URS

September 15, 2014

Ms. Maura S. O'Brien
Washington Department of Ecology
Northwest Region Office
3190 – 160th Avenue SE
Bellevue, Washington 98008

Re: Dry Weather Stormwater System Sampling Report
Shell Harbor Island Terminal
Seattle, Washington

Dear Ms. O'Brien:

URS Corporation (URS) is pleased to submit this Dry Weather Stormwater System Sampling Report on behalf of Shell Oil Products US (Shell) for the Shell Harbor Island Terminal in Seattle Washington (herein referred to as the Site) (Figure 1). The sampling activities included collecting water samples from four manholes and seven groundwater monitoring wells located north of the Main Tank Farm to characterize the groundwater infiltrating the Florida Street stormwater system.

Shell is performing work at this Site under Consent Decree No. 99 2-07 176 0 SEA with the Washington State Department of Ecology (Ecology). Sampling was conducted according to the *Dry Weather Stormwater Sampling Work Plan*, dated March, 2014, (herein referred to as the work plan) and additions to the work plan suggested by Ecology in email dated April 04, 2014.

SITE and STORMWATER SYSTEM DESCRIPTION

The Site is a fuel distribution facility located on Harbor Island, which is approximately one mile southwest of downtown Seattle at the mouth of the Duwamish River (Figure 1). The site is comprised of three parcels located at 2555 13th Avenue SW, 1835 13th Avenue SW, and 1711 13th Avenue SW. These parcels are designated as the Main Tank Farm, the North Tank Farm, and the Shoreline Manifold Area, respectively. The TX-03A area is located between the Main Tank Farm and North Tank Farm; this location is also known as the north boundary area. The area north of the Main Tank Farm includes a City of Seattle public parking lot. A pipeline that connects two BP tank farms runs west to east under the Seattle public parking area (Figure 2).

On November 13, 2013, URS conducted a video survey of the Florida Street stormwater system between City of Seattle manholes D050-014 to D050-017 (Figure 2) in accordance with the *Stormwater Survey Work Plan* dated September 6, 2013. The

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stormwater system crosses SW Florida Street and discharges to the Duwamish Bay approximately 800 feet west of the downstream manhole D050-014.Based on the results of the *Stormwater Video Survey Report* dated January 14, 2014, groundwater was determined to be contacting the stormwater pipe along SW Florida Street in the vicinity of the site. The depth to groundwater in the TX-03A area ranges between 5 to 7 feet below ground surface (bgs). The stormwater line is approximately 24 inches in diameter and located approximately 7 feet bgs. The video survey observed groundwater infiltrating the stormwater pipe in the TX-03A Area at three locations between manholes D050-015 and D050-017.

SCOPE OF WORK

Based on the URS work plan and email from Ecology the scope of work included the following:

- Gauging of monitoring wells MW-301 through MW-304, MW-309, MW-310, and TX-03A to determine depth to groundwater.
- The collection and analysis of water samples at four manhole locations:
    - D050-017- Upstream
    - D050-016 - Directly upstream of suspected groundwater infiltration
    - D050-015 – Directly downstream of groundwater infiltration
    - D050-014 – Downstream
- The collection and analysis of seven groundwater samples from monitoring wells MW-301 through MW-304, MW-309, MW-310, and TX-03A.

GROUNDWATER ELEVATION MONITORING

URS collected depth to water measurements in seven monitoring wells (MW-301 through MW-304, MW-309, MW-310, and TX-03A) on July 24, 2014. Measurements were collected using an electronic oil-water interface meter capable of measuring static water levels to within 0.01 feet. URS measured the depth to water from the survey notch located on the monitoring well top of casing (TOC). The depth to water measurements were recorded on the Monitoring Well Gauging Field Log (Attachment A) and then converted to elevations above mean sea level by subtracting the measured value from the TOC elevation. The measured depth to water and calculated groundwater elevations are

tabulated in Tables 1 and Table 2. Groundwater elevation ranged from 5.98 feet at TX-03A to 6.18 at MW-301. The groundwater flow direction is to the northwest across the TX-03A area (Figure 3).

MANHOLE SAMPLING

All manholes were sampled on July 25, 2014 after 24 hours of antecedent dry weather conditions. Light rain showers had occurred 48 hours prior to the sampling event. Sampling was conducted according to the methods described in the work plan. Dedicated disposable polyethylene tubing and a peristaltic pump were used to obtain sample volume from flowing water at each manhole. Details of sampling activities at each manhole are provided on field sheets in Attachment A. The daily quality control report summarizing the day's activities is also provided in Attachment A.

Analytical Methods

Water samples obtained from the manholes were submitted to Accutest Laboratories in San Jose, California for the analyses listed below.

- Gasoline range hydrocarbons (gasoline) by the NWTPH-Gx method
- Volatile Organic Compounds by US Environmental Protection Agency (EPA) Method 8260B
- Diesel and motor oil range (diesel and motor oil) hydrocarbons with silica gel cleanup by the NWTPH-Dx method
- Polycyclic Aromatic Hydrocarbons (PAHs) by EPA Method 8270C SIM

Manhole Results and Screening

Analytical results from the four manhole water samples are presented in Table 1. The laboratory analytical report is provided in Attachment B. Concentrations of benzene, toluene, ethylbenzene and total xylenes (BTEX), gasoline, diesel, and naphthalene are presented on Figure 4. The analytical results for selected constituents are summarized below and compared to the Cleanup Level identified in the Cleanup Action Plan (Ecology. 1998).

- BTEX was not detected in the water sample collected from D050-017. Ethylbenzene and total xylenes were not detected in sample collected from D050-016.

- Benzene was detected in water collected from D050-014 (0.300 milligrams per liter [mg/L]), D050-015 (0.628 mg/L), and D050-016 (0.00046 mg/L). Benzene concentrations in D050-014 and D050-015 exceeded the Cleanup Level of 0.071 mg/L.
- Toluene was detected in water collected from D050-014 (0.0072 mg/L), D050-015 (0.0152 mg/L), and D050-016 (0.30 mg/L) at concentrations below the Cleanup Level of 200 mg/L.
- Ethylbenzene was detected in D050-014 (0.017 mg/L) and D050-015 (0.036 mg/L) at concentrations of below the Cleanup Level of 29 mg/L.
- The maximum detection of total xylene was detected in water collected from D050-015 at a concentration of 0.0166 mg/L. No cleanup level is established for this compound.
- Gasoline was detected in water collected from D050-014 (1.28 mg/L), D050-015 (2.38 mg/L), and D050-17 (0.0570 mg/L). Gasoline concentrations detected in D050-014 and D050-015 were above the Cleanup Level of 1 mg/L.
- Diesel was detected in all the water samples collected at concentrations ranging from 0.134 (D050-016) to 0.461 (D050-014). All diesel concentrations were below the Cleanup Level of 10 mg/l.
- Motor oil was not detected in the manhole water samples.
- PAHs with applicable Cleanup Levels were not detected, however; the detection limits were above the Cleanup Levels.

MONITORING WELL GROUNDWATER SAMPLING

Groundwater samples were collected on July 24, 2014. Sampling was conducted using low-flow sampling methodology. Dedicated disposable polyethylene tubing and a peristaltic pump were used to obtain sample volume from flowing water at each monitoring well. Details of sampling activities at each monitoring well are provided on field sheets in Attachment A. The daily quality control report summarizing the day's activities is also provided in Attachment A.

Analytical Methods

Groundwater samples obtained from the monitoring wells were submitted to Accutest Laboratories in San Jose, California for the analyses listed below.

- Gasoline by the NWTPH-Gx method
- Volatile Organic Compounds by EPA Method 8260B

- Diesel and motor oil with silica gel cleanup by the NWTPH-Dx method
- PAHs by EPA Method 8270C SIM

Groundwater Monitoring Wells Results and Screening

Analytical results from the seven groundwater monitoring wells sampled are presented in Tables 1 and 2. Historic groundwater data is summarized in Table 3. The laboratory analytical report is provided in Attachment B. Concentrations of benzene, toluene, ethylbenzene and total xylenes (BTEX), gasoline, diesel, and naphthalene are presented on Figure 4. The analytical results for selected constituents are summarized below and compared to the Cleanup Level identified in the Cleanup Action Plan (Ecology. 1998).

- BTEX was not detected in the groundwater sample collected from monitoring well MW-309.
- Benzene was detected in the remaining six monitoring wells at concentrations above the Cleanup Level of 0.071 mg/L at concentrations ranging from 0.314 (MW-301) to 1.64 mg/L (TX-03A).
- Toluene, ethylbenzene, and total xylenes were detected in the remaining six monitoring wells at concentrations ranging from 0.00800 mg/L (MW-301) to 0.0471 mg/L (MW-303), 0.0143 mg/L (MW-301) to 0.653 mg/L (MW-303), and 0.0096 mg/L (MW-301) to 0.161 (MW-303), respectively. All toluene, ethylbenzene, and total xylenes concentrations were below their respective Cleanup Levels.
- Gasoline was detected at concentrations above the Cleanup Level of 1 mg/L in all monitoring wells except MW-309. The gasoline concentrations ranged from 3.59 mg/L (MW-304) to 9.76 mg/L (MW-303).
- Diesel was detected in all groundwater monitoring wells at concentrations ranging from 0.102 mg/L (MW-309) to 0.622 mg/L (MW-303). All diesel concentrations were below the Cleanup Level.
- Motor oil was not detected in any of the groundwater monitoring wells.
- PAHs with applicable Cleanup Levels were not detected, however; the detection limits were above the Cleanup Levels.

CONCLUSIONS

Based on the observations during the video survey conducted in November 2013 and the water data collected in July 2014 from the Florida stormwater system, it appears that the

groundwater plume in the TX-03A area is entering the City of Seattle stormwater system at concentrations exceeding the site Cleanup Levels for TPH G and benzene. URS is presently reviewing options to repair the stormwater system to mitigate this pathway. URS is also planning to conduct another sampling event of the stormwater system that will include additional downstream manhole locations. This work is tentatively scheduled for September 23, 2014. The data from this sampling event will provide additional characterization downstream of manhole D050-014.

If you have any questions or need additional information, please feel free to call the undersigned at (503) 222-7200.

Sincerely,
URS Corporation

Brian J. Pletcher
Senior Project Manager

cc: Perry Pineda – Shell Oil Products US
Paul Katz, Seattle Terminal Manager – Shell Oil Products US
Ms. Beth Schmoyer, City of Seattle

Attachments:

Figure 1 – Site Map
Figure 2 – TX-03A Video Survey
Figure 3 – TX-03A Area Groundwater Contours – July 2014
Figure 4 – TX-03A Groundwater and Stormwater Concentrations – July 2014
Table 1 – Groundwater and Manhole Hydrocarbon and VOC Analytical Results
Table 2 – Groundwater and Manhole PAH Analytical Results
Table 3 – Historical Groundwater Analytical Results

Attachment A – Field Sheets and Daily Quality Control Report
Attachment B – Laboratory Analytical Report

FIGURES

LEGEND

MW-212	Shallow groundwater monitoring well location
MW-205	Deep groundwater monitoring well location
MW-210	Product recovery / monitoring well location
TW-01	4" Pumping Test Well
ASW-1	1" Air Sparging Test Well
SVE-1	3/4" Permanent Soil Vapor Monitoring Well
PSV-1	4" Soil Vapor Extraction Text Well
P-101	Piezometer location
	Shell property line

100 0 100 200
SCALE IN FEET

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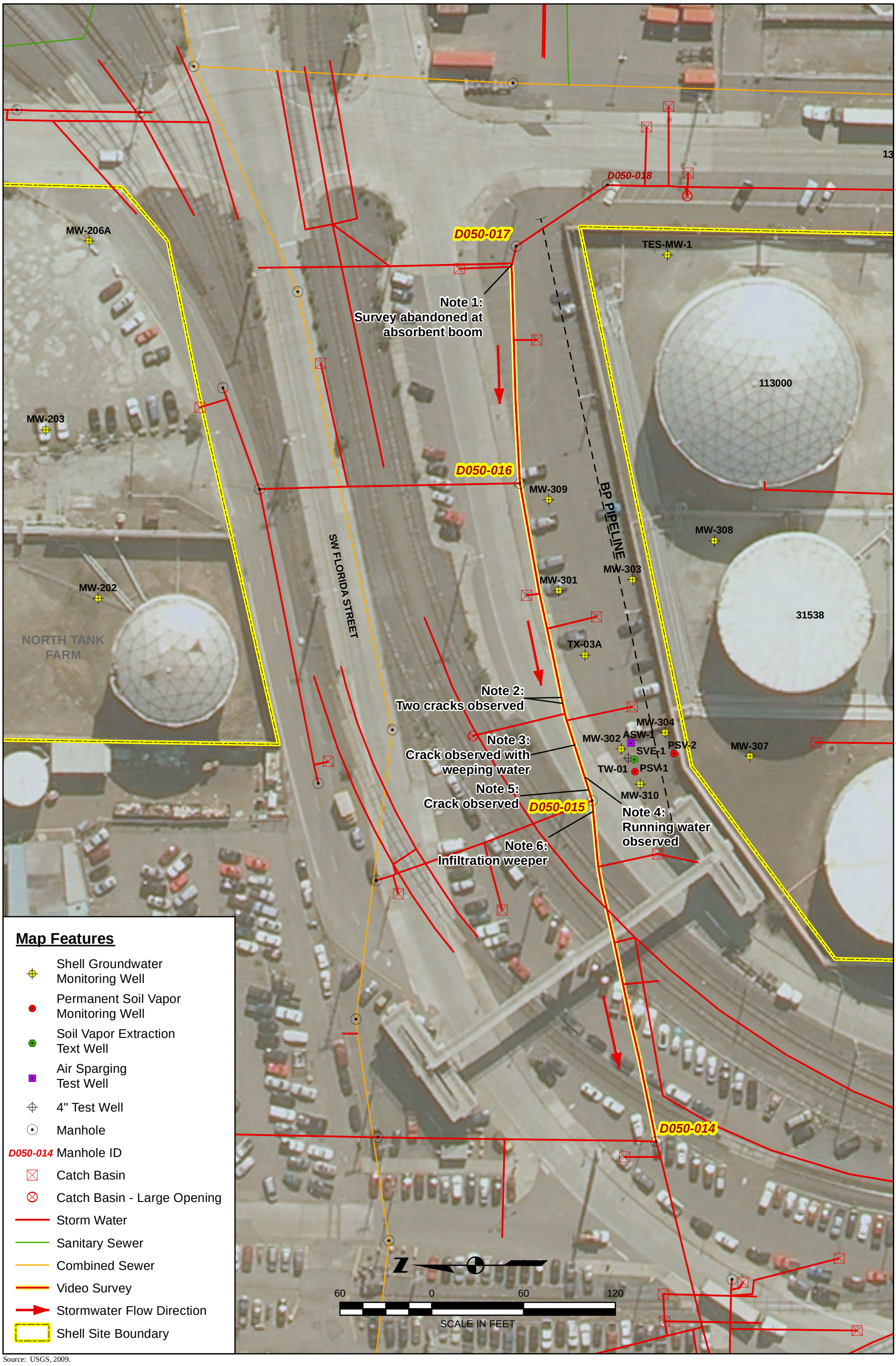
SITE MAP

SHELL
HARBOR ISLAND TERMINAL
SEATTLE, WASHINGTON

FIGURE 1



Map Features

- Shell Groundwater Monitoring Well
- Permanent Soil Vapor Monitoring Well
- Soil Vapor Extraction Text Well
- Air Sparging Test Well
- 4" Test Well
- Manhole
- D050-014 Manhole ID
- Catch Basin
- Catch Basin - Large Opening
- Storm Water
- Sanitary Sewer
- Combined Sewer
- Video Survey
- Stormwater Flow Direction
- Shell Site Boundary

Source: USGS, 2009.

TX-03 AREA VIDEO SURVEY

SHELL
HARBOR ISLAND TERMINAL
SEATTLE, WASHINGTON

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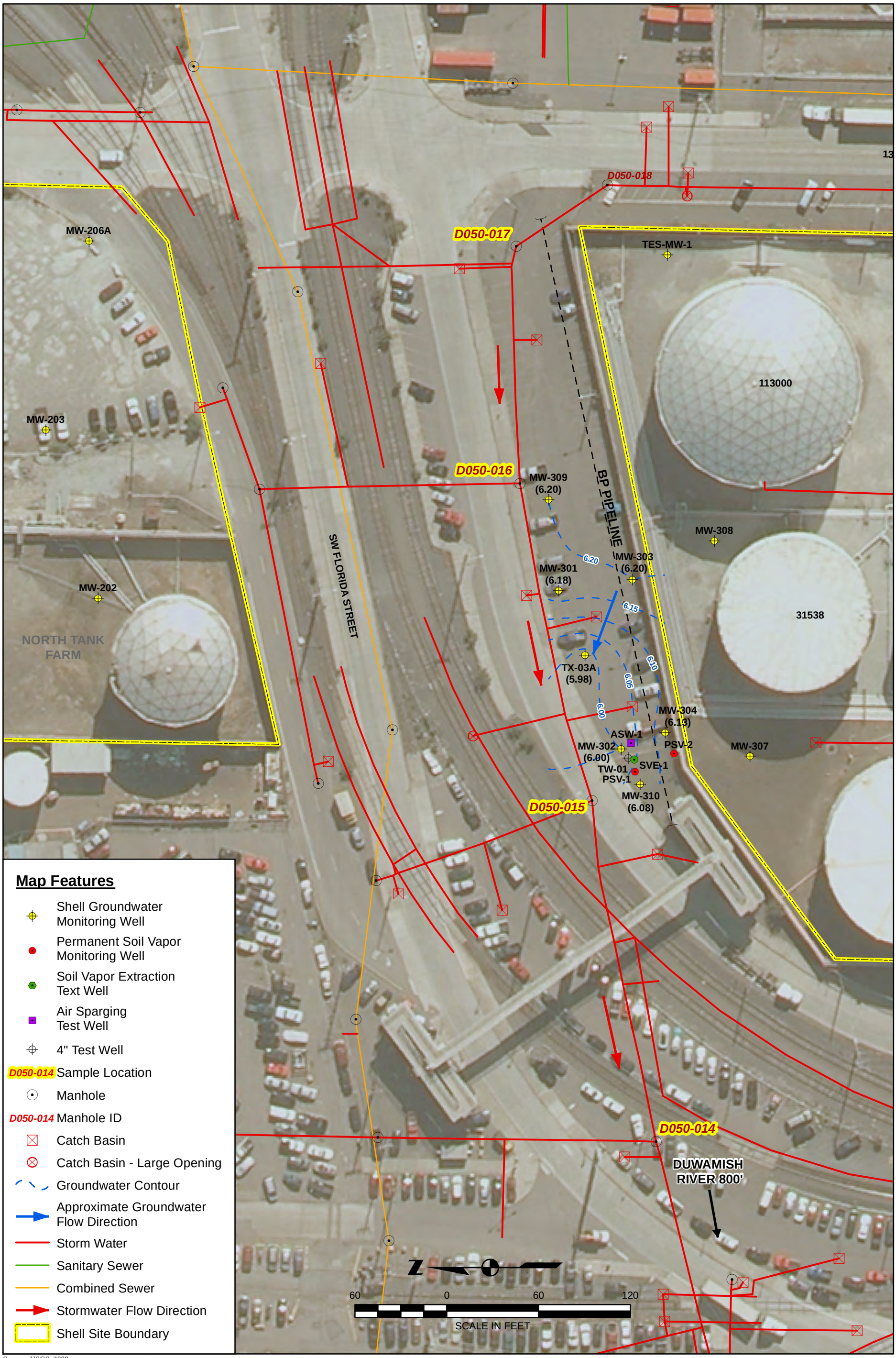
FIGURE 2

K:\46194268_Seattle_Terminal\MXD\2013\TX-03 Area Video Survey.mxd



Map Features

- Shell Groundwater Monitoring Well
- Permanent Soil Vapor Monitoring Well
- Soil Vapor Extraction Text Well
- Air Sparging Test Well
- 4" Test Well
- D050-014 Sample Location
- Manhole
- D050-014 Manhole ID
- Catch Basin
- Catch Basin - Large Opening
- Groundwater Contour
- Approximate Groundwater Flow Direction
- Storm Water
- Sanitary Sewer
- Combined Sewer
- Stormwater Flow Direction
- Shell Site Boundary

Source: USGS, 2009.

TX-03A AREA GROUNDWATER CONCENTRATIONS - JULY 2014

SHELL
HARBOR ISLAND TERMINAL
SEATTLE, WASHINGTON

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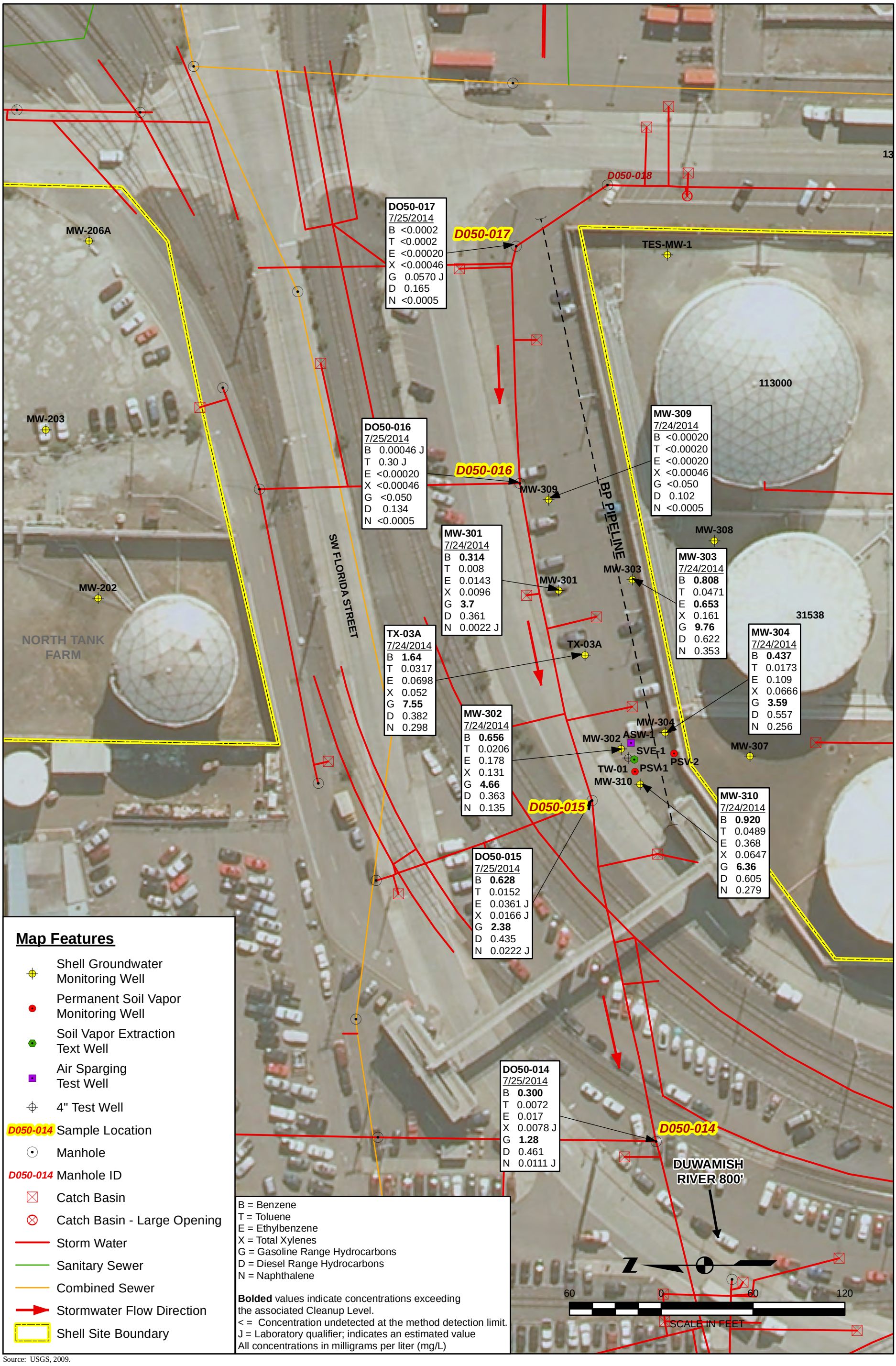
FIGURE 3

K:\46194268_Seattle_Terminal\MXD\2014\2Q14\TX-03 Area GW Contours 2Q14.mxd



Source: USGS, 2009.

TX-03A AREA GROUNDWATER AND STORMWATER CONCENTRATIONS - JULY 2014

SHELL
HARBOR ISLAND TERMINAL
SEATTLE, WASHINGTON

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FIGURE 4

K:\46194268 Seattle Terminal\MXD\2014\2Q14\TX-03 Area 2Q14.mxd

TABLES

Table 1
Groundwater and Manhole Hydrocarbon and VOC Analytical Results
Shell Harbor Island Terminal
Seattle, Washington

Sample location/ TOC Elevation	Depth to Water (ft)	Groundwater Elevation (ft)	Sample Date	Chemical (mg/L)														
				Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline Range Hydrocarbons	Diesel Range Hydrocarbons	Motor Oil Range Hydrocarbons	Isopropylbenzene	n-Propylbenzene	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Methyl Tert Butyl Ether	1,2-Dibromoethane	1,2-Dichloroethane	Naphthalene
Cleanup Level[b]				0.071	200	29	NE	1	10	10	NE	NE	NE	NE	NE	NE	NE	NE
MW-301																		
12.56	6.38	6.18	7/24/2014	**0.314**	0.00800	0.0143	0.0096	**3.70**	0.361	< 0.094	0.0681	0.166	< 0.0008	.0012 j	< 0.00080	< 0.00080	< 0.00080	0.0022 j
MW-302																		
12.85	6.85	6.00	7/24/2014	**0.656**	0.0206	0.178	0.131	**4.66**	0.363	< 0.094	0.0353	0.0628	0.0462	0.0119 j	<0.0020	<0.0020	<0.0020	0.135
MW-303																		
12.64	6.44	6.20	7/24/2014	**0.808**	0.0471	0.653	0.161	**9.76**	0.622	<0.094	0.063	0.16	< 0.004	0.0384	<0.0020	<0.0040	<0.0040	0.353
MW-304																		
12.70	6.57	6.13	7/24/2014	**0.437**	0.0173	0.109	0.0666	**3.59**	0.557	<0.094	0.0406	0.0955	.0052 j	.0076 j	<0.0020	<0.0020	<0.0020	0.256
MW-309																		
12.67	6.47	6.20	7/24/2014	<0.00020	<0.00020	<0.00020	<0.00046	<0.050	0.102	<0.094	< 0.0002	< 0.0002	< 0.0002	< 0.0002	<0.0020	<0.00020	<0.00200	< 0.0005
MW-310																		
13.51	7.43	6.08	7/24/2014	**0.920**	0.0489	0.368	0.0647	**6.36**	0.605	<0.094	0.0465	0.0966	0.0097	0.0068	<0.0020	<0.0020	<0.0020	0.279
TX-03A																		
12.26	6.28	5.98	7/24/2014	**1.64**	0.0317	0.0698	0.052	**7.55**	0.382	< 0.094	0.0601	0.144	< 0.0004	0.0068 j	<0.0040	<0.0040	<0.0040	0.298
D050-014	--	--																
4.5[a]	--	--	07/25/14	**0.300**	0.0072	0.017	0.0078 j	**1.28**	0.461	< 0.094	0.0167	0.035	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	0.0111 j
D050-015																		
5.1[a]	--	--	07/25/14	**0.628**	0.0152	0.0361 j	0.0166j	**2.38**	0.435	< 0.094	0.0347	0.0741	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	0.0222 j
D050-016																		
5.8[a]	--	--	07/25/14	0.00046 j	0.30 j	< 0.00020	< 0.00046	< 0.050	0.134	< 0.094	0.00045 j	0.00027 j	0.00022 j	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0005
D050-017																		
6.1[a]	--	--	07/25/14	< 0.0002	< 0.0002	< 0.00020	< 0.00046	0.0570 j	0.165	< 0.094	0.52 j	< 0.002	< 0.002	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0005

Notes:
Bolded values indicate concentrations exceeding the associated Cleanup Level.
< = concentration undetected at the method detection limit.
[a] = Invert elevation of manhole
[b] Cleanup levels per the Cleanup Action Plan (Ecology, 1998).
BTEX = Benzene, Toluene, Ethylbenzene, Total Xylenes
ft = feet
j = Laboratory qualifier; indicates an estimated value
mg/L = milligrams per liter
NA = Not Analyzed
NE = Not Established
TOC = Top of Casing
TPH = Total Petroleum Hydrocarbon
-- = Not Applicable, Not Available

Table 2
Groundwater and Manhole PAH Analytical Results
Shell Harbor Island Terminal
Seattle, Washington

Sample location/ TOC Elevation	Depth to Water (ft)	Groundwater Elevation (ft)	Sample Date	Chemical (mg/L)																
				Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)-anthracene	Benzo(a)pyrene	Benzo(b)-fluoranthene	Benzo(g,h,i)-perylene	Benzo(k)-fluoranthene	Chrysene	Dibenzo(a,h)-anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene
Cleanup Level[b]				NE	NE	NE	0.000031	0.000031	0.000031	NE	0.000031	0.000031	NE	NE	NE	0.000031	NE	NE	NE	NE	NE
MW-301																					
12.56	6.38	6.18	7/24/2014	0.00033 j	<0.000047	<0.000047	*<0.000050*	*<0.000039*	*<0.000033*	<0.000034	*<0.000037*	*<0.000042*	<0.000033	<0.000047	0.00022 j	*<0.000033*	0.0411	0.0274	0.0011	<0.000047	<0.000047
MW-302																					
12.85	6.85	6.00	7/24/2014	0.00014 j	<0.000047	<0.000047	*<0.000050*	*<0.000039*	*<0.000033*	<0.000034	*<0.000037*	*<0.000042*	<0.000033	<0.000047	0.00038 j	*<0.000033*	0.0408	0.0171	0.101	<0.000047	<0.000047
MW-303																					
12.64	6.44	6.20	7/24/2014	0.00022 j	<0.000048	<0.000048	*<0.000050*	*<0.000039*	*<0.000033*	<0.000034	*<0.000037*	*<0.000043*	<0.000033	<0.000048	0.00096	*<0.000033*	0.0775	0.102	0.300	0.00010 j	<0.000048
MW-304																					
12.70	6.57	6.13	7/24/2014	0.00011 j	<0.000047	<0.000047	*<0.000050*	*<0.000039*	*<0.000033*	<0.000034	*<0.000037*	*<0.000042*	<0.000033	<0.000047	0.0005	*<0.000033*	0.0387	0.0499	0.157	<0.000047	<0.000047
MW-309																					
12.67	6.47	6.20	7/24/2014	0.000097 j	<0.000047	<0.000047	*<0.000050*	*<0.000039*	*<0.000033*	<0.000034	*<0.000037*	*<0.000042*	<0.000033	<0.000047	<0.000047	*<0.000033*	<0.000094	<0.000094	<0.000094	<0.000047	<0.000047
MW-310																					
13.51	7.43	6.08	7/24/2014	0.00015 j	<0.000047	<0.000047	*<0.000050*	*<0.000039*	*<0.000033*	<0.000034	*<0.000037*	*<0.000042*	<0.000033	<0.000047	0.00059	*<0.000033*	0.0475	0.0548	0.206	<0.000047	<0.000047
TX-03A																					
12.26	6.28	5.98	7/24/2014	0.00020 j	<0.000047	<0.000047	*<0.000050*	*<0.000039*	*<0.000033*	<0.000034	*<0.000037*	*<0.000042*	<0.000033	<0.000047	0.00023 j	*<0.000033*	0.0520	0.0641	0.215	<0.000047	<0.000047
D050-014																					
4.5[a]	--	--	07/25/14	0.00019 j	<0.000047	<0.000047	*<0.000050*	*<0.000039*	*<0.000033*	<0.000034	*<0.000037*	*<0.000042*	<0.000033	<0.000047	0.00018 j	*<0.000033*	0.0069	0.0057	0.003	0.000075 j	<0.000047
D050-015																					
5.1[a]	--	--	07/25/14	0.00027 j	<0.000047	<0.000047	*<0.000050*	*<0.000039*	*<0.000033*	<0.000034	*<0.000037*	*<0.000042*	<0.000033	<0.000047	0.00031 j	*<0.000033*	0.0136	0.0118	0.0065	0.00010 j	<0.000047
D050-016																					
5.8[a]	--	--	07/25/14	<0.000047	<0.000047	<0.000047	*<0.000050*	*<0.000039*	*<0.000033*	<0.000034	*<0.000037*	*<0.000042*	<0.000033	<0.000047	<0.000047	*<0.000033*	<0.000094	<0.000094	<0.000094	<0.000047	<0.000047
D050-017																					
6.1[a]	--	--	07/25/14	0.00024 j	<0.000047	<0.000047	*<0.000050*	*<0.000039*	*<0.000033*	<0.000034	*<0.000037*	*<0.000042*	<0.000033	<0.000047	0.00026 j	*<0.000033*	0.0093	0.0077	0.0038	0.00010 j	<0.000047

Notes:
Bolded values indicate concentrations exceeding the associated Cleanup Level.
Italic values indicate detection limits exceed the associated Cleanup Level.
< = concentration undetected at the method detection limit.
[a] = Invert elevation of manhole
[b] Cleanup levels per the Cleanup Action Plan (Ecology, 1998).
ft = feet
j = Laboratory qualifier; indicates an estimated value
mg/L = milligrams per liter
NA = Not Analyzed
NE = Not Established
TOC = Top of Casing
-- = Not Applicable, Not Available

Table 3
TX-03A Historical Groundwater Analytical Results
Shell Harbor Island Terminal
Seattle, Washington

Sample location/ TOC Elevation	Depth to Water (ft)	Groundwater Elevation (ft)	Sample Date	Chemical (mg/L)						
				Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline Range Hydrocarbons	Diesel Range Hydrocarbons	Motor Oil Range Hydrocarbons
Cleanup Level[a]				0.071	200	29	NE	1	10	10
MW-101	12.18	6.03	10/27/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	0.0936	< 0.10	NA
18.21	9.95	8.26	11/26/12	<0.00020	<0.00020	<0.00020	<0.00046	0.188 j	0.0937 j	<0.10
	10.24	7.97	02/21/13	NA	NA	NA	NA	NA	NA	NA
	10.89	7.32	05/16/13	NA	NA	NA	NA	NA	NA	NA
	11.99	6.22	09/06/13	NA	NA	NA	NA	NA	NA	NA
	11.78	6.43	11/06/13	<0.00020	<0.00020	<0.00020	<0.00046	0.118 j	<0.048	<0.095
	10.16	8.05	04/22/14	NA	NA	NA	NA	NA	NA	NA
MW-102	9.59	6.01	10/26/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.20	0.113	NA
15.60	7.08	8.52	11/28/12	<0.00020	<0.00020	<0.00020	<0.00046	<0.050 uj	<0.050	NA
	7.88	7.72	02/21/13	NA	NA	NA	NA	NA	NA	NA
	8.40	7.20	05/16/13	NA	NA	NA	NA	NA	NA	NA
	9.36	6.24	09/06/13	NA	NA	NA	NA	NA	NA	NA
	9.18	6.42	11/07/13	<0.00020	<0.00020	<0.00020	<0.00046	<0.050	<0.047	0.144 j
	7.69	7.91	04/22/14	NA	NA	NA	NA	NA	NA	NA
MW-201	13.10	7.08	11/27/12	<0.00020	<0.00020	<0.00020	<0.00046	<0.050	0.122	<0.10
20.18	13.74	6.44	02/21/13	NA	NA	NA	NA	NA	NA	NA
	14.45	5.73	05/16/13	NA	NA	NA	NA	NA	NA	NA
	14.78	5.40	09/06/13	NA	NA	NA	NA	NA	NA	NA
	14.7	5.48	11/06/13	<0.00020	<0.00020	<0.00020	<0.00046	0.0964 j	0.52	<0.094
	13.42	6.76	04/22/014	NA	NA	NA	NA	NA	NA	NA
MW-202	14.53	5.33	10/26/11	NA	NA	NA	NA	**4.3**	1.02	NA
19.86	13.6	6.26	03/01/12	0.0053	0.0019	0.0107	0.0013 j	**3.87**	NA	NA
	13.75	6.11	06/13/12	NA	NA	NA	NA	**3.31**	1.54	NA
	14.42	5.44	09/26/12	0.0058	0.0029 j	0.0378	<0.0018	**4.07**	NA	NA
	13.09	6.77	11/27/12	0.0113	0.0034	0.0274	0.0022	**6.07**	2.67	<0.30
	13.27	6.59	02/21/13	NA	NA	NA	NA	NA	NA	NA
	13.80	6.06	05/15/13	NA	NA	NA	NA	**3.83**	1.62	<0.19
	14.38	5.48	09/06/13	NA	NA	NA	NA	NA	NA	NA
	14.25	5.61	11/06/13	<0.00020	0.0027	0.0335	0.0012 j	**4.68**	1.29	<0.095
	13.23	6.63	04/22/14	NA	NA	NA	NA	**3.22**	2.18	<0.28
MW-203	8.53	5.46	10/26/11	NA	NA	NA	NA	**1.38**	0.262	NA
13.99	7.70	6.29	06/13/12	NA	NA	NA	NA	0.459	0.134	NA
	7.25	6.74	11/27/12	NA	NA	NA	NA	**1.05**	0.0943 j	<0.10
	7.26	6.73	02/21/13	NA	NA	NA	NA	NA	NA	NA
	7.80	6.19	05/15/13	NA	NA	NA	NA	0.144 j	< 0.048	< 0.19
	8.37	5.62	09/06/13	NA	NA	NA	NA	NA	NA	NA
	8.27	5.72	11/06/13	NA	NA	NA	NA	0.680	<0.047	<0.094
	7.33	6.66	04/22/14	NA	NA	NA	NA	0.164	0.210 j	0.732 j
MW-204	10.81	6.46	11/27/12	<0.00020	<0.00020	<0.00020	<0.00046	<0.050	0.975	<0.10
17.27	10.81	6.46	02/21/13	NA	NA	NA	NA	NA	NA	NA
	11.30	5.97	05/16/13	NA	NA	NA	NA	NA	NA	NA
	11.77	5.50	09/06/13	NA	NA	NA	NA	NA	NA	NA
	11.71	5.56	11/06/13	0.00057 j	<0.00020	<0.00020	<0.00046	0.0762 j	0.28	0.0976 j
	10.78	6.49	04/22/14	NA	NA	NA	NA	NA	NA	NA
MW-206A	10.31	5.59	10/26/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.20	0.141	NA
15.90	9.05	6.85	11/27/12	<0.00020	<0.00020	<0.00020	<0.00046	<0.050	0.116	0.111 j
	9.04	6.86	02/21/13	NA	NA	NA	NA	NA	NA	NA
	8.44	7.46	05/16/13	NA	NA	NA	NA	NA	NA	NA
	10.06	5.84	09/06/13	NA	NA	NA	NA	NA	NA	NA
	10.04	5.86	11/06/13	<0.00020	<0.00020	<0.00020	<0.00046	<0.050	<0.047	<0.094
	9.01	6.89	04/22/14	NA	NA	NA	NA	NA	NA	NA
MW-301	6.91	5.62	11/08/11	**0.174**	0.012	0.0098	0.011	**2.77**	0.274	NA
12.56	5.98	6.58	03/01/12	**0.24**	0.0138	0.0099	0.0212	**3.37**	NA	NA
	6.08	6.48	06/12/12	**0.57**	0.0156	0.0183	0.0244	**4.18**	NA	NA
	6.83	5.73	09/25/12	**0.333**	0.0131	0.0186	0.0192	**4.02**	NA	NA
	5.32	7.24	11/28/12	**0.241**	0.0099	0.0125	0.0106	**2.76**	NA	NA
	5.66	6.90	02/21/13	**0.659**	0.0175	0.0264	0.0173 j	**3.98**	0.315	<0.10
	6.14	6.42	05/15/13	**0.357**	0.0122	0.0231	0.0145	**3.63**	NA	NA
	6.71	5.85	09/06/13	NA	NA	NA	NA	NA	NA	NA
	6.60	5.96	11/4/2013	**0.160**	0.0097	0.0164	0.0109	**2.29**	NA	NA
	5.56	7.00	4/23/2014	**0.252**	0.0072	0.0135	0.0075 j	**3.57**	NA	NA
	6.38	6.18	7/24/2014	**0.314**	0.008	0.0143	0.0096	**3.7**	0.361	< 0.094

Table 3
TX-03A Historical Groundwater Analytical Results
Shell Harbor Island Terminal
Seattle, Washington

Sample location/ TOC Elevation	Depth to Water (ft)	Groundwater Elevation (ft)	Sample Date	Chemical (mg/L)						
				Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline Range Hydrocarbons	Diesel Range Hydrocarbons	Motor Oil Range Hydrocarbons
Cleanup Level[a]				0.071	200	29	NE	1	10	10
MW-302	7.29	5.56	11/08/11	**0.787**	0.0187	0.156	0.149	**5.46**	0.721	NA
12.85	6.4	6.45	03/01/12	**0.831**	0.0275	0.213	0.248	**5.33**	NA	NA
	6.58	6.27	06/28/12	**1.23**	0.0437	0.403	0.289	**5.65**	NA	NA
	7.21	5.64	09/25/12	**0.657**	0.0247	0.180	0.106	**4.07**	NA	NA
	5.93	6.92	11/25/12	**0.449**	0.0152	0.191	0.177	**4.58**	NA	NA
	6.10	6.75	02/22/13	**0.393**	0.0149	0.124	0.116	**4.15**	0.435	<0.10
	6.61	6.24	05/14/13	**0.873**	0.0231	0.236	0.145	**4.19**	NA	NA
	7.11	5.74	09/05/13	**0.783**	0.0189	0.162	0.0746	**3.70**	NA	NA
	6.99	5.86	11/5/2013	**0.607**	0.0112	0.977	0.0529	**2.69**	NA	NA
	6.09	6.76	4/23/2014	**0.98**	0.0269	0.276	0.232	**5.86**	NA	NA
	6.85	6.00	7/24/2014	**0.656**	0.0206	0.178	0.131	**4.66**	0.363	< 0.094
Duplicate	6.85	6.00	7/24/2014	**0.681**	0.0242	0.207	0.162	**4.68**	0.500	< 0.094
MW-303	6.93	5.71	11/08/11	**1.37**	0.0358	0.295	0.11	**8.57**	0.799	NA
12.64	4.94	7.70	03/01/12	**3.13**	0.0759	0.76	0.232	**12.3**	NA	NA
	6.06	6.58	06/13/12	**2.90**	0.0957	0.884	0.268	**12.5**	NA	NA
	6.84	5.80	09/25/12	**1.83**	0.0635	0.474	0.146	**9.14**	NA	NA
	5.20	7.44	11/28/12	**1.94**	0.0873	1.18	0.319	**12.6**	NA	NA
	5.58	7.06	02/21/13	**2.34**	0.0955	1.29	0.338	**12.8**	0.674	<0.10
	6.10	6.54	05/16/13	**1.90**	0.0864	0.983	0.272	**10.6**	NA	NA
	6.80	5.84	09/06/13	NA	NA	NA	NA	NA	NA	NA
	6.61	6.03	11/4/2013	**0.884**	0.0278	0.219	0.0544	**6.11**	NA	NA
	5.49	7.15	4/23/2014	**1.58**	0.071	**1.14**	0.224	**11.8**	NA	NA
	6.44	6.20	7/24/2014	**0.808**	0.0471	**0.653**	0.161	**9.76**	0.622	<0.094
MW-304	7.01	5.69	11/08/11	**0.74**	0.0164	0.0723	0.0652	**4.24**	0.675	NA
12.70	6.06	6.64	03/01/12	**0.686**	0.0351	0.214	0.264	**5.64**	NA	NA
	6.20	6.50	06/12/12	**1.04**	0.0408	0.270	0.218	**5.98**	NA	NA
	6.96	5.74	09/25/12	**0.630**	0.0240	0.198	0.105	**3.93**	NA	NA
	5.41	7.29	11/28/12	**0.411**	0.0244	0.306	0.252	**5.89**	NA	NA
	5.78	6.92	02/22/13	**0.507**	0.0225	0.208	0.149	**5.56**	0.762	0.186 j
	NA	NA	05/16/13	**0.645**	0.0283	0.209	0.144	**4.73**	NA	NA
	6.89	5.81	09/05/13	**0.862**	0.0188	0.0849	0.0616	**3.09**	NA	NA
	6.75	5.95	11/5/2013	**0.695**	0.0163	0.0629	0.054	**2.67**	NA	NA
	5.67	7.03	4/23/2014	**0.778**	0.0248	0.185	0.147	**5.93**	NA	NA
	6.57	6.13	7/24/2014	**0.437**	0.0173	0.109	0.0666	**3.59**	0.557	<0.094
MW-307	7.95	7.67	11/26/12	**2.15**	0.0858	0.833	0.513	**10.9**	NA	NA
15.62	8.42	7.20	02/22/13	**0.497**	0.0358	0.226	0.145	**6.02**	0.604	<0.094
	8.91	6.71	05/15/13	**0.437**	0.0461	0.167	0.120	**4.56**	NA	NA
	9.67	5.95	09/05/13	**0.643**	0.0645 j	0.154	0.131	**5.30**	NA	NA
	9.49	6.13	11/6/2013	**0.568**	0.0448	0.104	0.0912	**4.39**	NA	NA
	8.26	7.36	4/22/2014	**0.520**	0.0408	0.241	0.152	**5.68**	NA	NA
MW-308	7.90	7.69	11/26/12	**0.144**	0.0010 j	0.0072	0.0013 j	0.778	NA	NA
15.59	8.22	7.37	02/22/13	**0.668**	0.0078 j	0.0443	0.0059 j	**3.48**	0.354	<0.10
	8.80	6.79	05/15/13	**0.392**	0.0052 j	0.0427	<0.0046	**2.54**	NA	NA
	9.56	6.03	09/06/13	NA	NA	NA	NA	NA	NA	NA
	9.45	6.14	11/6/2013	**0.237**	0.0033 j	0.0056	0.0026 j	**1.65**	NA	NA
	8.10	7.49	4/22/2014	**0.0165**	<0.00020	0.00036 j	<0.00046	**0.146**	NA	NA
MW-309	5.38	7.29	11/28/12	<0.00020	<0.00020	<0.00020	<0.00046	<0.050	NA	NA
12.67	5.73	6.94	02/21/13	<0.00020	<0.00020	<0.00020	<0.00046	<0.050	0.0790 j	<0.10
	6.21	6.46	05/17/13	<0.00020	<0.00020	<0.00020	<0.00046	<0.050	NA	NA
	6.84	5.83	09/06/13	NA	NA	NA	NA	NA	NA	NA
	6.76	5.91	11/6/2013	<0.00020	<0.00020	<0.00020	<0.00046	<0.050	NA	NA
	5.60	7.07	4/23/2014	<0.00020	<0.00020	<0.00020	<0.00046	<0.050	NA	NA
	6.47	6.20	7/24/2014	<0.00020	<0.00020	<0.00020	<0.00046	<0.050	0.102	<0.094
MW-310	6.40	7.12	11/28/12	**0.86**	0.0265	0.211	0.147	**5.74**	NA	NA
13.51	6.78	6.73	02/21/13	**1.8**	0.0768	0.506	0.18	**8.37**	0.603	<0.10
	7.20	6.31	05/14/13	**0.993**	0.0703	0.654	0.175	**6.49**	NA	NA
	7.72	5.79	09/05/13	**0.960**	0.0598	0.310	0.110	**5.51**	NA	NA
	7.61	5.90	11/5/2013	**0.772**	0.0409	0.226	0.0846	**4.92**	NA	NA
	6.64	6.87	4/23/2014	**0.796**	0.0432	0.187	0.0607	**5.88**	NA	NA
	7.43	6.08	7/24/2014	**0.920**	0.0489	0.368	0.0647	**6.36**	0.605	<0.094
TES-MW-1	10.45	5.59	10/26/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.20	< 0.10	< 0.20
16.15	8.62	7.53	11/26/12	<0.00020	<0.00020	<0.00020	<0.00046	<0.050	<0.050	<0.10
	9.46	6.69	05/16/13	NA	NA	NA	NA	NA	NA	NA
	10.06	6.09	11/6/2013	<0.00020	<0.00020	<0.00020	<0.00046	<0.050	<0.048	<0.095
	8.70	7.45	4/22/2014	NA	NA	NA	NA	NA	NA	NA

Table 3
TX-03A Historical Groundwater Analytical Results
Shell Harbor Island Terminal
Seattle, Washington

Sample location/ TOC Elevation	Depth to Water (ft)	Groundwater Elevation (ft)	Sample Date	Chemical (mg/L)						
				Benzene	Toluene	Ethylbenzene	Total Xylenes	Gasoline Range Hydrocarbons	Diesel Range Hydrocarbons	Motor Oil Range Hydrocarbons
Cleanup Level[a]				0.071	200	29	NE	1	10	10
TX-03A	-	-	10/27/11	**3.44**	0.0712	0.147	0.111	**8.51**	NA	NA
12.26	5.84	6.42	03/01/12	**1.74**	0.0261	0.0272	0.0345 j	**5.58**	NA	NA
	5.97	6.29	06/12/12	**1.57**	0.020 j	0.0139 j	0.030 j	**6.78**	NA	NA
	6.66	5.60	09/25/12	**1.70**	0.0298	0.0410	0.0501	**5.53**	NA	NA
	5.20	7.06	11/28/12	**1.18**	0.0188 j	0.0232	0.0357 j	**4.91**	NA	NA
	5.55	6.71	02/21/13	**2.81**	0.0403	0.0421	0.0489 j	**8.2**	0.32	<0.10
	6.01	6.25	5/15/2013	**2.15**	0.0459 j	0.189	0.0643 j	**3.11**	NA	NA
	6.56	5.70	9/6/2013	NA	NA	NA	NA	NA	NA	NA
	6.45	5.81	11/5/2013	**2.72**	0.0343 j	0.0364 j	0.0411 j	**6.01**	NA	NA
	5.45	6.81	4/23/2014	**1.22**	0.0171 j	0.0251	0.027 j	**5.76**	NA	NA
	6.28	5.98	7/24/2014	**1.64**	0.0317	0.0698	0.052	**7.55**	0.382	< 0.094
ASW-1	7.41	-	09/06/13	**0.315**	0.0086	0.0218	0.0308	**1.32**	NA	NA
TW-01	7.66	-	09/06/13	**0.521**	0.0281	0.359	0.197	**5.47**	NA	NA
	7.38	-	11/07/13	**0.431**	0.0245	0.132	0.0724	**3.24**	NA	NA

Notes:
Bolded values indicate concentrations exceeding the associated Cleanup Level.
< = concentration undetected at the method detection limit.
[a] Cleanup levels per the Cleanup Action Plan (Ecology, 1998).
aj = Diesel pattern is not present; higher boiling gasoline compounds in Diesel range.
BTEX = Benzene, Toluene, Ethylbenzene, Total Xylenes
ft = feet
j = Laboratory qualifier; indicates an estimated value
mg/L = milligrams per liter
NA = Not Analyzed
NE = Not Established
TOC = Top of Casing
TPH = Total Petroleum Hydrocarbon
uj = The analyte was not detected above the sample method detection limit; however, the method detection limit is approximate.
-- = Not Applicable, Not Available

ATTACHMENT A

Field Sheets and Daily Quality Control Report

Storm Drain

Monitoring Well Sampling Field Log

Well Number: D050-016

Date: 7/25/14

Page 1 of ____

Project Information
Project Name: Shell Seattle Harbor Island
URS Project Number: 46194348
Sampling Information
Field Team: Brett Waldron ; Mark Tauscher
Purge Method: Low Flow
Pump Intake Depth (ft btc):
Flow-Through Cell: Yes
Sampling Method: Low Flow
Decontamination Method: Alconox and DI
Purge Water Disposal: On site treatment system outgoing tide
Field Conditions: Sunny, warm, ~~low tide~~
Comments:
Initial DTW:
Collect Duplicate D050-116 @ 0810
*Collect upgradient of downhole boom.
*Storm drain has flow

Well Information			Stick-up or Flush (circle one)		
Well Diameter (in)	Drilled Well Depth (ft bgs)	(ft btc)	Top of Screen (ft bgs)	(ft btc)	Screen Interval (ft bgs)
					-

CMT Port=0.006 gal/ft 3/4"=0.023 gal/ft 2"=0.17 gal/ft 4"=0.66 gal/ft 6"=1.5 gal/ft

Sample Containers				Filtered?
Number	Type	Preservative	Analytical Parameters	
3	VOA	HCl	VOCs	
3	VOA	HCl	TPH-Gx	
2	1L	—	TPH-Dx	
2	1L	—	PAHs	

Well Purge Data

Time	Volume Purged (L)	Purge Rate (mL/m)	DTW (ft btc)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
			Initial	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
0805	Pump On									
0807	0			17.64	288	5.49	6.30	-25	19.4	H.C. odor
0808				17.98	282	4.39	6.35	-47	12.9	
	Start Sampling	0810								
	End Sampling	0845								
			Final	Sample Number: D050-016					Sample Time: 0810	

Notes: AC = almost clear; bgs = below ground surface; btc = below top of casing; Cl = cloudy; DTW = depth to water; C = clear; VC = very cloudy; SC = slightly cloudy

Storm Drain

Monitoring Well Sampling Field Log

Well Number: DO50-015

Page 1 of ___

Date: 7/25/14

Project Information
Project Name: Shell Seattle Harbor Island
URS Project Number: 46194348
Sampling Information
Field Team: Bret Waldron; Mark Tauscher
Purge Method: Low Flow
Pump Intake Depth (ft btc):
Flow-Through Cell: Yes
Sampling Method: Low Flow
Decontamination Method: Alconox and DI
Purge Water Disposal: On site treatment system
Field Conditions: Sunny, Warm, low-tide
Comments:
Initial DTW:
Storm drain has flow, Brown ~~flow~~

Well Information			Stick-up or Flush (circle one)		
Well Diameter (in)	Drilled Well Depth (ft bgs)	(ft btc)	Top of Screen (ft bgs)	(ft btc)	Screen Interval (ft bgs)
					-

CMT Port=0.006 gal/ft 3/4"=0.023 gal/ft 2"=0.17 gal/ft 4"=0.66 gal/ft 6"=1.5 gal/ft

Sample Containers				
Number	Type	Preservative	Analytical Parameters	Filtered?
3	VOA	HCl	VOCs	
3	VOA	HCl	TPH-gx	
2	1L	—	TPH-Dx	
2	1L	—	PAHs	

Well Purge Data

Time	Volume Purged (L)	Purge Rate (mL/m)	DTW (ft btc)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
0925	Pump On		Initial	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
0927	0			18.62	465	4.72	6.48	-107	8.9	Brown
0928				18.56	463	3.07	6.38	-104	19.5	
0929				18.41	464	1.93	6.33	-105	0	
	Start Sampling	0930								
	End Sampling	0950	Final	Sample Number: DO50-015					Sample Time: 0930	

Notes: AC = almost clear; bgs = below ground surface; btc = below top of casing; Cl = cloudy; DTW = depth to water; C = clear; VC = very cloudy; SC = slightly cloudy

Storm Drain

Monitoring Well Sampling Field Log

Page 1 of 1

Well Number: D050-014

Date: 7/25/14

Project Information
Project Name: Shell Seattle Harbor Island
URS Project Number: 46194348
Sampling Information
Field Team: Bret Waldron; Mark Tauscher
Purge Method: Low Flow
Pump Intake Depth (ft btc):
Flow-Through Cell: Yes
Sampling Method: Low Flow
Decontamination Method: Alconox and DI
Purge Water Disposal: On site treatment system
Field Conditions: Sunny, Warm, low tide
Comments:
Initial DTW:

Well Information			Stick-up or Flush (circle one)		
Well Diameter (in)	Drilled Well Depth (ft bgs)	(ft btc)	Top of Screen (ft bgs)	(ft btc)	Screen Interval (ft bgs)
					-

CMT Port=0.006 gal/ft 3/4"=0.023 gal/ft 2"=0.17 gal/ft 4"=0.66 gal/ft 6"=1.5 gal/ft

Sample Containers				Filtered?
Number	Type	Preservative	Analytical Parameters	
3	VOA	HCl	VOCs	
3	VOA	HCl	TPH-Gx	
2	1L	—	TPH-Dx	
2	1L	—	PAHs	

Well Purge Data

Time	Volume Purged (L)	Purge Rate (mL/m)	DTW (ft btc)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
1117	Pump On		Initial	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
1118	0			21.62	375	6.62	6.65	-59	0	
1120				20.55	387	4.88	6.49	-86	0	
1121				19.78	394	4.58	6.44	-91	0	
1123				19.45	397	4.40	6.41	-92	0	

Start Sampling	1124		
End Sampling	1200	Sample Number: D050-014	Sample Time: 1124
	Final		

Notes: AC = almost clear; bgs = below ground surface; btc = below top of casing; Cl = cloudy; DTW = depth to water; C = clear; VC = very cloudy; SC = slightly cloudy

Monitoring Well Sampling Field Log

Well Number: D050-017

Date: 7/25/14

Page 1 of ___

Project Information
Project Name: Shell Seattle Harbor Island
URS Project Number: 46194348
Sampling Information
Field Team: Bret Waldron ; Mark Tauscher
Purge Method: Low Flow
Pump Intake Depth (ft btc):
Flow-Through Cell: Yes
Sampling Method: Low Flow
Decontamination Method: Alconox and DI
Purge Water Disposal: On site treatment system
Field Conditions: Sunny, warm, low-tide
Comments:
Initial DTW:

Well Information			Stick-up or Flush (circle one)		
Well Diameter (in)	Drilled Well Depth (ft bgs)	Drilled Well Depth (ft btc)	Top of Screen (ft bgs)	Top of Screen (ft btc)	Screen Interval (ft bgs)
					-

CMT Port=0.006 gal/ft 3/4"=0.023 gal/ft 2"=0.17 gal/ft 4"=0.66 gal/ft 6"=1.5 gal/ft

Sample Containers				Filtered?
Number	Type	Preservative	Analytical Parameters	
3	VOA	HCl	VOCs	
3	VOA	HCl	TPH-Gx	
2	1L	—	TPH-Dx	
2	1L	—	PAHs	

Well Purge Data

Time	Volume Purged (L)	Purge Rate (mL/m)	DTW (ft btc)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
1025	Pump On		Initial	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
1027	0			21.77	218	3.68	6.66	-42	0	Clear
1028				20.77	230	2.46	6.59	-52	0	
1029				20.20	242	1.80	6.55	-57	0	
1030				19.91	247	1.54	6.54	-60	0	
	Start Sampling	1032								
	End Sampling	1049		Sample Number: D050-017					Sample Time:	1032
			Final							

Notes: AC = almost clear; bgs = below ground surface; btc = below top of casing; Cl = cloudy; DTW = depth to water; C = clear; VC = very cloudy; SC = slightly cloudy

URS

DATE 7-24-14

DAY: S | M | T | ~~W~~ | (TH) | F | S

PROJECT MANAGER: Brian Pletcher
PROJECT: Shell harbor Island
JOB NO.: 49241036
URS FIELD REP: Bret Waldron / Mark Tauscher

WEATHER	BRIGHT SUN	CLEAR	OVERCAST	RAIN	SNOW
TEMP	To 32	32-50	(50-70)	70-85	85 up
WIND	Still	(Moder)	High	Report No.	
HUMIDITY	Dry	Moder	(Humid)		

SUB-CONTRACTORS ON SITE: N/A
EQUIPMENT ON SITE: field vehicle

WORK PERFORMED:

0645- URS on site. Meet with facility to check in and complete all H & S.
0710- Move to Tx-03 area to begin sampling wells.
0950- Perry from Shell on site for safety audit.
1030- Perry off site and signed out.
1415- Tx-03 Area wells complete

Collected samples from the following:

MW-309	0845	
MW-304	0904	
MW-301	1025	
MW-302	1052	Duplicate MW-322
MW-303	1205	
TX-03A	1240	
MW-310	1315	

Mob to shorline to guage and replace socks
1520- Check out with terminal. Mobilize to grocery store to pack samples for shipping.
1715- Mobilize to Fed Ex.
1745- Delivered coolers to Fed Ex Ship Center. 5 coolers being shipped to accutest. Depart for Tacoma motel room.

7/24/14

SHEET 1 OF 1

URS

DATE 7/25/14

DAY	S	M	T	W	TH	F	S
						(F)	

WEATHER	BRIGHT SUN	CLEAR	OVERCAST	RAIN	SNOW
		(CLEAR)			

TEMP	To 32	32-50	50-70	70-85	85 up
			(50-70)		

WIND	Still	Moder	High	Report No.
	(Still)			

HUMIDITY	Dry	Moder	Humid
		(Moder)	

PROJECT MANAGER: Brian Pletcher

PROJECT: Harbor Island- Storm Drain Sampling

JOB NO.: 49241036.SI14T

URS FIELD REP: Bret Waldron ; Mark Tauscher

SUB-CONTRACTORS ON SITE: Altus Traffic Management

EQUIPMENT ON SITE: Groundwater sampling supplies

WORK PERFORMED:

0645 Arrive onsite. Check in with terminal. Conduct tailgate meeting

0700 Check in with terminal operator. Review JSA & permit.

~~0830~~ 0725 Mobilize to TX03A area. Setup at storm drain D050-016. Pull up on absorbant boom that is on the downstream side of the storm drain. Cannot retrieve from downhole due to large size and heavy weight. Boom was adjusted, allowing water to flow through the drain. It was holding back flow. Place sampler downhole on the upstream side of boom.

0810 Collect D050-016 and duplicate D050-116. (Peri-pump)

0830 Altus onsite. Conduct tailgate meeting, review LSRs, JSAs, HASP

0855 Altus begins traffic control setup.

0930 Collect D050-015.

0950 Pack up and mobilize to D050-017. Altus tears down traffic cones & signs.

1032 Collect D050-017

1100 Mobilize to D050-014

1124 Collect D050-014. Collect upstream of sorbent sock.

1220 Scope area for potential drill locations

1240 Mobilize to terminal. Offload purge water.

1300 Sign out, close Permit to work. Depart to FedEx to return water meter; then mobilize to Portland.

7/25/14

SHEET 1 OF 1

URS

Monitoring Well Gauging Field Log

Date: 7/24/14

Job No.: 49241036

SAP: 3547032

Incident No 300036

Location: 2555 13th Ave SW Seattle (Harbor Island Terminal)

Personnel: Bret Weldon ; Mark Tauscher

Well ID	Time Gauged	Depth to Water	Depth to Product	Comments
MW-301	0744	6.38	Slight Sheen on	probe
MW-302	0751	6.83	ND	
MW-309	0735	6.47	ND	
MW-310	0758	7.43	ND	
TX-03A	0747	6.25	ND	No bolts, cap not on snugly. no lock
MW-303	0739	6.44	6.43	Strong petro odor, product on water. Sheen
MW-304	0809	6.55	ND	Removed product sock. some dark staining noted on sock. Foul oder noted (organic)

Monitoring Well Sampling Field Log

Page 1 of ____

Well Number: MW-309

Date: 7/24/14

Project Information
Project Name: Shell Seattle Harbor Island
URS Project Number: 46194348
Sampling Information
Field Team: MARK TAUSCHER
Purge Method: Low Flow
Pump Intake Depth (ft btc):
Flow-Through Cell: Yes
Sampling Method: Low Flow
Decontamination Method: Alconox and DI
Purge Water Disposal: On site treatment system
Field Conditions: OVERCAST 55°
Comments:
Initial DTW: 6.47
intake 2' off bottom.

Well Information			Stick-up or Flush (circle one)		
Well Diameter (in)	Drilled Well Depth (ft bgs)	Drilled Well Depth (ft btc)	Top of Screen (ft bgs)	Top of Screen (ft btc)	Screen Interval (ft bgs)
2					-

CMT Port=0.006 gal/ft 3/4"=0.023 gal/ft 2"=0.17 gal/ft 4"=0.66 gal/ft 6"=1.5 gal/ft

Sample Containers				Filtered?
Number	Type	Preservative	Analytical Parameters	
2	AMBER	NONE ~~HCL~~	PAH	
2	AMBER	NONE ~~HCL~~	DX	
3	VOA	HCL	GRX	
3	VOA	HCL	VOC	

Well Purge Data

Time	Volume Purged (L)	Purge Rate (mL/m)	DTW (ft btc)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
0755	Pump On		Initial 6.47	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
0800	0	170	6.50	15.69	260	1.88	12.08	-166	88.3	cloudy
0805	1	170	6.50	15.61	244	1.21	12.32	-164	73.7	pH sensor?
0810	2	170	6.50	15.64	236	0.60	6.63	-164	62.0	
0815	3	200	6.50	15.68	230	0.35	6.61	-162	59.8	cloudy
0820	4	200	6.51	15.75	233	0.15	6.91	-158	76.8	
0825	5	200	6.51	15.77	237	0.02	6.79	-159	72.6	AC
0830	6	200	6.51	15.83	242	0.00	6.69	-159	70.4	AC
0835	7	200	6.51	15.91	243	0.0	6.74	-162	68.2	AC
0840	8	200	6.52	15.95	244	0.0	6.74	-164	66.2	AC
0845	SAMPLE									
						MT				
	Start Sampling	0845								
	End Sampling	0908	Final 0651							

Sample Number: MW-309 **Sample Time:** 0845

Notes: AC = almost clear; bgs = below ground surface; btc = below top of casing; Cl = cloudy; DTW = depth to water; C = clear; VC = very cloudy; SC = slightly cloudy

Monitoring Well Sampling Field Log

Well Number: MW-304

Date: 7/24/14

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Project Information	
Project Name: Shell Seattle Harbor Island	
URS Project Number: ~~46104348~~ 49241036	
Sampling Information	
Field Team: Brent Waldron	
Purge Method: Low Flow	
Pump Intake Depth (ft btc): 2 ft off bottom	
Flow-Through Cell: Yes	
Sampling Method: Low Flow	
Decontamination Method: Alconox and DI	
Purge Water Disposal: On site treatment system	
Field Conditions: Cloudy, showers	
Comments:	
Initial DTW: 6.57	
Intake 2' off bottom	

Well Information			Stick-up or (Flush)		(circle one)
Well Diameter (in)	Drilled Well Depth		Top of Screen		Screen Interval (ft bgs)
	(ft bgs)	(ft btc)	(ft bgs)	(ft btc)	
2	-	-	-	-	-

CMT Port=0.006 gal/ft 3/4"=0.023 gal/ft 2"=0.17 gal/ft 4"=0.66 gal/ft 6"=1.5 gal/ft

Sample Containers				Filtered?
Number	Type	Preservative	Analytical Parameters	
3	VOA	HCl	VOCs	N
3	VOA	HCl	TPH-Gx	
2	1L	—	TPH-Dx	
2	1L	—	PAHs	

Well Purge Data

Time	Volume Purged (L)	Purge Rate (mL/m)	DTW (ft btc)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
0839	Pump On		Initial 6.57	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
0843	0	240	6.57	16.20	333	1.96	6.60	-89	16.0	clear/slight dark color
0848	1.75	340	6.58	15.17	333	0	6.11	-101	2.8	
0853	3.25	340	6.59	14.96	348	0	6.01	-106	0	
0858	5.0	340	6.59	14.93	350	0	5.98	-103	0	
0903	6.5	340	6.59	14.87	350	0	5.99	-111	0	

7/24/14

Start Sampling 0904

End Sampling 0939

Final 6.59

Sample Number: MW-304 Sample Time: 0904

Notes: AC = almost clear; bgs = below ground surface; btc = below top of casing; Cl = cloudy; DTW = depth to water; C = clear; VC = very cloudy; SC = slightly cloudy

Monitoring Well Sampling Field Log

Page 1 of ____

Well Number: MW-301

Date: 7/24/14

Project Information
Project Name: Shell Seattle Harbor Island
URS Project Number: 46194348
Sampling Information
Field Team: MARK TAUSCHER
Purge Method: Low Flow
Pump Intake Depth (ft btc):
Flow-Through Cell: Yes
Sampling Method: Low Flow
Decontamination Method: Alconox and DI
Purge Water Disposal: On site treatment system
Field Conditions: overcast 60°
Comments:
Initial DTW: 6.38
intake 2' off bottom
- slight petro odor

Well Information			Stick-up or (Flush)		(circle one)
Well Diameter (in)	Drilled Well Depth (ft bgs)	Drilled Well Depth (ft btc)	Top of Screen (ft bgs)	Top of Screen (ft btc)	Screen Interval (ft bgs)
2					-

CMT Port=0.006 gal/ft 3/4"=0.023 gal/ft 2"=0.17 gal/ft 4"=0.66 gal/ft 6"=1.5 gal/ft

Sample Containers				Filtered?
Number	Type	Preservative	Analytical Parameters	
2	AMBER	NONE	PAH	
2	AMBER	NONE	Dx	
3	VOA	HCL	VOC	
3	VOA	HCL	Gx	

Well Purge Data

Time	Volume Purged (L)	Purge Rate (mL/m)	DTW (ft btc)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
0935	Pump On		Initial 6.38	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
0940	0	200	6.39	15.10	767	0.56	6.61	-151	0.0	clear
0945	1	200	6.39	14.92	765	0.15	6.71	-168	0.0	clear
0950	2	200	6.40	14.92	733	0.05	6.72	-169	0.0	clear
0955	3	200	6.40	14.99	676	0.0	6.68	-168	0.0	clear
1000	4	200	6.40	15.03	643	0.0	6.70	-169	0.0	clear
1005	5	200	6.40	15.10	633	0.0	6.73	-170	0.0	clear
1010	6	200	6.41	15.15	620	0.0	6.74	-171	0.0	clear
1015	7	200	6.41	15.17	616	0.0	6.74	-171	0.0	clear
1020	8	200	6.41	15.14	614	0.0	6.73	-171	0.0	clear
1025	SAMPLE									
						MT				
	Start Sampling	1025								
	End Sampling	0051		Sample Number: MW-301					Sample Time: 1025	
			Final 6.41							

Notes: AC = almost clear; bgs = below ground surface; btc = below top of casing; Cl = cloudy; DTW = depth to water; C = clear; VC = very cloudy; SC = slightly cloudy

Monitoring Well Sampling Field Log

Well Number: MW-302

Page 1 of ____

Date: 7/24/14

Project Information
Project Name: Shell Seattle Harbor Island
URS Project Number: 46194348
Sampling Information
Field Team: Bret Waldron
Purge Method: Low Flow
Pump Intake Depth (ft btc):
Flow-Through Cell: Yes
Sampling Method: Low Flow
Decontamination Method: Alconox and DI
Purge Water Disposal: On site treatment system
Field Conditions: Overcast - 60°
Comments:
Initial DTW: 6.85'
Intake 2' off bottom
Collect Duplicate MW-322 @ 1052

Well Information — Stick-up or (Flush) (circle one)

Well Diameter (in)	Drilled Well Depth (ft bgs)	Drilled Well Depth (ft btc)	Top of Screen (ft bgs)	Top of Screen (ft btc)	Screen Interval (ft bgs)
2"	-	-	-	-	-

CMT Port=0.006 gal/ft 3/4"=0.023 gal/ft 2"=0.17 gal/ft 4"=0.66 gal/ft 6"=1.5 gal/ft

Sample Containers

Number	Type	Preservative	Analytical Parameters	Filtered?
3	VOA	HCl	VOCs	N
3	VOA	HCl	TPH-Gx	
2	1L	-	TPH-Dx	
2	1L	-	PAHs	

Well Purge Data

Time	Volume Purged (L)	Purge Rate (mL/m)	DTW (ft btc)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
1025	Pump On		Initial	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
1027	0	360	6.89	15.59	392	3.62	6.19	-94	0.0	Slight Petro odor
1032	2	360	6.89	15.53	390	0	6.17	-112	0	
1037	3.5	360	6.89	15.58	393	0	6.20	-116	0	
1042	5.5	360	6.89	15.62	396	0	6.25	-123	0	
1047	7.25	360	6.89	15.61	395	0	6.28	-127	0	
1050	8.75	360	6.89	15.62	395	0	6.32	-130	0	
	Start Sampling	1052								
	End Sampling	1129		Sample Number: MW-302 / MW-322 (Duplicate)						Sample Time: 1052
			Final 6.89							

BT BC 7/24/14

Notes: AC = almost clear; bgs = below ground surface; btc = below top of casing; Cl = cloudy; DTW = depth to water; C = clear; VC = very cloudy; SC = slightly cloudy

Monitoring Well Sampling Field Log

Well Number: MW-303

Date: 7/24/14

Page 1 of ____

Project Information
Project Name: Shell Seattle Harbor Island
URS Project Number: 46194348
Sampling Information
Field Team: MARK TAUSCHER
Purge Method: Low Flow
Pump Intake Depth (ft btc):
Flow-Through Cell: Yes
Sampling Method: Low Flow
Decontamination Method: Alconox and DI
Purge Water Disposal: On site treatment system
Field Conditions: Overcast
Comments:
Initial DTW: 6.44
0.01' of product
intake 2' off bottom
- Petro odor

Well Information			Stick-up or Flush (circle one)		
Well Diameter (in)	Drilled Well Depth (ft bgs)	Drilled Well Depth (ft btc)	Top of Screen (ft bgs)	Top of Screen (ft btc)	Screen Interval (ft bgs)
2					-

CMT Port=0.006 gal/ft 3/4"=0.023 gal/ft 2"=0.17 gal/ft 4"=0.66 gal/ft 6"=1.5 gal/ft

Sample Containers				
Number	Type	Preservative	Analytical Parameters	Filtered?
2	AMBER	NONE	PAH	
2	AMBER	NONE	DX	
3	VOA	HCL	VOC	
3	VOA	HCL	GX	

Well Purge Data

Time	Volume Purged (L)	Purge Rate (mL/m)	DTW (ft btc)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
1115	Pump On		6.44 (Initial)	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
1120	0	200	6.46	15.36	489	0.90	6.60	-129	22.3	AC
1125	1	200	6.46	14.84	357	0.20	6.64	-149	12.4	Clear
1130	2	200	6.46	14.65	307	0.0	6.77	-153	0.0	clear
1135	3	200	6.47	14.69	301	0.0	6.71	-150	0.0	Clear
1140	4	200	6.47	14.81	311	0.0	6.66	-150	0.0	clear
1145	5	200	6.47	14.80	315	0.0	6.63	-149	0.0	clear
1150	6	200	6.48	14.80	322	0.0	6.55	-148	0.0	Clear
1155	7	200	6.48	14.70	322	0.0	6.50	-147	0.0	"
1200	8	200	6.48	14.72	322	0.0	6.50	-147	0.0	clear
1205	SAMPLE									
							MT			

Start Sampling 1205

End Sampling 1228

6.49 (Final)

Sample Number: MW-303 Sample Time: 1205

Notes: AC = almost clear; bgs = below ground surface; btc = below top of casing; Cl = cloudy; DTW = depth to water; C = clear; VC = very cloudy; SC = slightly cloudy

Monitoring Well Sampling Field Log

Well Number: TX-03A

Date: 7/24/14

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Project Information
Project Name: Shell Seattle Harbor Island
URS Project Number: ~~46194348~~ 4524 1036
Sampling Information
Field Team: Bret Waldron
Purge Method: Low Flow
Pump Intake Depth (ft btc):
Flow-Through Cell: Yes
Sampling Method: Low Flow
Decontamination Method: Alconox and DI
Purge Water Disposal: On site treatment system
Field Conditions: Overcast ~ 65°
Comments:
Initial DTW: 6.28
Intake 2' off bottom

Well Information			Stick-up or (Flush) (circle one)		
Well Diameter (in)	Drilled Well Depth		Top of Screen		Screen Interval (ft bgs)
	(ft bgs)	(ft btc)	(ft bgs)	(ft btc)	
2	-	-	-	-	-

CMT Port=0.006 gal/ft 3/4"=0.023 gal/ft 2"=0.17 gal/ft 4"=0.66 gal/ft 6"=1.5 gal/ft

Sample Containers				Filtered?
Number	Type	Preservative	Analytical Parameters	
3	VOA	HCl	VOCs	↓
3	VOA	HCl	TPH-Gx	
2	1L	-	TPH-Dx	
2	1L	-	PAHs	

Well Purge Data

Time	Volume Purged (L)	Purge Rate (mL/m)	DTW (ft btc)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
1215	Pump On		Initial 6.28	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
1216	0	340	6.30	15.94	451	1.80	6.44	-101	0	Slight Petro odor
1221	2	340	6.30	15.59	440	0	6.29	-124	0	
1226	3.5	340	6.30	15.65	441	0	6.24	-125	0	
1231	5.0	340	6.30	15.79	439	0	6.33	-132	0	
1236	7.0	340	6.30	15.97	434	0	6.38	-137	0	
1239	8.25	340	6.30	16.23	431	0	6.42	-141	0	

BT 7/24/14

Start Sampling 1240

End Sampling

Final

Sample Number: TX-03A Sample Time: 1240

Notes: AC = almost clear; bgs = below ground surface; btc = below top of casing; Cl = cloudy; DTW = depth to water; C = clear; VC = very cloudy; SC = slightly cloudy

Monitoring Well Sampling Field Log

Page 1 of ____

Well Number: MW-310

Date: 7/24

Project Information
Project Name: Shell Seattle Harbor Island
URS Project Number: 46194348

Sampling Information
Field Team: MARK TAUSCHER
Purge Method: Low Flow
Pump Intake Depth (ft btc):
Flow-Through Cell: Yes
Sampling Method: Low Flow
Decontamination Method: Alconox and DI
Purge Water Disposal: On site treatment system
Field Conditions: overcast 60°

Comments:

Initial DTW: 7.43

intake 2' off bottom

Well Information — Stick-up or (Flush) (circle one)

Well Diameter (in)	Drilled Well Depth (ft bgs)	Drilled Well Depth (ft btc)	Top of Screen (ft bgs)	Top of Screen (ft btc)	Screen Interval (ft bgs)
2					-

CMT Port=0.006 gal/ft 3/4"=0.023 gal/ft 2"=0.17 gal/ft 4"=0.66 gal/ft 6"=1.5 gal/ft

Sample Containers

Number	Type	Preservative	Analytical Parameters	Filtered?
2	AMBER	NONE	PAH	
2	AMBER	NONE	Dx	
3	VOA	HCL	VOC	
3	VOA	HCL	GRX	

Well Purge Data

Time	Volume Purged (L)	Purge Rate (mL/m)	DTW (ft btc)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
1240	Pump On		Initial 7.43	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
1245	0	200	7.48	15.63	373	1.33	5.91	-99	0.0	clear
1250	1	200	7.48	15.39	371	0.59	5.89	-101	0.0	"
1255	2	200	7.49	15.28	366	0.14	5.87	-104	0.0	clear
1300	3	200	7.49	15.31	365	0.00	5.89	-106	0.0	clear
1305	4	200	7.48	15.40	367	0.0	5.91	-110	0.0	clear
1310	5	200	7.48	15.48	368	0.0	5.94	-112	0.0	clear
1315	SAMPLE									
						MT				

Start Sampling 1315

End Sampling 1344

Final 7.49

Sample Number: MW-310 **Sample Time:** 1315

Notes: AC = almost clear; bgs = below ground surface; btc = below top of casing; Cl = cloudy; DTW = depth to water; C = clear; VC = very cloudy; SC = slightly cloudy

ATTACHMENT B

Laboratory Analytical Report

Northern California ACCUTEST LABORATORIES

08/08/14

Technical Report for

Shell Oil Company

URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

49241036

Accutest Job Number: C35213

Sampling Date: 07/24/14

Report to:

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ATTN: Brian Pletcher

Total number of pages in report: **104**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Nutan Kabir 408-588-0200

Certifications: OR (CA300006) CA (08258CA) CA (ELAP 2910) AZ (AZ0762) DoD ELAP (L-A-B L2242)

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Sample Summary

Shell Oil Company

Job No: C35213

URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Project No: 49241036

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
C35213-1	07/24/14	08:45	BW	07/25/14	AQ	Ground Water	MW-309
C35213-2	07/24/14	09:04	BW	07/25/14	AQ	Ground Water	MW-304
C35213-3	07/24/14	10:25	BW	07/25/14	AQ	Ground Water	MW-301
C35213-4	07/24/14	10:52	BW	07/25/14	AQ	Ground Water	MW-302
C35213-5	07/24/14	10:52	BW	07/25/14	AQ	Ground Water	MW-322
C35213-6	07/24/14	12:05	BW	07/25/14	AQ	Ground Water	MW-303
C35213-7	07/24/14	12:40	BW	07/25/14	AQ	Ground Water	TX-03A
C35213-8	07/24/14	13:15	BW	07/25/14	AQ	Ground Water	MW-310

Summary of Hits

Job Number: C35213
Account: Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 07/24/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C35213-1	**MW-309**					
Acenaphthene		0.097 J	0.47	0.047	ug/l	SW846 8270C BY SIM
TPH (Diesel)		0.102	0.094	0.047	mg/l	NWTPH-DX
C35213-2	**MW-304**					
Benzene		437	10	2.0	ug/l	SW846 8260B
n-Butylbenzene		11.9 J	20	2.0	ug/l	SW846 8260B
sec-Butylbenzene		11.9 J	20	2.0	ug/l	SW846 8260B
Ethylbenzene		109	10	2.0	ug/l	SW846 8260B
Isopropylbenzene		40.6	10	2.0	ug/l	SW846 8260B
Naphthalene		256	50	5.0	ug/l	SW846 8260B
n-Propylbenzene		95.5	20	2.0	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		5.2 J	20	2.0	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		7.6 J	20	2.0	ug/l	SW846 8260B
Toluene		17.3	10	2.0	ug/l	SW846 8260B
Xylene (total)		66.6	20	4.6	ug/l	SW846 8260B
Acenaphthene		0.11 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluorene		0.50	0.47	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		38.7	9.4	1.9	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		49.9	9.4	1.9	ug/l	SW846 8270C BY SIM
Naphthalene		157	9.4	1.9	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		3.59	1.0	0.50	mg/l	NWTPH-GX
TPH (Diesel)		0.557	0.094	0.047	mg/l	NWTPH-DX
C35213-3	**MW-301**					
Acetone		16.0 J	80	16	ug/l	SW846 8260B
Benzene		314	4.0	0.80	ug/l	SW846 8260B
n-Butylbenzene		13.1	8.0	0.80	ug/l	SW846 8260B
sec-Butylbenzene		15.6	8.0	0.80	ug/l	SW846 8260B
Ethylbenzene		14.3	4.0	0.80	ug/l	SW846 8260B
Isopropylbenzene		68.1	4.0	0.80	ug/l	SW846 8260B
Naphthalene		2.2 J	20	2.0	ug/l	SW846 8260B
n-Propylbenzene		166	8.0	0.80	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		1.2 J	8.0	0.80	ug/l	SW846 8260B
Toluene		8.0	4.0	0.80	ug/l	SW846 8260B
Xylene (total)		9.6	8.0	1.8	ug/l	SW846 8260B
Acenaphthene		0.33 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluorene		0.22 J	0.47	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		41.1	4.7	0.94	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		27.4	4.7	0.94	ug/l	SW846 8270C BY SIM
Naphthalene		1.1	0.47	0.094	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		3.70	1.0	0.50	mg/l	NWTPH-GX

Summary of Hits

Job Number: C35213
Account: Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 07/24/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
TPH (Diesel)		0.361	0.094	0.047	mg/l	NWTPH-DX
C35213-4	**MW-302**					
Benzene		656	10	2.0	ug/l	SW846 8260B
sec-Butylbenzene		12.9 J	20	2.0	ug/l	SW846 8260B
Ethylbenzene		178	10	2.0	ug/l	SW846 8260B
Isopropylbenzene		35.3	10	2.0	ug/l	SW846 8260B
Naphthalene		135	50	5.0	ug/l	SW846 8260B
n-Propylbenzene		62.8	20	2.0	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		46.2	20	2.0	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		11.9 J	20	2.0	ug/l	SW846 8260B
Toluene		20.6	10	2.0	ug/l	SW846 8260B
Xylene (total)		131	20	4.6	ug/l	SW846 8260B
Acenaphthene		0.14 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluorene		0.38 J	0.47	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		40.8	4.7	0.94	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		17.1	0.47	0.094	ug/l	SW846 8270C BY SIM
Naphthalene		101	4.7	0.94	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		4.66	2.0	1.0	mg/l	NWTPH-GX
TPH (Diesel)		0.363	0.094	0.047	mg/l	NWTPH-DX
C35213-5	**MW-322**					
Benzene		681	10	2.0	ug/l	SW846 8260B
sec-Butylbenzene		14.0 J	20	2.0	ug/l	SW846 8260B
Ethylbenzene		207	10	2.0	ug/l	SW846 8260B
Isopropylbenzene		41.4	10	2.0	ug/l	SW846 8260B
Naphthalene		155	50	5.0	ug/l	SW846 8260B
n-Propylbenzene		75.7	20	2.0	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		63.4	20	2.0	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		15.4 J	20	2.0	ug/l	SW846 8260B
Toluene		24.2	10	2.0	ug/l	SW846 8260B
Xylene (total)		162	20	4.6	ug/l	SW846 8260B
Acenaphthene		0.13 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluorene		0.34 J	0.47	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		36.2	4.7	0.94	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		15.1	0.47	0.094	ug/l	SW846 8270C BY SIM
Naphthalene		88.3	4.7	0.94	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		4.68	1.0	0.50	mg/l	NWTPH-GX
TPH (Diesel)		0.500	0.094	0.047	mg/l	NWTPH-DX
C35213-6	**MW-303**					
Benzene		808	20	4.0	ug/l	SW846 8260B

Summary of Hits

Job Number: C35213
Account: Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 07/24/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
sec-Butylbenzene		16.2 J	40	4.0	ug/l	SW846 8260B
Ethylbenzene		653	20	4.0	ug/l	SW846 8260B
Isopropylbenzene		62.8	20	4.0	ug/l	SW846 8260B
Naphthalene		353	100	10	ug/l	SW846 8260B
n-Propylbenzene		160	40	4.0	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		38.4 J	40	4.0	ug/l	SW846 8260B
Toluene		47.1	20	4.0	ug/l	SW846 8260B
Xylene (total)		161	40	9.2	ug/l	SW846 8260B
Acenaphthene		0.22 J	0.48	0.048	ug/l	SW846 8270C BY SIM
Fluorene		0.96	0.48	0.048	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		77.5	9.5	1.9	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		102	9.5	1.9	ug/l	SW846 8270C BY SIM
Naphthalene		300	9.5	1.9	ug/l	SW846 8270C BY SIM
Phenanthrene		0.10 J	0.48	0.048	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		9.76	4.0	2.0	mg/l	NWTPH-GX
TPH (Diesel)		0.622	0.094	0.047	mg/l	NWTPH-DX
C35213-7	**TX-03A**					
Benzene		1640	20	4.0	ug/l	SW846 8260B
n-Butylbenzene		14.6 J	40	4.0	ug/l	SW846 8260B
sec-Butylbenzene		11.8 J	40	4.0	ug/l	SW846 8260B
Ethylbenzene		69.8	20	4.0	ug/l	SW846 8260B
Isopropylbenzene		60.1	20	4.0	ug/l	SW846 8260B
Naphthalene		298	100	10	ug/l	SW846 8260B
n-Propylbenzene		144	40	4.0	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		6.8 J	40	4.0	ug/l	SW846 8260B
Toluene		31.7	20	4.0	ug/l	SW846 8260B
Xylene (total)		52.0	40	9.2	ug/l	SW846 8260B
Acenaphthene		0.20 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluorene		0.23 J	0.47	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		52.0	9.4	1.9	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		64.1	9.4	1.9	ug/l	SW846 8270C BY SIM
Naphthalene		215	9.4	1.9	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		7.55	2.0	1.0	mg/l	NWTPH-GX
TPH (Diesel)		0.382	0.094	0.047	mg/l	NWTPH-DX
C35213-8	**MW-310**					
Acetone		102 J	200	40	ug/l	SW846 8260B
Benzene		920	10	2.0	ug/l	SW846 8260B
n-Butylbenzene		12.9 J	20	2.0	ug/l	SW846 8260B
sec-Butylbenzene		14.0 J	20	2.0	ug/l	SW846 8260B
Ethylbenzene		368	10	2.0	ug/l	SW846 8260B
Isopropylbenzene		46.5	10	2.0	ug/l	SW846 8260B

Summary of Hits

Job Number: C35213
Account: Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 07/24/14

Lab Sample ID Client Sample ID Analyte	Result/ Qual	RL	MDL	Units	Method
Naphthalene	279	50	5.0	ug/l	SW846 8260B
n-Propylbenzene	96.6	20	2.0	ug/l	SW846 8260B
Tert-Butyl Alcohol	30.5 J	100	24	ug/l	SW846 8260B
1,2,4-Trimethylbenzene	9.7 J	20	2.0	ug/l	SW846 8260B
1,3,5-Trimethylbenzene	6.8 J	20	2.0	ug/l	SW846 8260B
Toluene	48.9	10	2.0	ug/l	SW846 8260B
Xylene (total)	64.7	20	4.6	ug/l	SW846 8260B
Acenaphthene	0.15 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluorene	0.59	0.47	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene	47.5	24	4.7	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene	54.8	24	4.7	ug/l	SW846 8270C BY SIM
Naphthalene	206	24	4.7	ug/l	SW846 8270C BY SIM
TPH (Gasoline)	6.36	2.0	1.0	mg/l	NWTPH-GX
TPH (Diesel)	0.605	0.094	0.047	mg/l	NWTPH-DX

Northern California ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-309		
Lab Sample ID:	C35213-1	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W47270.D	1	07/30/14	BD	n/a	n/a	VW1699
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	20	4.0	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.20	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.20	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.22	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.20	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.20	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	1.0	0.20	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.20	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.26	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.20	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.20	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	0.22	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.20	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-309		
Lab Sample ID:	C35213-1	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	0.22	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.20	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.20	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.20	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.30	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	10	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	2.0	0.40	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	2.4	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.20	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.20	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.20	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	89%		70-130%
2037-26-5	Toluene-D8	103%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-309		
Lab Sample ID:	C35213-1	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	102%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-309		
Lab Sample ID:	C35213-1	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X38170.D	1	07/27/14	MT	07/25/14	OP10482	EX1650
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.097	0.47	0.047	ug/l	J
208-96-8	Acenaphthylene	ND	0.47	0.047	ug/l	
120-12-7	Anthracene	ND	0.47	0.047	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.094	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.094	0.039	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.094	0.033	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.094	0.034	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.094	0.037	ug/l	
218-01-9	Chrysene	ND	0.094	0.042	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.094	0.033	ug/l	
206-44-0	Fluoranthene	ND	0.47	0.047	ug/l	
86-73-7	Fluorene	ND	0.47	0.047	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.094	0.033	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.47	0.094	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.47	0.094	ug/l	
91-20-3	Naphthalene	ND	0.47	0.094	ug/l	
85-01-8	Phenanthrene	ND	0.47	0.047	ug/l	
129-00-0	Pyrene	ND	0.47	0.047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	94%		42-116%
321-60-8	2-Fluorobiphenyl	97%		44-115%
1718-51-0	Terphenyl-d14	103%		45-141%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-309		
Lab Sample ID:	C35213-1	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK46267.D	1	07/29/14	TT	n/a	n/a	GJK1906
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	100%		50-150%
460-00-4	4-Bromofluorobenzene	109%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-309		
Lab Sample ID:	C35213-1	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH315450.D	1	07/28/14	AG	07/25/14	OP10484	GHH1316
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.102	0.094	0.047	mg/l	
	TPH (Motor Oil)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	92%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-304		
Lab Sample ID:	C35213-2	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W47276.D	10	07/30/14	BD	n/a	n/a	VW1699
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	200	40	ug/l	
71-43-2	Benzene	437	10	2.0	ug/l	
108-86-1	Bromobenzene	ND	10	2.0	ug/l	
74-97-5	Bromochloromethane	ND	10	2.0	ug/l	
75-27-4	Bromodichloromethane	ND	10	2.0	ug/l	
75-25-2	Bromoform	ND	10	2.2	ug/l	
104-51-8	n-Butylbenzene	11.9	20	2.0	ug/l	J
135-98-8	sec-Butylbenzene	11.9	20	2.0	ug/l	J
98-06-6	tert-Butylbenzene	ND	20	2.8	ug/l	
108-90-7	Chlorobenzene	ND	10	2.0	ug/l	
75-00-3	Chloroethane	ND	10	2.0	ug/l	
67-66-3	Chloroform	ND	10	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	20	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	20	2.6	ug/l	
56-23-5	Carbon tetrachloride	ND	10	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	10	2.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	10	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	20	4.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	10	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	10	2.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	20	2.2	ug/l	
594-20-7	2,2-Dichloropropane	ND	10	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	10	2.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	10	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	10	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	10	2.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	10	2.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-304		
Lab Sample ID:	C35213-2	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	10	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	3.0	ug/l	
100-41-4	Ethylbenzene	109	10	2.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	20	2.2	ug/l	
591-78-6	2-Hexanone	ND	100	20	ug/l	
87-68-3	Hexachlorobutadiene	ND	20	2.0	ug/l	
98-82-8	Isopropylbenzene	40.6	10	2.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	20	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	100	10	ug/l	
74-83-9	Methyl bromide	ND	20	2.0	ug/l	
74-87-3	Methyl chloride	ND	10	3.0	ug/l	
74-95-3	Methylene bromide	ND	10	2.0	ug/l	
75-09-2	Methylene chloride	ND	100	20	ug/l	
78-93-3	Methyl ethyl ketone	ND	100	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	2.0	ug/l	
91-20-3	Naphthalene	256	50	5.0	ug/l	
103-65-1	n-Propylbenzene	95.5	20	2.0	ug/l	
100-42-5	Styrene	ND	10	2.0	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	20	4.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	100	24	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	3.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	2.2	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	20	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	20	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	20	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	5.2	20	2.0	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	7.6	20	2.0	ug/l	J
127-18-4	Tetrachloroethylene	ND	10	3.0	ug/l	
108-88-3	Toluene	17.3	10	2.0	ug/l	
79-01-6	Trichloroethylene	ND	10	2.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	10	2.0	ug/l	
1330-20-7	Xylene (total)	66.6	20	4.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		70-130%
2037-26-5	Toluene-D8	100%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-304		
Lab Sample ID:	C35213-2	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	104%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-304		
Lab Sample ID:	C35213-2	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X38171.D	1	07/27/14	MT	07/25/14	OP10482	EX1650
Run #2	X38194.D	20	07/28/14	MT	07/25/14	OP10482	EX1651

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2	1060 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.11	0.47	0.047	ug/l	J
208-96-8	Acenaphthylene	ND	0.47	0.047	ug/l	
120-12-7	Anthracene	ND	0.47	0.047	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.094	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.094	0.039	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.094	0.033	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.094	0.034	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.094	0.037	ug/l	
218-01-9	Chrysene	ND	0.094	0.042	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.094	0.033	ug/l	
206-44-0	Fluoranthene	ND	0.47	0.047	ug/l	
86-73-7	Fluorene	0.50	0.47	0.047	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.094	0.033	ug/l	
90-12-0	1-Methylnaphthalene	38.7 [a]	9.4	1.9	ug/l	
91-57-6	2-Methylnaphthalene	49.9 [a]	9.4	1.9	ug/l	
91-20-3	Naphthalene	157 [a]	9.4	1.9	ug/l	
85-01-8	Phenanthrene	ND	0.47	0.047	ug/l	
129-00-0	Pyrene	ND	0.47	0.047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	81%	72%	42-116%
321-60-8	2-Fluorobiphenyl	78%	80%	44-115%
1718-51-0	Terphenyl-d14	96%	89%	45-141%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-304		
Lab Sample ID:	C35213-2	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK46286.D	10	07/30/14	TT	n/a	n/a	GJK1906
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	3.59	1.0	0.50	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	95%		50-150%
460-00-4	4-Bromofluorobenzene	106%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-304		
Lab Sample ID:	C35213-2	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH315451.D	1	07/28/14	AG	07/25/14	OP10484	GHH1316
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.557	0.094	0.047	mg/l	
	TPH (Motor Oil)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	87%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-301		
Lab Sample ID:	C35213-3	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W47277.D	4	07/30/14	BD	n/a	n/a	VW1699
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	16.0	80	16	ug/l	J
71-43-2	Benzene	314	4.0	0.80	ug/l	
108-86-1	Bromobenzene	ND	4.0	0.80	ug/l	
74-97-5	Bromochloromethane	ND	4.0	0.80	ug/l	
75-27-4	Bromodichloromethane	ND	4.0	0.80	ug/l	
75-25-2	Bromoform	ND	4.0	0.88	ug/l	
104-51-8	n-Butylbenzene	13.1	8.0	0.80	ug/l	
135-98-8	sec-Butylbenzene	15.6	8.0	0.80	ug/l	
98-06-6	tert-Butylbenzene	ND	8.0	1.1	ug/l	
108-90-7	Chlorobenzene	ND	4.0	0.80	ug/l	
75-00-3	Chloroethane	ND	4.0	0.80	ug/l	
67-66-3	Chloroform	ND	4.0	0.80	ug/l	
95-49-8	o-Chlorotoluene	ND	8.0	0.80	ug/l	
106-43-4	p-Chlorotoluene	ND	8.0	1.0	ug/l	
56-23-5	Carbon tetrachloride	ND	4.0	0.80	ug/l	
75-34-3	1,1-Dichloroethane	ND	4.0	0.80	ug/l	
75-35-4	1,1-Dichloroethylene	ND	4.0	0.80	ug/l	
563-58-6	1,1-Dichloropropene	ND	4.0	0.80	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	8.0	1.6	ug/l	
106-93-4	1,2-Dibromoethane	ND	4.0	0.80	ug/l	
107-06-2	1,2-Dichloroethane	ND	4.0	0.80	ug/l	
78-87-5	1,2-Dichloropropane	ND	4.0	0.80	ug/l	
142-28-9	1,3-Dichloropropane	ND	4.0	0.80	ug/l	
108-20-3	Di-Isopropyl ether	ND	8.0	0.88	ug/l	
594-20-7	2,2-Dichloropropane	ND	4.0	0.80	ug/l	
124-48-1	Dibromochloromethane	ND	4.0	0.80	ug/l	
75-71-8	Dichlorodifluoromethane	ND	4.0	0.80	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	4.0	0.80	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	4.0	0.80	ug/l	
541-73-1	m-Dichlorobenzene	ND	4.0	0.80	ug/l	
95-50-1	o-Dichlorobenzene	ND	4.0	0.80	ug/l	
106-46-7	p-Dichlorobenzene	ND	4.0	0.80	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-301		
Lab Sample ID:	C35213-3	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	4.0	0.80	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	4.0	1.2	ug/l	
100-41-4	Ethylbenzene	14.3	4.0	0.80	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	8.0	0.88	ug/l	
591-78-6	2-Hexanone	ND	40	8.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	8.0	0.80	ug/l	
98-82-8	Isopropylbenzene	68.1	4.0	0.80	ug/l	
99-87-6	p-Isopropyltoluene	ND	8.0	0.80	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	40	4.0	ug/l	
74-83-9	Methyl bromide	ND	8.0	0.80	ug/l	
74-87-3	Methyl chloride	ND	4.0	1.2	ug/l	
74-95-3	Methylene bromide	ND	4.0	0.80	ug/l	
75-09-2	Methylene chloride	ND	40	8.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	40	8.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	4.0	0.80	ug/l	
91-20-3	Naphthalene	2.2	20	2.0	ug/l	J
103-65-1	n-Propylbenzene	166	8.0	0.80	ug/l	
100-42-5	Styrene	ND	4.0	0.80	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	8.0	1.6	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	40	9.6	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	4.0	1.2	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	4.0	0.80	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	4.0	0.80	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	4.0	0.88	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	8.0	0.80	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	8.0	0.80	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	8.0	0.80	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	8.0	0.80	ug/l	
108-67-8	1,3,5-Trimethylbenzene	1.2	8.0	0.80	ug/l	J
127-18-4	Tetrachloroethylene	ND	4.0	1.2	ug/l	
108-88-3	Toluene	8.0	4.0	0.80	ug/l	
79-01-6	Trichloroethylene	ND	4.0	0.80	ug/l	
75-69-4	Trichlorofluoromethane	ND	4.0	0.80	ug/l	
75-01-4	Vinyl chloride	ND	4.0	0.80	ug/l	
1330-20-7	Xylene (total)	9.6	8.0	1.8	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	123%		70-130%
2037-26-5	Toluene-D8	96%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-301		
Lab Sample ID:	C35213-3	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	105%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-301		
Lab Sample ID:	C35213-3	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X38172.D	1	07/27/14	MT	07/25/14	OP10482	EX1650
Run #2	X38195.D	10	07/28/14	MT	07/25/14	OP10482	EX1651

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2	1060 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.33	0.47	0.047	ug/l	J
208-96-8	Acenaphthylene	ND	0.47	0.047	ug/l	
120-12-7	Anthracene	ND	0.47	0.047	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.094	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.094	0.039	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.094	0.033	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.094	0.034	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.094	0.037	ug/l	
218-01-9	Chrysene	ND	0.094	0.042	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.094	0.033	ug/l	
206-44-0	Fluoranthene	ND	0.47	0.047	ug/l	
86-73-7	Fluorene	0.22	0.47	0.047	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.094	0.033	ug/l	
90-12-0	1-Methylnaphthalene	41.1 [a]	4.7	0.94	ug/l	
91-57-6	2-Methylnaphthalene	27.4 [a]	4.7	0.94	ug/l	
91-20-3	Naphthalene	1.1	0.47	0.094	ug/l	
85-01-8	Phenanthrene	ND	0.47	0.047	ug/l	
129-00-0	Pyrene	ND	0.47	0.047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	92%	87%	42-116%
321-60-8	2-Fluorobiphenyl	92%	93%	44-115%
1718-51-0	Terphenyl-d14	100%	114%	45-141%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-301		
Lab Sample ID:	C35213-3	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK46270.D	10	07/29/14	TT	n/a	n/a	GJK1906
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	3.70	1.0	0.50	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	102%		50-150%
460-00-4	4-Bromofluorobenzene	121%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-301		
Lab Sample ID:	C35213-3	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH315452.D	1	07/28/14	AG	07/25/14	OP10484	GHH1316
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.361	0.094	0.047	mg/l	
	TPH (Motor Oil)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	90%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-302		
Lab Sample ID:	C35213-4	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R27473.D	10	07/31/14	BD	n/a	n/a	VR1022
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	200	40	ug/l	
71-43-2	Benzene	656	10	2.0	ug/l	
108-86-1	Bromobenzene	ND	10	2.0	ug/l	
74-97-5	Bromochloromethane	ND	10	2.0	ug/l	
75-27-4	Bromodichloromethane	ND	10	2.0	ug/l	
75-25-2	Bromoform	ND	10	2.2	ug/l	
104-51-8	n-Butylbenzene	ND	20	2.0	ug/l	
135-98-8	sec-Butylbenzene	12.9	20	2.0	ug/l	J
98-06-6	tert-Butylbenzene	ND	20	2.8	ug/l	
108-90-7	Chlorobenzene	ND	10	2.0	ug/l	
75-00-3	Chloroethane	ND	10	2.0	ug/l	
67-66-3	Chloroform	ND	10	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	20	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	20	2.6	ug/l	
56-23-5	Carbon tetrachloride	ND	10	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	10	2.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	10	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	20	4.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	10	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	10	2.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	20	2.2	ug/l	
594-20-7	2,2-Dichloropropane	ND	10	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	10	2.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	10	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	10	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	10	2.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	10	2.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-302		
Lab Sample ID:	C35213-4	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	10	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	3.0	ug/l	
100-41-4	Ethylbenzene	178	10	2.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	20	2.2	ug/l	
591-78-6	2-Hexanone	ND	100	20	ug/l	
87-68-3	Hexachlorobutadiene	ND	20	2.0	ug/l	
98-82-8	Isopropylbenzene	35.3	10	2.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	20	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	100	10	ug/l	
74-83-9	Methyl bromide	ND	20	2.0	ug/l	
74-87-3	Methyl chloride	ND	10	3.0	ug/l	
74-95-3	Methylene bromide	ND	10	2.0	ug/l	
75-09-2	Methylene chloride	ND	100	20	ug/l	
78-93-3	Methyl ethyl ketone	ND	100	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	2.0	ug/l	
91-20-3	Naphthalene	135	50	5.0	ug/l	
103-65-1	n-Propylbenzene	62.8	20	2.0	ug/l	
100-42-5	Styrene	ND	10	2.0	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	20	4.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	100	24	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	3.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	2.2	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	20	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	20	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	20	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	46.2	20	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	11.9	20	2.0	ug/l	J
127-18-4	Tetrachloroethylene	ND	10	3.0	ug/l	
108-88-3	Toluene	20.6	10	2.0	ug/l	
79-01-6	Trichloroethylene	ND	10	2.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	10	2.0	ug/l	
1330-20-7	Xylene (total)	131	20	4.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	97%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-302		
Lab Sample ID:	C35213-4	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	99%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-302		
Lab Sample ID:	C35213-4	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X38173.D	1	07/27/14	MT	07/25/14	OP10482	EX1650
Run #2	X38196.D	10	07/28/14	MT	07/25/14	OP10482	EX1651

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2	1060 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.14	0.47	0.047	ug/l	J
208-96-8	Acenaphthylene	ND	0.47	0.047	ug/l	
120-12-7	Anthracene	ND	0.47	0.047	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.094	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.094	0.039	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.094	0.033	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.094	0.034	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.094	0.037	ug/l	
218-01-9	Chrysene	ND	0.094	0.042	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.094	0.033	ug/l	
206-44-0	Fluoranthene	ND	0.47	0.047	ug/l	
86-73-7	Fluorene	0.38	0.47	0.047	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.094	0.033	ug/l	
90-12-0	1-Methylnaphthalene	40.8 [a]	4.7	0.94	ug/l	
91-57-6	2-Methylnaphthalene	17.1	0.47	0.094	ug/l	
91-20-3	Naphthalene	101 [a]	4.7	0.94	ug/l	
85-01-8	Phenanthrene	ND	0.47	0.047	ug/l	
129-00-0	Pyrene	ND	0.47	0.047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	89%	87%	42-116%
321-60-8	2-Fluorobiphenyl	85%	90%	44-115%
1718-51-0	Terphenyl-d14	98%	108%	45-141%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-302		
Lab Sample ID:	C35213-4	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK46272.D	20	07/30/14	TT	n/a	n/a	GJK1906
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	4.66	2.0	1.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	99%		50-150%
460-00-4	4-Bromofluorobenzene	111%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-302		
Lab Sample ID:	C35213-4	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH315453.D	1	07/28/14	AG	07/25/14	OP10484	GHH1316
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.363	0.094	0.047	mg/l	
	TPH (Motor Oil)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	84%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-322		
Lab Sample ID:	C35213-5	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W47279.D	10	07/30/14	BD	n/a	n/a	VW1699
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	200	40	ug/l	
71-43-2	Benzene	681	10	2.0	ug/l	
108-86-1	Bromobenzene	ND	10	2.0	ug/l	
74-97-5	Bromochloromethane	ND	10	2.0	ug/l	
75-27-4	Bromodichloromethane	ND	10	2.0	ug/l	
75-25-2	Bromoform	ND	10	2.2	ug/l	
104-51-8	n-Butylbenzene	ND	20	2.0	ug/l	
135-98-8	sec-Butylbenzene	14.0	20	2.0	ug/l	J
98-06-6	tert-Butylbenzene	ND	20	2.8	ug/l	
108-90-7	Chlorobenzene	ND	10	2.0	ug/l	
75-00-3	Chloroethane	ND	10	2.0	ug/l	
67-66-3	Chloroform	ND	10	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	20	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	20	2.6	ug/l	
56-23-5	Carbon tetrachloride	ND	10	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	10	2.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	10	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	20	4.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	10	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	10	2.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	20	2.2	ug/l	
594-20-7	2,2-Dichloropropane	ND	10	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	10	2.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	10	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	10	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	10	2.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	10	2.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-322		
Lab Sample ID:	C35213-5	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	10	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	3.0	ug/l	
100-41-4	Ethylbenzene	207	10	2.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	20	2.2	ug/l	
591-78-6	2-Hexanone	ND	100	20	ug/l	
87-68-3	Hexachlorobutadiene	ND	20	2.0	ug/l	
98-82-8	Isopropylbenzene	41.4	10	2.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	20	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	100	10	ug/l	
74-83-9	Methyl bromide	ND	20	2.0	ug/l	
74-87-3	Methyl chloride	ND	10	3.0	ug/l	
74-95-3	Methylene bromide	ND	10	2.0	ug/l	
75-09-2	Methylene chloride	ND	100	20	ug/l	
78-93-3	Methyl ethyl ketone	ND	100	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	2.0	ug/l	
91-20-3	Naphthalene	155	50	5.0	ug/l	
103-65-1	n-Propylbenzene	75.7	20	2.0	ug/l	
100-42-5	Styrene	ND	10	2.0	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	20	4.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	100	24	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	3.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	2.2	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	20	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	20	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	20	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	63.4	20	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	15.4	20	2.0	ug/l	J
127-18-4	Tetrachloroethylene	ND	10	3.0	ug/l	
108-88-3	Toluene	24.2	10	2.0	ug/l	
79-01-6	Trichloroethylene	ND	10	2.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	10	2.0	ug/l	
1330-20-7	Xylene (total)	162	20	4.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		70-130%
2037-26-5	Toluene-D8	100%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-322		
Lab Sample ID:	C35213-5	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	103%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-322
Lab Sample ID: C35213-5 **Date Sampled:** 07/24/14
Matrix: AQ - Ground Water **Date Received:** 07/25/14
Method: SW846 8270C BY SIM SW846 3510C **Percent Solids:** n/a
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X38174.D	1	07/27/14	MT	07/25/14	OP10482	EX1650
Run #2	X38197.D	10	07/28/14	MT	07/25/14	OP10482	EX1651

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2	1060 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.13	0.47	0.047	ug/l	J
208-96-8	Acenaphthylene	ND	0.47	0.047	ug/l	
120-12-7	Anthracene	ND	0.47	0.047	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.094	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.094	0.039	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.094	0.033	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.094	0.034	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.094	0.037	ug/l	
218-01-9	Chrysene	ND	0.094	0.042	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.094	0.033	ug/l	
206-44-0	Fluoranthene	ND	0.47	0.047	ug/l	
86-73-7	Fluorene	0.34	0.47	0.047	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.094	0.033	ug/l	
90-12-0	1-Methylnaphthalene	36.2 [a]	4.7	0.94	ug/l	
91-57-6	2-Methylnaphthalene	15.1	0.47	0.094	ug/l	
91-20-3	Naphthalene	88.3 [a]	4.7	0.94	ug/l	
85-01-8	Phenanthrene	ND	0.47	0.047	ug/l	
129-00-0	Pyrene	ND	0.47	0.047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	83%	79%	42-116%
321-60-8	2-Fluorobiphenyl	80%	84%	44-115%
1718-51-0	Terphenyl-d14	100%	105%	45-141%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-322		
Lab Sample ID:	C35213-5	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK46287.D	10	07/30/14	TT	n/a	n/a	GJK1906
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	4.68	1.0	0.50	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	93%		50-150%
460-00-4	4-Bromofluorobenzene	107%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-322		
Lab Sample ID:	C35213-5	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH315454.D	1	07/28/14	AG	07/25/14	OP10484	GHH1316
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.500	0.094	0.047	mg/l	
	TPH (Motor Oil)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	88%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-303		
Lab Sample ID:	C35213-6	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W47280.D	20	07/30/14	BD	n/a	n/a	VW1699
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	400	80	ug/l	
71-43-2	Benzene	808	20	4.0	ug/l	
108-86-1	Bromobenzene	ND	20	4.0	ug/l	
74-97-5	Bromochloromethane	ND	20	4.0	ug/l	
75-27-4	Bromodichloromethane	ND	20	4.0	ug/l	
75-25-2	Bromoform	ND	20	4.4	ug/l	
104-51-8	n-Butylbenzene	ND	40	4.0	ug/l	
135-98-8	sec-Butylbenzene	16.2	40	4.0	ug/l	J
98-06-6	tert-Butylbenzene	ND	40	5.6	ug/l	
108-90-7	Chlorobenzene	ND	20	4.0	ug/l	
75-00-3	Chloroethane	ND	20	4.0	ug/l	
67-66-3	Chloroform	ND	20	4.0	ug/l	
95-49-8	o-Chlorotoluene	ND	40	4.0	ug/l	
106-43-4	p-Chlorotoluene	ND	40	5.2	ug/l	
56-23-5	Carbon tetrachloride	ND	20	4.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	20	4.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	20	4.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	20	4.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	40	8.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	20	4.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	20	4.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	20	4.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	20	4.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	40	4.4	ug/l	
594-20-7	2,2-Dichloropropane	ND	20	4.0	ug/l	
124-48-1	Dibromochloromethane	ND	20	4.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	20	4.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	20	4.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	20	4.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	20	4.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	20	4.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	20	4.0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-303		
Lab Sample ID:	C35213-6	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	20	4.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	20	6.0	ug/l	
100-41-4	Ethylbenzene	653	20	4.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	40	4.4	ug/l	
591-78-6	2-Hexanone	ND	200	40	ug/l	
87-68-3	Hexachlorobutadiene	ND	40	4.0	ug/l	
98-82-8	Isopropylbenzene	62.8	20	4.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	40	4.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	200	20	ug/l	
74-83-9	Methyl bromide	ND	40	4.0	ug/l	
74-87-3	Methyl chloride	ND	20	6.0	ug/l	
74-95-3	Methylene bromide	ND	20	4.0	ug/l	
75-09-2	Methylene chloride	ND	200	40	ug/l	
78-93-3	Methyl ethyl ketone	ND	200	40	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	20	4.0	ug/l	
91-20-3	Naphthalene	353	100	10	ug/l	
103-65-1	n-Propylbenzene	160	40	4.0	ug/l	
100-42-5	Styrene	ND	20	4.0	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	40	8.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	200	48	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	20	6.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	20	4.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	20	4.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	20	4.4	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	40	4.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	40	4.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	40	4.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	40	4.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	38.4	40	4.0	ug/l	J
127-18-4	Tetrachloroethylene	ND	20	6.0	ug/l	
108-88-3	Toluene	47.1	20	4.0	ug/l	
79-01-6	Trichloroethylene	ND	20	4.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	20	4.0	ug/l	
75-01-4	Vinyl chloride	ND	20	4.0	ug/l	
1330-20-7	Xylene (total)	161	40	9.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		70-130%
2037-26-5	Toluene-D8	101%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-303		
Lab Sample ID:	C35213-6	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	102%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-303		
Lab Sample ID:	C35213-6	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X38175.D	1	07/27/14	MT	07/25/14	OP10482	EX1650
Run #2	X38198.D	20	07/28/14	MT	07/25/14	OP10482	EX1651

	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2	1050 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.22	0.48	0.048	ug/l	J
208-96-8	Acenaphthylene	ND	0.48	0.048	ug/l	
120-12-7	Anthracene	ND	0.48	0.048	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.095	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.095	0.039	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.095	0.033	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.095	0.034	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.095	0.037	ug/l	
218-01-9	Chrysene	ND	0.095	0.043	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.095	0.033	ug/l	
206-44-0	Fluoranthene	ND	0.48	0.048	ug/l	
86-73-7	Fluorene	0.96	0.48	0.048	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.095	0.033	ug/l	
90-12-0	1-Methylnaphthalene	77.5 [a]	9.5	1.9	ug/l	
91-57-6	2-Methylnaphthalene	102 [a]	9.5	1.9	ug/l	
91-20-3	Naphthalene	300 [a]	9.5	1.9	ug/l	
85-01-8	Phenanthrene	0.10	0.48	0.048	ug/l	J
129-00-0	Pyrene	ND	0.48	0.048	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	89%	90%	42-116%
321-60-8	2-Fluorobiphenyl	83%	107%	44-115%
1718-51-0	Terphenyl-d14	96%	111%	45-141%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-303		
Lab Sample ID:	C35213-6	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK46274.D	40	07/30/14	TT	n/a	n/a	GJK1906
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	9.76	4.0	2.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	99%		50-150%
460-00-4	4-Bromofluorobenzene	111%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-303		
Lab Sample ID:	C35213-6	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH315455.D	1	07/28/14	AG	07/25/14	OP10484	GHH1316
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.622	0.094	0.047	mg/l	
	TPH (Motor Oil)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	89%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TX-03A		
Lab Sample ID:	C35213-7	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W47281.D	20	07/30/14	BD	n/a	n/a	VW1699
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	400	80	ug/l	
71-43-2	Benzene	1640	20	4.0	ug/l	
108-86-1	Bromobenzene	ND	20	4.0	ug/l	
74-97-5	Bromochloromethane	ND	20	4.0	ug/l	
75-27-4	Bromodichloromethane	ND	20	4.0	ug/l	
75-25-2	Bromoform	ND	20	4.4	ug/l	
104-51-8	n-Butylbenzene	14.6	40	4.0	ug/l	J
135-98-8	sec-Butylbenzene	11.8	40	4.0	ug/l	J
98-06-6	tert-Butylbenzene	ND	40	5.6	ug/l	
108-90-7	Chlorobenzene	ND	20	4.0	ug/l	
75-00-3	Chloroethane	ND	20	4.0	ug/l	
67-66-3	Chloroform	ND	20	4.0	ug/l	
95-49-8	o-Chlorotoluene	ND	40	4.0	ug/l	
106-43-4	p-Chlorotoluene	ND	40	5.2	ug/l	
56-23-5	Carbon tetrachloride	ND	20	4.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	20	4.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	20	4.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	20	4.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	40	8.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	20	4.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	20	4.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	20	4.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	20	4.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	40	4.4	ug/l	
594-20-7	2,2-Dichloropropane	ND	20	4.0	ug/l	
124-48-1	Dibromochloromethane	ND	20	4.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	20	4.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	20	4.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	20	4.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	20	4.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	20	4.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	20	4.0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TX-03A		
Lab Sample ID:	C35213-7	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	20	4.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	20	6.0	ug/l	
100-41-4	Ethylbenzene	69.8	20	4.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	40	4.4	ug/l	
591-78-6	2-Hexanone	ND	200	40	ug/l	
87-68-3	Hexachlorobutadiene	ND	40	4.0	ug/l	
98-82-8	Isopropylbenzene	60.1	20	4.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	40	4.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	200	20	ug/l	
74-83-9	Methyl bromide	ND	40	4.0	ug/l	
74-87-3	Methyl chloride	ND	20	6.0	ug/l	
74-95-3	Methylene bromide	ND	20	4.0	ug/l	
75-09-2	Methylene chloride	ND	200	40	ug/l	
78-93-3	Methyl ethyl ketone	ND	200	40	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	20	4.0	ug/l	
91-20-3	Naphthalene	298	100	10	ug/l	
103-65-1	n-Propylbenzene	144	40	4.0	ug/l	
100-42-5	Styrene	ND	20	4.0	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	40	8.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	200	48	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	20	6.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	20	4.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	20	4.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	20	4.4	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	40	4.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	40	4.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	40	4.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	40	4.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	6.8	40	4.0	ug/l	J
127-18-4	Tetrachloroethylene	ND	20	6.0	ug/l	
108-88-3	Toluene	31.7	20	4.0	ug/l	
79-01-6	Trichloroethylene	ND	20	4.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	20	4.0	ug/l	
75-01-4	Vinyl chloride	ND	20	4.0	ug/l	
1330-20-7	Xylene (total)	52.0	40	9.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		70-130%
2037-26-5	Toluene-D8	102%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TX-03A		
Lab Sample ID:	C35213-7	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	102%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TX-03A		
Lab Sample ID:	C35213-7	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X38176.D	1	07/27/14	MT	07/25/14	OP10482	EX1650
Run #2	X38199.D	20	07/28/14	MT	07/25/14	OP10482	EX1651

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2	1060 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.20	0.47	0.047	ug/l	J
208-96-8	Acenaphthylene	ND	0.47	0.047	ug/l	
120-12-7	Anthracene	ND	0.47	0.047	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.094	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.094	0.039	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.094	0.033	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.094	0.034	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.094	0.037	ug/l	
218-01-9	Chrysene	ND	0.094	0.042	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.094	0.033	ug/l	
206-44-0	Fluoranthene	ND	0.47	0.047	ug/l	
86-73-7	Fluorene	0.23	0.47	0.047	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.094	0.033	ug/l	
90-12-0	1-Methylnaphthalene	52.0 [a]	9.4	1.9	ug/l	
91-57-6	2-Methylnaphthalene	64.1 [a]	9.4	1.9	ug/l	
91-20-3	Naphthalene	215 [a]	9.4	1.9	ug/l	
85-01-8	Phenanthrene	ND	0.47	0.047	ug/l	
129-00-0	Pyrene	ND	0.47	0.047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	93%	89%	42-116%
321-60-8	2-Fluorobiphenyl	83%	98%	44-115%
1718-51-0	Terphenyl-d14	97%	110%	45-141%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TX-03A		
Lab Sample ID:	C35213-7	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK46275.D	20	07/30/14	TT	n/a	n/a	GJK1906
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	7.55	2.0	1.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	99%		50-150%
460-00-4	4-Bromofluorobenzene	112%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	TX-03A		
Lab Sample ID:	C35213-7	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH315456.D	1	07/28/14	AG	07/25/14	OP10484	GHH1316
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.382	0.094	0.047	mg/l	
	TPH (Motor Oil)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	85%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-310		
Lab Sample ID:	C35213-8	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R27458.D	10	07/30/14	BD	n/a	n/a	VR1021
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	102	200	40	ug/l	J
71-43-2	Benzene	920	10	2.0	ug/l	
108-86-1	Bromobenzene	ND	10	2.0	ug/l	
74-97-5	Bromochloromethane	ND	10	2.0	ug/l	
75-27-4	Bromodichloromethane	ND	10	2.0	ug/l	
75-25-2	Bromoform	ND	10	2.2	ug/l	
104-51-8	n-Butylbenzene	12.9	20	2.0	ug/l	J
135-98-8	sec-Butylbenzene	14.0	20	2.0	ug/l	J
98-06-6	tert-Butylbenzene	ND	20	2.8	ug/l	
108-90-7	Chlorobenzene	ND	10	2.0	ug/l	
75-00-3	Chloroethane	ND	10	2.0	ug/l	
67-66-3	Chloroform	ND	10	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	20	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	20	2.6	ug/l	
56-23-5	Carbon tetrachloride	ND	10	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	10	2.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	10	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	20	4.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	10	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	10	2.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	20	2.2	ug/l	
594-20-7	2,2-Dichloropropane	ND	10	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	10	2.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	10	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	10	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	10	2.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	10	2.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-310		
Lab Sample ID:	C35213-8	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	10	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	3.0	ug/l	
100-41-4	Ethylbenzene	368	10	2.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	20	2.2	ug/l	
591-78-6	2-Hexanone	ND	100	20	ug/l	
87-68-3	Hexachlorobutadiene	ND	20	2.0	ug/l	
98-82-8	Isopropylbenzene	46.5	10	2.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	20	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	100	10	ug/l	
74-83-9	Methyl bromide	ND	20	2.0	ug/l	
74-87-3	Methyl chloride	ND	10	3.0	ug/l	
74-95-3	Methylene bromide	ND	10	2.0	ug/l	
75-09-2	Methylene chloride	ND	100	20	ug/l	
78-93-3	Methyl ethyl ketone	ND	100	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	2.0	ug/l	
91-20-3	Naphthalene	279	50	5.0	ug/l	
103-65-1	n-Propylbenzene	96.6	20	2.0	ug/l	
100-42-5	Styrene	ND	10	2.0	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	20	4.0	ug/l	
75-65-0	Tert-Butyl Alcohol	30.5	100	24	ug/l	J
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	3.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	2.2	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	20	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	20	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	20	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	9.7	20	2.0	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	6.8	20	2.0	ug/l	J
127-18-4	Tetrachloroethylene	ND	10	3.0	ug/l	
108-88-3	Toluene	48.9	10	2.0	ug/l	
79-01-6	Trichloroethylene	ND	10	2.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	10	2.0	ug/l	
1330-20-7	Xylene (total)	64.7	20	4.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	117%		70-130%
2037-26-5	Toluene-D8	93%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-310		
Lab Sample ID:	C35213-8	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-310		
Lab Sample ID:	C35213-8	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X38158.D	1	07/25/14	MT	07/25/14	OP10482	EX1649
Run #2	X38169.D	50	07/27/14	MT	07/25/14	OP10482	EX1650

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2	1060 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.15	0.47	0.047	ug/l	J
208-96-8	Acenaphthylene	ND	0.47	0.047	ug/l	
120-12-7	Anthracene	ND	0.47	0.047	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.094	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.094	0.039	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.094	0.033	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.094	0.034	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.094	0.037	ug/l	
218-01-9	Chrysene	ND	0.094	0.042	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.094	0.033	ug/l	
206-44-0	Fluoranthene	ND	0.47	0.047	ug/l	
86-73-7	Fluorene	0.59	0.47	0.047	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.094	0.033	ug/l	
90-12-0	1-Methylnaphthalene	47.5 [a]	24	4.7	ug/l	
91-57-6	2-Methylnaphthalene	54.8 [a]	24	4.7	ug/l	
91-20-3	Naphthalene	206 [a]	24	4.7	ug/l	
85-01-8	Phenanthrene	ND	0.47	0.047	ug/l	
129-00-0	Pyrene	ND	0.47	0.047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	92%	86%	42-116%
321-60-8	2-Fluorobiphenyl	88%	90%	44-115%
1718-51-0	Terphenyl-d14	112%	90%	45-141%

(a) Result is from Run# 2

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-310		
Lab Sample ID:	C35213-8	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK46277.D	20	07/30/14	TT	n/a	n/a	GJK1906
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	6.36	2.0	1.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	103%		50-150%
460-00-4	4-Bromofluorobenzene	115%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	MW-310		
Lab Sample ID:	C35213-8	**Date Sampled:**	07/24/14
Matrix:	AQ - Ground Water	**Date Received:**	07/25/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH315457.D	1	07/28/14	AG	07/25/14	OP10484	GHH1316
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.605	0.094	0.047	mg/l	
	TPH (Motor Oil)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	87%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Northern California ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

FEDEX # 8050 1212 7750

LAB (LOCATION)
☑ ACCUTEST ( )
☐ CALSCIENCE ( )
☐ TESTAMERICA ( )
☐ Other ( )
Lab Vendor # See Dropdown

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:
☐ ENV. SERVICES ☐ MOTIVA RETAIL ☑ SHELL RETAIL
☐ MOTIVA SD&CM ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name:

INCIDENT # (ENV. SERVICES): 9 7 9 9 5 8 0 1
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 7/24/14
PAGE: 1 of 1

PO #
SAP #: 1 2 1 4 1 5

SAMPLING COMPANY: URS Corporation
LOG CODE:
ADDRESS: 111 Southwest Columbia Street, Suite 1500, Portland, Oregon 97201
PROJECT CONTACT (Hardcopy or PDF Report to): Clifford J Pearson
TELEPHONE: 503-222-7200
FAX: 503-222-4292
Bill To Contact E-MAIL: Clifford.Pearson@URS.com

SITE ADDRESS: Street and City: 2555 13th Avenue SW, Seattle
State: WA
GLOBAL ID NO.:
EDF DELIVERABLE TO (Name, Company, Office Location): Clifford J Pearson, URS, Portland, OR
PHONE NO.: 503-222-7200
E-MAIL: Clifford.Pearson@URS.com
CONSULTANT PROJECT NO.: 49241036
SAMPLER NAME(S) (Print): Bret Waldron ; Mark Tauscher
LAB USE ONLY: C35213

TURNAROUND TIME (CALENDAR DAYS):
☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:
DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☐ LEVEL 4 ☐ OTHER (SPECIFY)
TEMPERATURE ON RECEIPT C°: Cooler #1 | Cooler #2 | Cooler #3

SPECIAL INSTRUCTIONS OR NOTES :
☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEDD DISK

REQUESTED ANALYSIS
UNIT COST | NON-UNIT COST

FIELD NOTES:
TEMPERATURE ON RECEIPT C°: 0
Container PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	NWTPH-Gx	NWTPH-Dx (Diesel and Oil range)	VOCs (8260B)	PAHs (8270 SIM)
1	MW-309	7/24/14	0845	GW	X			4		10	X	X	X	X
2	MW-304	7/24/14	0954	GW	6			4		10	X	X	X	X
3	MW-301	7/24/14	1025	GW	6			4		10	X	X	X	X
4	MW-302	7/24/14	1052	GW	6			4		10	X	X	X	X
5	MW-322	7/24/14	1052	GW	6			4		10	X	X	X	X
6	MW-303	7/24/14	1205	GW	6			4		10	X	X	X	X
7	TX-03A	7/24/14	1240	GW	6			4		10	X	X	X	X
8	MW-310	7/24/14	1315	GW	6			4		10	X	X	X	X

Relinquished by (Signature)	Received by (Signature)	Date	Time
	FED EX	7/24/14	1700
FEDEX	Lee Bauter	7/25/14	0911

05/2/06 Revision

TEMPS = 1.7 - 0.3 = 1.4°C / 2.2 - 0.3 = 1.9°C / 2.0 - 0.3 = 1.7°C / 3.6 - 0.3 = 3.3°C / 3.0 - 0.3 = 2.7°C

4.1 4

C35213: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C35213 **Client:** SHELL OIL **Project:** 2555 13TH AVE

Date / Time Received: 7/25/2014 **Delivery Method:** FedEx **Airbill #'s:** 805012127750

Cooler Temps (Initial/Adjusted): #1: (1.7/1.4); #2: (2.2/1.9); #3: (2/1.7); #4: (3.6/3.3); #5: (3/2.7);

Cooler Security

	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature

	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR1;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	5		

Quality Control Preservation

	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation

	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition

	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions

	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
V:408.588.0200
2105 Lundy Avenue
F: 408.588.0201
San Jose, CA 95131
www/accutest.com

C35213: Chain of Custody
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Northern California ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1699-MB	W47265.D	1	07/30/14	BD	n/a	n/a	VW1699

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-1, C35213-2, C35213-3, C35213-5, C35213-6, C35213-7

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	20	4.0	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.20	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.20	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.22	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.20	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.20	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	1.0	0.20	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.20	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.26	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.20	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.20	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	0.22	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.20	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	0.22	ug/l	

Method Blank Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1699-MB	W47265.D	1	07/30/14	BD	n/a	n/a	VW1699

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-1, C35213-2, C35213-3, C35213-5, C35213-6, C35213-7

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.20	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.20	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.20	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.30	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	10	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	2.0	0.40	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	2.4	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.20	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.20	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.20	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	90%	70-130%

Method Blank Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1699-MB	W47265.D	1	07/30/14	BD	n/a	n/a	VW1699

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-1, C35213-2, C35213-3, C35213-5, C35213-6, C35213-7

CAS No.	Surrogate Recoveries		Limits
2037-26-5	Toluene-D8	102%	70-130%
460-00-4	4-Bromofluorobenzene	101%	70-130%

Method Blank Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1021-MB	R27441.D	1	07/30/14	BD	n/a	n/a	VR1021

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-8

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	20	4.0	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.20	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.20	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.22	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.20	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.20	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	1.0	0.20	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.20	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.26	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.20	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.20	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	0.22	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.20	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	0.22	ug/l	

Method Blank Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1021-MB	R27441.D	1	07/30/14	BD	n/a	n/a	VR1021

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-8

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.20	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.20	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.20	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.30	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	10	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	2.0	0.40	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	2.4	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.20	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.20	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.20	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	84%	70-130%

Method Blank Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1021-MB	R27441.D	1	07/30/14	BD	n/a	n/a	VR1021

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-8

CAS No.	Surrogate Recoveries		Limits
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	96%	70-130%

Method Blank Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1022-MB	R27469.D	1	07/31/14	BD	n/a	n/a	VR1022

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	20	4.0	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.20	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.20	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.22	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.20	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.20	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	1.0	0.20	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.20	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.26	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.20	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.20	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	0.22	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.20	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	0.22	ug/l	

Method Blank Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1022-MB	R27469.D	1	07/31/14	BD	n/a	n/a	VR1022

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-4

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.20	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.20	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.20	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.30	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	10	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	2.0	0.40	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	2.4	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.20	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.20	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.20	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	83%	70-130%

Method Blank Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1022-MB	R27469.D	1	07/31/14	BD	n/a	n/a	VR1022

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-4

CAS No.	Surrogate Recoveries		Limits
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	96%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1699-BS	W47261.D	1	07/30/14	BD	n/a	n/a	VW1699
VW1699-BSD	W47262.D	1	07/30/14	BD	n/a	n/a	VW1699

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-1, C35213-2, C35213-3, C35213-5, C35213-6, C35213-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	74.5	93	76.3	95	2	38-159/24
71-43-2	Benzene	20	20.1	101	20.2	101	0	77-122/25
108-86-1	Bromobenzene	20	19.7	99	19.8	99	1	76-126/17
74-97-5	Bromochloromethane	20	19.7	99	20.2	101	3	77-130/17
75-27-4	Bromodichloromethane	20	20.7	104	20.9	105	1	75-127/16
75-25-2	Bromoform	20	18.9	95	19.2	96	2	69-141/17
104-51-8	n-Butylbenzene	20	21.3	107	21.3	107	0	72-129/18
135-98-8	sec-Butylbenzene	20	21.3	107	21.3	107	0	74-128/18
98-06-6	tert-Butylbenzene	20	21.1	106	21.1	106	0	73-127/18
108-90-7	Chlorobenzene	20	20.1	101	20.1	101	0	77-122/16
75-00-3	Chloroethane	20	21.9	110	22.2	111	1	69-133/18
67-66-3	Chloroform	20	20.3	102	20.7	104	2	74-126/17
95-49-8	o-Chlorotoluene	20	20.6	103	20.8	104	1	72-127/20
106-43-4	p-Chlorotoluene	20	21.4	107	21.1	106	1	68-127/18
56-23-5	Carbon tetrachloride	20	21.0	105	20.8	104	1	71-133/19
75-34-3	1,1-Dichloroethane	20	20.6	103	21.1	106	2	71-125/17
75-35-4	1,1-Dichloroethylene	20	20.4	102	20.9	105	2	66-125/20
563-58-6	1,1-Dichloropropene	20	20.8	104	20.8	104	0	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	20	18.6	93	19.1	96	3	65-131/20
106-93-4	1,2-Dibromoethane	20	19.6	98	20.0	100	2	75-135/17
107-06-2	1,2-Dichloroethane	20	20.3	102	20.6	103	1	71-131/17
78-87-5	1,2-Dichloropropane	20	20.6	103	20.9	105	1	78-124/16
142-28-9	1,3-Dichloropropane	20	19.4	97	19.8	99	2	78-123/16
108-20-3	Di-Isopropyl ether	20	21.2	106	21.9	110	3	68-129/17
594-20-7	2,2-Dichloropropane	20	21.3	107	21.4	107	0	70-131/19
124-48-1	Dibromochloromethane	20	20.2	101	20.4	102	1	76-132/16
75-71-8	Dichlorodifluoromethane	20	20.1	101	20.7	104	3	32-168/28
156-59-2	cis-1,2-Dichloroethylene	20	20.2	101	20.6	103	2	73-126/17
10061-01-5	cis-1,3-Dichloropropene	20	20.4	102	20.8	104	2	72-130/16
541-73-1	m-Dichlorobenzene	20	20.0	100	20.0	100	0	75-124/16
95-50-1	o-Dichlorobenzene	20	19.9	100	20.0	100	1	76-124/16
106-46-7	p-Dichlorobenzene	20	19.7	99	20.0	100	2	75-124/16
156-60-5	trans-1,2-Dichloroethylene	20	19.9	100	20.2	101	1	71-126/18
10061-02-6	trans-1,3-Dichloropropene	20	20.3	102	20.6	103	1	71-126/16
100-41-4	Ethylbenzene	20	20.6	103	20.6	103	0	76-126/17
637-92-3	Ethyl Tert Butyl Ether	20	20.9	105	21.6	108	3	75-134/17

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1699-BS	W47261.D	1	07/30/14	BD	n/a	n/a	VW1699
VW1699-BSD	W47262.D	1	07/30/14	BD	n/a	n/a	VW1699

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-1, C35213-2, C35213-3, C35213-5, C35213-6, C35213-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	83.6	105	86.2	108	3	67-150/22
87-68-3	Hexachlorobutadiene	20	21.2	106	21.0	105	1	69-135/20
98-82-8	Isopropylbenzene	20	20.9	105	20.9	105	0	61-125/17
99-87-6	p-Isopropyltoluene	20	21.4	107	21.4	107	0	68-127/18
108-10-1	4-Methyl-2-pentanone	80	84.3	105	87.4	109	4	71-142/21
74-83-9	Methyl bromide	20	21.2	106	21.6	108	2	68-132/18
74-87-3	Methyl chloride	20	18.6	93	18.8	94	1	39-150/28
74-95-3	Methylene bromide	20	19.8	99	20.3	102	2	77-127/16
75-09-2	Methylene chloride	20	19.5	98	20.0	100	3	67-128/18
78-93-3	Methyl ethyl ketone	80	81.7	102	83.4	104	2	56-155/23
1634-04-4	Methyl Tert Butyl Ether	20	20.2	101	20.9	105	3	73-132/17
91-20-3	Naphthalene	20	20.0	100	20.2	101	1	70-136/20
103-65-1	n-Propylbenzene	20	21.1	106	21.1	106	0	71-127/17
100-42-5	Styrene	20	21.4	107	21.5	108	0	72-134/16
994-05-8	Tert-Amyl Methyl Ether	20	20.3	102	21.0	105	3	73-133/17
75-65-0	Tert-Butyl Alcohol	100	103	103	105	105	2	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	20	20.5	103	20.5	103	0	77-130/16
71-55-6	1,1,1-Trichloroethane	20	20.7	104	21.0	105	1	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	20	19.5	98	19.7	99	1	77-129/17
79-00-5	1,1,2-Trichloroethane	20	19.7	99	20.0	100	2	77-125/16
87-61-6	1,2,3-Trichlorobenzene	20	20.2	101	20.3	102	0	70-133/18
96-18-4	1,2,3-Trichloropropane	20	18.2	91	18.8	94	3	69-126/18
120-82-1	1,2,4-Trichlorobenzene	20	20.2	101	20.3	102	0	68-129/17
95-63-6	1,2,4-Trimethylbenzene	20	21.1	106	21.1	106	0	74-129/17
108-67-8	1,3,5-Trimethylbenzene	20	21.2	106	21.2	106	0	77-129/17
127-18-4	Tetrachloroethylene	20	20.0	100	19.9	100	1	69-127/20
108-88-3	Toluene	20	20.4	102	20.4	102	0	75-122/17
79-01-6	Trichloroethylene	20	20.3	102	20.3	102	0	78-123/17
75-69-4	Trichlorofluoromethane	20	23.5	118	23.5	118	0	65-136/23
75-01-4	Vinyl chloride	20	20.1	101	22.7	114	12	57-146/22
1330-20-7	Xylene (total)	60	62.6	104	62.7	105	0	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	101%	103%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1699-BS	W47261.D	1	07/30/14	BD	n/a	n/a	VW1699
VW1699-BSD	W47262.D	1	07/30/14	BD	n/a	n/a	VW1699

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-1, C35213-2, C35213-3, C35213-5, C35213-6, C35213-7

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
2037-26-5	Toluene-D8	101%	102%	70-130%
460-00-4	4-Bromofluorobenzene	101%	103%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1021-BS	R27436.D	1	07/30/14	BD	n/a	n/a	VR1021
VR1021-BSD	R27439.D	1	07/30/14	BD	n/a	n/a	VR1021

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	67.6	85	62.1	78	8	38-159/24
71-43-2	Benzene	20	19.2	96	18.9	95	2	77-122/25
108-86-1	Bromobenzene	20	19.5	98	19.9	100	2	76-126/17
74-97-5	Bromochloromethane	20	18.2	91	17.4	87	4	77-130/17
75-27-4	Bromodichloromethane	20	18.5	93	19.2	96	4	75-127/16
75-25-2	Bromoform	20	16.9	85	18.3	92	8	69-141/17
104-51-8	n-Butylbenzene	20	20.4	102	19.5	98	5	72-129/18
135-98-8	sec-Butylbenzene	20	21.2	106	20.2	101	5	74-128/18
98-06-6	tert-Butylbenzene	20	20.0	100	19.3	97	4	73-127/18
108-90-7	Chlorobenzene	20	19.5	98	19.7	99	1	77-122/16
75-00-3	Chloroethane	20	20.2	101	17.9	90	12	69-133/18
67-66-3	Chloroform	20	18.2	91	17.3	87	5	74-126/17
95-49-8	o-Chlorotoluene	20	18.8	94	19.4	97	3	72-127/20
106-43-4	p-Chlorotoluene	20	18.4	92	19.1	96	4	68-127/18
56-23-5	Carbon tetrachloride	20	21.4	107	20.2	101	6	71-133/19
75-34-3	1,1-Dichloroethane	20	18.2	91	17.0	85	7	71-125/17
75-35-4	1,1-Dichloroethylene	20	21.0	105	18.1	91	15	66-125/20
563-58-6	1,1-Dichloropropene	20	20.8	104	19.5	98	6	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	20	17.4	87	17.4	87	0	65-131/20
106-93-4	1,2-Dibromoethane	20	18.9	95	19.2	96	2	75-135/17
107-06-2	1,2-Dichloroethane	20	17.6	88	18.3	92	4	71-131/17
78-87-5	1,2-Dichloropropane	20	18.4	92	18.5	93	1	78-124/16
142-28-9	1,3-Dichloropropane	20	18.4	92	18.9	95	3	78-123/16
108-20-3	Di-Isopropyl ether	20	17.3	87	16.5	83	5	68-129/17
594-20-7	2,2-Dichloropropane	20	18.9	95	17.3	87	9	70-131/19
124-48-1	Dibromochloromethane	20	18.6	93	19.8	99	6	76-132/16
75-71-8	Dichlorodifluoromethane	20	25.0	125	21.8	109	14	32-168/28
156-59-2	cis-1,2-Dichloroethylene	20	18.3	92	17.3	87	6	73-126/17
10061-01-5	cis-1,3-Dichloropropene	20	18.3	92	18.9	95	3	72-130/16
541-73-1	m-Dichlorobenzene	20	19.3	97	19.6	98	2	75-124/16
95-50-1	o-Dichlorobenzene	20	19.2	96	19.5	98	2	76-124/16
106-46-7	p-Dichlorobenzene	20	19.2	96	19.5	98	2	75-124/16
156-60-5	trans-1,2-Dichloroethylene	20	19.4	97	17.8	89	9	71-126/18
10061-02-6	trans-1,3-Dichloropropene	20	18.5	93	19.3	97	4	71-126/16
100-41-4	Ethylbenzene	20	19.9	100	19.8	99	1	76-126/17
637-92-3	Ethyl Tert Butyl Ether	20	17.4	87	16.7	84	4	75-134/17

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1021-BS	R27436.D	1	07/30/14	BD	n/a	n/a	VR1021
VR1021-BSD	R27439.D	1	07/30/14	BD	n/a	n/a	VR1021

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	75.6	95	74.3	93	2	67-150/22
87-68-3	Hexachlorobutadiene	20	20.9	105	19.5	98	7	69-135/20
98-82-8	Isopropylbenzene	20	20.6	103	20.2	101	2	61-125/17
99-87-6	p-Isopropyltoluene	20	20.7	104	20.0	100	3	68-127/18
108-10-1	4-Methyl-2-pentanone	80	73.8	92	72.9	91	1	71-142/21
74-83-9	Methyl bromide	20	20.1	101	18.2	91	10	68-132/18
74-87-3	Methyl chloride	20	18.1	91	17.0	85	6	39-150/28
74-95-3	Methylene bromide	20	18.2	91	18.7	94	3	77-127/16
75-09-2	Methylene chloride	20	17.3	87	16.3	82	6	67-128/18
78-93-3	Methyl ethyl ketone	80	74.2	93	66.5	83	11	56-155/23
1634-04-4	Methyl Tert Butyl Ether	20	17.1	86	16.5	83	4	73-132/17
91-20-3	Naphthalene	20	18.9	95	18.6	93	2	70-136/20
103-65-1	n-Propylbenzene	20	20.3	102	19.6	98	4	71-127/17
100-42-5	Styrene	20	19.6	98	19.9	100	2	72-134/16
994-05-8	Tert-Amyl Methyl Ether	20	17.3	87	16.6	83	4	73-133/17
75-65-0	Tert-Butyl Alcohol	100	92.7	93	84.1	84	10	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	20	19.4	97	20.1	101	4	77-130/16
71-55-6	1,1,1-Trichloroethane	20	19.5	98	17.7	89	10	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	20	18.7	94	18.7	94	0	77-129/17
79-00-5	1,1,2-Trichloroethane	20	18.5	93	19.0	95	3	77-125/16
87-61-6	1,2,3-Trichlorobenzene	20	18.8	94	18.6	93	1	70-133/18
96-18-4	1,2,3-Trichloropropane	20	17.2	86	17.8	89	3	69-126/18
120-82-1	1,2,4-Trichlorobenzene	20	18.8	94	18.8	94	0	68-129/17
95-63-6	1,2,4-Trimethylbenzene	20	19.5	98	19.4	97	1	74-129/17
108-67-8	1,3,5-Trimethylbenzene	20	20.0	100	19.8	99	1	77-129/17
127-18-4	Tetrachloroethylene	20	21.1	106	20.5	103	3	69-127/20
108-88-3	Toluene	20	19.9	100	19.9	100	0	75-122/17
79-01-6	Trichloroethylene	20	19.7	99	19.3	97	2	78-123/17
75-69-4	Trichlorofluoromethane	20	23.7	119	20.6	103	14	65-136/23
75-01-4	Vinyl chloride	20	21.4	107	18.6	93	14	57-146/22
1330-20-7	Xylene (total)	60	59.9	100	59.9	100	0	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	95%	90%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1021-BS	R27436.D	1	07/30/14	BD	n/a	n/a	VR1021
VR1021-BSD	R27439.D	1	07/30/14	BD	n/a	n/a	VR1021

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-8

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
2037-26-5	Toluene-D8	103%	103%	70-130%
460-00-4	4-Bromofluorobenzene	100%	99%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1022-BS	R27465.D	1	07/31/14	BD	n/a	n/a	VR1022
VR1022-BSD	R27466.D	1	07/31/14	BD	n/a	n/a	VR1022

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	64.1	80	64.4	81	0	38-159/24
71-43-2	Benzene	20	19.3	97	19.4	97	1	77-122/25
108-86-1	Bromobenzene	20	19.6	98	19.9	100	2	76-126/17
74-97-5	Bromochloromethane	20	18.5	93	18.9	95	2	77-130/17
75-27-4	Bromodichloromethane	20	18.6	93	19.1	96	3	75-127/16
75-25-2	Bromoform	20	16.9	85	17.5	88	3	69-141/17
104-51-8	n-Butylbenzene	20	20.3	102	20.2	101	0	72-129/18
135-98-8	sec-Butylbenzene	20	21.0	105	20.8	104	1	74-128/18
98-06-6	tert-Butylbenzene	20	20.0	100	19.7	99	2	73-127/18
108-90-7	Chlorobenzene	20	19.7	99	19.7	99	0	77-122/16
75-00-3	Chloroethane	20	18.1	91	18.2	91	1	69-133/18
67-66-3	Chloroform	20	18.4	92	18.6	93	1	74-126/17
95-49-8	o-Chlorotoluene	20	18.8	94	19.2	96	2	72-127/20
106-43-4	p-Chlorotoluene	20	18.5	93	19.3	97	4	68-127/18
56-23-5	Carbon tetrachloride	20	21.3	107	21.1	106	1	71-133/19
75-34-3	1,1-Dichloroethane	20	18.1	91	18.4	92	2	71-125/17
75-35-4	1,1-Dichloroethylene	20	20.3	102	20.3	102	0	66-125/20
563-58-6	1,1-Dichloropropene	20	20.6	103	20.6	103	0	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	20	16.8	84	17.2	86	2	65-131/20
106-93-4	1,2-Dibromoethane	20	18.9	95	19.2	96	2	75-135/17
107-06-2	1,2-Dichloroethane	20	17.9	90	18.1	91	1	71-131/17
78-87-5	1,2-Dichloropropane	20	18.4	92	18.6	93	1	78-124/16
142-28-9	1,3-Dichloropropane	20	18.4	92	18.6	93	1	78-123/16
108-20-3	Di-Isopropyl ether	20	17.1	86	17.6	88	3	68-129/17
594-20-7	2,2-Dichloropropane	20	18.7	94	18.3	92	2	70-131/19
124-48-1	Dibromochloromethane	20	18.6	93	19.3	97	4	76-132/16
75-71-8	Dichlorodifluoromethane	20	17.6	88	17.3	87	2	32-168/28
156-59-2	cis-1,2-Dichloroethylene	20	18.3	92	18.7	94	2	73-126/17
10061-01-5	cis-1,3-Dichloropropene	20	18.3	92	18.9	95	3	72-130/16
541-73-1	m-Dichlorobenzene	20	19.6	98	19.8	99	1	75-124/16
95-50-1	o-Dichlorobenzene	20	19.2	96	19.6	98	2	76-124/16
106-46-7	p-Dichlorobenzene	20	19.4	97	19.5	98	1	75-124/16
156-60-5	trans-1,2-Dichloroethylene	20	19.3	97	19.5	98	1	71-126/18
10061-02-6	trans-1,3-Dichloropropene	20	18.5	93	19.1	96	3	71-126/16
100-41-4	Ethylbenzene	20	20.2	101	20.1	101	0	76-126/17
637-92-3	Ethyl Tert Butyl Ether	20	17.3	87	17.6	88	2	75-134/17

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1022-BS	R27465.D	1	07/31/14	BD	n/a	n/a	VR1022
VR1022-BSD	R27466.D	1	07/31/14	BD	n/a	n/a	VR1022

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	72.6	91	73.1	91	1	67-150/22
87-68-3	Hexachlorobutadiene	20	21.7	109	21.6	108	0	69-135/20
98-82-8	Isopropylbenzene	20	20.7	104	20.6	103	0	61-125/17
99-87-6	p-Isopropyltoluene	20	20.7	104	20.6	103	0	68-127/18
108-10-1	4-Methyl-2-pentanone	80	71.3	89	72.5	91	2	71-142/21
74-83-9	Methyl bromide	20	18.8	94	18.7	94	1	68-132/18
74-87-3	Methyl chloride	20	16.7	84	16.5	83	1	39-150/28
74-95-3	Methylene bromide	20	18.5	93	18.7	94	1	77-127/16
75-09-2	Methylene chloride	20	17.3	87	17.7	89	2	67-128/18
78-93-3	Methyl ethyl ketone	80	70.1	88	70.9	89	1	56-155/23
1634-04-4	Methyl Tert Butyl Ether	20	17.1	86	17.5	88	2	73-132/17
91-20-3	Naphthalene	20	18.8	94	19.0	95	1	70-136/20
103-65-1	n-Propylbenzene	20	20.2	101	20.1	101	0	71-127/17
100-42-5	Styrene	20	19.8	99	19.8	99	0	72-134/16
994-05-8	Tert-Amyl Methyl Ether	20	17.3	87	17.7	89	2	73-133/17
75-65-0	Tert-Butyl Alcohol	100	87.0	87	89.0	89	2	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	20	19.8	99	19.9	100	1	77-130/16
71-55-6	1,1,1-Trichloroethane	20	19.6	98	19.4	97	1	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	20	18.3	92	18.7	94	2	77-129/17
79-00-5	1,1,2-Trichloroethane	20	18.6	93	18.8	94	1	77-125/16
87-61-6	1,2,3-Trichlorobenzene	20	19.2	96	19.5	98	2	70-133/18
96-18-4	1,2,3-Trichloropropane	20	16.7	84	17.1	86	2	69-126/18
120-82-1	1,2,4-Trichlorobenzene	20	19.3	97	19.5	98	1	68-129/17
95-63-6	1,2,4-Trimethylbenzene	20	19.6	98	19.5	98	1	74-129/17
108-67-8	1,3,5-Trimethylbenzene	20	20.1	101	20.0	100	0	77-129/17
127-18-4	Tetrachloroethylene	20	21.3	107	21.0	105	1	69-127/20
108-88-3	Toluene	20	20.1	101	20.0	100	0	75-122/17
79-01-6	Trichloroethylene	20	19.9	100	19.6	98	2	78-123/17
75-69-4	Trichlorofluoromethane	20	18.7	94	18.2	91	3	65-136/23
75-01-4	Vinyl chloride	20	17.8	89	17.6	88	1	57-146/22
1330-20-7	Xylene (total)	60	60.5	101	60.3	101	0	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	94%	96%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1022-BS	R27465.D	1	07/31/14	BD	n/a	n/a	VR1022
VR1022-BSD	R27466.D	1	07/31/14	BD	n/a	n/a	VR1022

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-4

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
2037-26-5	Toluene-D8	102%	101%	70-130%
460-00-4	4-Bromofluorobenzene	99%	98%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1699-LCS	W47264.D	1	07/30/14	BD	n/a	n/a	VW1699

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-1, C35213-2, C35213-3, C35213-5, C35213-6, C35213-7

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	97%	70-130%
2037-26-5	Toluene-D8	101%	70-130%
460-00-4	4-Bromofluorobenzene	102%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1021-LCS	R27440.D	1	07/30/14	BD	n/a	n/a	VR1021

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-8

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	93%	70-130%
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35194-7MS	R27459.D	1	07/30/14	BD	n/a	n/a	VR1021
C35194-7MSD	R27460.D	1	07/30/14	BD	n/a	n/a	VR1021
C35194-7	R27445.D	1	07/30/14	BD	n/a	n/a	VR1021

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-8

CAS No.	Compound	C35194-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		80	70.1	88	80	80.0	100	13	38-159/24
71-43-2	Benzene	ND		20	20.6	103	20	20.7	104	0	77-122/16
108-86-1	Bromobenzene	ND		20	21.6	108	20	21.3	107	1	76-126/17
74-97-5	Bromochloromethane	ND		20	19.5	98	20	20.5	103	5	77-130/17
75-27-4	Bromodichloromethane	ND		20	19.6	98	20	20.0	100	2	75-127/16
75-25-2	Bromoform	ND		20	16.3	82	20	16.6	83	2	69-141/17
104-51-8	n-Butylbenzene	ND		20	20.9	105	20	20.4	102	2	72-129/18
135-98-8	sec-Butylbenzene	ND		20	22.1	111	20	21.5	108	3	74-128/18
98-06-6	tert-Butylbenzene	ND		20	20.0	100	20	19.6	98	2	73-127/18
108-90-7	Chlorobenzene	ND		20	21.2	106	20	21.2	106	0	77-122/16
75-00-3	Chloroethane	ND		20	20.2	101	20	20.4	102	1	69-133/18
67-66-3	Chloroform	ND		20	19.6	98	20	20.1	101	3	74-126/17
95-49-8	o-Chlorotoluene	ND		20	20.5	103	20	20.2	101	1	72-127/20
106-43-4	p-Chlorotoluene	ND		20	19.9	100	20	19.9	100	0	68-127/18
56-23-5	Carbon tetrachloride	ND		20	22.7	114	20	22.0	110	3	71-133/19
75-34-3	1,1-Dichloroethane	ND		20	19.1	96	20	19.6	98	3	71-125/17
75-35-4	1,1-Dichloroethylene	ND		20	21.1	106	20	20.9	105	1	66-125/20
563-58-6	1,1-Dichloropropene	ND		20	21.8	109	20	21.4	107	2	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	ND		20	18.4	92	20	19.3	97	5	65-131/20
106-93-4	1,2-Dibromoethane	ND		20	20.5	103	20	21.0	105	2	75-135/17
107-06-2	1,2-Dichloroethane	ND		20	19.3	97	20	19.8	99	3	71-131/17
78-87-5	1,2-Dichloropropane	ND		20	19.8	99	20	20.1	101	2	78-124/16
142-28-9	1,3-Dichloropropane	ND		20	19.8	99	20	20.3	102	2	78-123/16
108-20-3	Di-Isopropyl ether	ND		20	18.1	91	20	18.8	94	4	68-129/17
594-20-7	2,2-Dichloropropane	ND		20	18.4	92	20	18.3	92	1	70-131/19
124-48-1	Dibromochloromethane	ND		20	18.9	95	20	19.3	97	2	76-132/16
75-71-8	Dichlorodifluoromethane	2.0		20	24.3	112	20	23.2	106	5	32-168/28
156-59-2	cis-1,2-Dichloroethylene	ND		20	20.1	101	20	20.8	104	3	73-126/17
10061-01-5	cis-1,3-Dichloropropene	ND		20	19.0	95	20	19.6	98	3	72-130/16
541-73-1	m-Dichlorobenzene	ND		20	21.0	105	20	21.2	106	1	75-124/16
95-50-1	o-Dichlorobenzene	ND		20	20.7	104	20	21.0	105	1	76-124/16
106-46-7	p-Dichlorobenzene	ND		20	20.8	104	20	21.0	105	1	75-124/16
156-60-5	trans-1,2-Dichloroethylene	ND		20	19.4	97	20	19.7	99	2	71-126/18
10061-02-6	trans-1,3-Dichloropropene	ND		20	17.9	90	20	18.3	92	2	71-126/16
100-41-4	Ethylbenzene	ND		20	20.8	104	20	20.5	103	1	76-126/17
637-92-3	Ethyl Tert Butyl Ether	ND		20	18.3	92	20	19.1	96	4	75-134/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35194-7MS	R27459.D	1	07/30/14	BD	n/a	n/a	VR1021
C35194-7MSD	R27460.D	1	07/30/14	BD	n/a	n/a	VR1021
C35194-7	R27445.D	1	07/30/14	BD	n/a	n/a	VR1021

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-8

CAS No.	Compound	C35194-7 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND		80	79.8	100	80	82.2	103	3	67-150/22
87-68-3	Hexachlorobutadiene	ND		20	21.4	107	20	21.7	109	1	69-135/20
98-82-8	Isopropylbenzene	ND		20	21.5	108	20	21.1	106	2	61-125/17
99-87-6	p-Isopropyltoluene	ND		20	19.8	99	20	19.1	96	4	68-127/18
108-10-1	4-Methyl-2-pentanone	ND		80	78.3	98	80	81.5	102	4	71-142/21
74-83-9	Methyl bromide	ND		20	19.9	100	20	20.2	101	1	68-132/18
74-87-3	Methyl chloride	ND		20	18.2	91	20	18.6	93	2	39-150/28
74-95-3	Methylene bromide	ND		20	20.0	100	20	20.5	103	2	77-127/16
75-09-2	Methylene chloride	ND		20	18.0	90	20	18.8	94	4	67-128/18
78-93-3	Methyl ethyl ketone	ND		80	76.0	95	80	80.5	101	6	56-155/23
1634-04-4	Methyl Tert Butyl Ether	ND		20	18.2	91	20	19.1	96	5	73-132/17
91-20-3	Naphthalene	1.6	J	20	20.4	94	20	20.5	95	0	70-136/20
103-65-1	n-Propylbenzene	ND		20	21.1	106	20	20.6	103	2	71-127/17
100-42-5	Styrene	ND		20	7.1	36* [a]	20	6.0	30* [a]	17* [a]	72-134/16
994-05-8	Tert-Amyl Methyl Ether	ND		20	18.2	91	20	19.0	95	4	73-133/17
75-65-0	Tert-Butyl Alcohol	ND		100	93.3	93	100	106	106	13	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	ND		20	21.3	107	20	21.4	107	0	77-130/16
71-55-6	1,1,1-Trichloroethane	ND		20	20.8	104	20	20.8	104	0	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	ND		20	20.2	101	20	20.7	104	2	77-129/17
79-00-5	1,1,2-Trichloroethane	ND		20	20.1	101	20	20.5	103	2	77-125/16
87-61-6	1,2,3-Trichlorobenzene	ND		20	19.6	98	20	20.6	103	5	70-133/18
96-18-4	1,2,3-Trichloropropane	ND		20	18.0	90	20	18.5	93	3	69-126/18
120-82-1	1,2,4-Trichlorobenzene	ND		20	19.8	99	20	20.6	103	4	68-129/17
95-63-6	1,2,4-Trimethylbenzene	ND		20	11.7	59* [a]	20	10.9	55* [a]	7	74-129/17
108-67-8	1,3,5-Trimethylbenzene	ND		20	15.6	78	20	15.0	75* [a]	4	77-129/17
127-18-4	Tetrachloroethylene	ND		20	22.6	113	20	22.2	111	2	69-127/20
108-88-3	Toluene	ND		20	20.7	104	20	20.5	103	1	75-122/17
79-01-6	Trichloroethylene	ND		20	21.5	108	20	21.4	107	0	78-123/17
75-69-4	Trichlorofluoromethane	ND		20	22.8	114	20	22.0	110	4	65-136/23
75-01-4	Vinyl chloride	ND		20	20.7	104	20	20.4	102	1	57-146/22
1330-20-7	Xylene (total)	ND		60	57.0	95	60	55.9	93	2	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C35194-7	Limits
1868-53-7	Dibromofluoromethane	93%	96%	86%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35194-7MS	R27459.D	1	07/30/14	BD	n/a	n/a	VR1021
C35194-7MSD	R27460.D	1	07/30/14	BD	n/a	n/a	VR1021
C35194-7	R27445.D	1	07/30/14	BD	n/a	n/a	VR1021

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-8

CAS No.	Surrogate Recoveries	MS	MSD	C35194-7	Limits
2037-26-5	Toluene-D8	99%	99%	100%	70-130%
460-00-4	4-Bromofluorobenzene	97%	99%	95%	70-130%

(a) Outside control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35213-1MS	W47282.D	1	07/30/14	BD	n/a	n/a	VW1699
C35213-1MSD	W47283.D	1	07/30/14	BD	n/a	n/a	VW1699
C35213-1	W47270.D	1	07/30/14	BD	n/a	n/a	VW1699

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-1, C35213-2, C35213-3, C35213-5, C35213-6, C35213-7

CAS No.	Compound	C35213-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		80	84.3	105	80	87.4	109	4	38-159/24
71-43-2	Benzene	ND		20	20.4	102	20	20.5	103	0	77-122/16
108-86-1	Bromobenzene	ND		20	20.3	102	20	20.0	100	1	76-126/17
74-97-5	Bromochloromethane	ND		20	19.4	97	20	19.8	99	2	77-130/17
75-27-4	Bromodichloromethane	ND		20	21.1	106	20	21.3	107	1	75-127/16
75-25-2	Bromoform	ND		20	18.4	92	20	18.9	95	3	69-141/17
104-51-8	n-Butylbenzene	ND		20	21.6	108	20	21.5	108	0	72-129/18
135-98-8	sec-Butylbenzene	ND		20	22.2	111	20	21.9	110	1	74-128/18
98-06-6	tert-Butylbenzene	ND		20	22.0	110	20	21.7	109	1	73-127/18
108-90-7	Chlorobenzene	ND		20	20.4	102	20	20.5	103	0	77-122/16
75-00-3	Chloroethane	ND		20	21.9	110	20	22.2	111	1	69-133/18
67-66-3	Chloroform	ND		20	20.2	101	20	20.4	102	1	74-126/17
95-49-8	o-Chlorotoluene	ND		20	21.1	106	20	21.0	105	0	72-127/20
106-43-4	p-Chlorotoluene	ND		20	21.8	109	20	21.6	108	1	68-127/18
56-23-5	Carbon tetrachloride	ND		20	22.0	110	20	22.0	110	0	71-133/19
75-34-3	1,1-Dichloroethane	ND		20	20.6	103	20	20.8	104	1	71-125/17
75-35-4	1,1-Dichloroethylene	ND		20	20.9	105	20	21.0	105	0	66-125/20
563-58-6	1,1-Dichloropropene	ND		20	21.6	108	20	21.7	109	0	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	ND		20	19.1	96	20	19.4	97	2	65-131/20
106-93-4	1,2-Dibromoethane	ND		20	19.9	100	20	20.3	102	2	75-135/17
107-06-2	1,2-Dichloroethane	ND		20	20.6	103	20	20.9	105	1	71-131/17
78-87-5	1,2-Dichloropropane	ND		20	21.0	105	20	21.1	106	0	78-124/16
142-28-9	1,3-Dichloropropane	ND		20	20.0	100	20	20.3	102	1	78-123/16
108-20-3	Di-Isopropyl ether	ND		20	21.1	106	20	21.8	109	3	68-129/17
594-20-7	2,2-Dichloropropane	ND		20	19.2	96	20	19.0	95	1	70-131/19
124-48-1	Dibromochloromethane	ND		20	20.6	103	20	20.8	104	1	76-132/16
75-71-8	Dichlorodifluoromethane	ND		20	21.2	106	20	21.3	107	0	32-168/28
156-59-2	cis-1,2-Dichloroethylene	ND		20	19.9	100	20	20.1	101	1	73-126/17
10061-01-5	cis-1,3-Dichloropropene	ND		20	19.8	99	20	20.2	101	2	72-130/16
541-73-1	m-Dichlorobenzene	ND		20	20.3	102	20	20.2	101	0	75-124/16
95-50-1	o-Dichlorobenzene	ND		20	20.3	102	20	20.2	101	0	76-124/16
106-46-7	p-Dichlorobenzene	ND		20	20.1	101	20	20.2	101	0	75-124/16
156-60-5	trans-1,2-Dichloroethylene	ND		20	19.8	99	20	20.0	100	1	71-126/18
10061-02-6	trans-1,3-Dichloropropene	ND		20	19.8	99	20	20.4	102	3	71-126/16
100-41-4	Ethylbenzene	ND		20	21.3	107	20	21.3	107	0	76-126/17
637-92-3	Ethyl Tert Butyl Ether	ND		20	20.7	104	20	21.3	107	3	75-134/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35213-1MS	W47282.D	1	07/30/14	BD	n/a	n/a	VW1699
C35213-1MSD	W47283.D	1	07/30/14	BD	n/a	n/a	VW1699
C35213-1	W47270.D	1	07/30/14	BD	n/a	n/a	VW1699

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-1, C35213-2, C35213-3, C35213-5, C35213-6, C35213-7

CAS No.	Compound	C35213-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND		80	86.9	109	80	89.7	112	3	67-150/22
87-68-3	Hexachlorobutadiene	ND		20	21.6	108	20	21.3	107	1	69-135/20
98-82-8	Isopropylbenzene	ND		20	21.6	108	20	21.6	108	0	61-125/17
99-87-6	p-Isopropyltoluene	ND		20	22.1	111	20	21.7	109	2	68-127/18
108-10-1	4-Methyl-2-pentanone	ND		80	86.1	108	80	87.3	109	1	71-142/21
74-83-9	Methyl bromide	ND		20	20.9	105	20	21.1	106	1	68-132/18
74-87-3	Methyl chloride	ND		20	19.5	98	20	19.8	99	2	39-150/28
74-95-3	Methylene bromide	ND		20	20.1	101	20	20.4	102	1	77-127/16
75-09-2	Methylene chloride	ND		20	19.0	95	20	19.2	96	1	67-128/18
78-93-3	Methyl ethyl ketone	ND		80	80.6	101	80	82.7	103	3	56-155/23
1634-04-4	Methyl Tert Butyl Ether	ND		20	20.0	100	20	20.5	103	2	73-132/17
91-20-3	Naphthalene	ND		20	20.4	102	20	20.4	102	0	70-136/20
103-65-1	n-Propylbenzene	ND		20	21.9	110	20	21.6	108	1	71-127/17
100-42-5	Styrene	ND		20	21.6	108	20	21.8	109	1	72-134/16
994-05-8	Tert-Amyl Methyl Ether	ND		20	20.1	101	20	20.7	104	3	73-133/17
75-65-0	Tert-Butyl Alcohol	ND		100	102	102	100	106	106	4	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	ND		20	20.9	105	20	20.9	105	0	77-130/16
71-55-6	1,1,1-Trichloroethane	ND		20	21.3	107	20	21.4	107	0	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	ND		20	20.1	101	20	20.1	101	0	77-129/17
79-00-5	1,1,2-Trichloroethane	ND		20	20.2	101	20	20.6	103	2	77-125/16
87-61-6	1,2,3-Trichlorobenzene	ND		20	20.2	101	20	20.2	101	0	70-133/18
96-18-4	1,2,3-Trichloropropane	ND		20	17.0	85	20	17.4	87	2	69-126/18
120-82-1	1,2,4-Trichlorobenzene	ND		20	20.2	101	20	20.1	101	0	68-129/17
95-63-6	1,2,4-Trimethylbenzene	ND		20	21.5	108	20	21.3	107	1	74-129/17
108-67-8	1,3,5-Trimethylbenzene	ND		20	21.8	109	20	21.5	108	1	77-129/17
127-18-4	Tetrachloroethylene	ND		20	20.7	104	20	20.8	104	0	69-127/20
108-88-3	Toluene	ND		20	21.0	105	20	20.9	105	0	75-122/17
79-01-6	Trichloroethylene	ND		20	20.9	105	20	20.8	104	0	78-123/17
75-69-4	Trichlorofluoromethane	ND		20	23.5	118	20	23.3	117	1	65-136/23
75-01-4	Vinyl chloride	ND		20	23.3	117	20	23.2	116	0	57-146/22
1330-20-7	Xylene (total)	ND		60	64.2	107	60	64.3	107	0	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C35213-1	Limits
1868-53-7	Dibromofluoromethane	98%	98%	89%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35213-1MS	W47282.D	1	07/30/14	BD	n/a	n/a	VW1699
C35213-1MSD	W47283.D	1	07/30/14	BD	n/a	n/a	VW1699
C35213-1	W47270.D	1	07/30/14	BD	n/a	n/a	VW1699

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-1, C35213-2, C35213-3, C35213-5, C35213-6, C35213-7

CAS No.	Surrogate Recoveries	MS	MSD	C35213-1	Limits
2037-26-5	Toluene-D8	103%	103%	103%	70-130%
460-00-4	4-Bromofluorobenzene	102%	102%	102%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35242-6MS	R27488.D	1	07/31/14	BD	n/a	n/a	VR1022
C35242-6MSD	R27489.D	1	07/31/14	BD	n/a	n/a	VR1022
C35242-6	R27472.D	1	07/31/14	BD	n/a	n/a	VR1022

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-4

CAS No.	Compound	C35242-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	ND		80	64.2	80	80	64.7	81	1	38-159/24
71-43-2	Benzene	ND		20	19.0	95	20	19.0	95	0	77-122/16
108-86-1	Bromobenzene	ND		20	19.5	98	20	19.6	98	1	76-126/17
74-97-5	Bromochloromethane	ND		20	17.5	88	20	17.6	88	1	77-130/17
75-27-4	Bromodichloromethane	ND		20	19.0	95	20	19.0	95	0	75-127/16
75-25-2	Bromoform	ND		20	15.6	78	20	15.5	78	1	69-141/17
104-51-8	n-Butylbenzene	ND		20	19.6	98	20	19.7	99	1	72-129/18
135-98-8	sec-Butylbenzene	ND		20	20.5	103	20	20.8	104	1	74-128/18
98-06-6	tert-Butylbenzene	ND		20	19.3	97	20	19.3	97	0	73-127/18
108-90-7	Chlorobenzene	ND		20	19.6	98	20	19.6	98	0	77-122/16
75-00-3	Chloroethane	ND		20	17.8	89	20	18.0	90	1	69-133/18
67-66-3	Chloroform	ND		20	18.6	93	20	18.2	91	2	74-126/17
95-49-8	o-Chlorotoluene	ND		20	18.9	95	20	19.0	95	1	72-127/20
106-43-4	p-Chlorotoluene	ND		20	18.9	95	20	19.1	96	1	68-127/18
56-23-5	Carbon tetrachloride	ND		20	23.5	118	20	23.1	116	2	71-133/19
75-34-3	1,1-Dichloroethane	ND		20	17.4	87	20	17.4	87	0	71-125/17
75-35-4	1,1-Dichloroethylene	ND		20	19.5	98	20	19.5	98	0	66-125/20
563-58-6	1,1-Dichloropropene	ND		20	21.0	105	20	21.1	106	0	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	ND		20	17.1	86	20	16.8	84	2	65-131/20
106-93-4	1,2-Dibromoethane	ND		20	18.4	92	20	18.4	92	0	75-135/17
107-06-2	1,2-Dichloroethane	ND		20	19.2	96	20	18.9	95	2	71-131/17
78-87-5	1,2-Dichloropropane	ND		20	17.9	90	20	18.0	90	1	78-124/16
142-28-9	1,3-Dichloropropane	ND		20	18.0	90	20	18.0	90	0	78-123/16
108-20-3	Di-Isopropyl ether	ND		20	15.8	79	20	16.1	81	2	68-129/17
594-20-7	2,2-Dichloropropane	ND		20	17.4	87	20	17.1	86	2	70-131/19
124-48-1	Dibromochloromethane	ND		20	18.1	91	20	17.9	90	1	76-132/16
75-71-8	Dichlorodifluoromethane	ND		20	23.7	119	20	23.1	116	3	32-168/28
156-59-2	cis-1,2-Dichloroethylene	0.64	J	20	18.4	89	20	18.3	88	1	73-126/17
10061-01-5	cis-1,3-Dichloropropene	ND		20	17.4	87	20	17.6	88	1	72-130/16
541-73-1	m-Dichlorobenzene	ND		20	19.6	98	20	19.6	98	0	75-124/16
95-50-1	o-Dichlorobenzene	ND		20	19.3	97	20	19.4	97	1	76-124/16
106-46-7	p-Dichlorobenzene	ND		20	19.3	97	20	19.4	97	1	75-124/16
156-60-5	trans-1,2-Dichloroethylene	ND		20	18.1	91	20	18.1	91	0	71-126/18
10061-02-6	trans-1,3-Dichloropropene	ND		20	17.3	87	20	17.3	87	0	71-126/16
100-41-4	Ethylbenzene	ND		20	20.2	101	20	19.9	100	1	76-126/17
637-92-3	Ethyl Tert Butyl Ether	ND		20	16.4	82	20	16.5	83	1	75-134/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35242-6MS	R27488.D	1	07/31/14	BD	n/a	n/a	VR1022
C35242-6MSD	R27489.D	1	07/31/14	BD	n/a	n/a	VR1022
C35242-6	R27472.D	1	07/31/14	BD	n/a	n/a	VR1022

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-4

CAS No.	Compound	C35242-6 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND		80	72.1	90	80	70.4	88	2	67-150/22
87-68-3	Hexachlorobutadiene	ND		20	20.6	103	20	21.1	106	2	69-135/20
98-82-8	Isopropylbenzene	ND		20	21.0	105	20	20.7	104	1	61-125/17
99-87-6	p-Isopropyltoluene	ND		20	19.7	99	20	19.8	99	1	68-127/18
108-10-1	4-Methyl-2-pentanone	ND		80	69.7	87	80	69.4	87	0	71-142/21
74-83-9	Methyl bromide	ND		20	18.4	92	20	18.5	93	1	68-132/18
74-87-3	Methyl chloride	ND		20	17.4	87	20	17.7	89	2	39-150/28
74-95-3	Methylene bromide	ND		20	18.9	95	20	18.7	94	1	77-127/16
75-09-2	Methylene chloride	ND		20	15.9	80	20	15.8	79	1	67-128/18
78-93-3	Methyl ethyl ketone	ND		80	65.5	82	80	66.2	83	1	56-155/23
1634-04-4	Methyl Tert Butyl Ether	ND		20	16.2	81	20	16.4	82	1	73-132/17
91-20-3	Naphthalene	ND		20	17.4	87	20	17.9	90	3	70-136/20
103-65-1	n-Propylbenzene	ND		20	19.5	98	20	19.8	99	2	71-127/17
100-42-5	Styrene	ND		20	11.6	58* [a]	20	9.7	49* [a]	18* [a]	72-134/16
994-05-8	Tert-Amyl Methyl Ether	ND		20	16.2	81	20	16.3	82	1	73-133/17
75-65-0	Tert-Butyl Alcohol	ND		100	96.5	97	100	96.4	96	0	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	ND		20	20.2	101	20	20.1	101	0	77-130/16
71-55-6	1,1,1-Trichloroethane	ND		20	20.4	102	20	20.0	100	2	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	ND		20	17.3	87	20	17.6	88	2	77-129/17
79-00-5	1,1,2-Trichloroethane	ND		20	18.3	92	20	18.1	91	1	77-125/16
87-61-6	1,2,3-Trichlorobenzene	ND		20	18.2	91	20	19.1	96	5	70-133/18
96-18-4	1,2,3-Trichloropropane	ND		20	15.6	78	20	15.5	78	1	69-126/18
120-82-1	1,2,4-Trichlorobenzene	ND		20	18.3	92	20	19.0	95	4	68-129/17
95-63-6	1,2,4-Trimethylbenzene	ND		20	15.8	79	20	15.5	78	2	74-129/17
108-67-8	1,3,5-Trimethylbenzene	ND		20	18.2	91	20	18.2	91	0	77-129/17
127-18-4	Tetrachloroethylene	0.61	J	20	22.5	109	20	22.3	108	1	69-127/20
108-88-3	Toluene	ND		20	19.6	98	20	19.6	98	0	75-122/17
79-01-6	Trichloroethylene	1.6		20	22.1	103	20	21.8	101	1	78-123/17
75-69-4	Trichlorofluoromethane	ND		20	23.5	118	20	22.9	115	3	65-136/23
75-01-4	Vinyl chloride	ND		20	20.2	101	20	20.1	101	0	57-146/22
1330-20-7	Xylene (total)	ND		60	58.8	98	60	58.0	97	1	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C35242-6	Limits
1868-53-7	Dibromofluoromethane	93%	92%	85%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35242-6MS	R27488.D	1	07/31/14	BD	n/a	n/a	VR1022
C35242-6MSD	R27489.D	1	07/31/14	BD	n/a	n/a	VR1022
C35242-6	R27472.D	1	07/31/14	BD	n/a	n/a	VR1022

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35213-4

CAS No.	Surrogate Recoveries	MS	MSD	C35242-6	Limits
2037-26-5	Toluene-D8	100%	102%	103%	70-130%
460-00-4	4-Bromofluorobenzene	101%	99%	96%	70-130%

(a) Outside laboratory control limits.

* = Outside of Control Limits.

Northern California ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10482-MB	X38153.D	1	07/25/14	MT	07/25/14	OP10482	EX1649

The QC reported here applies to the following samples: **Method:** SW846 8270C BY SIM

C35213-1, C35213-2, C35213-3, C35213-4, C35213-5, C35213-6, C35213-7, C35213-8

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.50	0.050	ug/l	
208-96-8	Acenaphthylene	ND	0.50	0.050	ug/l	
120-12-7	Anthracene	ND	0.50	0.050	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.10	0.053	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.041	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.035	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.036	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.039	ug/l	
218-01-9	Chrysene	ND	0.10	0.045	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.035	ug/l	
206-44-0	Fluoranthene	ND	0.50	0.050	ug/l	
86-73-7	Fluorene	ND	0.50	0.050	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.035	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.50	0.10	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.50	0.10	ug/l	
91-20-3	Naphthalene	ND	0.50	0.10	ug/l	
85-01-8	Phenanthrene	ND	0.50	0.050	ug/l	
129-00-0	Pyrene	ND	0.50	0.050	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	94%	42-116%
321-60-8	2-Fluorobiphenyl	93%	44-115%
1718-51-0	Terphenyl-d14	126%	45-141%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10482-BS	X38154.D	1	07/25/14	MT	07/25/14	OP10482	EX1649
OP10482-BSD	X38155.D	1	07/25/14	MT	07/25/14	OP10482	EX1649

The QC reported here applies to the following samples: **Method:** SW846 8270C BY SIM

C35213-1, C35213-2, C35213-3, C35213-4, C35213-5, C35213-6, C35213-7, C35213-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	5	4.5	90	4.4	88	2	54-108/21
208-96-8	Acenaphthylene	5	4.4	88	4.3	86	2	53-108/22
120-12-7	Anthracene	5	4.7	94	4.7	94	0	58-111/19
56-55-3	Benzo(a)anthracene	5	5.0	100	4.9	98	2	59-120/14
50-32-8	Benzo(a)pyrene	5	4.9	98	4.8	96	2	53-113/18
205-99-2	Benzo(b)fluoranthene	5	5.7	114	5.9	118	3	57-127/18
191-24-2	Benzo(g,h,i)perylene	5	4.1	82	3.9	78	5	52-126/21
207-08-9	Benzo(k)fluoranthene	5	5.4	108	5.1	102	6	60-125/16
218-01-9	Chrysene	5	4.9	98	4.9	98	0	63-120/14
53-70-3	Dibenzo(a,h)anthracene	5	4.8	96	4.5	90	6	53-127/22
206-44-0	Fluoranthene	5	4.6	92	4.5	90	2	59-123/17
86-73-7	Fluorene	5	4.6	92	4.7	94	2	57-113/21
193-39-5	Indeno(1,2,3-cd)pyrene	5	4.7	94	4.5	90	4	48-130/22
90-12-0	1-Methylnaphthalene	5	4.1	82	4.2	84	2	51-104/24
91-57-6	2-Methylnaphthalene	5	4.3	86	4.4	88	2	52-108/25
91-20-3	Naphthalene	5	4.1	82	4.1	82	0	51-102/23
85-01-8	Phenanthrene	5	4.7	94	4.6	92	2	58-112/18
129-00-0	Pyrene	5	5.3	106	5.6	112	6	52-124/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	89%	96%	42-116%
321-60-8	2-Fluorobiphenyl	89%	93%	44-115%
1718-51-0	Terphenyl-d14	114%	115%	45-141%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10482-MS	X38156.D	1	07/25/14	MT	07/25/14	OP10482	EX1649
OP10482-MSD	X38157.D	1	07/25/14	MT	07/25/14	OP10482	EX1649
C35213-8	X38158.D	1	07/25/14	MT	07/25/14	OP10482	EX1649
C35213-8	X38169.D	50	07/27/14	MT	07/25/14	OP10482	EX1650

The QC reported here applies to the following samples: **Method:** SW846 8270C BY SIM

C35213-1, C35213-2, C35213-3, C35213-4, C35213-5, C35213-6, C35213-7, C35213-8

CAS No.	Compound	C35213-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	0.15	J	9.43	8.0	83	9.43	7.9	82	1	54-108/21
208-96-8	Acenaphthylene	ND		9.43	7.7	82	9.43	7.5	80	3	53-108/22
120-12-7	Anthracene	ND		9.43	8.6	91	9.43	8.4	89	2	58-111/19
56-55-3	Benzo(a)anthracene	ND		9.43	8.9	94	9.43	8.7	92	2	59-120/14
50-32-8	Benzo(a)pyrene	ND		9.43	9.1	96	9.43	8.7	92	4	53-113/18
205-99-2	Benzo(b)fluoranthene	ND		9.43	9.8	104	9.43	9.7	103	1	57-127/18
191-24-2	Benzo(g,h,i)perylene	ND		9.43	6.7	71	9.43	6.7	71	0	52-126/21
207-08-9	Benzo(k)fluoranthene	ND		9.43	9.6	102	9.43	9.2	98	4	60-125/16
218-01-9	Chrysene	ND		9.43	8.7	92	9.43	8.5	90	2	63-120/14
53-70-3	Dibenzo(a,h)anthracene	ND		9.43	7.9	84	9.43	7.8	83	1	53-127/22
206-44-0	Fluoranthene	ND		9.43	8.4	89	9.43	8.4	89	0	59-123/17
86-73-7	Fluorene	0.59		9.43	9.0	89	9.43	8.7	86	3	57-113/21
193-39-5	Indeno(1,2,3-cd)pyrene	ND		9.43	7.9	84	9.43	7.7	82	3	48-130/22
90-12-0	1-Methylnaphthalene	47.5 [a]		9.43	54.1	70	9.43	53.5	64	1	51-104/24
91-57-6	2-Methylnaphthalene	54.8 [a]		9.43	61.3	69	9.43	60.5	60	1	52-108/25
91-20-3	Naphthalene	206 [a]		9.43	216	106* [b]	9.43	216	106* [b]	0	51-102/23
85-01-8	Phenanthrene	ND		9.43	8.3	88	9.43	8.2	87	1	58-112/18
129-00-0	Pyrene	ND		9.43	9.6	102	9.43	9.4	100	2	52-124/20

CAS No.	Surrogate Recoveries	MS	MSD	C35213-8	C35213-8	Limits
4165-60-0	Nitrobenzene-d5	91%	92%	92%	86%	42-116%
321-60-8	2-Fluorobiphenyl	89%	88%	88%	90%	44-115%
1718-51-0	Terphenyl-d14	118%	115%	112%	90%	45-141%

(a) Result is from Run #2.
(b) Outside laboratory control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10482-MS	X38156.D	1	07/25/14	MT	07/25/14	OP10482	EX1649
OP10482-MSD	X38168.D	50	07/27/14	MT	07/25/14	OP10482	EX1650
C35213-8	X38158.D	1	07/25/14	MT	07/25/14	OP10482	EX1649
C35213-8	X38169.D	50	07/27/14	MT	07/25/14	OP10482	EX1650

The QC reported here applies to the following samples: **Method:** SW846 8270C BY SIM

C35213-1, C35213-2, C35213-3, C35213-4, C35213-5, C35213-6, C35213-7, C35213-8

CAS No.	Compound	C35213-8 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	0.15	J	9.43	8.0	83	9.43	7.9	82	1	54-108/21
208-96-8	Acenaphthylene	ND		9.43	7.7	82	9.43	6.7	71	10	53-108/22
120-12-7	Anthracene	ND		9.43	8.6	91	9.43	7.7	82	3	58-111/19
56-55-3	Benzo(a)anthracene	ND		9.43	8.9	94	9.43	8.7	92	4	59-120/14
50-32-8	Benzo(a)pyrene	ND		9.43	9.1	96	9.43	7.4	78	5	53-113/18
205-99-2	Benzo(b)fluoranthene	ND		9.43	9.8	104	9.43	8.5	90	0	57-127/18
191-24-2	Benzo(g,h,i)perylene	ND		9.43	6.7	71	9.43	7.6	81	3	52-126/21
207-08-9	Benzo(k)fluoranthene	ND		9.43	9.6	102	9.43	8.0	85	7	60-125/16
218-01-9	Chrysene	ND		9.43	8.7	92	9.43	8.5	90	2	63-120/14
53-70-3	Dibenzo(a,h)anthracene	ND		9.43	7.9	84	9.43	6.7	71	11	53-127/22
206-44-0	Fluoranthene	ND		9.43	8.4	89	9.43	8.2	87	2	59-123/17
86-73-7	Fluorene	0.59		9.43	9.0	89	9.43	8.6	85	1	57-113/21
193-39-5	Indeno(1,2,3-cd)pyrene	ND		9.43	7.9	84	9.43	6.8	72	10	48-130/22
90-12-0	1-Methylnaphthalene	47.5 [a]		9.43	54.1	70	9.43	52.9	57	0	51-104/24
91-57-6	2-Methylnaphthalene	54.8 [a]		9.43	61.3	69	9.43	60.2	57	1	52-108/25
91-20-3	Naphthalene	206 [a]		9.43	216	106* [b]	9.43	206	0* [c]	2	51-102/23
85-01-8	Phenanthrene	ND		9.43	8.3	88	9.43	8.3	88	0	58-112/18
129-00-0	Pyrene	ND		9.43	9.6	102	9.43	8.0	85	4	52-124/20

CAS No.	Surrogate Recoveries	MS	MSD	C35213-8	C35213-8	Limits
4165-60-0	Nitrobenzene-d5	91%	84%	92%	86%	42-116%
321-60-8	2-Fluorobiphenyl	89%	89%	88%	90%	44-115%
1718-51-0	Terphenyl-d14	118%	91%	112%	90%	45-141%

(a) Result is from Run #2.
(b) Outside laboratory control limits.
(c) Outside control limits due to matrix interference and dilution.

* = Outside of Control Limits.

Northern California ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK1906-MB	JK46255.D	1	07/29/14	TT	n/a	n/a	GJK1906

The QC reported here applies to the following samples: **Method:** NWTPH-GX

C35213-1, C35213-2, C35213-3, C35213-4, C35213-5, C35213-6, C35213-7, C35213-8

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries		Limits
98-08-8	aaa-Trifluorotoluene	97%	50-150%
460-00-4	4-Bromofluorobenzene	107%	50-150%

Method Blank Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK1906-MB	JK46266.D	1	07/29/14	TT	n/a	n/a	GJK1906

The QC reported here applies to the following samples: **Method:** NWTPH-GX

C35213-1, C35213-2, C35213-3, C35213-4, C35213-5, C35213-6, C35213-7, C35213-8

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries		Limits
98-08-8	aaa-Trifluorotoluene	92%	50-150%
460-00-4	4-Bromofluorobenzene	99%	50-150%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK1906-BS	JK46256.D	1	07/29/14	TT	n/a	n/a	GJK1906
GJK1906-BSD	JK46257.D	1	07/29/14	TT	n/a	n/a	GJK1906

The QC reported here applies to the following samples: **Method:** NWTPH-GX

C35213-1, C35213-2, C35213-3, C35213-4, C35213-5, C35213-6, C35213-7, C35213-8

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	0.4	0.388	97	0.384	96	1	69-127/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
98-08-8	aaa-Trifluorotoluene	94%	95%	50-150%
460-00-4	4-Bromofluorobenzene	105%	106%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35213-1MS	JK46268.D	1	07/29/14	TT	n/a	n/a	GJK1906
C35213-1MSD	JK46269.D	1	07/29/14	TT	n/a	n/a	GJK1906
C35213-1	JK46267.D	1	07/29/14	TT	n/a	n/a	GJK1906

The QC reported here applies to the following samples: **Method:** NWTPH-GX

C35213-1, C35213-2, C35213-3, C35213-4, C35213-5, C35213-6, C35213-7, C35213-8

CAS No.	Compound	C35213-1 mg/l	Q	Spike mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	ND		0.4	0.407	102	0.4	0.415	104	2	69-127/13

CAS No.	Surrogate Recoveries	MS	MSD	C35213-1	Limits
98-08-8	aaa-Trifluorotoluene	99%	97%	100%	50-150%
460-00-4	4-Bromofluorobenzene	109%	109%	109%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35213-3DUP	JK46271.D	10	07/30/14	TT	n/a	n/a	GJK1906
C35213-3	JK46270.D	10	07/29/14	TT	n/a	n/a	GJK1906

The QC reported here applies to the following samples: **Method:** NWTPH-GX

C35213-1, C35213-2, C35213-3, C35213-4, C35213-5, C35213-6, C35213-7, C35213-8

CAS No.	Compound	C35213-3 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Gasoline)	3.70		3.66		1	13

CAS No.	Surrogate Recoveries	DUP	C35213-3	Limits
98-08-8	aaa-Trifluorotoluene	99%	102%	50-150%
460-00-4	4-Bromofluorobenzene	119%	121%	50-150%

* = Outside of Control Limits.

Northern California ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10484-MB	HH315462.D	1	07/28/14	AG	07/25/14	OP10484	GHH1316

The QC reported here applies to the following samples: **Method:** NWTPH-DX

C35213-1, C35213-2, C35213-3, C35213-4, C35213-5, C35213-6, C35213-7, C35213-8

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	ND	0.10	0.050	mg/l	
	TPH (Motor Oil)	ND	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries		Limits
630-01-3	Hexacosane	88%	50-150%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10484-BS	HH315458.D	1	07/28/14	AG	07/25/14	OP10484	GHH1316
OP10484-BSD	HH315459.D	1	07/28/14	AG	07/25/14	OP10484	GHH1316

The QC reported here applies to the following samples: **Method:** NWTPH-DX

C35213-1, C35213-2, C35213-3, C35213-4, C35213-5, C35213-6, C35213-7, C35213-8

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Diesel)	1	0.711	71	0.696	70	2	37-112/30
	TPH (Motor Oil)	1	0.900	90	0.967	97	7	49-120/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	90%	96%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C35213
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10484-DUP1	HH315461.D	1	07/28/14	AG	07/25/14	OP10484	GHH1316
C35213-1	HH315450.D	1	07/28/14	AG	07/25/14	OP10484	GHH1316

The QC reported here applies to the following samples: **Method:** NWTPH-DX

C35213-1, C35213-2, C35213-3, C35213-4, C35213-5, C35213-6, C35213-7, C35213-8

CAS No.	Compound	C35213-1 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Diesel)	0.102		0.0758	J	29	31
	TPH (Motor Oil)	ND		ND		nc	33

CAS No.	Surrogate Recoveries	DUP	C35213-1	Limits
630-01-3	Hexacosane	87%	92%	50-150%

* = Outside of Control Limits.

Northern California ACCUTEST LABORATORIES

08/12/14

Technical Report for

Shell Oil Company

URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

49241036

Accutest Job Number: C35253

Sampling Date: 07/25/14

Report to:

URS Corporation
111 SW Columbia, Suite 1500
Portland, OR 97201-5850
brian.pletcher@urs.com; clifford.pearson@urs.com

ATTN: Brian Pletcher

Total number of pages in report: **72**

NELAP ACCREDITED TNI LABORATORY

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Program and/or state specific certification programs as applicable.

James J. Rhudy
Lab Director

Client Service contact: Nutan Kabir 408-588-0200

Certifications: OR (CA300006) CA (08258CA) CA (ELAP 2910) AZ (AZ0762) DoD ELAP (L-A-B L2242)

Sections: 1 2 3 4 5 6 7 8

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Sample Summary

Shell Oil Company

Job No: C35253

URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Project No: 49241036

Sample Number	Collected Date	Time	By	Received	Matrix Code	Type	Client Sample ID
C35253-1	07/25/14	08:10	BW	07/29/14	AQ	Surface Water	DO50-016
C35253-2	07/25/14	08:10	BW	07/29/14	AQ	Surface Water	DO50-116
C35253-3	07/25/14	09:30	BW	07/29/14	AQ	Surface Water	DO50-015
C35253-4	07/25/14	10:32	BW	07/29/14	AQ	Surface Water	DO50-017
C35253-5	07/25/14	11:24	BW	07/29/14	AQ	Surface Water	DO50-014

Summary of Hits

Job Number: C35253
Account: Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 07/25/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C35253-1	**DO50-016**					
Acetone		6.9 J	20	4.0	ug/l	SW846 8260B
Benzene		0.46 J	1.0	0.20	ug/l	SW846 8260B
Chloroform		0.37 J	1.0	0.20	ug/l	SW846 8260B
Isopropylbenzene		0.45 J	1.0	0.20	ug/l	SW846 8260B
n-Propylbenzene		0.27 J	2.0	0.20	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		0.22 J	2.0	0.20	ug/l	SW846 8260B
Toluene		0.30 J	1.0	0.20	ug/l	SW846 8260B
TPH (Diesel)		0.134	0.094	0.047	mg/l	NWTPH-DX
C35253-2	**DO50-116**					
Acetone		5.6 J	20	4.0	ug/l	SW846 8260B
Benzene		0.36 J	1.0	0.20	ug/l	SW846 8260B
Chloroform		0.34 J	1.0	0.20	ug/l	SW846 8260B
Isopropylbenzene		0.40 J	1.0	0.20	ug/l	SW846 8260B
n-Propylbenzene		0.22 J	2.0	0.20	ug/l	SW846 8260B
Toluene		0.25 J	1.0	0.20	ug/l	SW846 8260B
1-Methylnaphthalene		0.10 J	0.47	0.094	ug/l	SW846 8270C BY SIM
TPH (Diesel)		0.169	0.094	0.047	mg/l	NWTPH-DX
C35253-3	**DO50-015**					
Benzene		628	10	2.0	ug/l	SW846 8260B
n-Butylbenzene		9.8 J	20	2.0	ug/l	SW846 8260B
sec-Butylbenzene		10.5 J	20	2.0	ug/l	SW846 8260B
Ethylbenzene		36.1	10	2.0	ug/l	SW846 8260B
Isopropylbenzene		34.7	10	2.0	ug/l	SW846 8260B
Naphthalene		22.2 J	50	5.0	ug/l	SW846 8260B
n-Propylbenzene		74.1	20	2.0	ug/l	SW846 8260B
Toluene		15.2	10	2.0	ug/l	SW846 8260B
Xylene (total)		16.6 J	20	4.6	ug/l	SW846 8260B
Acenaphthene		0.27 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluorene		0.31 J	0.47	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		13.6	0.47	0.094	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		11.8	0.47	0.094	ug/l	SW846 8270C BY SIM
Naphthalene		6.5	0.47	0.094	ug/l	SW846 8270C BY SIM
Phenanthrene		0.10 J	0.47	0.047	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		2.38	0.50	0.25	mg/l	NWTPH-GX
TPH (Diesel)		0.435	0.094	0.047	mg/l	NWTPH-DX
C35253-4	**DO50-017**					
Chloroform		0.55 J	1.0	0.20	ug/l	SW846 8260B

Summary of Hits

Job Number: C35253
Account: Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 07/25/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Isopropylbenzene		0.52 J	1.0	0.20	ug/l	SW846 8260B
Acenaphthene		0.24 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluorene		0.26 J	0.47	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		9.3	0.47	0.094	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		7.7	0.47	0.094	ug/l	SW846 8270C BY SIM
Naphthalene		3.8	0.47	0.094	ug/l	SW846 8270C BY SIM
Phenanthrene		0.10 J	0.47	0.047	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		0.0570 J	0.10	0.050	mg/l	NWTPH-GX
TPH (Diesel)		0.165	0.094	0.047	mg/l	NWTPH-DX
C35253-5	**DO50-014**					
Acetone		23.5 J	100	20	ug/l	SW846 8260B
Benzene		300	5.0	1.0	ug/l	SW846 8260B
n-Butylbenzene		4.9 J	10	1.0	ug/l	SW846 8260B
sec-Butylbenzene		5.1 J	10	1.0	ug/l	SW846 8260B
Ethylbenzene		17.0	5.0	1.0	ug/l	SW846 8260B
Isopropylbenzene		16.7	5.0	1.0	ug/l	SW846 8260B
Naphthalene		11.1 J	25	2.5	ug/l	SW846 8260B
n-Propylbenzene		35.0	10	1.0	ug/l	SW846 8260B
Toluene		7.2	5.0	1.0	ug/l	SW846 8260B
Xylene (total)		7.8 J	10	2.3	ug/l	SW846 8260B
Acenaphthene		0.19 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluorene		0.18 J	0.47	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		6.9	0.47	0.094	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		5.7	0.47	0.094	ug/l	SW846 8270C BY SIM
Naphthalene		3.0	0.47	0.094	ug/l	SW846 8270C BY SIM
Phenanthrene		0.075 J	0.47	0.047	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		1.28	0.20	0.10	mg/l	NWTPH-GX
TPH (Diesel)		0.461	0.094	0.047	mg/l	NWTPH-DX

Northern California ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	DO50-016		
Lab Sample ID:	C35253-1	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W47330.D	1	08/01/14	BD	n/a	n/a	VW1701
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	6.9	20	4.0	ug/l	J
71-43-2	Benzene	0.46	1.0	0.20	ug/l	J
108-86-1	Bromobenzene	ND	1.0	0.20	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.20	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.22	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.20	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.20	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	1.0	0.20	ug/l	
67-66-3	Chloroform	0.37	1.0	0.20	ug/l	J
95-49-8	o-Chlorotoluene	ND	2.0	0.20	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.26	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.20	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.20	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	0.22	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.20	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-016		
Lab Sample ID:	C35253-1	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	0.22	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.20	ug/l	
98-82-8	Isopropylbenzene	0.45	1.0	0.20	ug/l	J
99-87-6	p-Isopropyltoluene	ND	2.0	0.20	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.20	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.30	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	10	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	0.27	2.0	0.20	ug/l	J
100-42-5	Styrene	ND	1.0	0.20	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	2.0	0.40	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	2.4	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.20	ug/l	
95-63-6	1,2,4-Trimethylbenzene	0.22	2.0	0.20	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	0.30	1.0	0.20	ug/l	J
79-01-6	Trichloroethylene	ND	1.0	0.20	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	104%		70-130%

ND = Not detected MDL = Method Detection Limit
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J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-016		
Lab Sample ID:	C35253-1	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	102%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DO50-016
Lab Sample ID: C35253-1 **Date Sampled:** 07/25/14
Matrix: AQ - Surface Water **Date Received:** 07/29/14
Method: SW846 8270C BY SIM SW846 3510C **Percent Solids:** n/a
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X38221.D	1	07/29/14	MT	07/29/14	OP10490	EX1652
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.47	0.047	ug/l	
208-96-8	Acenaphthylene	ND	0.47	0.047	ug/l	
120-12-7	Anthracene	ND	0.47	0.047	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.094	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.094	0.039	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.094	0.033	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.094	0.034	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.094	0.037	ug/l	
218-01-9	Chrysene	ND	0.094	0.042	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.094	0.033	ug/l	
206-44-0	Fluoranthene	ND	0.47	0.047	ug/l	
86-73-7	Fluorene	ND	0.47	0.047	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.094	0.033	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.47	0.094	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.47	0.094	ug/l	
91-20-3	Naphthalene	ND	0.47	0.094	ug/l	
85-01-8	Phenanthrene	ND	0.47	0.047	ug/l	
129-00-0	Pyrene	ND	0.47	0.047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	69%		42-116%
321-60-8	2-Fluorobiphenyl	68%		44-115%
1718-51-0	Terphenyl-d14	60%		45-141%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-016		
Lab Sample ID:	C35253-1	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK46258.D	1	07/29/14	TT	n/a	n/a	GJK1906
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	93%		50-150%
460-00-4	4-Bromofluorobenzene	104%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-016		
Lab Sample ID:	C35253-1	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH315567.D	1	07/30/14	AG	07/29/14	OP10507	GHH1318
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.134	0.094	0.047	mg/l	
	TPH (Motor Oil)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	84%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-116		
Lab Sample ID:	C35253-2	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W47331.D	1	08/01/14	BD	n/a	n/a	VW1701
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	5.6	20	4.0	ug/l	J
71-43-2	Benzene	0.36	1.0	0.20	ug/l	J
108-86-1	Bromobenzene	ND	1.0	0.20	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.20	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.22	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.20	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.20	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	1.0	0.20	ug/l	
67-66-3	Chloroform	0.34	1.0	0.20	ug/l	J
95-49-8	o-Chlorotoluene	ND	2.0	0.20	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.26	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.20	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.20	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	0.22	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.20	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-116		
Lab Sample ID:	C35253-2	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	0.22	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.20	ug/l	
98-82-8	Isopropylbenzene	0.40	1.0	0.20	ug/l	J
99-87-6	p-Isopropyltoluene	ND	2.0	0.20	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.20	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.30	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	10	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	0.22	2.0	0.20	ug/l	J
100-42-5	Styrene	ND	1.0	0.20	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	2.0	0.40	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	2.4	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.20	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.20	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	0.25	1.0	0.20	ug/l	J
79-01-6	Trichloroethylene	ND	1.0	0.20	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	103%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-116		
Lab Sample ID:	C35253-2	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	102%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: DO50-116
Lab Sample ID: C35253-2 **Date Sampled:** 07/25/14
Matrix: AQ - Surface Water **Date Received:** 07/29/14
Method: SW846 8270C BY SIM SW846 3510C **Percent Solids:** n/a
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X38222.D	1	07/29/14	MT	07/29/14	OP10490	EX1652
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.47	0.047	ug/l	
208-96-8	Acenaphthylene	ND	0.47	0.047	ug/l	
120-12-7	Anthracene	ND	0.47	0.047	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.094	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.094	0.039	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.094	0.033	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.094	0.034	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.094	0.037	ug/l	
218-01-9	Chrysene	ND	0.094	0.042	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.094	0.033	ug/l	
206-44-0	Fluoranthene	ND	0.47	0.047	ug/l	
86-73-7	Fluorene	ND	0.47	0.047	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.094	0.033	ug/l	
90-12-0	1-Methylnaphthalene	0.10	0.47	0.094	ug/l	J
91-57-6	2-Methylnaphthalene	ND	0.47	0.094	ug/l	
91-20-3	Naphthalene	ND	0.47	0.094	ug/l	
85-01-8	Phenanthrene	ND	0.47	0.047	ug/l	
129-00-0	Pyrene	ND	0.47	0.047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	85%		42-116%
321-60-8	2-Fluorobiphenyl	83%		44-115%
1718-51-0	Terphenyl-d14	84%		45-141%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-116		
Lab Sample ID:	C35253-2	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK46260.D	1	07/29/14	TT	n/a	n/a	GJK1906
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	97%		50-150%
460-00-4	4-Bromofluorobenzene	107%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-116		
Lab Sample ID:	C35253-2	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH315568.D	1	07/30/14	AG	07/29/14	OP10507	GHH1318
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.169	0.094	0.047	mg/l	
	TPH (Motor Oil)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	94%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-015		
Lab Sample ID:	C35253-3	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W47329.D	10	08/01/14	BD	n/a	n/a	VW1701
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	200	40	ug/l	
71-43-2	Benzene	628	10	2.0	ug/l	
108-86-1	Bromobenzene	ND	10	2.0	ug/l	
74-97-5	Bromochloromethane	ND	10	2.0	ug/l	
75-27-4	Bromodichloromethane	ND	10	2.0	ug/l	
75-25-2	Bromoform	ND	10	2.2	ug/l	
104-51-8	n-Butylbenzene	9.8	20	2.0	ug/l	J
135-98-8	sec-Butylbenzene	10.5	20	2.0	ug/l	J
98-06-6	tert-Butylbenzene	ND	20	2.8	ug/l	
108-90-7	Chlorobenzene	ND	10	2.0	ug/l	
75-00-3	Chloroethane	ND	10	2.0	ug/l	
67-66-3	Chloroform	ND	10	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	20	2.0	ug/l	
106-43-4	p-Chlorotoluene	ND	20	2.6	ug/l	
56-23-5	Carbon tetrachloride	ND	10	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	10	2.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	10	2.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	10	2.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	20	4.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	10	2.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	10	2.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	10	2.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	10	2.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	20	2.2	ug/l	
594-20-7	2,2-Dichloropropane	ND	10	2.0	ug/l	
124-48-1	Dibromochloromethane	ND	10	2.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	10	2.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	10	2.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	10	2.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	10	2.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	10	2.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	10	2.0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-015		
Lab Sample ID:	C35253-3	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	10	2.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	10	3.0	ug/l	
100-41-4	Ethylbenzene	36.1	10	2.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	20	2.2	ug/l	
591-78-6	2-Hexanone	ND	100	20	ug/l	
87-68-3	Hexachlorobutadiene	ND	20	2.0	ug/l	
98-82-8	Isopropylbenzene	34.7	10	2.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	20	2.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	100	10	ug/l	
74-83-9	Methyl bromide	ND	20	2.0	ug/l	
74-87-3	Methyl chloride	ND	10	3.0	ug/l	
74-95-3	Methylene bromide	ND	10	2.0	ug/l	
75-09-2	Methylene chloride	ND	100	20	ug/l	
78-93-3	Methyl ethyl ketone	ND	100	20	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	2.0	ug/l	
91-20-3	Naphthalene	22.2	50	5.0	ug/l	J
103-65-1	n-Propylbenzene	74.1	20	2.0	ug/l	
100-42-5	Styrene	ND	10	2.0	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	20	4.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	100	24	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	10	3.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	10	2.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	10	2.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	10	2.2	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	20	2.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	20	2.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	20	2.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	20	2.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	20	2.0	ug/l	
127-18-4	Tetrachloroethylene	ND	10	3.0	ug/l	
108-88-3	Toluene	15.2	10	2.0	ug/l	
79-01-6	Trichloroethylene	ND	10	2.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	10	2.0	ug/l	
75-01-4	Vinyl chloride	ND	10	2.0	ug/l	
1330-20-7	Xylene (total)	16.6	20	4.6	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		70-130%
2037-26-5	Toluene-D8	99%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-015		
Lab Sample ID:	C35253-3	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	103%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-015		
Lab Sample ID:	C35253-3	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X38223.D	1	07/29/14	MT	07/29/14	OP10490	EX1652
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.27	0.47	0.047	ug/l	J
208-96-8	Acenaphthylene	ND	0.47	0.047	ug/l	
120-12-7	Anthracene	ND	0.47	0.047	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.094	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.094	0.039	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.094	0.033	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.094	0.034	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.094	0.037	ug/l	
218-01-9	Chrysene	ND	0.094	0.042	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.094	0.033	ug/l	
206-44-0	Fluoranthene	ND	0.47	0.047	ug/l	
86-73-7	Fluorene	0.31	0.47	0.047	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.094	0.033	ug/l	
90-12-0	1-Methylnaphthalene	13.6	0.47	0.094	ug/l	
91-57-6	2-Methylnaphthalene	11.8	0.47	0.094	ug/l	
91-20-3	Naphthalene	6.5	0.47	0.094	ug/l	
85-01-8	Phenanthrene	0.10	0.47	0.047	ug/l	J
129-00-0	Pyrene	ND	0.47	0.047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	56%		42-116%
321-60-8	2-Fluorobiphenyl	53%		44-115%
1718-51-0	Terphenyl-d14	42% [a]		45-141%

(a) Surrogate outside control limits due to matrix interference. Emulsion formed during extraction process.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-015		
Lab Sample ID:	C35253-3	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK46283.D	5	07/30/14	TT	n/a	n/a	GJK1906
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	2.38	0.50	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	96%		50-150%
460-00-4	4-Bromofluorobenzene	104%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-015		
Lab Sample ID:	C35253-3	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH315569.D	1	07/30/14	AG	07/29/14	OP10507	GHH1318
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.435	0.094	0.047	mg/l	
	TPH (Motor Oil)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	89%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-017		
Lab Sample ID:	C35253-4	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W47332.D	1	08/01/14	BD	n/a	n/a	VW1701
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	20	4.0	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.20	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.20	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.22	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.20	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.20	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	1.0	0.20	ug/l	
67-66-3	Chloroform	0.55	1.0	0.20	ug/l	J
95-49-8	o-Chlorotoluene	ND	2.0	0.20	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.26	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.20	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.20	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	0.22	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.20	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-017		
Lab Sample ID:	C35253-4	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	0.22	ug/l	
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.20	ug/l	
98-82-8	Isopropylbenzene	0.52	1.0	0.20	ug/l	J
99-87-6	p-Isopropyltoluene	ND	2.0	0.20	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.20	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.30	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	10	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	2.0	0.40	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	2.4	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.20	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.20	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.20	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		70-130%
2037-26-5	Toluene-D8	103%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-017		
Lab Sample ID:	C35253-4	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	102%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-017		
Lab Sample ID:	C35253-4	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X38224.D	1	07/29/14	MT	07/29/14	OP10490	EX1652
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.24	0.47	0.047	ug/l	J
208-96-8	Acenaphthylene	ND	0.47	0.047	ug/l	
120-12-7	Anthracene	ND	0.47	0.047	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.094	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.094	0.039	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.094	0.033	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.094	0.034	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.094	0.037	ug/l	
218-01-9	Chrysene	ND	0.094	0.042	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.094	0.033	ug/l	
206-44-0	Fluoranthene	ND	0.47	0.047	ug/l	
86-73-7	Fluorene	0.26	0.47	0.047	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.094	0.033	ug/l	
90-12-0	1-Methylnaphthalene	9.3	0.47	0.094	ug/l	
91-57-6	2-Methylnaphthalene	7.7	0.47	0.094	ug/l	
91-20-3	Naphthalene	3.8	0.47	0.094	ug/l	
85-01-8	Phenanthrene	0.10	0.47	0.047	ug/l	J
129-00-0	Pyrene	ND	0.47	0.047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	64% [a]		42-116%
321-60-8	2-Fluorobiphenyl	60% [a]		44-115%
1718-51-0	Terphenyl-d14	59% [a]		45-141%

(a) Surrogate recoveries corrected for double spike.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-017		
Lab Sample ID:	C35253-4	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK46284.D	1	07/30/14	TT	n/a	n/a	GJK1906
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	0.0570	0.10	0.050	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	93%		50-150%
460-00-4	4-Bromofluorobenzene	97%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-017		
Lab Sample ID:	C35253-4	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH315570.D	1	07/30/14	AG	07/29/14	OP10507	GHH1318
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.165	0.094	0.047	mg/l	
	TPH (Motor Oil)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	91%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-014		
Lab Sample ID:	C35253-5	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W47349.D	5	08/04/14	BD	n/a	n/a	VW1702
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	23.5	100	20	ug/l	J
71-43-2	Benzene	300	5.0	1.0	ug/l	
108-86-1	Bromobenzene	ND	5.0	1.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	1.0	ug/l	
75-27-4	Bromodichloromethane	ND	5.0	1.0	ug/l	
75-25-2	Bromoform	ND	5.0	1.1	ug/l	
104-51-8	n-Butylbenzene	4.9	10	1.0	ug/l	J
135-98-8	sec-Butylbenzene	5.1	10	1.0	ug/l	J
98-06-6	tert-Butylbenzene	ND	10	1.4	ug/l	
108-90-7	Chlorobenzene	ND	5.0	1.0	ug/l	
75-00-3	Chloroethane	ND	5.0	1.0	ug/l	
67-66-3	Chloroform	ND	5.0	1.0	ug/l	
95-49-8	o-Chlorotoluene	ND	10	1.0	ug/l	
106-43-4	p-Chlorotoluene	ND	10	1.3	ug/l	
56-23-5	Carbon tetrachloride	ND	5.0	1.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	5.0	1.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	5.0	1.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	1.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	10	2.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	5.0	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	5.0	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	5.0	1.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	5.0	1.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	10	1.1	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	1.0	ug/l	
124-48-1	Dibromochloromethane	ND	5.0	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	5.0	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	5.0	1.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	5.0	1.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	5.0	1.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	5.0	1.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	5.0	1.0	ug/l	

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-014		
Lab Sample ID:	C35253-5	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Compound	Result	RL	MDL	Units	Q
156-60-5	trans-1,2-Dichloroethylene	ND	5.0	1.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	5.0	1.5	ug/l	
100-41-4	Ethylbenzene	17.0	5.0	1.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	10	1.1	ug/l	
591-78-6	2-Hexanone	ND	50	10	ug/l	
87-68-3	Hexachlorobutadiene	ND	10	1.0	ug/l	
98-82-8	Isopropylbenzene	16.7	5.0	1.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	10	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	50	5.0	ug/l	
74-83-9	Methyl bromide	ND	10	1.0	ug/l	
74-87-3	Methyl chloride	ND	5.0	1.5	ug/l	
74-95-3	Methylene bromide	ND	5.0	1.0	ug/l	
75-09-2	Methylene chloride	ND	50	10	ug/l	
78-93-3	Methyl ethyl ketone	ND	50	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	5.0	1.0	ug/l	
91-20-3	Naphthalene	11.1	25	2.5	ug/l	J
103-65-1	n-Propylbenzene	35.0	10	1.0	ug/l	
100-42-5	Styrene	ND	5.0	1.0	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	10	2.0	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	50	12	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	1.5	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	5.0	1.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	5.0	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	5.0	1.1	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	10	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	10	1.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	10	1.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	10	1.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	10	1.0	ug/l	
127-18-4	Tetrachloroethylene	ND	5.0	1.5	ug/l	
108-88-3	Toluene	7.2	5.0	1.0	ug/l	
79-01-6	Trichloroethylene	ND	5.0	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	5.0	1.0	ug/l	
75-01-4	Vinyl chloride	ND	5.0	1.0	ug/l	
1330-20-7	Xylene (total)	7.8	10	2.3	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		70-130%
2037-26-5	Toluene-D8	100%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-014		
Lab Sample ID:	C35253-5	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
460-00-4	4-Bromofluorobenzene	104%		70-130%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-014		
Lab Sample ID:	C35253-5	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X38225.D	1	07/29/14	MT	07/29/14	OP10490	EX1652
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.19	0.47	0.047	ug/l	J
208-96-8	Acenaphthylene	ND	0.47	0.047	ug/l	
120-12-7	Anthracene	ND	0.47	0.047	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.094	0.050	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.094	0.039	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.094	0.033	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.094	0.034	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.094	0.037	ug/l	
218-01-9	Chrysene	ND	0.094	0.042	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.094	0.033	ug/l	
206-44-0	Fluoranthene	ND	0.47	0.047	ug/l	
86-73-7	Fluorene	0.18	0.47	0.047	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.094	0.033	ug/l	
90-12-0	1-Methylnaphthalene	6.9	0.47	0.094	ug/l	
91-57-6	2-Methylnaphthalene	5.7	0.47	0.094	ug/l	
91-20-3	Naphthalene	3.0	0.47	0.094	ug/l	
85-01-8	Phenanthrene	0.075	0.47	0.047	ug/l	J
129-00-0	Pyrene	ND	0.47	0.047	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	61%		42-116%
321-60-8	2-Fluorobiphenyl	56%		44-115%
1718-51-0	Terphenyl-d14	42% [a]		45-141%

(a) Surrogate outside control limits due to matrix interference. Emulsion formed during extraction process.

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-014		
Lab Sample ID:	C35253-5	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK46285.D	2	07/30/14	TT	n/a	n/a	GJK1906
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	1.28	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	97%		50-150%
460-00-4	4-Bromofluorobenzene	113%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID:	DO50-014		
Lab Sample ID:	C35253-5	**Date Sampled:**	07/25/14
Matrix:	AQ - Surface Water	**Date Received:**	07/29/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH315571.D	1	07/30/14	AG	07/29/14	OP10507	GHH1318
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.461	0.094	0.047	mg/l	
	TPH (Motor Oil)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	94%		50-150%

ND = Not detected MDL = Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Northern California ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

LAB (LOCATION)
☑ ACCUTEST (_____)
☐ CALSCIENCE (_____)
☐ TESTAMERICA (_____)
☐ Other (_____)
Lab Vendor # See Dropdown

Shell Oil Products Chain Of Custody Record

URS

Please Check Appropriate Box:
☐ ENV. SERVICES ☐ MOTIVA RETAIL ☑ SHELL RETAIL
☐ MOTIVA SD&CH ☐ CONSULTANT ☐ LUBES
☐ SHELL PIPELINE ☐ OTHER

Print Bill To Contact Name:
PO #:
INCIDENT # (ENV. SERVICES): 9 7 9 9 5 8 0 1
SAP #: 1 2 1 4 1 5
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 7/25/14
PAGE: 1 of 1

SAMPLING COMPANY: URS Corporation
LOG CODE:
ADDRESS: 111 Southwest Columbia Street, Suite 1500, Portland, Oregon 97201
PROJECT CONTACT (Hardcopy or PDF Report to): Clifford J Pearson
TELEPHONE: 503-222-7200
FAX: 503-222-4292
Bill To Contact E-MAIL: Clifford.Pearson@URS.com
TURNAROUND TIME (CALENDAR DAYS): ☑ STANDARD (14 DAY) ☐ 5 DAYS ☐ 3 DAYS ☐ 2 DAYS ☐ 24 HOURS ☐ RESULTS NEEDED ON WEEKEND
☐ LA - RWQCB REPORT FORMAT ☐ UST AGENCY:
DELIVERABLES: ☐ LEVEL 1 ☑ LEVEL 2 ☐ LEVEL 3 ☐ LEVEL 4 ☐ OTHER (SPECIFY)
TEMPERATURE ON RECEIPT C°: Cooler #1 | Cooler #2 | Cooler #3

SITE ADDRESS: Street and City: 2555 13th Avenue SW, Seattle
State: WA
GLOBAL ID NO.:
EDF DELIVERABLE TO (Name, Company, Office Location): Clifford J Pearson, URS, Portland, OR
PHONE NO.: 503-222-7200
E-MAIL: Clifford.Pearson@URS.com
CONSULTANT PROJECT NO.: 49241036
SAMPLER NAME(S) (Print): Bret Waldron & Mark Tauscher
LAB USE ONLY: C35253

SPECIAL INSTRUCTIONS OR NOTES :
☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE EDD DISK

REQUESTED ANALYSIS

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	PRESERVATIVE HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	UNIT COST: NWTPH-Gx	NWTPH-Dx (Diesel and Oil range)	VOCs (8260B)	PAHs (8270 SIM)	NON-UNIT COST
1	D050-016	7/25/14	0810	SW	6				4	10	X	X	X	X	
2	D050-116	7/25/14	0810	SW	6				4	10	X	X	X	X	
3	D050-015	7/25/14	0930	SW	6				4	10	X	X	X	X	
4	D050-017	7/25/14	1032	SW	6				4	10	X	X	X	X	
5	D050-014	7/25/14	1124	SW	6				4	10	X	X	X	X	

FIELD NOTES:
TEMPERATURE ON RECEIPT C°
3.2-0.3 = 2.9
4.4-0.3 = 4.1
4.2-0.3 = 3.9
Container PID Readings or Laboratory Notes
Short Hold

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
[signature]	FED EX	7/28/14	11:00am
Fedex	[signature]	7-29-14	0854

05/2/08 Revision

FedEx # 7900 6441 3650

Custody Seal intact

C35253: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C35253 **Client:** SHELL OIL **Project:** 2555 13TH AVE SW, SEATTLE

Date / Time Received: 7/29/2014 **Delivery Method:** FedEx **Airbill #'s:** 780064413650

Cooler Temps (Initial/Adjusted): #1: (3.2/2.9); #2: (4.4/4.1); #3: (4.2/3.9);

Cooler Security	Y	or	N		Y	or	N
1. Custody Seals Present:	☑		☐	3. COC Present:	☑		☐
2. Custody Seals Intact:	☑		☐	4. Smpl Dates/Time OK	☑		☐

Cooler Temperature	Y	or	N
1. Temp criteria achieved:	☑		☐
2. Cooler temp verification:	IR1;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	3		

Quality Control Preservation	Y	or	N	N/A
1. Trip Blank present / cooler:	☐		☑	☐
2. Trip Blank listed on COC:	☐		☑	☐
3. Samples preserved properly:	☑		☐	
4. VOCs headspace free:	☑		☐	☐

Sample Integrity - Documentation	Y	or	N
1. Sample labels present on bottles:	☑		☐
2. Container labeling complete:	☑		☐
3. Sample container label / COC agree:	☑		☐

Sample Integrity - Condition	Y	or	N
1. Sample recvd within HT:	☑		☐
2. All containers accounted for:	☑		☐
3. Condition of sample:	Intact		

Sample Integrity - Instructions	Y	or	N	N/A
1. Analysis requested is clear:	☑		☐	
2. Bottles received for unspecified tests	☐		☑	
3. Sufficient volume recvd for analysis:	☑		☐	
4. Compositing instructions clear:	☐		☐	☑
5. Filtering instructions clear:	☐		☐	☑

Comments

Accutest Laboratories
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C35253: Chain of Custody
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Northern California ACCUTEST LABORATORIES

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1701-MB	W47320.D	1	08/01/14	BD	n/a	n/a	VW1701

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-1, C35253-2, C35253-3, C35253-4

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	20	4.0	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.20	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.20	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.22	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.20	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.20	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	1.0	0.20	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.20	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.26	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.20	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.20	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	0.22	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.20	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	0.22	ug/l	

Method Blank Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1701-MB	W47320.D	1	08/01/14	BD	n/a	n/a	VW1701

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-1, C35253-2, C35253-3, C35253-4

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.20	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.20	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.20	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.30	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	10	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	2.0	0.40	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	2.4	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.20	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.20	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.20	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	90%	70-130%

Method Blank Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1701-MB	W47320.D	1	08/01/14	BD	n/a	n/a	VW1701

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-1, C35253-2, C35253-3, C35253-4

CAS No.	Surrogate Recoveries		Limits
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	102%	70-130%

Method Blank Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1702-MB	W47346.D	1	08/04/14	BD	n/a	n/a	VW1702

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-5

CAS No.	Compound	Result	RL	MDL	Units	Q
67-64-1	Acetone	ND	20	4.0	ug/l	
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-86-1	Bromobenzene	ND	1.0	0.20	ug/l	
74-97-5	Bromochloromethane	ND	1.0	0.20	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	0.20	ug/l	
75-25-2	Bromoform	ND	1.0	0.22	ug/l	
104-51-8	n-Butylbenzene	ND	2.0	0.20	ug/l	
135-98-8	sec-Butylbenzene	ND	2.0	0.20	ug/l	
98-06-6	tert-Butylbenzene	ND	2.0	0.28	ug/l	
108-90-7	Chlorobenzene	ND	1.0	0.20	ug/l	
75-00-3	Chloroethane	ND	1.0	0.20	ug/l	
67-66-3	Chloroform	ND	1.0	0.20	ug/l	
95-49-8	o-Chlorotoluene	ND	2.0	0.20	ug/l	
106-43-4	p-Chlorotoluene	ND	2.0	0.26	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	0.20	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	0.20	ug/l	
75-35-4	1,1-Dichloroethylene	ND	1.0	0.20	ug/l	
563-58-6	1,1-Dichloropropene	ND	1.0	0.20	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	2.0	0.40	ug/l	
106-93-4	1,2-Dibromoethane	ND	1.0	0.20	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	0.20	ug/l	
78-87-5	1,2-Dichloropropane	ND	1.0	0.20	ug/l	
142-28-9	1,3-Dichloropropane	ND	1.0	0.20	ug/l	
108-20-3	Di-Isopropyl ether	ND	2.0	0.22	ug/l	
594-20-7	2,2-Dichloropropane	ND	1.0	0.20	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	0.20	ug/l	
75-71-8	Dichlorodifluoromethane	ND	1.0	0.20	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	1.0	0.20	ug/l	
541-73-1	m-Dichlorobenzene	ND	1.0	0.20	ug/l	
95-50-1	o-Dichlorobenzene	ND	1.0	0.20	ug/l	
106-46-7	p-Dichlorobenzene	ND	1.0	0.20	ug/l	
156-60-5	trans-1,2-Dichloroethylene	ND	1.0	0.20	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	2.0	0.22	ug/l	

Method Blank Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1702-MB	W47346.D	1	08/04/14	BD	n/a	n/a	VW1702

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-5

CAS No.	Compound	Result	RL	MDL	Units	Q
591-78-6	2-Hexanone	ND	10	2.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	2.0	0.20	ug/l	
98-82-8	Isopropylbenzene	ND	1.0	0.20	ug/l	
99-87-6	p-Isopropyltoluene	ND	2.0	0.20	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	10	1.0	ug/l	
74-83-9	Methyl bromide	ND	2.0	0.20	ug/l	
74-87-3	Methyl chloride	ND	1.0	0.30	ug/l	
74-95-3	Methylene bromide	ND	1.0	0.20	ug/l	
75-09-2	Methylene chloride	ND	10	2.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	10	2.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	ND	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	ND	2.0	0.20	ug/l	
100-42-5	Styrene	ND	1.0	0.20	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	2.0	0.40	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	10	2.4	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	1.0	0.30	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	0.20	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	0.20	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	0.22	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	2.0	0.20	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	2.0	0.20	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	2.0	0.20	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	2.0	0.20	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	2.0	0.20	ug/l	
127-18-4	Tetrachloroethylene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
79-01-6	Trichloroethylene	ND	1.0	0.20	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	0.20	ug/l	
75-01-4	Vinyl chloride	ND	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	90%	70-130%

Method Blank Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1702-MB	W47346.D	1	08/04/14	BD	n/a	n/a	VW1702

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-5

CAS No.	Surrogate Recoveries		Limits
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	102%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1701-BS	W47316.D	1	08/01/14	BD	n/a	n/a	VW1701
VW1701-BSD	W47317.D	1	08/01/14	BD	n/a	n/a	VW1701

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-1, C35253-2, C35253-3, C35253-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	78.5	98	78.7	98	0	38-159/24
71-43-2	Benzene	20	20.7	104	20.8	104	0	77-122/25
108-86-1	Bromobenzene	20	20.5	103	20.5	103	0	76-126/17
74-97-5	Bromochloromethane	20	20.2	101	20.3	102	0	77-130/17
75-27-4	Bromodichloromethane	20	21.7	109	21.8	109	0	75-127/16
75-25-2	Bromoform	20	19.5	98	19.4	97	1	69-141/17
104-51-8	n-Butylbenzene	20	22.1	111	21.9	110	1	72-129/18
135-98-8	sec-Butylbenzene	20	22.0	110	21.9	110	0	74-128/18
98-06-6	tert-Butylbenzene	20	21.9	110	21.8	109	0	73-127/18
108-90-7	Chlorobenzene	20	20.8	104	20.7	104	0	77-122/16
75-00-3	Chloroethane	20	20.2	101	20.2	101	0	69-133/18
67-66-3	Chloroform	20	20.9	105	21.1	106	1	74-126/17
95-49-8	o-Chlorotoluene	20	21.5	108	21.4	107	0	72-127/20
106-43-4	p-Chlorotoluene	20	22.3	112	22.2	111	0	68-127/18
56-23-5	Carbon tetrachloride	20	21.5	108	21.3	107	1	71-133/19
75-34-3	1,1-Dichloroethane	20	21.4	107	21.4	107	0	71-125/17
75-35-4	1,1-Dichloroethylene	20	20.5	103	20.2	101	1	66-125/20
563-58-6	1,1-Dichloropropene	20	21.4	107	21.4	107	0	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	20	20.4	102	20.3	102	0	65-131/20
106-93-4	1,2-Dibromoethane	20	20.5	103	20.6	103	0	75-135/17
107-06-2	1,2-Dichloroethane	20	21.4	107	21.7	109	1	71-131/17
78-87-5	1,2-Dichloropropane	20	21.6	108	21.8	109	1	78-124/16
142-28-9	1,3-Dichloropropane	20	20.5	103	20.7	104	1	78-123/16
108-20-3	Di-Isopropyl ether	20	22.1	111	22.6	113	2	68-129/17
594-20-7	2,2-Dichloropropane	20	21.7	109	21.6	108	0	70-131/19
124-48-1	Dibromochloromethane	20	21.0	105	21.1	106	0	76-132/16
75-71-8	Dichlorodifluoromethane	20	14.9	75	15.1	76	1	32-168/28
156-59-2	cis-1,2-Dichloroethylene	20	20.6	103	20.8	104	1	73-126/17
10061-01-5	cis-1,3-Dichloropropene	20	21.3	107	21.6	108	1	72-130/16
541-73-1	m-Dichlorobenzene	20	20.7	104	20.7	104	0	75-124/16
95-50-1	o-Dichlorobenzene	20	20.7	104	20.7	104	0	76-124/16
106-46-7	p-Dichlorobenzene	20	20.6	103	20.6	103	0	75-124/16
156-60-5	trans-1,2-Dichloroethylene	20	20.2	101	20.1	101	0	71-126/18
10061-02-6	trans-1,3-Dichloropropene	20	21.5	108	21.7	109	1	71-126/16
100-41-4	Ethylbenzene	20	21.4	107	21.2	106	1	76-126/17
637-92-3	Ethyl Tert Butyl Ether	20	21.7	109	22.1	111	2	75-134/17

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1701-BS	W47316.D	1	08/01/14	BD	n/a	n/a	VW1701
VW1701-BSD	W47317.D	1	08/01/14	BD	n/a	n/a	VW1701

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-1, C35253-2, C35253-3, C35253-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	90.9	114	91.1	114	0	67-150/22
87-68-3	Hexachlorobutadiene	20	22.1	111	21.6	108	2	69-135/20
98-82-8	Isopropylbenzene	20	21.7	109	21.5	108	1	61-125/17
99-87-6	p-Isopropyltoluene	20	22.0	110	21.9	110	0	68-127/18
108-10-1	4-Methyl-2-pentanone	80	91.8	115	93.2	117	2	71-142/21
74-83-9	Methyl bromide	20	19.8	99	19.7	99	1	68-132/18
74-87-3	Methyl chloride	20	17.9	90	18.7	94	4	39-150/28
74-95-3	Methylene bromide	20	21.0	105	21.1	106	0	77-127/16
75-09-2	Methylene chloride	20	19.8	99	19.9	100	1	67-128/18
78-93-3	Methyl ethyl ketone	80	84.7	106	85.9	107	1	56-155/23
1634-04-4	Methyl Tert Butyl Ether	20	21.1	106	21.2	106	0	73-132/17
91-20-3	Naphthalene	20	21.2	106	21.0	105	1	70-136/20
103-65-1	n-Propylbenzene	20	22.0	110	21.8	109	1	71-127/17
100-42-5	Styrene	20	22.1	111	22.1	111	0	72-134/16
994-05-8	Tert-Amyl Methyl Ether	20	21.1	106	21.5	108	2	73-133/17
75-65-0	Tert-Butyl Alcohol	100	108	108	106	106	2	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	20	21.4	107	21.3	107	0	77-130/16
71-55-6	1,1,1-Trichloroethane	20	21.2	106	21.1	106	0	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	20	20.8	104	20.8	104	0	77-129/17
79-00-5	1,1,2-Trichloroethane	20	20.8	104	21.0	105	1	77-125/16
87-61-6	1,2,3-Trichlorobenzene	20	21.2	106	20.8	104	2	70-133/18
96-18-4	1,2,3-Trichloropropane	20	19.2	96	19.1	96	1	69-126/18
120-82-1	1,2,4-Trichlorobenzene	20	21.1	106	20.8	104	1	68-129/17
95-63-6	1,2,4-Trimethylbenzene	20	21.9	110	21.8	109	0	74-129/17
108-67-8	1,3,5-Trimethylbenzene	20	22.0	110	22.0	110	0	77-129/17
127-18-4	Tetrachloroethylene	20	20.6	103	20.4	102	1	69-127/20
108-88-3	Toluene	20	21.1	106	21.0	105	0	75-122/17
79-01-6	Trichloroethylene	20	21.0	105	20.9	105	0	78-123/17
75-69-4	Trichlorofluoromethane	20	18.6	93	18.2	91	2	65-136/23
75-01-4	Vinyl chloride	20	16.7	84	19.2	96	14	57-146/22
1330-20-7	Xylene (total)	60	64.8	108	64.5	108	0	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	99%	100%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1701-BS	W47316.D	1	08/01/14	BD	n/a	n/a	VW1701
VW1701-BSD	W47317.D	1	08/01/14	BD	n/a	n/a	VW1701

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-1, C35253-2, C35253-3, C35253-4

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
2037-26-5	Toluene-D8	102%	102%	70-130%
460-00-4	4-Bromofluorobenzene	102%	102%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1702-BS	W47343.D	1	08/04/14	BD	n/a	n/a	VW1702
VW1702-BSD	W47344.D	1	08/04/14	BD	n/a	n/a	VW1702

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	85.3	107	84.7	106	1	38-159/24
71-43-2	Benzene	20	20.4	102	20.4	102	0	77-122/25
108-86-1	Bromobenzene	20	19.6	98	19.8	99	1	76-126/17
74-97-5	Bromochloromethane	20	21.6	108	21.7	109	0	77-130/17
75-27-4	Bromodichloromethane	20	21.6	108	21.8	109	1	75-127/16
75-25-2	Bromoform	20	19.9	100	20.0	100	1	69-141/17
104-51-8	n-Butylbenzene	20	20.7	104	20.7	104	0	72-129/18
135-98-8	sec-Butylbenzene	20	20.5	103	20.5	103	0	74-128/18
98-06-6	tert-Butylbenzene	20	20.5	103	20.6	103	0	73-127/18
108-90-7	Chlorobenzene	20	20.0	100	20.1	101	0	77-122/16
75-00-3	Chloroethane	20	22.3	112	22.5	113	1	69-133/18
67-66-3	Chloroform	20	22.3	112	22.4	112	0	74-126/17
95-49-8	o-Chlorotoluene	20	20.6	103	20.6	103	0	72-127/20
106-43-4	p-Chlorotoluene	20	21.0	105	21.1	106	0	68-127/18
56-23-5	Carbon tetrachloride	20	20.2	101	20.3	102	0	71-133/19
75-34-3	1,1-Dichloroethane	20	22.7	114	22.6	113	0	71-125/17
75-35-4	1,1-Dichloroethylene	20	20.7	104	20.6	103	0	66-125/20
563-58-6	1,1-Dichloropropene	20	20.4	102	20.4	102	0	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	20	19.5	98	19.8	99	2	65-131/20
106-93-4	1,2-Dibromoethane	20	20.0	100	20.1	101	0	75-135/17
107-06-2	1,2-Dichloroethane	20	21.4	107	21.6	108	1	71-131/17
78-87-5	1,2-Dichloropropane	20	21.3	107	21.5	108	1	78-124/16
142-28-9	1,3-Dichloropropane	20	20.0	100	20.1	101	0	78-123/16
108-20-3	Di-Isopropyl ether	20	24.0	120	24.3	122	1	68-129/17
594-20-7	2,2-Dichloropropane	20	22.6	113	22.5	113	0	70-131/19
124-48-1	Dibromochloromethane	20	20.7	104	21.0	105	1	76-132/16
75-71-8	Dichlorodifluoromethane	20	17.9	90	17.9	90	0	32-168/28
156-59-2	cis-1,2-Dichloroethylene	20	22.1	111	22.0	110	0	73-126/17
10061-01-5	cis-1,3-Dichloropropene	20	21.6	108	21.7	109	0	72-130/16
541-73-1	m-Dichlorobenzene	20	19.7	99	20.0	100	2	75-124/16
95-50-1	o-Dichlorobenzene	20	19.8	99	20.0	100	1	76-124/16
106-46-7	p-Dichlorobenzene	20	19.7	99	19.8	99	1	75-124/16
156-60-5	trans-1,2-Dichloroethylene	20	21.1	106	20.9	105	1	71-126/18
10061-02-6	trans-1,3-Dichloropropene	20	21.2	106	21.5	108	1	71-126/16
100-41-4	Ethylbenzene	20	20.4	102	20.4	102	0	76-126/17
637-92-3	Ethyl Tert Butyl Ether	20	23.4	117	23.6	118	1	75-134/17

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1702-BS	W47343.D	1	08/04/14	BD	n/a	n/a	VW1702
VW1702-BSD	W47344.D	1	08/04/14	BD	n/a	n/a	VW1702

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	90.4	113	90.1	113	0	67-150/22
87-68-3	Hexachlorobutadiene	20	20.3	102	20.3	102	0	69-135/20
98-82-8	Isopropylbenzene	20	20.4	102	20.5	103	0	61-125/17
99-87-6	p-Isopropyltoluene	20	20.6	103	20.8	104	1	68-127/18
108-10-1	4-Methyl-2-pentanone	80	91.8	115	92.8	116	1	71-142/21
74-83-9	Methyl bromide	20	21.6	108	21.6	108	0	68-132/18
74-87-3	Methyl chloride	20	19.1	96	19.7	99	3	39-150/28
74-95-3	Methylene bromide	20	20.8	104	21.0	105	1	77-127/16
75-09-2	Methylene chloride	20	21.1	106	21.2	106	0	67-128/18
78-93-3	Methyl ethyl ketone	80	91.5	114	91.5	114	0	56-155/23
1634-04-4	Methyl Tert Butyl Ether	20	22.6	113	22.8	114	1	73-132/17
91-20-3	Naphthalene	20	20.2	101	20.3	102	0	70-136/20
103-65-1	n-Propylbenzene	20	20.5	103	20.6	103	0	71-127/17
100-42-5	Styrene	20	21.5	108	21.4	107	0	72-134/16
994-05-8	Tert-Amyl Methyl Ether	20	22.9	115	22.9	115	0	73-133/17
75-65-0	Tert-Butyl Alcohol	100	116	116	113	113	3	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	20	20.6	103	20.7	104	0	77-130/16
71-55-6	1,1,1-Trichloroethane	20	21.9	110	21.9	110	0	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	20	19.9	100	20.2	101	1	77-129/17
79-00-5	1,1,2-Trichloroethane	20	20.2	101	20.3	102	0	77-125/16
87-61-6	1,2,3-Trichlorobenzene	20	20.1	101	20.2	101	0	70-133/18
96-18-4	1,2,3-Trichloropropane	20	19.6	98	19.6	98	0	69-126/18
120-82-1	1,2,4-Trichlorobenzene	20	20.0	100	20.2	101	1	68-129/17
95-63-6	1,2,4-Trimethylbenzene	20	20.8	104	21.0	105	1	74-129/17
108-67-8	1,3,5-Trimethylbenzene	20	20.8	104	21.0	105	1	77-129/17
127-18-4	Tetrachloroethylene	20	19.3	97	19.1	96	1	69-127/20
108-88-3	Toluene	20	20.1	101	20.1	101	0	75-122/17
79-01-6	Trichloroethylene	20	20.4	102	20.4	102	0	78-123/17
75-69-4	Trichlorofluoromethane	20	22.4	112	22.1	111	1	65-136/23
75-01-4	Vinyl chloride	20	20.8	104	22.7	114	9	57-146/22
1330-20-7	Xylene (total)	60	62.1	104	62.1	104	0	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	110%	110%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1702-BS	W47343.D	1	08/04/14	BD	n/a	n/a	VW1702
VW1702-BSD	W47344.D	1	08/04/14	BD	n/a	n/a	VW1702

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-5

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
2037-26-5	Toluene-D8	100%	100%	70-130%
460-00-4	4-Bromofluorobenzene	102%	103%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1701-LCS	W47319.D	1	08/01/14	BD	n/a	n/a	VW1701

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-1, C35253-2, C35253-3, C35253-4

CAS No.	Compound	Spike ug/l	LCS ug/l	LCS %	Limits

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	95%	70-130%
2037-26-5	Toluene-D8	102%	70-130%
460-00-4	4-Bromofluorobenzene	103%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35249-1MS	W47337.D	1	08/01/14	BD	n/a	n/a	VW1701
C35249-1MSD	W47338.D	1	08/01/14	BD	n/a	n/a	VW1701
C35249-1	W47321.D	1	08/01/14	BD	n/a	n/a	VW1701

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-1, C35253-2, C35253-3, C35253-4

CAS No.	Compound	C35249-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	20 U		80	94.2	118	80	94.9	119	1	38-159/24
71-43-2	Benzene	1.0 U		20	22.4	112	20	22.3	112	0	77-122/16
108-86-1	Bromobenzene	1.0 U		20	21.8	109	20	21.7	109	0	76-126/17
74-97-5	Bromochloromethane	1.0 U		20	23.0	115	20	22.8	114	1	77-130/17
75-27-4	Bromodichloromethane	1.5		20	25.1	118	20	25.1	118	0	75-127/16
75-25-2	Bromoform	1.0 U		20	20.8	104	20	20.9	105	0	69-141/17
104-51-8	n-Butylbenzene	2.0 U		20	23.0	115	20	22.9	115	0	72-129/18
135-98-8	sec-Butylbenzene	2.0 U		20	23.2	116	20	23.1	116	0	74-128/18
98-06-6	tert-Butylbenzene	2.0 U		20	23.1	116	20	23.0	115	0	73-127/18
108-90-7	Chlorobenzene	1.0 U		20	22.0	110	20	21.9	110	0	77-122/16
75-00-3	Chloroethane	1.0 U		20	24.0	120	20	23.6	118	2	69-133/18
67-66-3	Chloroform	2.9		20	26.6	119	20	26.2	117	2	74-126/17
95-49-8	o-Chlorotoluene	2.0 U		20	22.6	113	20	22.7	114	0	72-127/20
106-43-4	p-Chlorotoluene	2.0 U		20	23.5	118	20	23.4	117	0	68-127/18
56-23-5	Carbon tetrachloride	1.0 U		20	23.9	120	20	23.7	119	1	71-133/19
75-34-3	1,1-Dichloroethane	1.0 U		20	24.1	121	20	23.9	120	1	71-125/17
75-35-4	1,1-Dichloroethylene	1.0 U		20	23.7	119	20	23.5	118	1	66-125/20
563-58-6	1,1-Dichloropropene	1.0 U		20	23.5	118	20	23.5	118	0	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	2.0 U		20	21.0	105	20	21.3	107	1	65-131/20
106-93-4	1,2-Dibromoethane	1.0 U		20	21.9	110	20	22.0	110	0	75-135/17
107-06-2	1,2-Dichloroethane	1.0 U		20	23.2	116	20	23.3	117	0	71-131/17
78-87-5	1,2-Dichloropropane	1.0 U		20	23.3	117	20	23.2	116	0	78-124/16
142-28-9	1,3-Dichloropropane	1.0 U		20	21.9	110	20	22.1	111	1	78-123/16
108-20-3	Di-Isopropyl ether	2.0 U		20	25.1	126	20	25.0	125	0	68-129/17
594-20-7	2,2-Dichloropropane	1.0 U		20	23.1	116	20	22.4	112	3	70-131/19
124-48-1	Dibromochloromethane	1.0 U		20	22.7	114	20	22.8	114	0	76-132/16
75-71-8	Dichlorodifluoromethane	1.0 U		20	20.1	101	20	20.5	103	2	32-168/28
156-59-2	cis-1,2-Dichloroethylene	1.0 U		20	23.4	117	20	22.9	115	2	73-126/17
10061-01-5	cis-1,3-Dichloropropene	1.0 U		20	22.7	114	20	22.8	114	0	72-130/16
541-73-1	m-Dichlorobenzene	1.0 U		20	21.8	109	20	21.8	109	0	75-124/16
95-50-1	o-Dichlorobenzene	1.0 U		20	21.9	110	20	21.9	110	0	76-124/16
106-46-7	p-Dichlorobenzene	1.0 U		20	21.8	109	20	21.7	109	0	75-124/16
156-60-5	trans-1,2-Dichloroethylene	1.0 U		20	22.9	115	20	22.5	113	2	71-126/18
10061-02-6	trans-1,3-Dichloropropene	1.0 U		20	22.5	113	20	22.8	114	1	71-126/16
100-41-4	Ethylbenzene	1.0 U		20	22.7	114	20	22.6	113	0	76-126/17
637-92-3	Ethyl Tert Butyl Ether	2.0 U		20	24.5	123	20	24.5	123	0	75-134/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35249-1MS	W47337.D	1	08/01/14	BD	n/a	n/a	VW1701
C35249-1MSD	W47338.D	1	08/01/14	BD	n/a	n/a	VW1701
C35249-1	W47321.D	1	08/01/14	BD	n/a	n/a	VW1701

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-1, C35253-2, C35253-3, C35253-4

CAS No.	Compound	C35249-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	10	U	80	96.3	120	80	98.8	124	3	67-150/22
87-68-3	Hexachlorobutadiene	2.0	U	20	22.4	112	20	22.3	112	0	69-135/20
98-82-8	Isopropylbenzene	1.0	U	20	22.9	115	20	22.8	114	0	61-125/17
99-87-6	p-Isopropyltoluene	2.0	U	20	23.2	116	20	23.1	116	0	68-127/18
108-10-1	4-Methyl-2-pentanone	10	U	80	96.9	121	80	98.6	123	2	71-142/21
74-83-9	Methyl bromide	2.0	U	20	23.0	115	20	22.5	113	2	68-132/18
74-87-3	Methyl chloride	1.0	U	20	21.2	106	20	19.0	95	11	39-150/28
74-95-3	Methylene bromide	1.0	U	20	23.1	116	20	22.9	115	1	77-127/16
75-09-2	Methylene chloride	10	U	20	22.5	113	20	22.1	111	2	67-128/18
78-93-3	Methyl ethyl ketone	10	U	80	95.8	120	80	96.5	121	1	56-155/23
1634-04-4	Methyl Tert Butyl Ether	1.0	U	20	23.8	119	20	23.7	119	0	73-132/17
91-20-3	Naphthalene	5.0	U	20	21.8	109	20	22.1	111	1	70-136/20
103-65-1	n-Propylbenzene	2.0	U	20	23.1	116	20	23.0	115	0	71-127/17
100-42-5	Styrene	1.0	U	20	23.3	117	20	23.2	116	0	72-134/16
994-05-8	Tert-Amyl Methyl Ether	2.0	U	20	23.8	119	20	23.8	119	0	73-133/17
75-65-0	Tert-Butyl Alcohol	10	U	100	124	124	100	125	125	1	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	1.0	U	20	22.7	114	20	22.6	113	0	77-130/16
71-55-6	1,1,1-Trichloroethane	1.0	U	20	24.4	122	20	24.1	121	1	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	1.0	U	20	22.0	110	20	22.1	111	0	77-129/17
79-00-5	1,1,2-Trichloroethane	1.0	U	20	22.2	111	20	22.4	112	1	77-125/16
87-61-6	1,2,3-Trichlorobenzene	2.0	U	20	21.5	108	20	21.6	108	0	70-133/18
96-18-4	1,2,3-Trichloropropane	2.0	U	20	19.6	98	20	20.4	102	4	69-126/18
120-82-1	1,2,4-Trichlorobenzene	2.0	U	20	21.7	109	20	21.5	108	1	68-129/17
95-63-6	1,2,4-Trimethylbenzene	2.0	U	20	23.1	116	20	22.8	114	1	74-129/17
108-67-8	1,3,5-Trimethylbenzene	2.0	U	20	23.3	117	20	23.1	116	1	77-129/17
127-18-4	Tetrachloroethylene	1.0	U	20	21.8	109	20	21.8	109	0	69-127/20
108-88-3	Toluene	1.0	U	20	22.4	112	20	22.3	112	0	75-122/17
79-01-6	Trichloroethylene	1.0	U	20	22.7	114	20	22.6	113	0	78-123/17
75-69-4	Trichlorofluoromethane	1.0	U	20	24.6	123	20	24.3	122	1	65-136/23
75-01-4	Vinyl chloride	1.0	U	20	24.6	123	20	23.7	119	4	57-146/22
1330-20-7	Xylene (total)	2.0	U	60	68.7	115	60	68.3	114	1	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C35249-1	Limits
1868-53-7	Dibromofluoromethane	106%	104%	90%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35249-1MS	W47337.D	1	08/01/14	BD	n/a	n/a	VW1701
C35249-1MSD	W47338.D	1	08/01/14	BD	n/a	n/a	VW1701
C35249-1	W47321.D	1	08/01/14	BD	n/a	n/a	VW1701

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-1, C35253-2, C35253-3, C35253-4

CAS No.	Surrogate Recoveries	MS	MSD	C35249-1	Limits
2037-26-5	Toluene-D8	101%	101%	103%	70-130%
460-00-4	4-Bromofluorobenzene	102%	102%	102%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35317-2MS	W47363.D	1	08/04/14	BD	n/a	n/a	VW1702
C35317-2MSD	W47364.D	1	08/04/14	BD	n/a	n/a	VW1702
C35317-2	W47347.D	1	08/04/14	BD	n/a	n/a	VW1702

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-5

CAS No.	Compound	C35317-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	4.4	J	80	76.0	90	80	79.4	94	4	38-159/24
71-43-2	Benzene	ND		20	20.8	104	20	21.9	110	5	77-122/16
108-86-1	Bromobenzene	ND		20	20.2	101	20	21.8	109	8	76-126/17
74-97-5	Bromochloromethane	ND		20	19.1	96	20	19.8	99	4	77-130/17
75-27-4	Bromodichloromethane	ND		20	21.3	107	20	22.3	112	5	75-127/16
75-25-2	Bromoform	ND		20	19.3	97	20	19.9	100	3	69-141/17
104-51-8	n-Butylbenzene	ND		20	22.3	112	20	24.1	121	8	72-129/18
135-98-8	sec-Butylbenzene	ND		20	22.8	114	20	24.8	124	8	74-128/18
98-06-6	tert-Butylbenzene	ND		20	22.3	112	20	24.2	121	8	73-127/18
108-90-7	Chlorobenzene	ND		20	20.8	104	20	21.8	109	5	77-122/16
75-00-3	Chloroethane	ND		20	20.9	105	20	21.9	110	5	69-133/18
67-66-3	Chloroform	ND		20	20.1	101	20	21.1	106	5	74-126/17
95-49-8	o-Chlorotoluene	ND		20	21.4	107	20	23.2	116	8	72-127/20
106-43-4	p-Chlorotoluene	ND		20	21.9	110	20	23.5	118	7	68-127/18
56-23-5	Carbon tetrachloride	ND		20	23.8	119	20	25.0	125	5	71-133/19
75-34-3	1,1-Dichloroethane	ND		20	20.5	103	20	21.6	108	5	71-125/17
75-35-4	1,1-Dichloroethylene	ND		20	21.6	108	20	22.6	113	5	66-125/20
563-58-6	1,1-Dichloropropene	ND		20	23.0	115	20	24.4	122	6	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	ND		20	19.5	98	20	20.3	102	4	65-131/20
106-93-4	1,2-Dibromoethane	ND		20	20.4	102	20	21.1	106	3	75-135/17
107-06-2	1,2-Dichloroethane	ND		20	20.8	104	20	21.9	110	5	71-131/17
78-87-5	1,2-Dichloropropane	ND		20	21.2	106	20	22.4	112	6	78-124/16
142-28-9	1,3-Dichloropropane	ND		20	20.3	102	20	21.3	107	5	78-123/16
108-20-3	Di-Isopropyl ether	ND		20	20.4	102	20	21.8	109	7	68-129/17
594-20-7	2,2-Dichloropropane	ND		20	19.3	97	20	20.3	102	5	70-131/19
124-48-1	Dibromochloromethane	ND		20	21.0	105	20	21.9	110	4	76-132/16
75-71-8	Dichlorodifluoromethane	ND		20	20.7	104	20	20.0	100	3	32-168/28
156-59-2	cis-1,2-Dichloroethylene	ND		20	19.7	99	20	20.8	104	5	73-126/17
10061-01-5	cis-1,3-Dichloropropene	ND		20	20.6	103	20	21.6	108	5	72-130/16
541-73-1	m-Dichlorobenzene	ND		20	20.3	102	20	21.8	109	7	75-124/16
95-50-1	o-Dichlorobenzene	ND		20	20.3	102	20	21.7	109	7	76-124/16
106-46-7	p-Dichlorobenzene	ND		20	20.2	101	20	21.6	108	7	75-124/16
156-60-5	trans-1,2-Dichloroethylene	ND		20	20.0	100	20	20.8	104	4	71-126/18
10061-02-6	trans-1,3-Dichloropropene	ND		20	20.8	104	20	21.9	110	5	71-126/16
100-41-4	Ethylbenzene	ND		20	21.6	108	20	23.0	115	6	76-126/17
637-92-3	Ethyl Tert Butyl Ether	ND		20	20.0	100	20	21.1	106	5	75-134/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35317-2MS	W47363.D	1	08/04/14	BD	n/a	n/a	VW1702
C35317-2MSD	W47364.D	1	08/04/14	BD	n/a	n/a	VW1702
C35317-2	W47347.D	1	08/04/14	BD	n/a	n/a	VW1702

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-5

CAS No.	Compound	C35317-2 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	ND		80	88.4	111	80	92.0	115	4	67-150/22
87-68-3	Hexachlorobutadiene	ND		20	22.1	111	20	23.9	120	8	69-135/20
98-82-8	Isopropylbenzene	ND		20	22.2	111	20	23.5	118	6	61-125/17
99-87-6	p-Isopropyltoluene	ND		20	22.3	112	20	24.2	121	8	68-127/18
108-10-1	4-Methyl-2-pentanone	ND		80	86.3	108	80	90.2	113	4	71-142/21
74-83-9	Methyl bromide	ND		20	19.5	98	20	20.2	101	4	68-132/18
74-87-3	Methyl chloride	ND		20	18.6	93	20	19.0	95	2	39-150/28
74-95-3	Methylene bromide	ND		20	20.7	104	20	21.3	107	3	77-127/16
75-09-2	Methylene chloride	ND		20	18.7	94	20	19.5	98	4	67-128/18
78-93-3	Methyl ethyl ketone	ND		80	79.0	99	80	81.2	102	3	56-155/23
1634-04-4	Methyl Tert Butyl Ether	ND		20	19.5	98	20	20.4	102	5	73-132/17
91-20-3	Naphthalene	ND		20	20.2	101	20	21.5	108	6	70-136/20
103-65-1	n-Propylbenzene	ND		20	22.3	112	20	24.2	121	8	71-127/17
100-42-5	Styrene	ND		20	21.5	108	20	22.6	113	5	72-134/16
994-05-8	Tert-Amyl Methyl Ether	ND		20	19.5	98	20	20.5	103	5	73-133/17
75-65-0	Tert-Butyl Alcohol	ND		100	98.8	99	100	103	103	4	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	ND		20	21.4	107	20	22.4	112	5	77-130/16
71-55-6	1,1,1-Trichloroethane	ND		20	21.6	108	20	22.9	115	6	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	ND		20	20.3	102	20	21.5	108	6	77-129/17
79-00-5	1,1,2-Trichloroethane	ND		20	20.6	103	20	21.6	108	5	77-125/16
87-61-6	1,2,3-Trichlorobenzene	ND		20	20.0	100	20	21.5	108	7	70-133/18
96-18-4	1,2,3-Trichloropropane	ND		20	18.8	94	20	19.5	98	4	69-126/18
120-82-1	1,2,4-Trichlorobenzene	ND		20	20.0	100	20	21.5	108	7	68-129/17
95-63-6	1,2,4-Trimethylbenzene	ND		20	21.6	108	20	23.4	117	8	74-129/17
108-67-8	1,3,5-Trimethylbenzene	ND		20	22.0	110	20	23.9	120	8	77-129/17
127-18-4	Tetrachloroethylene	ND		20	21.6	108	20	22.9	115	6	69-127/20
108-88-3	Toluene	ND		20	21.4	107	20	22.6	113	5	75-122/17
79-01-6	Trichloroethylene	14.5		20	36.7	111	20	37.1	113	1	78-123/17
75-69-4	Trichlorofluoromethane	ND		20	23.8	119	20	25.2	126	6	65-136/23
75-01-4	Vinyl chloride	ND		20	23.5	118	20	24.7	124	5	57-146/22
1330-20-7	Xylene (total)	ND		60	65.3	109	60	68.8	115	5	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C35317-2	Limits
1868-53-7	Dibromofluoromethane	96%	94%	90%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35317-2MS	W47363.D	1	08/04/14	BD	n/a	n/a	VW1702
C35317-2MSD	W47364.D	1	08/04/14	BD	n/a	n/a	VW1702
C35317-2	W47347.D	1	08/04/14	BD	n/a	n/a	VW1702

The QC reported here applies to the following samples: **Method:** SW846 8260B

C35253-5

CAS No.	Surrogate Recoveries	MS	MSD	C35317-2	Limits
2037-26-5	Toluene-D8	103%	103%	105%	70-130%
460-00-4	4-Bromofluorobenzene	101%	100%	102%	70-130%

* = Outside of Control Limits.

Northern California ACCUTEST LABORATORIES

GC/MS Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10490-MB	X38210.D	1	07/28/14	MT	07/28/14	OP10490	EX1651

The QC reported here applies to the following samples: **Method:** SW846 8270C BY SIM

C35253-1, C35253-2, C35253-3, C35253-4, C35253-5

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.50	0.050	ug/l	
208-96-8	Acenaphthylene	ND	0.50	0.050	ug/l	
120-12-7	Anthracene	ND	0.50	0.050	ug/l	
56-55-3	Benzo(a)anthracene	ND	0.10	0.053	ug/l	
50-32-8	Benzo(a)pyrene	ND	0.10	0.041	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	0.10	0.035	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	0.10	0.036	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	0.10	0.039	ug/l	
218-01-9	Chrysene	ND	0.10	0.045	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	0.10	0.035	ug/l	
206-44-0	Fluoranthene	ND	0.50	0.050	ug/l	
86-73-7	Fluorene	ND	0.50	0.050	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.10	0.035	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.50	0.10	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.50	0.10	ug/l	
91-20-3	Naphthalene	ND	0.50	0.10	ug/l	
85-01-8	Phenanthrene	ND	0.50	0.050	ug/l	
129-00-0	Pyrene	ND	0.50	0.050	ug/l	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	72%	42-116%
321-60-8	2-Fluorobiphenyl	74%	44-115%
1718-51-0	Terphenyl-d14	112%	45-141%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10490-BS	X38218.D	1	07/29/14	MT	07/28/14	OP10490	EX1652
OP10490-BSD	X38219.D	1	07/29/14	MT	07/28/14	OP10490	EX1652

The QC reported here applies to the following samples: **Method:** SW846 8270C BY SIM

C35253-1, C35253-2, C35253-3, C35253-4, C35253-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	5	4.3	86	4.5	90	5	54-108/21
208-96-8	Acenaphthylene	5	4.2	84	4.3	86	2	53-108/22
120-12-7	Anthracene	5	4.5	90	4.6	92	2	58-111/19
56-55-3	Benzo(a)anthracene	5	4.8	96	4.8	96	0	59-120/14
50-32-8	Benzo(a)pyrene	5	4.6	92	4.6	92	0	53-113/18
205-99-2	Benzo(b)fluoranthene	5	5.0	100	5.3	106	6	57-127/18
191-24-2	Benzo(g,h,i)perylene	5	4.9	98	5.2	104	6	52-126/21
207-08-9	Benzo(k)fluoranthene	5	5.3	106	5.1	102	4	60-125/16
218-01-9	Chrysene	5	5.0	100	5.1	102	2	63-120/14
53-70-3	Dibenzo(a,h)anthracene	5	4.9	98	5.3	106	8	53-127/22
206-44-0	Fluoranthene	5	4.9	98	5.1	102	4	59-123/17
86-73-7	Fluorene	5	4.6	92	4.8	96	4	57-113/21
193-39-5	Indeno(1,2,3-cd)pyrene	5	4.7	94	5.0	100	6	48-130/22
90-12-0	1-Methylnaphthalene	5	3.9	78	4.0	80	3	51-104/24
91-57-6	2-Methylnaphthalene	5	4.1	82	4.1	82	0	52-108/25
91-20-3	Naphthalene	5	3.9	78	3.9	78	0	51-102/23
85-01-8	Phenanthrene	5	4.6	92	4.7	94	2	58-112/18
129-00-0	Pyrene	5	4.7	94	4.8	96	2	52-124/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	86%	83%	42-116%
321-60-8	2-Fluorobiphenyl	86%	84%	44-115%
1718-51-0	Terphenyl-d14	93%	90%	45-141%

* = Outside of Control Limits.

Northern California ACCUTEST LABORATORIES

GC Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK1906-MB	JK46255.D	1	07/29/14	TT	n/a	n/a	GJK1906

The QC reported here applies to the following samples: **Method:** NWTPH-GX

C35253-1, C35253-2, C35253-3, C35253-4, C35253-5

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries		Limits
98-08-8	aaa-Trifluorotoluene	97%	50-150%
460-00-4	4-Bromofluorobenzene	107%	50-150%

Method Blank Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK1906-MB	JK46266.D	1	07/29/14	TT	n/a	n/a	GJK1906

The QC reported here applies to the following samples: **Method:** NWTPH-GX

C35253-1, C35253-2, C35253-3, C35253-4, C35253-5

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	ND	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries		Limits
98-08-8	aaa-Trifluorotoluene	92%	50-150%
460-00-4	4-Bromofluorobenzene	99%	50-150%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK1906-BS	JK46256.D	1	07/29/14	TT	n/a	n/a	GJK1906
GJK1906-BSD	JK46257.D	1	07/29/14	TT	n/a	n/a	GJK1906

The QC reported here applies to the following samples: **Method:** NWTPH-GX

C35253-1, C35253-2, C35253-3, C35253-4, C35253-5

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	0.4	0.388	97	0.384	96	1	69-127/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
98-08-8	aaa-Trifluorotoluene	94%	95%	50-150%
460-00-4	4-Bromofluorobenzene	105%	106%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35213-1MS	JK46268.D	1	07/29/14	TT	n/a	n/a	GJK1906
C35213-1MSD	JK46269.D	1	07/29/14	TT	n/a	n/a	GJK1906
C35213-1	JK46267.D	1	07/29/14	TT	n/a	n/a	GJK1906

The QC reported here applies to the following samples: **Method:** NWTPH-GX

C35253-1, C35253-2, C35253-3, C35253-4, C35253-5

CAS No.	Compound	C35213-1 mg/l	Q	Spike mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	ND		0.4	0.407	102	0.4	0.415	104	2	69-127/13

CAS No.	Surrogate Recoveries	MS	MSD	C35213-1	Limits
98-08-8	aaa-Trifluorotoluene	99%	97%	100%	50-150%
460-00-4	4-Bromofluorobenzene	109%	109%	109%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C35253-1DUP	JK46259.D	1	07/29/14	TT	n/a	n/a	GJK1906
C35253-1	JK46258.D	1	07/29/14	TT	n/a	n/a	GJK1906

The QC reported here applies to the following samples: **Method:** NWTPH-GX

C35253-1, C35253-2, C35253-3, C35253-4, C35253-5

CAS No.	Compound	C35253-1 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Gasoline)	ND		ND		nc	13

CAS No.	Surrogate Recoveries	DUP	C35253-1	Limits
98-08-8	aaa-Trifluorotoluene	95%	93%	50-150%
460-00-4	4-Bromofluorobenzene	106%	104%	50-150%

* = Outside of Control Limits.

Northern California ACCUTEST LABORATORIES

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10507-MB	HH315575.D	1	07/30/14	AG	07/29/14	OP10507	GHH1318

The QC reported here applies to the following samples: **Method:** NWTPH-DX

C35253-1, C35253-2, C35253-3, C35253-4, C35253-5

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	ND	0.10	0.050	mg/l	
	TPH (Motor Oil)	ND	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries		Limits
630-01-3	Hexacosane	88%	50-150%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10507-BS	HH315573.D	1	07/30/14	AG	07/29/14	OP10507	GHH1318
OP10507-BSD	HH315574.D	1	07/30/14	AG	07/29/14	OP10507	GHH1318

The QC reported here applies to the following samples: **Method:** NWTPH-DX

C35253-1, C35253-2, C35253-3, C35253-4, C35253-5

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Diesel)	1	0.759	76	0.800	80	5	37-112/30
	TPH (Motor Oil)	1	0.880	88	0.917	92	4	49-120/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	87%	90%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C35253
Account: SHELLWIC Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10507-DUP1	HH315572.D	1	07/30/14	AG	07/29/14	OP10507	GHH1318
C35253-5	HH315571.D	1	07/30/14	AG	07/29/14	OP10507	GHH1318

The QC reported here applies to the following samples: **Method:** NWTPH-DX

C35253-1, C35253-2, C35253-3, C35253-4, C35253-5

CAS No.	Compound	C35253-5 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Diesel)	0.461		0.459		0	31
	TPH (Motor Oil)	ND		ND		nc	33

CAS No.	Surrogate Recoveries	DUP	C35253-5	Limits
630-01-3	Hexacosane	90%	94%	50-150%

* = Outside of Control Limits.