / 16.98	N	GT	
MW-11			- / 12.74	N	GT	
MW-12			- / 14.01	N	GT	
MW-13			- / 14.19	N	GT	
7901/7902			- / 12.28	N	GT	
NMW-1	↓	↓	14.52 / 15.24	Y	GT	Ø-42'
NMW-2	1-15-13/1526 Hr	1526 Hr/17.8	- / 13.95	N	GT	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	1-15-13/1526 Hr	1526 Hr/17.8	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	1-15-13/1526 Hr	177
Product MW-9	1-15-13/1526 Hr	20
Product MW-3	1-15-13/1526 Hr	-

Additional Comments:

MONITOR 1415P → 1610P

Mendenhall Facility Oil Monitoring Well Data

Well #	Date / Time	High Tide / Height (feet)	T.O.C. To Oil / Water (feet)	Visible Sheen	Initials	Product Observed (Inches)
MW-1	1.8.13/0933A	0933A / 17.3'	- / 16.38	N	GJ	
MW-2	↑	↑	- / 16.24	N	GJ	
MW-3			- / 16.92	N	GJ	
MW-4			- / 15.12	N	GJ	
MW-5			- / 14.78	N	GJ	
MW-6			- / 14.48	N	GJ	
MW-7			- / 13.89	N	GJ	
MW-8			- / 21.80	N	GJ	
MW-9			15.04 / 15.79	Y	GJ	
MW-10			- / 16.81	N	GJ	
MW-11			- / 12.73	N	GJ	
MW-12			- / 13.72	N	GJ	
MW-13			- / 13.91	N	GJ	
7901/7902			- / 12.06	N	GJ	
NMW-1	↓	↓	15.13 / 15.92	Y	GJ	
NMW-2	1.8.13/0933A	0933A / 17.3'	- / 13.74	N	GJ	

MENDENHALL RIVER OBSERVATIONS	Date/Time	High Tide/Height	Visible Sheen	Seeps
	1.8.13/0933A	0933A / 17.3	N	N

FREE PRODUCT RECOVERY	Date/Time	Free Product Level (gallons)
Product MW-8	1.8.13 / 0933A	177
Product MW-9	1.8.13 / 0933A	20
Product MW-3	1.8.13/0933A	-

Additional Comments:

MONITOR 0830A → 1035A