



May 12, 2017
Cardno 03134304.LQ172

LUST Coordinator
Washington State Department of Ecology
Northwest Regional Office
3190 160th Avenue Southeast
Bellevue, Washington 98008-5452

SUBJECT **Groundwater Monitoring Report – Second Quarter 2017**
Former Mobil Station 19002
4740 Rainier Avenue South
Seattle, Washington

Cardno

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Seattle, WA 98104
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LUST Coordinator:

At the request of ExxonMobil Environmental Services Company (EMES), on behalf of ExxonMobil Oil Corporation, Cardno has prepared the enclosed *Groundwater Monitoring Report – Second Quarter 2017* presenting results of a groundwater sampling event conducted on April 11, 2017 at the subject site.

Please contact Mr. Bobby Thompson, Cardno Project Manager for this site, at 206 510 5855, or Ms. Marla Madden, EMES Project Manager for this site, at 714 964 4935, with any questions.

Sincerely,

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ENCLOSURE

Cardno's ExxonMobil Environmental Services Company *Groundwater Monitoring Report – Second Quarter 2017*, dated May 12, 2017

cc: w/ enclosures
 Mr. Rich Cannon, Cannon Commercial (*Electronic copy via USPS*)
 Ms. Marla Madden, ExxonMobil Environmental Services Company (*Filed in project folder*)

**EXXONMOBIL ENVIRONMENTAL SERVICES COMPANY
 GROUNDWATER MONITORING REPORT – SECOND QUARTER 2017**

May 12, 2017
 Cardno 03134304.Q172

Cardno

Site No.: 19002 Address: 4740 Rainier Avenue South
Seattle, Washington
 ExxonMobil Project Manager: Marla Madden
 Consultant/Contact Person: Cardno/Bobby Thompson
 Primary Agency/Regulatory ID No.: Washington State Department of Ecology

801 Second Avenue
 Suite 700
 Seattle, WA 98104
 USA

WORK PERFORMED THIS QUARTER [Second - 2017]:

- Monitored and sampled 6 groundwater monitoring wells using low-flow sampling methods.

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WORK PROPOSED FOR NEXT QUARTER [Third - 2017]:

- Monitor and sample 6 groundwater monitoring wells using low-flow sampling methods.

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SUMMARY:

Frequency of Sampling Events:	<u>Quarterly</u>	(Quarterly, etc.)
Approximate Depth to Groundwater:	<u>19 to 25</u>	(Measured Feet)
Average Site Groundwater Gradient:	<u>North-Northeast</u>	(Direction)
	<u>0.09</u>	(Magnitude)
Maximum TPHg/Benzene Concentrations:	<u>960 / 15</u>	(µg/L)
Measurable NAPL Detected:	<u>No</u>	(Yes - ID well(s)/No)
Measurable NAPL Thickness:	<u>None</u>	(feet)
Bulk Soil Removed This Quarter:	<u>None</u>	(cubic yards)
Water Wells or Surface Waters w/in 2,000 ft:	<u>None</u>	
Radius and Respective Direction:	<u>N/A</u>	(Distance & Direction)
Current Remedial Action:	<u>None</u>	(SVE/AS/P&T, etc.)

DISCUSSION:

- Concentrations of dissolved hydrocarbons were less than the MTCA Method A Cleanup Levels in 5 of 6 wells sampled.

May 12, 2017

Cardno 03134304.Q172 Former Mobil Station 19002, Seattle, Washington

ENCLOSURES:

Plate 1 Site Location Map
Plate 2 Generalized Site Plan
Plate 3 Groundwater Sample Analyses Map – 04/11/17
Plate 4 Groundwater Elevation Contour Map – 04/11/17

Table 1 Groundwater Monitoring and Sampling Schedule and Well Construction Details
Table 2 Cumulative Groundwater Analytical Results

Laboratory Analytical Report and Chain of Custody Documentation
Field Data Records

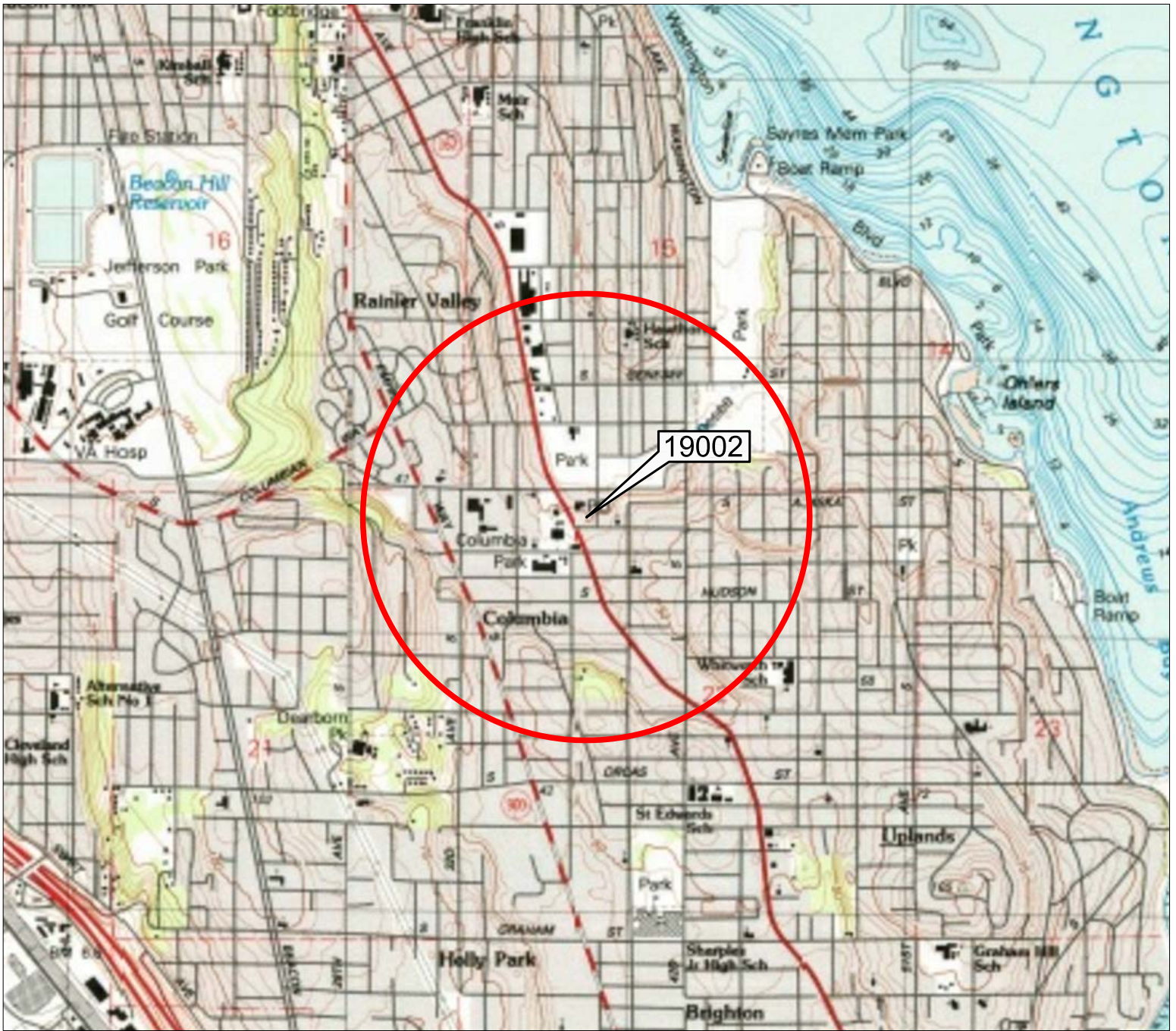
Prepared By:

Reviewed By:



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FN 0313430001

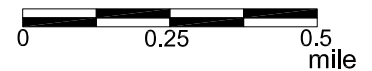
EXPLANATION



1/2-mile radius circle



APPROXIMATE SCALE



SOURCE:
Modified from a map
provided by
USGS

SITE LOCATION MAP

FORMER MOBIL STATION 19002
4740 Rainier Avenue South
Seattle, Washington

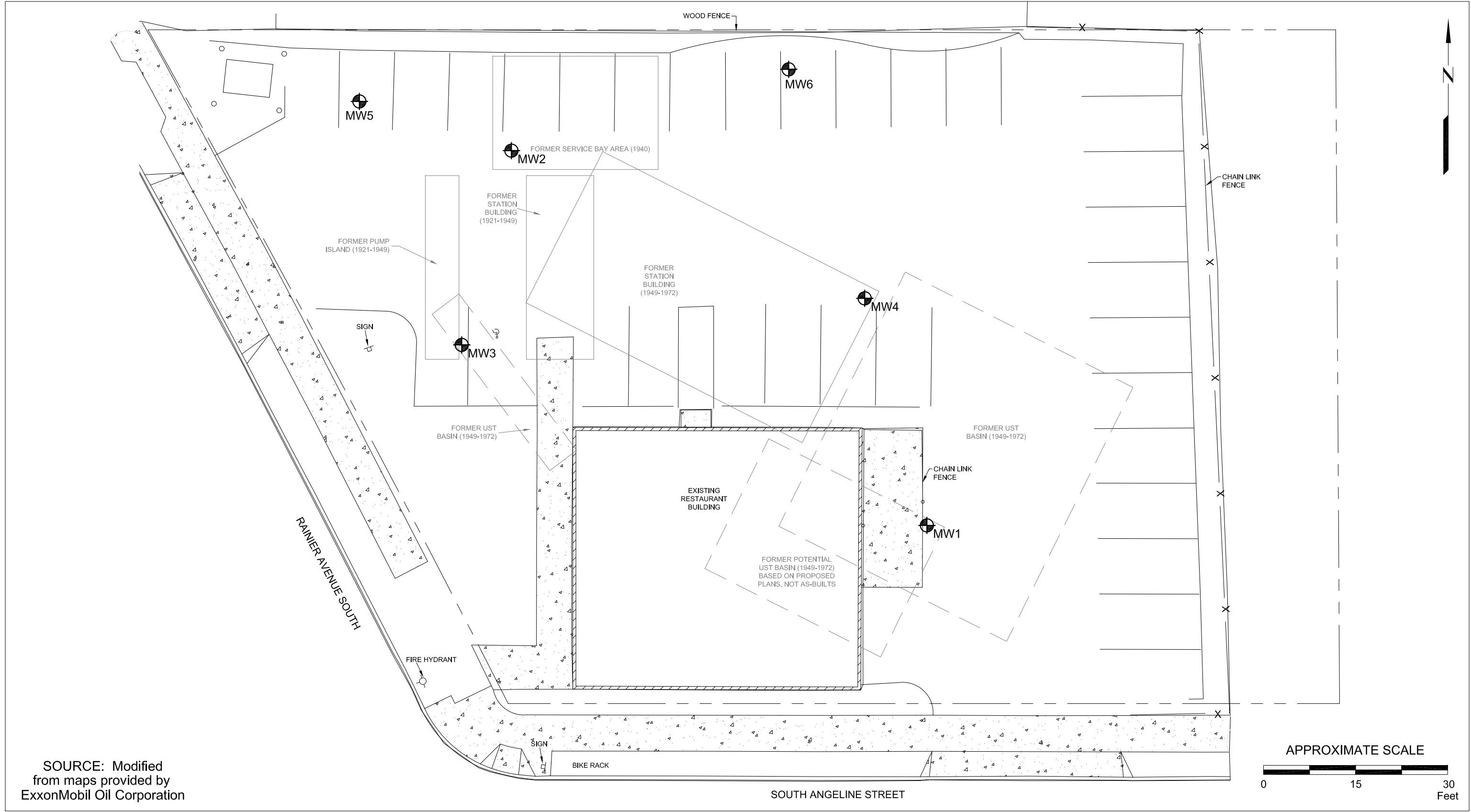
PROJECT NO.

031343

PLATE

1

RRT: 07/24/15



SOURCE: Modified
from maps provided by
ExxonMobil Oil Corporation

FN 0313430002



GENERALIZED SITE PLAN

FORMER MOBIL STATION 19002
4740 Rainier Avenue South
Seattle, Washington

EXPLANATION

-  Concrete
-  MW6 Groundwater Monitoring Well

PROJECT NO.

031343

PLATE

2

RRT: 08/18/16

MW2			
08/01/16	10/26/16	01/23/17	04/11/17
<100	<100	<100	<100
135	79.3J	<91	<100
120	65.1J	<91	<100
<1.00	<1.00	<0.50	<0.50
<1.00	<1.00	<1.0	<1.0
<1.00	<1.00	<1.0	<1.0
<3.00	<3.00	<1.0	<1.0
7.30	2.00J	<10.0	<10.0

MW6			
08/01/16	10/27/16	01/24/17	04/11/17
<100	<500	<100	<100
1,070	688	<94	<100
1,510	369	<94	<100
1.87	<5.00	<0.50	<1.0
<1.00	<5.00	<1.0	<2.0
<1.00	<5.00	<1.0	<2.0
<3.00	<15.0	<1.0	<2.0
<5.00	<5.00	<10.0	<10.0

MW5			
08/01/16	10/27/16	01/23/17	04/11/17
3,300	2,910	2,100	960
698	563	560	130
2,240	134	<94	<100
5.23	25.7	11	15
3.27	5.61	2.8	1.6
1.36	4.05	1.6	1.4
11.6	12.9	4.8	2.6
5.80	<5.00	<10.0	<10.0

MW3			
08/01/16	10/26/16	01/24/17	04/11/17
367	180	<100	<100
113	101	<96	<100
<93.5	115	150	<100
<1.00	<1.00	<0.50	<0.50
7.48	1.09	<1.0	<1.0
21.3	8.08	<1.0	<1.0
39.2	12.8	<1.0	<1.0
<5.00	<5.00	<10.0	<10.0

MW4			
08/01/16	10/27/16	01/23/17	04/11/17
<100	<500	<100	<100
1,200	338	190	<100
1,660	181	270	<100
<1.00	<1.00	<0.50	<1.0
<1.00	<1.00	<1.0	<2.0
<1.00	<1.00	<1.0	<2.0
<3.00	<3.00	<1.0	<2.0
<5.00	<5.00	<10.0	<10.0

MW1			
08/01/16	10/26/16	01/23/17	04/11/17
<100	<100	<100	<100
<100	30.1J	<94	<100
<100	<94.3	<94	<100
<1.00	<1.00	<0.50	<0.50
<1.00	<1.00	<1.0	3.1
<1.00	<1.00	<1.0	<1.0
<3.00	<3.00	<1.0	<1.0
6.20	3.00J	<10.0	<10.0

Laboratory Results in µg/L			
MW5	Well ID		
04/11/17	Sample Date		
960	Total Petroleum Hydrocarbons as Gasoline		
130	Total Petroleum Hydrocarbons as Diesel		
<100	Total Petroleum Hydrocarbons as Motor Oil		
15	Benzene	<1.0	= Less than the Stated Laboratory Reporting Limit
1.6	Toluene		
1.4	Ethylbenzene	µg/L	= Micrograms per Liter
2.6	Total Xylenes		
<10.0	Dissolved Lead		

- Numbers or Well Symbols in Red Indicate Concentrations Which Exceed MTCA Method A Cleanup Levels
- Numbers or Well Symbols in Blue Indicate Concentrations Less Than MTCA Method A Cleanup Levels
- No Data Available for Numbers and Well Symbols in Black

J = An estimated value between the laboratory method detection limit and the laboratory method reporting limit

GROUNDWATER SAMPLE ANALYSES

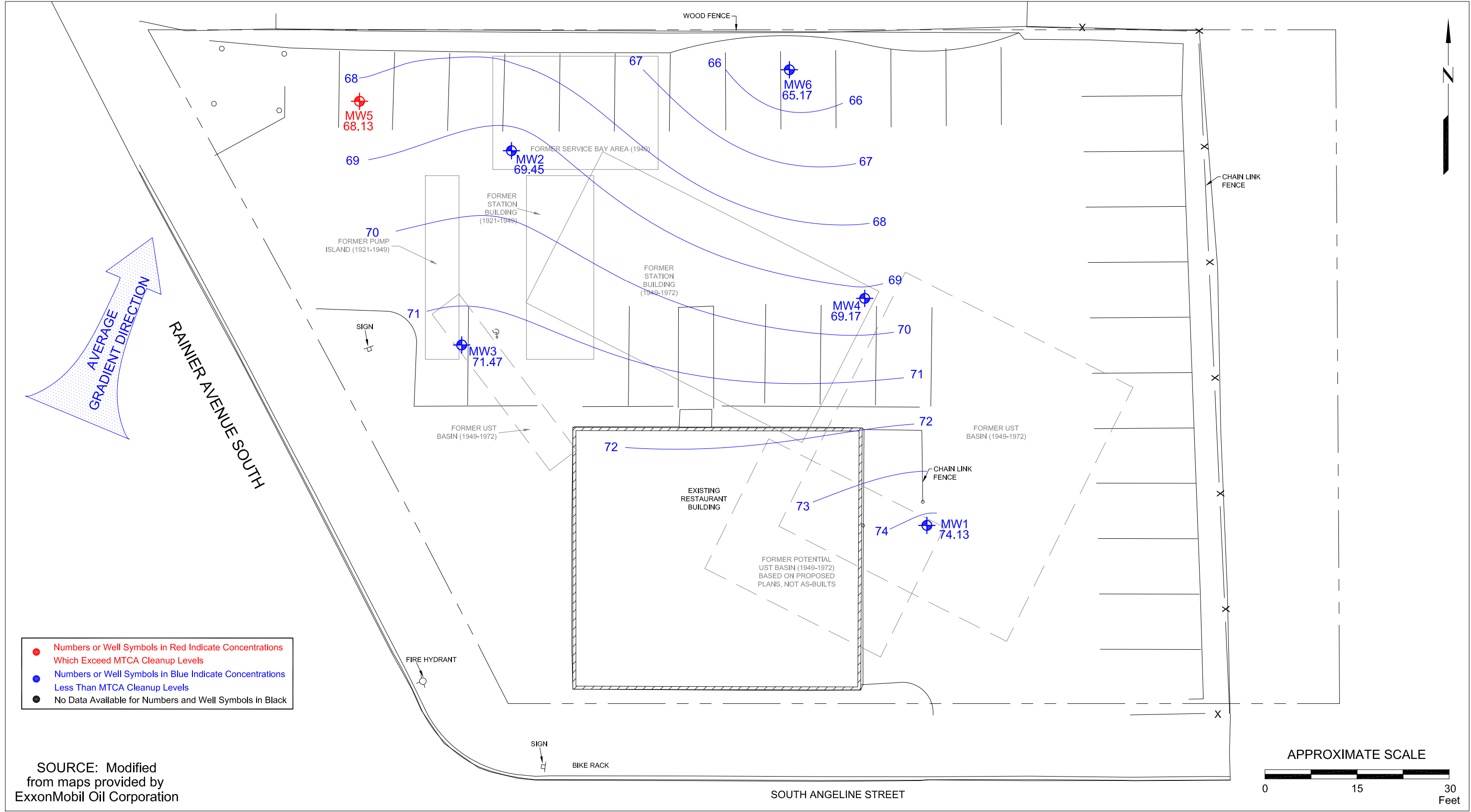
MAP - 04/11/17

FORMER MOBIL STATION 19002
4740 Rainier Avenue South
Seattle, Washington

EXPLANATION
MW6
Groundwater Monitoring Well

PROJECT NO.
031343
PLATE
3
CMT: 05/12/17





	GROUNDWATER ELEVATION CONTOUR MAP - 04/11/17 FORMER MOBIL STATION 19002 4740 Rainier Avenue South Seattle, Washington	EXPLANATION MW6 65.17 Groundwater Monitoring Well Groundwater Elevation Groundwater Elevation Contour Line	PROJECT NO. 031343 PLATE 4 CMT: 05/12/17
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TABLE 1
GROUNDWATER MONITORING AND SAMPLING SCHEDULE AND WELL CONSTRUCTION DETAILS

Former Mobil Station 19002
4740 Rainier Avenue South
Seattle, Washington
Page 1 of 1

Well ID	Well Activity	Frequency of Gauging	Frequency of Sampling	Date of Installation	Borehole/Casing Diameter (Inches)	Wellhead Elevation (feet)	Screened Interval (feet bgs)	Total Well Depth (feet bgs)	Slot Size (Inches)
MW1	LF	Quarterly	Quarterly	04/21/15	8/2	92.75	15-25	25	0.010
MW2	LF	Quarterly	Quarterly	04/23/15	8/2	89.28	22-32	32	0.010
MW3	LF	Quarterly	Quarterly	04/24/15	8/2	90.50	20-30	30	0.010
MW4	LF	Quarterly	Quarterly	10/23/15	6/2	90.87	15-30	30	0.010
MW5	LF	Quarterly	Quarterly	07/20/16	8.25/2	89.19	15-30	30	0.020
MW6	LF	Quarterly	Quarterly	07/20/16	8.25/2	89.95	20-30	30	0.020

EXPLANATION:

feet bgs = Feet below ground surface

LF = Low-flow sample

Wellhead elevations were surveyed by Cardno using NAVD 88

TABLE 2
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS

Former Mobil Station 19002
4740 Rainier Avenue South
Seattle, Washington
Page 1 of 4

Well ID	Sampling Date	Wellhead Elev	DTW (feet)	NAPL (feet)	GW Elev (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Total Pb (µg/L)	Diss Pb (µg/L)
MW1	05/08/15	92.75	19.19	0.00	73.56	106	136	<95.2	<1.00	37.9	<1.00	<2.00	8.70	7.60
MW1	08/14/15	92.75	19.71	0.00	73.04	<100	<95.2	<95.2	<1.00	10.3	<1.00	<3.00	10.1	5.90
MW1	11/19/15	92.75	18.49	0.00	74.26	<100	<97.1	<97.1	<1.00	3.04	<1.00	<3.00	7.10	<5.00
MW1	03/15/16	92.75	18.60	0.00	74.15	<100	100	95.5	<1.00	3.20	<1.00	<3.00	8.30	5.10
MW1	05/26/16	92.75	19.95	0.00	72.80	<100	<94.3	<94.3	<1.00	<1.00	<1.00	<3.00	5.70	<5.00
MW1	08/01/16	92.76	20.30	0.00	72.46	<100	<100	<100	<1.00	<1.00	<1.00	<3.00	12.8	6.20
MW1	10/26/16	92.76	18.60	0.00	74.16	<100	30.1J	<94.3	<1.00	<1.00	<1.00	<3.00	4.50J	3.00J
MW1	10/27/16	92.76	NM	--	--	--	--	--	--	--	--	--	--	--
MW1	01/23/17	92.76	18.59	0.00	74.17	<100	<94	<94	<0.50	<1.0	<1.0	<1.0	<10.0	<10.0
MW1	01/24/17	92.76	NM	--	--	--	--	--	--	--	--	--	--	--
MW1	04/11/17	92.76	18.63	0.00	74.13	<100	<100	<100	<0.50	3.1	<1.0	<1.0	<10.0	<10.0
MW2	05/08/15	89.28	20.56	0.00	68.72	<100	58.8J	<95.2	<1.00	<1.00	<1.00	<2.00	8.90	2.40J
MW2	08/14/15	89.28	20.82	0.00	68.46	<100	<93.5	<93.5	<1.00	<1.00	<1.00	<3.00	6.30	6.30
MW2	11/19/15	89.28	19.44	0.00	69.84	<100	116	<93.5	<1.00	<1.00	<1.00	<3.00	6.00	<5.00
MW2	03/15/16	89.28	19.43	0.00	69.85	<100	140	136	<1.00	<1.00	<1.00	<3.00	<5.00	5.00
MW2	05/26/16	89.28	20.84	0.00	68.44	<100	<94.3	<94.3	<1.00	<1.00	<1.00	<3.00	5.90	<5.00
MW2	08/01/16	89.28	20.28	0.00	69.00	<100	135	120	<1.00	<1.00	<1.00	<3.00	27.1	7.30
MW2	10/26/16	89.28	20.42	0.00	68.86	<100	79.3J	65.1J	<1.00	<1.00	<1.00	<3.00	7.80	2.00J
MW2	10/27/16	89.28	NM	--	--	--	--	--	--	--	--	--	--	--
MW2	01/23/17	89.28	19.74	0.00	69.54	<100	<91	<91	<0.50	<1.0	<1.0	<1.0	<10.0	<10.0
MW2	01/24/17	89.28	NM	--	--	--	--	--	--	--	--	--	--	--
MW2	04/11/17	89.28	19.83	0.00	69.45	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	<10.0	<10.0
MTCA Method A Cleanup Levels						800/1,000 ^a	500	500	5	1,000	700	1,000	15	15

Continued on page 2

TABLE 2
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS

Former Mobil Station 19002
4740 Rainier Avenue South
Seattle, Washington
Page 2 of 4

Well ID	Sampling Date	Wellhead Elev	DTW (feet)	NAPL (feet)	GW Elev (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Total Pb (µg/L)	Diss Pb (µg/L)
MW3	05/08/15	90.50	19.22	0.00	71.28	<100	30.2J	<95.2	<1.00	<1.00	<1.00	<2.00	5.50	<5.00
MW3	08/14/15	90.50	19.41	0.00	71.09	<100	<93.5	<93.5	<1.00	<1.00	<1.00	5.72	6.20	<5.00
MW3	11/19/15	90.50	18.62	0.00	71.88	375	168	<97.1	<1.00	1.54	11.0	29.3	<5.00	<5.00
MW3	03/15/16	90.50	18.60	0.00	71.90	104	145	164	<1.00	5.22	5.12	<3.00	7.30	<5.00
MW3	05/26/16	90.50	19.58	0.00	70.92	<100	231	282	<1.00	<1.00	<1.00	<3.00	<5.00	<5.00
MW3	08/01/16	90.50	20.05	0.00	70.45	367	113	<93.5	<1.00	7.48	21.3	39.2	8.60	<5.00
MW3	10/26/16	90.50	19.22	0.00	71.28	180	101	115	<1.00	1.09	8.08	12.8	3.20J	<5.00
MW3	10/27/16	90.50	NM	--	--	--	--	--	--	--	--	--	--	--
MW3	01/23/17	90.50	18.72	0.00	71.78	--	--	--	--	--	--	--	--	--
MW3	01/24/17	90.50	24.79	0.00	65.71	<100	<96	150	<0.50	<1.0	<1.0	<1.0	<10.0	<10.0
MW3	04/11/17	90.50	19.03	0.00	71.47	<100	<100	<100	<0.50	<1.0	<1.0	<1.0	<10.0	<10.0
MW4	11/19/15	90.87	21.64	0.00	69.23	<100	492	194	<1.00	<1.00	<1.00	<3.00	14.1	<5.00
MW4	03/15/16	90.87	21.70	0.00	69.17	<100	655	483	<1.00	<1.00	<1.00	<3.00	30.8	6.40
MW4	05/26/16	90.87	21.90	0.00	68.97	<500	444	253	<1.00	<1.00	<1.00	<3.00	13.7	<5.00
MW4	08/01/16	90.87	21.86	0.00	69.01	<100	1,200	1,660	<1.00	<1.00	<1.00	<3.00	36.8	<5.00
MW4	10/26/16	90.87	21.90	0.00	68.97	--	--	--	--	--	--	--	--	--
MW4	10/27/16	90.87	21.70	0.00	69.17	<500	338	181	<1.00	<1.00	<1.00	<3.00	15.4	<5.00
MW4	01/23/17	90.87	21.73	0.00	69.14	<100	190	270	<0.50	<1.0	<1.0	<1.0	<10.0	<10.0
MW4	01/24/17	90.87	NM	--	--	--	--	--	--	--	--	--	--	--
MW4	04/11/17	90.87	21.70	0.00	69.17	<100	<100	<100	<1.0	<2.0	<2.0	<2.0	<10.0	<10.0
MTCA Method A Cleanup Levels						800/1,000 ^a	500	500	5	1,000	700	1,000	15	15

Continued on page 3

TABLE 2
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS

Former Mobil Station 19002
4740 Rainier Avenue South
Seattle, Washington

Page 3 of 4

Well ID	Sampling Date	Wellhead Elev	DTW (feet)	NAPL (feet)	GW Elev (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Total Pb (µg/L)	Diss Pb (µg/L)
MW5	08/01/16	89.19	23.96	0.00	65.23	3,300	698	2,240	5.23	3.27	1.36	11.6	120	5.80
MW5	10/26/16	89.19	21.99	0.00	67.20	--	--	--	--	--	--	--	--	--
MW5	10/27/16	89.19	22.31	0.00	66.88	2,910	563	134	25.7	5.61	4.05	12.9	36.4	<5.00
MW5	01/23/17	89.19	20.45	0.00	68.74	2,100	560	<94	11	2.8	1.6	4.8	<10.0	<10.0
MW5	01/24/17	89.19	NM	--	--	--	--	--	--	--	--	--	--	--
MW5	04/11/17	89.19	21.06	0.00	68.13	960	130	<100	15	1.6	1.4	2.6	<10.0	<10.0
MW6	08/01/16	89.95	24.81	0.00	65.14	<100	1,070	1,510	1.87	<1.00	<1.00	<3.00	376	5.60
MW6	10/26/16	89.95	24.79	0.00	65.16	--	--	--	--	--	--	--	--	--
MW6	10/27/16	89.95	24.79	0.00	65.16	<500	688	369	<5.00	<5.00	<5.00	<15.0	60.1	<5.00
MW6	01/23/17	89.95	24.77	0.00	65.18	--	--	--	--	--	--	--	--	--
MW6	01/24/17	89.95	18.78	0.00	71.17	<100	<94	<94	<0.50	<1.0	<1.0	<1.0	<10.0	<10.0
MW6	04/11/17	89.95	24.78	0.00	65.17	<100	<100	<100	<1.0	<2.0	<2.0	<2.0	<10.0	<10.0
MTCA Method A Cleanup Levels						800/1,000 ^a	500	500	5	1,000	700	1,000	15	15

Continued on page 4

TABLE 2
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS

Former Mobil Station 19002
4740 Rainier Avenue South
Seattle, Washington
Page 4 of 4

EXPLANATION:

µg/L = Micrograms per liter

Wellhead Elev = Wellhead elevation

DTW = Depth to water in feet below top of casing

NAPL = Non-aqueous Phase Liquid thickness in feet

GW Elev = Groundwater elevation relative to top of casing elevation

TPHg = Total Petroleum Hydrocarbons as Gasoline analyzed in accordance with Ecology Method NWTPH-Gx

TPHd and TPHmo = Total Petroleum Hydrocarbons as Diesel and Motor Oil, respectively, analyzed in accordance with Ecology Method NWTPH-Dx

B = Benzene; T = Toluene; E = Ethylbenzene; X = Total Xylenes

BTEX = Aromatic compounds analyzed in accordance with EPA Method 8260B or 8260C, refer to laboratory reports

Total Pb = Total Lead; Diss Pb = Dissolved Lead; Total and Dissolved Lead analyzed in accordance with EPA Method 6010B or 6010C, refer to laboratory reports

< = Less than stated laboratory reporting limit

NA = Not Applicable

Shaded Values are less than or equal to the MTCA Cleanup Levels

a = TPHg cleanup level for groundwater is 800 µg/L if benzene is present, or 1,000 µg/L if benzene is not present

J = An estimated value between the laboratory method detection limit and the laboratory method reporting limit



WORK ORDER NUMBER: 17-04-0852

The difference is service



AIR | SOIL | WATER | MARINE CHEMISTRY

Analytical Report For

Client: Cardno

Client Project Name: ExxonMobil 19002 / 031343

Attention: Bobby Thompson
801 Second Avenue
Suite 700
Seattle, WA 98104-1573

Cecile L. de Guia

Approved for release on 04/25/2017 by:
Cecile deGuia
Project Manager

ResultLink ▶

Email your PM ▶

Eurofins Calscience, Inc. (Calscience) certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analyses, if any, is attached to this report. The results in this report are limited to the sample(s) tested and any reproduction thereof must be made in its entirety. The client or recipient of this report is specifically prohibited from making material changes to said report and, to the extent that such changes are made, Calscience is not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience for any defense to any litigation which may arise.

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Work Order: 17-04-0852

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Work Order Narrative

Condition Upon Receipt:

Samples were received under Chain-of-Custody (COC) on 04/12/17. They were assigned to Work Order 17-04-0852.

Unless otherwise noted on the Sample Receiving forms all samples were received in good condition and within the recommended EPA temperature criteria for the methods noted on the COC. The COC and Sample Receiving Documents are integral elements of the analytical report and are presented at the back of the report.

Holding Times:

All samples were analyzed within prescribed holding times (HT) and/or in accordance with the Calscience Sample Acceptance Policy unless otherwise noted in the analytical report and/or comprehensive case narrative, if required.

Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of ≤ 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.

Quality Control:

All quality control parameters (QC) were within established control limits except where noted in the QC summary forms or described further within this report.

Subcontractor Information:

Unless otherwise noted below (or on the subcontract form), no samples were subcontracted.

Additional Comments:

Air - Sorbent-extracted air methods (EPA TO-4A, EPA TO-10, EPA TO-13A, EPA TO-17): Analytical results are converted from mass/sample basis to mass/volume basis using client-supplied air volumes.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are always reported on a wet weight basis.



Calscience

The difference is service

Client: Cardno	Work Order: 17-04-0852
801 Second Avenue, Suite 700	Project Name: ExxonMobil 19002 / 031343
Seattle, WA 98104-1573	PO Number: 4410488463
	Date/Time Received: 04/12/17 10:00
	Number of Containers: 72

Attn: Bobby Thompson

Sample Summary

Sample Identification	Lab Number	Collection Date and Time	Number of Containers	Matrix
W-19-MW1	17-04-0852-1	04/11/17 08:55	12	Aqueous
W-20-MW2	17-04-0852-2	04/11/17 09:45	12	Aqueous
W-19-MW3	17-04-0852-3	04/11/17 10:35	12	Aqueous
W-22-MW4	17-04-0852-4	04/11/17 11:25	12	Aqueous
W-21-MW5	17-04-0852-5	04/11/17 14:10	12	Aqueous
W-25-MW6	17-04-0852-6	04/11/17 13:10	12	Aqueous


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Client: Cardno	Work Order: 17-04-0852
801 Second Avenue, Suite 700	Project Name: ExxonMobil 19002 / 031343
Seattle, WA 98104-1573	Date Received: 04/12/17
Attn: Bobby Thompson	

Analytical Report

Analyte	Result	Flag	Units	MDL	RL	Dilution Factor	Analysis Date/Time	Method	Batch
Sample ID: 1 (W-19-MW1, Aqueous) Sampled: 04/11/17 08:55									
NWTPH-Dx TPH Diesel Ranges (Extraction Method: EPA 3510C) Container - K									
TPH as Diesel Range	ND	SG	ug/L		100	1.00	04/22/17 14:58	NWTPH-Dx	170418B10S
<i>Surr: n-Octacosane (68-140%)</i>	<i>132%</i>						<i>04/22/17 14:58</i>	<i>NWTPH-Dx</i>	<i>170418B10S</i>
NWTPH-Dx TPH Motor Oil Ranges (Extraction Method: EPA 3510C) Container - K									
TPH as Motor Oil Range	ND	SG	ug/L		100	1.00	04/22/17 14:58	NWTPH-Dx	170418B11S
<i>Surr: n-Octacosane (68-140%)</i>	<i>132%</i>						<i>04/22/17 14:58</i>	<i>NWTPH-Dx</i>	<i>170418B11S</i>
NWTPH-Gx Gasoline (Extraction Method: EPA 5030C) Container - F									
TPH as Gasoline	ND		ug/L		100	1.00	04/18/17 23:03	NWTPH-Gx	170418L056
<i>Surr: 1,4-Bromofluorobenzene (38-134%)</i>	<i>73%</i>						<i>04/18/17 23:03</i>	<i>NWTPH-Gx</i>	<i>170418L056</i>
EPA 6010B ICP Metals (Extraction Method: EPA 3010A Total) Container - I									
Lead	ND		ug/L		10.0	1.00	04/18/17 14:25	EPA 6010B	170417LA5
EPA 6010B ICP Metals (Extraction Method: EPA 3005A Filt.) Container - J									
Lead	ND		ug/L		10.0	1.00	04/18/17 14:35	EPA 6010B	170417LA6F
EPA 8260B BTEX (Extraction Method: EPA 5030C) Container - A									
Benzene	ND		ug/L		0.50	1.00	04/12/17 17:19	EPA 8260B	170412L029
Ethylbenzene	ND		ug/L		1.0	1.00	04/12/17 17:19	EPA 8260B	170412L029
Toluene	3.1		ug/L		1.0	1.00	04/12/17 17:19	EPA 8260B	170412L029
p/m-Xylene	ND		ug/L		1.0	1.00	04/12/17 17:19	EPA 8260B	170412L029
o-Xylene	ND		ug/L		1.0	1.00	04/12/17 17:19	EPA 8260B	170412L029
Xylenes (total)	ND		ug/L		1.0	1.00	04/12/17 17:19	EPA 8260B	170412L029
<i>Surr: 1,4-Bromofluorobenzene (77-120%)</i>	<i>86%</i>						<i>04/12/17 17:19</i>	<i>EPA 8260B</i>	<i>170412L029</i>
<i>Surr: Dibromofluoromethane (80-128%)</i>	<i>106%</i>						<i>04/12/17 17:19</i>	<i>EPA 8260B</i>	<i>170412L029</i>
<i>Surr: 1,2-Dichloroethane-d4 (80-129%)</i>	<i>95%</i>						<i>04/12/17 17:19</i>	<i>EPA 8260B</i>	<i>170412L029</i>
<i>Surr: Toluene-d8 (80-120%)</i>	<i>98%</i>						<i>04/12/17 17:19</i>	<i>EPA 8260B</i>	<i>170412L029</i>
Sample ID: 2 (W-20-MW2, Aqueous) Sampled: 04/11/17 09:45									
NWTPH-Dx TPH Diesel Ranges (Extraction Method: EPA 3510C) Container - K									
TPH as Diesel Range	ND	SG	ug/L		100	1.00	04/22/17 15:19	NWTPH-Dx	170418B10S
<i>Surr: n-Octacosane (68-140%)</i>	<i>127%</i>						<i>04/22/17 15:19</i>	<i>NWTPH-Dx</i>	<i>170418B10S</i>
NWTPH-Dx TPH Motor Oil Ranges (Extraction Method: EPA 3510C) Container - K									
TPH as Motor Oil Range	ND	SG	ug/L		100	1.00	04/22/17 15:19	NWTPH-Dx	170418B11S
<i>Surr: n-Octacosane (68-140%)</i>	<i>127%</i>						<i>04/22/17 15:19</i>	<i>NWTPH-Dx</i>	<i>170418B11S</i>
NWTPH-Gx Gasoline (Extraction Method: EPA 5030C) Container - F									
TPH as Gasoline	ND		ug/L		100	1.00	04/19/17 00:43	NWTPH-Gx	170418L056



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The difference is service

Client: Cardno	Work Order: 17-04-0852
801 Second Avenue, Suite 700	Project Name: ExxonMobil 19002 / 031343
Seattle, WA 98104-1573	Date Received: 04/12/17
Attn: Bobby Thompson	

Analytical Report

Analyte	Result	Flag	Units	MDL	RL	Dilution Factor	Analysis Date/Time	Method	Batch
<i>Surr: 1,4-Bromofluorobenzene (38-134%) 67%</i>									
EPA 6010B ICP Metals (Extraction Method: EPA 3010A Total) Container - I									
Lead	ND		ug/L		10.0	1.00	04/18/17 14:26	EPA 6010B	170417LA5
EPA 6010B ICP Metals (Extraction Method: EPA 3005A Filt.) Container - J									
Lead	ND		ug/L		10.0	1.00	04/18/17 14:34	EPA 6010B	170417LA6F
EPA 8260B BTEX (Extraction Method: EPA 5030C) Container - A									
Benzene	ND		ug/L		0.50	1.00	04/13/17 00:21	EPA 8260B	170412L029
Ethylbenzene	ND		ug/L		1.0	1.00	04/13/17 00:21	EPA 8260B	170412L029
Toluene	ND		ug/L		1.0	1.00	04/13/17 00:21	EPA 8260B	170412L029
p/m-Xylene	ND		ug/L		1.0	1.00	04/13/17 00:21	EPA 8260B	170412L029
o-Xylene	ND		ug/L		1.0	1.00	04/13/17 00:21	EPA 8260B	170412L029
Xylenes (total)	ND		ug/L		1.0	1.00	04/13/17 00:21	EPA 8260B	170412L029
<i>Surr: 1,4-Bromofluorobenzene (77-120%) 87%</i>									
<i>Surr: Dibromofluoromethane (80-128%) 111%</i>									
<i>Surr: 1,2-Dichloroethane-d4 (80-129%) 97%</i>									
<i>Surr: Toluene-d8 (80-120%) 99%</i>									
Sample ID: 3 (W-19-MW3, Aqueous) Sampled: 04/11/17 10:35									
NWTPH-Dx TPH Diesel Ranges (Extraction Method: EPA 3510C) Container - K									
TPH as Diesel Range	ND	SG	ug/L		100	1.00	04/22/17 15:41	NWTPH-Dx	170418B10S
<i>Surr: n-Octacosane (68-140%) 174% AZ</i>									
NWTPH-Dx TPH Motor Oil Ranges (Extraction Method: EPA 3510C) Container - K									
TPH as Motor Oil Range	ND	SG	ug/L		100	1.00	04/22/17 15:41	NWTPH-Dx	170418B11S
<i>Surr: n-Octacosane (68-140%) 174% AZ</i>									
NWTPH-Gx Gasoline (Extraction Method: EPA 5030C) Container - F									
TPH as Gasoline	ND		ug/L		100	1.00	04/19/17 01:16	NWTPH-Gx	170418L056
<i>Surr: 1,4-Bromofluorobenzene (38-134%) 70%</i>									
EPA 6010B ICP Metals (Extraction Method: EPA 3010A Total) Container - I									
Lead	ND		ug/L		10.0	1.00	04/18/17 14:27	EPA 6010B	170417LA5
EPA 6010B ICP Metals (Extraction Method: EPA 3005A Filt.) Container - J									
Lead	ND		ug/L		10.0	1.00	04/18/17 14:36	EPA 6010B	170417LA6F
EPA 8260B BTEX (Extraction Method: EPA 5030C) Container - A									
Benzene	ND		ug/L		0.50	1.00	04/13/17 00:48	EPA 8260B	170412L029
Ethylbenzene	ND		ug/L		1.0	1.00	04/13/17 00:48	EPA 8260B	170412L029
Toluene	ND		ug/L		1.0	1.00	04/13/17 00:48	EPA 8260B	170412L029
p/m-Xylene	ND		ug/L		1.0	1.00	04/13/17 00:48	EPA 8260B	170412L029
o-Xylene	ND		ug/L		1.0	1.00	04/13/17 00:48	EPA 8260B	170412L029
Xylenes (total)	ND		ug/L		1.0	1.00	04/13/17 00:48	EPA 8260B	170412L029



Calscience

The difference is service

Client: Cardno
801 Second Avenue, Suite 700
Seattle, WA 98104-1573

Work Order: 17-04-0852
Project Name: ExxonMobil 19002 / 031343
Date Received: 04/12/17

Attn: Bobby Thompson

Analytical Report

Analyte	Result	Flag	Units	MDL	RL	Dilution Factor	Analysis Date/Time	Method	Batch
Surr: 1,4-Bromofluorobenzene (77-120%)	84%						04/13/17 00:48	EPA 8260B	170412L029
Surr: Dibromofluoromethane (80-128%)	104%						04/13/17 00:48	EPA 8260B	170412L029
Surr: 1,2-Dichloroethane-d4 (80-129%)	94%						04/13/17 00:48	EPA 8260B	170412L029
Surr: Toluene-d8 (80-120%)	98%						04/13/17 00:48	EPA 8260B	170412L029
Sample ID: 4 (W-22-MW4, Aqueous) Sampled: 04/11/17 11:25									
NWTPH-Dx TPH Diesel Ranges (Extraction Method: EPA 3510C) Container - K									
TPH as Diesel Range	ND	SG	ug/L		100	1.00	04/22/17 16:03	NWTPH-Dx	170418B10S
Surr: n-Octacosane (68-140%)	126%						04/22/17 16:03	NWTPH-Dx	170418B10S
NWTPH-Dx TPH Motor Oil Ranges (Extraction Method: EPA 3510C) Container - K									
TPH as Motor Oil Range	ND	SG	ug/L		100	1.00	04/22/17 16:03	NWTPH-Dx	170418B11S
Surr: n-Octacosane (68-140%)	126%						04/22/17 16:03	NWTPH-Dx	170418B11S
NWTPH-Gx Gasoline (Extraction Method: EPA 5030C) Container - F									
TPH as Gasoline	ND		ug/L		100	1.00	04/19/17 01:50	NWTPH-Gx	170418L056
Surr: 1,4-Bromofluorobenzene (38-134%)	64%						04/19/17 01:50	NWTPH-Gx	170418L056
EPA 6010B ICP Metals (Extraction Method: EPA 3010A Total) Container - I									
Lead	ND		ug/L		10.0	1.00	04/18/17 14:28	EPA 6010B	170417LA5
EPA 6010B ICP Metals (Extraction Method: EPA 3005A Filt.) Container - J									
Lead	ND		ug/L		10.0	1.00	04/18/17 14:36	EPA 6010B	170417LA6F
EPA 8260B BTEX (Extraction Method: EPA 5030C) Container - A									
- The reporting limit is elevated resulting from matrix interference.									
Benzene	ND		ug/L		1.0	2.00	04/13/17 01:40	EPA 8260B	170412L029
Ethylbenzene	ND		ug/L		2.0	2.00	04/13/17 01:40	EPA 8260B	170412L029
Toluene	ND		ug/L		2.0	2.00	04/13/17 01:40	EPA 8260B	170412L029
p/m-Xylene	ND		ug/L		2.0	2.00	04/13/17 01:40	EPA 8260B	170412L029
o-Xylene	ND		ug/L		2.0	2.00	04/13/17 01:40	EPA 8260B	170412L029
Xylenes (total)	ND		ug/L		2.0	1.00	04/13/17 01:40	EPA 8260B	170412L029
Surr: 1,4-Bromofluorobenzene (77-120%)	85%						04/13/17 01:40	EPA 8260B	170412L029
Surr: Dibromofluoromethane (80-128%)	108%						04/13/17 01:40	EPA 8260B	170412L029
Surr: 1,2-Dichloroethane-d4 (80-129%)	96%						04/13/17 01:40	EPA 8260B	170412L029
Surr: Toluene-d8 (80-120%)	97%						04/13/17 01:40	EPA 8260B	170412L029
Sample ID: 5 (W-21-MW5, Aqueous) Sampled: 04/11/17 14:10									
NWTPH-Dx TPH Diesel Ranges (Extraction Method: EPA 3510C) Container - K									
TPH as Diesel Range	130	SG,HD	ug/L		100	1.00	04/22/17 17:23	NWTPH-Dx	170418B10S
Surr: n-Octacosane (68-140%)	101%						04/22/17 17:23	NWTPH-Dx	170418B10S



Calscience

The difference is service

Client: Cardno
801 Second Avenue, Suite 700
Seattle, WA 98104-1573

Work Order: 17-04-0852
Project Name: ExxonMobil 19002 / 031343
Date Received: 04/12/17

Attn: Bobby Thompson

Analytical Report

Analyte	Result	Flag	Units	MDL	RL	Dilution Factor	Analysis Date/Time	Method	Batch
NWTPH-Dx TPH Motor Oil Ranges (Extraction Method: EPA 3510C) Container - K									
TPH as Motor Oil Range	ND	SG	ug/L		100	1.00	04/22/17 17:23	NWTPH-Dx	170418B11S
<i>Surr: n-Octacosane (68-140%)</i>	<i>101%</i>						<i>04/22/17 17:23</i>	<i>NWTPH-Dx</i>	<i>170418B11S</i>
NWTPH-Gx Gasoline (Extraction Method: EPA 5030C) Container - F									
TPH as Gasoline	960	HD	ug/L		100	1.00	04/19/17 04:37	NWTPH-Gx	170418L056
<i>Surr: 1,4-Bromofluorobenzene (38-134%)</i>	<i>103%</i>						<i>04/19/17 04:37</i>	<i>NWTPH-Gx</i>	<i>170418L056</i>
EPA 6010B ICP Metals (Extraction Method: EPA 3010A Total) Container - I									
Lead	ND		ug/L		10.0	1.00	04/18/17 14:31	EPA 6010B	170417LA5
EPA 6010B ICP Metals (Extraction Method: EPA 3005A Filt.) Container - J									
Lead	ND		ug/L		10.0	1.00	04/18/17 14:37	EPA 6010B	170417LA6F
EPA 8260B BTEX (Extraction Method: EPA 5030C) Container - A									
Benzene	15		ug/L		0.50	1.00	04/13/17 01:14	EPA 8260B	170412L029
Ethylbenzene	1.4		ug/L		1.0	1.00	04/13/17 01:14	EPA 8260B	170412L029
Toluene	1.6		ug/L		1.0	1.00	04/13/17 01:14	EPA 8260B	170412L029
p/m-Xylene	2.6		ug/L		1.0	1.00	04/13/17 01:14	EPA 8260B	170412L029
o-Xylene	ND		ug/L		1.0	1.00	04/13/17 01:14	EPA 8260B	170412L029
Xylenes (total)	2.6		ug/L		1.0	1.00	04/13/17 01:14	EPA 8260B	170412L029
<i>Surr: 1,4-Bromofluorobenzene (77-120%)</i>	<i>92%</i>						<i>04/13/17 01:14</i>	<i>EPA 8260B</i>	<i>170412L029</i>
<i>Surr: Dibromofluoromethane (80-128%)</i>	<i>101%</i>						<i>04/13/17 01:14</i>	<i>EPA 8260B</i>	<i>170412L029</i>
<i>Surr: 1,2-Dichloroethane-d4 (80-129%)</i>	<i>90%</i>						<i>04/13/17 01:14</i>	<i>EPA 8260B</i>	<i>170412L029</i>
<i>Surr: Toluene-d8 (80-120%)</i>	<i>99%</i>						<i>04/13/17 01:14</i>	<i>EPA 8260B</i>	<i>170412L029</i>
Sample ID: 6 (W-25-MW6, Aqueous) Sampled: 04/11/17 13:10									
NWTPH-Dx TPH Diesel Ranges (Extraction Method: EPA 3510C) Container - K									
TPH as Diesel Range	ND	SG	ug/L		100	1.00	04/22/17 17:44	NWTPH-Dx	170418B10S
<i>Surr: n-Octacosane (68-140%)</i>	<i>120%</i>						<i>04/22/17 17:44</i>	<i>NWTPH-Dx</i>	<i>170418B10S</i>
NWTPH-Dx TPH Motor Oil Ranges (Extraction Method: EPA 3510C) Container - K									
TPH as Motor Oil Range	ND	SG	ug/L		100	1.00	04/22/17 17:44	NWTPH-Dx	170418B11S
<i>Surr: n-Octacosane (68-140%)</i>	<i>120%</i>						<i>04/22/17 17:44</i>	<i>NWTPH-Dx</i>	<i>170418B11S</i>
NWTPH-Gx Gasoline (Extraction Method: EPA 5030C) Container - F									
TPH as Gasoline	ND		ug/L		100	1.00	04/19/17 02:23	NWTPH-Gx	170418L056
<i>Surr: 1,4-Bromofluorobenzene (38-134%)</i>	<i>60%</i>						<i>04/19/17 02:23</i>	<i>NWTPH-Gx</i>	<i>170418L056</i>
EPA 6010B ICP Metals (Extraction Method: EPA 3010A Total) Container - I									
Lead	ND		ug/L		10.0	1.00	04/18/17 14:32	EPA 6010B	170417LA5
EPA 6010B ICP Metals (Extraction Method: EPA 3005A Filt.) Container - J									
Lead	ND		ug/L		10.0	1.00	04/18/17 14:38	EPA 6010B	170417LA6F

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The difference is service

Client: Cardno
801 Second Avenue, Suite 700
Seattle, WA 98104-1573

Work Order: 17-04-0852
Project Name: ExxonMobil 19002 / 031343
Date Received: 04/12/17

Attn: Bobby Thompson

Analytical Report

Analyte	Result	Flag	Units	MDL	RL	Dilution Factor	Analysis Date/Time	Method	Batch
EPA 8260B BTEX (Extraction Method: EPA 5030C) Container - A - The reporting limit is elevated resulting from matrix interference.									
Benzene	ND		ug/L		1.0	2.00	04/13/17 02:07	EPA 8260B	170412L029
Ethylbenzene	ND		ug/L		2.0	2.00	04/13/17 02:07	EPA 8260B	170412L029
Toluene	ND		ug/L		2.0	2.00	04/13/17 02:07	EPA 8260B	170412L029
p/m-Xylene	ND		ug/L		2.0	2.00	04/13/17 02:07	EPA 8260B	170412L029
o-Xylene	ND		ug/L		2.0	2.00	04/13/17 02:07	EPA 8260B	170412L029
Xylenes (total)	ND		ug/L		2.0	1.00	04/13/17 02:07	EPA 8260B	170412L029
Surr: 1,4-Bromofluorobenzene (77-120%) 82%									
							04/13/17 02:07	EPA 8260B	170412L029
Surr: Dibromofluoromethane (80-128%) 109%									
							04/13/17 02:07	EPA 8260B	170412L029
Surr: 1,2-Dichloroethane-d4 (80-129%) 97%									
							04/13/17 02:07	EPA 8260B	170412L029
Surr: Toluene-d8 (80-120%) 97%									
							04/13/17 02:07	EPA 8260B	170412L029

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Calscience

The difference is service

Client: Cardno	Work Order: 17-04-0852
801 Second Avenue, Suite 700	Project Name: ExxonMobil 19002 / 031343
Seattle, WA 98104-1573	Date Received: 04/12/17
Attn: Bobby Thompson	

PROJECT QUALITY CONTROL DATA Blank

Analyte	Blank Value	Qualifiers	Units	QC Batch	Lab Number	Analysis Date/Time
NWTPH-Dx TPH Diesel Ranges						
099-15-560-172						
TPH as Diesel Range	ND	SG	ug/L	170418B10S	099-15-560-172	04/22/17 19:54
Surr: n-Octacosane (68-140%)	123%			170418B10S	099-15-560-172	04/22/17 19:54
NWTPH-Dx TPH Motor Oil Ranges						
099-15-562-97						
TPH as Motor Oil Range	ND	SG	ug/L	170418B11S	099-15-562-97	04/22/17 19:54
Surr: n-Octacosane (68-140%)	123%			170418B11S	099-15-562-97	04/22/17 19:54
NWTPH-Gx Gasoline						
099-12-743-868						
TPH as Gasoline	ND		ug/L	170418L056	099-12-743-868	04/18/17 22:29
Surr: 1,4-Bromofluorobenzene (38-134%)	70%			170418L056	099-12-743-868	04/18/17 22:29
EPA 6010B ICP Metals						
097-01-003-16419						
Lead	ND		ug/L	170417LA5	097-01-003-16419	04/18/17 13:59
EPA 6010B ICP Metals						
099-15-683-2039						
Lead	ND		ug/L	170417LA6F	099-15-683-2039	04/18/17 14:01
EPA 8260B BTEX						
099-14-001-22894						
Benzene	ND		ug/L	170412L029	099-14-001-22894	04/12/17 16:53
Ethylbenzene	ND		ug/L	170412L029	099-14-001-22894	04/12/17 16:53
Toluene	ND		ug/L	170412L029	099-14-001-22894	04/12/17 16:53
p/m-Xylene	ND		ug/L	170412L029	099-14-001-22894	04/12/17 16:53
o-Xylene	ND		ug/L	170412L029	099-14-001-22894	04/12/17 16:53
Xylenes (total)	ND		ug/L	170412L029	099-14-001-22894	04/12/17 16:53
Surr: 1,4-Bromofluorobenzene (77-120%)	86%			170412L029	099-14-001-22894	04/12/17 16:53
Surr: Dibromofluoromethane (80-128%)	103%			170412L029	099-14-001-22894	04/12/17 16:53
Surr: 1,2-Dichloroethane-d4 (80-129%)	94%			170412L029	099-14-001-22894	04/12/17 16:53
Surr: Toluene-d8 (80-120%)	99%			170412L029	099-14-001-22894	04/12/17 16:53

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Calscience

The difference is service

Client: Cardno	Work Order: 17-04-0852
801 Second Avenue, Suite 700	Project Name: ExxonMobil 19002 / 031343
Seattle, WA 98104-1573	Date Received: 04/12/17

QUALITY CONTROL Matrix Spike

Analyte	Orig. Val.	MS Val.	Qual.	Units	Spike Conc.	% Rec.	Target Range	Batch	Sample Spiked	Analysis Date/Time
NWTPH-Gx Gasoline										
17-04-0852-1										
TPH as Gasoline	ND	1915		ug/L	2000	96	68-122	170418S022	17-04-0852-1	04/18/17 23:36
EPA 6010B ICP Metals										
17-04-1035-1										
Lead	ND	536.2		ug/L	500.0	107	84-120	170417SA5	17-04-1035-1	04/18/17 14:22
EPA 6010B ICP Metals										
17-04-0852-2										
Lead	ND	513.3		ug/L	500.0	103	84-120	170417SA6	17-04-0852-2	04/18/17 14:32
EPA 8260B BTEX										
17-04-0852-1										
Benzene	ND	53.13		ug/L	50.00	106	75-125	170412S017	17-04-0852-1	04/12/17 19:05
Ethylbenzene	ND	52.09		ug/L	50.00	104	75-129	170412S017	17-04-0852-1	04/12/17 19:05
Toluene	3.127	57.53		ug/L	50.00	109	75-125	170412S017	17-04-0852-1	04/12/17 19:05
p/m-Xylene	ND	103.3		ug/L	100.0	103	75-133	170412S017	17-04-0852-1	04/12/17 19:05
o-Xylene	ND	51.51		ug/L	50.00	103	75-134	170412S017	17-04-0852-1	04/12/17 19:05

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Calscience

The difference is service

Client: Cardno	Work Order: 17-04-0852
801 Second Avenue, Suite 700	Project Name: ExxonMobil 19002 / 031343
Seattle, WA 98104-1573	Date Received: 04/12/17

QUALITY CONTROL Matrix Spike Duplicate

Analyte	Orig. Val.	Duplicate	Qual.	Units	Spike Conc.	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analysis Date/Time
NWTPH-Gx Gasoline												
17-04-0852-1												
TPH as Gasoline	ND	1900		ug/L	2000	95	68-122	1	0-18	170418S022	17-04-0852-1	04/19/17 00:09
EPA 6010B ICP Metals												
17-04-1035-1												
Lead	ND	532.8		ug/L	500.0	107	84-120	1	0-7	170417SA5	17-04-1035-1	04/18/17 14:23
EPA 6010B ICP Metals												
17-04-0852-2												
Lead	ND	536.2		ug/L	500.0	107	84-120	4	0-7	170417SA6	17-04-0852-2	04/18/17 14:33
EPA 8260B BTEX												
17-04-0852-1												
Benzene	ND	52.61		ug/L	50.00	105	75-125	1	0-20	170412S017	17-04-0852-1	04/12/17 19:31
Ethylbenzene	ND	52.65		ug/L	50.00	105	75-129	1	0-20	170412S017	17-04-0852-1	04/12/17 19:31
Toluene	3.127	56.05		ug/L	50.00	106	75-125	3	0-20	170412S017	17-04-0852-1	04/12/17 19:31
p/m-Xylene	ND	105.1		ug/L	100.0	105	75-133	2	0-20	170412S017	17-04-0852-1	04/12/17 19:31
o-Xylene	ND	51.91		ug/L	50.00	104	75-134	1	0-20	170412S017	17-04-0852-1	04/12/17 19:31

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Calscience

The difference is service

Client: Cardno	Work Order: 17-04-0852
801 Second Avenue, Suite 700	Project Name: ExxonMobil 19002 / 031343
Seattle, WA 98104-1573	Date Received: 04/12/17

PROJECT QUALITY CONTROL DATA

Laboratory Control Sample

Analyte	Known Val.	Analyzed	Qual.	Units	% Rec.	Target Range	Batch	Analysis Date/Time
NWTPH-Dx TPH Diesel Ranges								
099-15-560-172								
TPH as Diesel Range	800.0	884.2		ug/L	111	75-117	170418B10S	04/22/17 20:15
NWTPH-Dx TPH Motor Oil Ranges								
099-15-562-97								
TPH as Motor Oil Range	800.0	665.1		ug/L	83	75-117	170418B11S	04/22/17 21:00
NWTPH-Gx Gasoline								
099-12-743-868								
TPH as Gasoline	2000	1975		ug/L	99	78-120	170418L056	04/18/17 21:56
EPA 6010B ICP Metals								
097-01-003-16419								
Lead	500.0	527.6		ug/L	106	80-120	170417LA5	04/18/17 14:00
EPA 6010B ICP Metals								
099-15-683-2039								
Lead	500.0	527.8		ug/L	106	80-120	170417LA6F	04/18/17 14:02
EPA 8260B BTEX								
099-14-001-22894								
Benzene	50.00	50.37		ug/L	101	79-121	170412L029	04/12/17 16:00
Ethylbenzene	50.00	49.85		ug/L	100	80-120	170412L029	04/12/17 16:00
Toluene	50.00	50.58		ug/L	101	80-120	170412L029	04/12/17 16:00
p/m-Xylene	100.0	99.36		ug/L	99	80-122	170412L029	04/12/17 16:00
o-Xylene	50.00	49.73		ug/L	99	80-128	170412L029	04/12/17 16:00

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Calscience

The difference is service

Client: Cardno	Work Order: 17-04-0852
801 Second Avenue, Suite 700	Project Name: ExxonMobil 19002 / 031343
Seattle, WA 98104-1573	Date Received: 04/12/17

PROJECT QUALITY CONTROL DATA Laboratory Control Sample Duplicate

Analyte	LCS Val.	Duplicate	Qual.	Units	% Rec.	Target Range	RPD	Limit	Batch	Sample Duplicated	Analysis Date/Time
NWTPH-Dx TPH Diesel Ranges											
099-15-560-172											
TPH as Diesel Range	800.0	875.2		ug/L	109	75-117	1	0-13	170418B10S	099-15-560-172	04/22/17 20:37
NWTPH-Dx TPH Motor Oil Ranges											
099-15-562-97											
TPH as Motor Oil Range	800.0	671.7		ug/L	84	75-117	1	0-13	170418B11S	099-15-562-97	04/22/17 21:21

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Work Order: 17-04-0852

Page 1 of 1

Sample Analysis Summary Report

<u>Method</u>	<u>Extraction</u>	<u>Chemist ID</u>	<u>Instrument</u>	<u>Analytical Location</u>
EPA 6010B	EPA 3005A Filt.	935	ICP 7300	1
EPA 6010B	EPA 3010A Total	935	ICP 7300	1
EPA 8260B	EPA 5030C	1073	GC/MS V V	2
NWTPH-Dx	EPA 3510C	972	GC 45	1
NWTPH-Gx	EPA 5030C	1063	GC 25	2

Location 1: 7440 Lincoln Way, Garden Grove, CA 92841

Location 2: 7445 Lampson Avenue, Garden Grove, CA 92841

Glossary of Terms and Qualifiers

Qualifiers	Definition
AZ	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BA	The MS/MSD RPD was out of control due to suspected matrix interference.
BB	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
BU	Sample analyzed after holding time expired.
BV	Sample received after holding time expired.
CI	See case narrative.
DF	Reporting limits elevated due to matrix interferences.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
GE	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to suspected matrix interference.
HD	Chromat. profile inconsistent with pattern(s) of ref. fuel stdns.
HO	High concentration matrix spike recovery out of limits
HT	Analytical value calculated using results from associated tests.
HX	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS was in control.
IL	Relative percent difference out of control.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
JA	Analyte positively identified but quantitation is an estimate.
LD	Analyte presence was not confirmed by second column or GC/MS analysis.
LP	The LCS and/or LCSD recoveries for this analyte were above the upper control limit. The associated sample was non-detected. Therefore, the sample data was reported without further clarification.
LQ	LCS recovery above method control limits.
LR	LCS recovery below method control limits.
ND	Parameter not detected at the indicated reporting limit.
QO	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.
RU	LCS Recovery Percentage is within Marginal Exceedance (ME) Control Limit range (+/- 4 SD from the mean).
SG	A silica gel cleanup procedure was performed.
SN	See applicable analysis comment.
	Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.
	Any parameter identified in 40CFR Part 136.3 Table II that is designated as "analyze immediately" with a holding time of <= 15 minutes (40CFR-136.3 Table II, footnote 4), is considered a "field" test and the reported results will be qualified as being received outside of the stated holding time unless received at the laboratory within 15 minutes of the collection time.
	A calculated total result (Example: Total Pesticides) is the summation of each component concentration and/or, if "J" flags are reported, estimated concentration. Component concentrations showing not detected (ND) are summed into the calculated total result as zero concentrations.

CalScience GARDEN GROVE, CA 92841-1432

Site Name

Former Mobil Station 19002

CHAIN OF CUSTODY RECORD

DATE: 4/11/2017

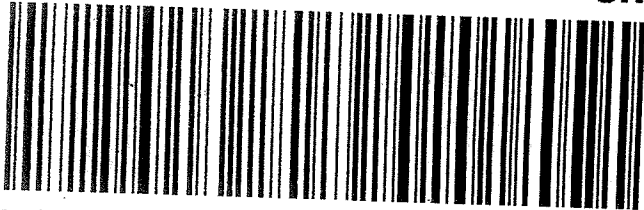
PAGE: 1 OF 1

[illegible]

FedEx

TRK# 8112 8531 6387

92 APVA

92841
CA-US
SNA

FID 76415 11APR17 BFIA 546C2/CFD6/0C8A

WED - 12 APR AA
STANDARD OVERNIGHT

FedEx

TRK# 8112 8531 6376

92 APVA

92841
CA-US
SNA

FID 76415 11APR17 BFIA 546C2/CFD6/0C8A

WED - 12 APR AA
STANDARD OVERNIGHTFedEx
ExpressPackage
US Airbill

FedEx Tracking Number 8112 8531 6376

1 From

Date 4/11/17

Sender's Name

Phone 206 767-2360

Company

Address

City

State WA

ZIP 98108

2 Your Internal Billing Reference

3 To

Recipient's Name

Phone 714 895-5494

Company

Address

We cannot deliver to P.O. boxes or P.O. ZIP codes.

Dept./Floor/Suite/Room

Address

Use this line for the HOLD location address or for continuation of your shipping address.

City

State CA

ZIP 92241-1427

Hold Weekday
FedEx location address
REQUIRED. NOT available for
FedEx First Overnight.Hold Saturday
FedEx location address
REQUIRED. Available ONLY for
FedEx Priority Overnight and
FedEx 2Day to select locations.

8112 8531 6376

Form ID No. 0215

Recipient's Copy

4 Express Package Service

*To most locations.

Packages up to 150 lbs.
For packages over 150 lbs., see the
FedEx Express Freight US Airbill.

Next Business Day

- ☐ FedEx First Overnight
Earliest next business morning delivery to select locations. Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- ☐ FedEx Priority Overnight
Next business morning.* Friday shipments will be delivered on Monday unless Saturday Delivery is selected.
- ☒ FedEx Standard Overnight
Next business afternoon.* Saturday Delivery NOT available.

2 or 3 Business Days

- ☐ FedEx 2Day A.M.
Second business morning.* Saturday Delivery NOT available.
- ☐ FedEx 2Day
Second business afternoon.* Thursday shipments will be delivered on Monday unless Saturday Delivery is selected.
- ☐ FedEx Express Saver
Third business day.* Saturday Delivery NOT available.

5 Packaging

*Declared value limit \$500.

- ☐ FedEx Envelope* ☐ FedEx Pak* ☐ FedEx Box ☐ FedEx Tube ☒ Other

6 Special Handling and Delivery Signature Options

Fees may apply. See the FedEx Service Guide.

- ☐ Saturday Delivery
NOT available for FedEx Standard Overnight, FedEx 2Day A.M., or FedEx Express Saver.
- ☒ No Signature Required
Package may be left without obtaining a signature for delivery.
- ☐ Direct Signature
Someone at recipient's address may sign for delivery.
- ☐ Indirect Signature
If no one is available at recipient's address, someone at a neighboring address may sign for delivery. For residential deliveries only.

Does this shipment contain dangerous goods?

One box must be checked:

- ☒ No ☐ Yes As per attached Shipper's Declaration ☐ Yes Shipper's Declaration not required ☐ Dry Ice Dry ice, 9 UN 1845 x kg

Restrictions apply for dangerous goods — see the current FedEx Service Guide.

☐ Cargo Aircraft Only

7 Payment Bill to:

Enter FedEx Acct. No. or Credit Card No. below.

Obtain recip. Acct. No. ☐

- ☐ Sender Acct. No. in Section I will be billed. ☒ Recipient ☐ Third Party ☐ Credit Card ☐ Cash/Check

Total Packages

Total Weight

lbs.

Credit Card Auth.

Your liability is limited to US\$100 unless you declare a higher value. See the current FedEx Service Guide for details.

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SAMPLE RECEIPT CHECKLIST

COOLER 1 OF 2

CLIENT: Cardno

DATE: 04 / 12 / 2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC (CF: 0.0°C); Temperature (w/o CF): 2.1 °C (w/ CF): 2.1 °C; ☒ Blank ☐ Sample☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling☐ Sample(s) received at ambient temperature; placed on ice for transport by courierAmbient Temperature: ☐ Air ☐ FilterChecked by: IS

CUSTODY SEAL:

Cooler ☒ Present and Intact☐ Present but Not Intact☐ Not Present☐ N/AChecked by: ISSample(s) ☐ Present and Intact☐ Present but Not Intact☒ Not Present☐ N/AChecked by: 826

SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ☒ Yes ☐ No ☐ N/ACOC document(s) received complete ☒ Yes ☐ No ☐ N/A☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished timeSampler's name indicated on COC ☒ Yes ☐ No ☐ N/ASample container label(s) consistent with COC ☒ Yes ☐ No ☐ N/ASample container(s) intact and in good condition ☒ Yes ☐ No ☐ N/AProper containers for analyses requested ☒ Yes ☐ No ☐ N/ASufficient volume/mass for analyses requested ☒ Yes ☐ No ☐ N/ASamples received within holding time ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ☐ Yes ☐ No ☒ N/AProper preservation chemical(s) noted on COC and/or sample container ☒ Yes ☐ No ☐ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☒ Dissolved MetalsContainer(s) for certain analysis free of headspace ☒ Yes ☐ No ☐ N/A☒ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)Tedlar™ bag(s) free of condensation ☐ Yes ☐ No ☒ N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☒ VOAh ☐ VOAna₂ ☐ 100PJ ☐ 100PJna₂ ☐ 125AGB ☐ 125AGBh ☐ 125AGBp ☐ 125PB☐ 125PBz_{na} ☐ 250AGB ☐ 250CGB ☐ 250CGBs ☒ 250PB ☒ 250PBn ☐ 500AGB ☒ 500AGJ ☐ 500AGJs☐ 500PB ☐ 1AGB ☐ 1AGBna₂ ☐ 1AGBs ☐ 1PB ☐ 1PBna ☐ _____ ☐ _____ ☐ _____Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ Other Matrix (_____) ☐ _____ ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 826s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, z_{na} = Zn (CH₃CO₂)₂ + NaOHReviewed by: 826

SAMPLE RECEIPT CHECKLIST

COOLER 2 OF 2

CLIENT: Cardno

DATE: 04 / 12 / 2017

TEMPERATURE: (Criteria: 0.0°C – 6.0°C, not frozen except sediment/tissue)

Thermometer ID: SC (CF: 0.0°C); Temperature (w/o CF): 1.9 °C (w/ CF): 1.9 °C; ☒ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____)

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling

☐ Sample(s) received at ambient temperature; placed on ice for transport by courier

Ambient Temperature: ☐ Air ☐ Filter

Checked by: LS
CUSTODY SEAL:

Cooler ☒ Present and Intact

☐ Present but Not Intact

☐ Not Present

☐ N/A

Checked by: LS

Sample(s) ☐ Present and Intact

☐ Present but Not Intact

☒ Not Present

☐ N/A

Checked by: 826
SAMPLE CONDITION:

Chain-of-Custody (COC) document(s) received with samples ☒ Yes ☐ No ☐ N/A

COC document(s) received complete ☒ Yes ☐ No ☐ N/A

☐ Sampling date ☐ Sampling time ☐ Matrix ☐ Number of containers

☐ No analysis requested ☐ Not relinquished ☐ No relinquished date ☐ No relinquished time

Sampler's name indicated on COC ☒ Yes ☐ No ☐ N/A

Sample container label(s) consistent with COC ☒ Yes ☐ No ☐ N/A

Sample container(s) intact and in good condition ☒ Yes ☐ No ☐ N/A

Proper containers for analyses requested ☒ Yes ☐ No ☐ N/A

Sufficient volume/mass for analyses requested ☒ Yes ☐ No ☐ N/A

Samples received within holding time ☒ Yes ☐ No ☐ N/A

Aqueous samples for certain analyses received within 15-minute holding time

☐ pH ☐ Residual Chlorine ☐ Dissolved Sulfide ☐ Dissolved Oxygen ☐ Yes ☐ No ☒ N/A

Proper preservation chemical(s) noted on COC and/or sample container ☒ Yes ☐ No ☐ N/A

Unpreserved aqueous sample(s) received for certain analyses

☐ Volatile Organics ☐ Total Metals ☒ Dissolved Metals

Container(s) for certain analysis free of headspace ☐ Yes ☐ No ☒ N/A

☐ Volatile Organics ☐ Dissolved Gases (RSK-175) ☐ Dissolved Oxygen (SM 4500)

☐ Carbon Dioxide (SM 4500) ☐ Ferrous Iron (SM 3500) ☐ Hydrogen Sulfide (Hach)

Tedlar™ bag(s) free of condensation ☐ Yes ☐ No ☒ N/A

CONTAINER TYPE:

(Trip Blank Lot Number: _____)

Aqueous: ☐ VOA ☐ VOA_h ☐ VOA_{na2} ☐ 100PJ ☐ 100PJ_{na2} ☐ 125AGB ☐ 125AGB_h ☐ 125AGB_p ☐ 125PB

☐ 125PB_{znna} ☐ 250AGB ☐ 250CGB ☐ 250CGB_s ☒ 250PB ☒ 250PB_n ☐ 500AGB ☒ 500AGJ ☐ 500AGJ_s
☐ 500PB ☐ 1AGB ☐ 1AGB_{na2} ☐ 1AGB_s ☐ 1PB ☐ 1PB_{na} ☐ _____ ☐ _____ ☐ _____

Solid: ☐ 4ozCGJ ☐ 8ozCGJ ☐ 16ozCGJ ☐ Sleeve (_____) ☐ EnCores® (_____) ☐ TerraCores® (_____) ☐ _____

Air: ☐ Tedlar™ ☐ Canister ☐ Sorbent Tube ☐ PUF ☐ _____ **Other Matrix** (_____) ☐ _____ ☐ _____

Container: A = Amber, B = Bottle, C = Clear, E = Envelope, G = Glass, J = Jar, P = Plastic, and Z = Ziploc/Resealable Bag

Preservative: b = buffered, f = filtered, h = HCl, n = HNO₃, na = NaOH, na₂ = Na₂S₂O₃, p = H₃PO₄, Labeled/Checked by: 826

s = H₂SO₄, u = ultra-pure, x = Na₂SO₃+NaHSO₄.H₂O, znna = Zn (CH₃CO₂)₂ + NaOH

Reviewed by: 826

**FIELD LOG
DEPTH TO WATER RECORD**

CLIENT NAME: ExxonMobil 19002

CARDNO #: 031343

SITE LOCATION: 4740 Rainier Avenue South, Seattle, WA

FIELD CREW: CC, CT

DATE: 04/11/17

Well #	Time	DTW (ft)	DOW (ft)	Comments/Repairs
MW1	08:20	18.63	25.2	Gauged and sampled 04/11/17.
MW2	09:22	19.83	32.2	Gauged and sampled 04/11/17.
MW3	09:27	19.03	29.6	Gauged and sampled 04/11/17.
MW4	10:03	21.70	29.7	Gauged and sampled 04/11/17.
MW5	10:21	21.06	27.1	Gauged and sampled 04/11/17.
MW6	10:28	24.78	28.5	Gauged and sampled 04/11/17.

FIELD LOG
PURGING & SAMPLING RECORD AND WELL EQUIPMENT STATUS

SITE: ExxonMobil 19002

CARDNO#: 031343

LOCATION: 4740 Rainier Avenue South, Seattle, WA

FIELD CREW: CC, CT

DATE: 04/11/17

Low-Flow Sampling

WELL #		MW1					
TIME	DTW	PURGE VOLUME	Pump Rate (Q)	Temp	COND	pH	DO
hr:min	ft	mL	mL/min	deg C	μS/cm	unit	mg/L
				1 deg	3%	0.1	0.3
08:36	18.63						
08:39	18.68	1,200	200	13.08	0.681	7.49	2.91
08:42	18.68	1,800	200	13.32	0.664	7.36	2.58
08:45	18.68	2,400	200	13.73	0.632	7.32	2.40
08:48	18.68	3,000	200	13.90	0.613	7.30	2.34
08:51	18.68	3,600	200	14.08	0.595	7.29	2.25
08:54	18.68	4,200	200	14.13	0.591	7.28	2.20
Comments:							
SW	08:55	1 gal = 3.79L					
Total Purge Volume		4,200 mL	1.11 gal				

WELL #		MW2					
TIME	DTW	PURGE VOLUME	Pump Rate (Q)	Temp	COND	pH	DO
hr:min	ft	mL	mL/min	deg C	μS/cm	unit	mg/L
				1 deg	3%	0.1	0.3
09:25	19.83						
09:28	19.91	1,800	200	14.94	0.859	7.21	2.41
09:31	19.94	2,400	200	15.03	0.862	7.17	2.25
09:33	19.95	3,000	200	15.11	0.864	7.15	1.92
09:36	19.95	3,600	200	15.16	0.860	7.16	1.86
09:39	19.96	4,200	200	15.20	0.854	7.17	1.80
09:42	19.96	4,800	200	15.25	0.851	7.19	1.75
Comments:							
SW	09:45	1 gal = 3.79L					
Total Purge Volume		4,800 mL	1.27 gal				

FIELD LOG
PURGING & SAMPLING RECORD AND WELL EQUIPMENT STATUS

SITE: ExxonMobil 19002

CARDNO#: 031343

LOCATION: 4740 Rainier Avenue South, Seattle, WA

FIELD CREW: CC, CT

DATE: 04/11/17

Low-Flow Sampling

WELL #		MW3					
TIME	DTW	PURGE VOLUME	Pump Rate (Q)	Temp	COND	pH	DO
hr:min	ft	mL	mL/min	deg C	μS/cm	unit	mg/L
				1 deg	3%	0.1	0.3
10:15	19.03						
10:18	19.10	1,500	200	14.50	0.804	7.33	2.18
10:21	19.11	2,100	200	14.48	0.805	7.31	2.14
10:24	19.11	2,700	200	14.41	0.810	7.26	1.96
10:27	19.11	3,300	200	14.40	0.812	7.26	1.92
10:30	19.12	3,900	200	14.39	0.814	7.25	1.86
10:33	19.12	4,500	200	14.39	0.814	7.26	1.81
Comments:							
SW	10:35	1 gal = 3.79L					
Total Purge Volume		4,500 mL	1.19 gal				

WELL #		MW4					
TIME	DTW	PURGE VOLUME	Pump Rate (Q)	Temp	COND	pH	DO
hr:min	ft	mL	mL/min	deg C	μS/cm	unit	mg/L
				1 deg	3%	0.1	0.3
11:07	21.73						
11:10	22.00	1,500	100	13.98	0.973	7.56	2.16
11:13	22.13	1,650	50	13.87	1.12	7.30	1.88
11:16	22.15	1,800	50	13.86	1.12	7.35	1.75
11:19	22.23	1,950	50	13.86	1.12	7.37	1.70
11:22	22.31	2,100	50	13.84	1.12	7.38	1.68
11:25	22.34	2,250	50	13.88	1.13	7.40	1.65
Comments:							
SW	11:25	1 gal = 3.79L					
Total Purge Volume		2,250 mL	0.59 gal				

FIELD LOG
PURGING & SAMPLING RECORD AND WELL EQUIPMENT STATUS

SITE: ExxonMobil 19002

CARDNO#: 031343

LOCATION: 4740 Rainier Avenue South, Seattle, WA

FIELD CREW: CC, CT

DATE: 04/11/17

Low-Flow Sampling

WELL #		MW5					
TIME	DTW	PURGE VOLUME	Pump Rate (Q)	Temp	COND	pH	DO
hr:min	ft	mL	mL/min	deg C	μS/cm	unit	mg/L
				1 deg	3%	0.1	0.3
13:48	21.06						
13:51	21.12	1,500	200	19.84	1.05	7.85	2.28
13:54	21.14	2,100	200	17.16	1.26	7.62	1.84
13:57	21.15	2,700	200	17.12	1.25	7.62	1.81
14:00	21.15	3,300	200	17.08	1.24	7.59	1.68
14:03	21.15	3,900	200	17.06	1.23	7.58	1.65
14:06	21.15	4,500	200	17.03	1.22	7.57	1.60
Comments:							
SW	14:10	1 gal = 3.79L					
Total Purge Volume		4,500 mL	1.19 gal				

WELL #		MW6					
TIME	DTW	PURGE VOLUME	Pump Rate (Q)	Temp	COND	pH	DO
hr:min	ft	mL	mL/min	deg C	μS/cm	unit	mg/L
				1 deg	3%	0.1	0.3
12:51	24.78						
12:54	24.98	1,500	200	17.42	1.21	8.16	2.56
12:57	25.06	1,950	150	17.08	1.48	7.51	2.09
13:00	25.10	2,250	100	17.39	1.51	7.48	1.73
13:03	25.15	2,550	100	17.59	1.52	7.49	1.68
13:06	25.19	2,850	100	17.71	1.51	7.49	1.65
13:09	25.25	3,150	100	17.87	1.51	7.48	1.61
Comments:							
SW	13:10	1 gal = 3.79L					
Total Purge Volume		3,150 mL	0.83 gal				