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Prepared for
Shell Oil Products US

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April 2015

Annual Compliance Monitoring Report 2014

Shell Harbor Island Terminal
Seattle, Washington

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Annual Compliance Monitoring Report 2014

Shell Harbor Island Terminal
Seattle, Washington

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1 Introduction

The purpose of this Annual Compliance Monitoring report is to evaluate groundwater conditions with respect to the cleanup requirements at the Shell (Equilon) Seattle Distribution Terminal on Harbor Island in Seattle, Washington, herein referred to as the "site" (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 (Figure 2). Compliance monitoring activities described in this report are performed under Consent Decree No. 99 2-07 176 SEA with the Washington State Department of Ecology (Ecology). The information presented in this report is based on data collected during the monitoring period of January 2014 through December 2014. This report also includes results from additional groundwater assessment activities conducted in the northern portion of the Main Tank Farm.

1.1 Summary of Cleanup Actions

The primary cleanup action at the site included excavation of near-surface lead and arsenic impacted soil in areas throughout the Main Tank Farm which was conducted from December 2003 through February 2004. Lead and arsenic impacted surface soil was removed to concentrations below the soil cleanup standard of 1,000 milligrams per kilogram (mg/kg) and 32 mg/kg, respectively. In addition, a small area of lead-impacted soil near the oil/water separator (OWS) in the Main Tank Farm was excavated in October 2001. Due to structural constraints, a 3-inch cap was placed over lead-impacted subsurface soil in the area around the OWS.

Between November 2001 and October 2009 total petroleum hydrocarbon impacted surface and subsurface hotspots (to 10, 000 mg/kg) were removed from the Shoreline Manifold Area. Additional impacted soils (to 20,000 mg/kg) were removed to near a former underground storage tank (UST) in October 2001 and in the Main Tank Farm in February 2004 and again in 2007.

A free product and vapor extraction system operated in the Shoreline Manifold Area from 1996 to August 2005. The vapor extraction system was shut down in 2005 when the hydrocarbon recovery through vapor extraction declined. Passive free product recovery occurred at monitoring wells MW-210, MW-211 and MW-212 in the Shoreline Manifold Area through 2010 and monitoring wells MW-210 and MW-212 through 2011. Vacuum purging was conducted on a quarterly basis in monitoring wells MW-210 and MW-212 in 2012.

On September 10, 2013, less than 3 barrels of diesel product was released in the Shoreline Manifold Area during an "In-Line" inspection of the dock lines. Approximately 2.4 barrels of free standing product was recovered immediately by vacuum truck and the use of sorbent pads and approximately 8 to 20 cubic yards of impacted soil was removed. Confirmation soil samples collected from the excavated area were below the Shoreline cleanup levels of 10,000 mg/kg. Field observations indicated that surface water and the stormwater system were not impacted by the release (URS, 2014a). Pooled diesel product was observed surround monitoring well MW-212 following the release. The product was removed using a vacuum truck and subsequent monitoring did not detect product. At the request of Ecology, in January 2014, sorbent socks were installed in monitoring wells MW-209, MW-210, and MW-212. To address residual product and monitoring wells MW-208 through MW-212 were monitored monthly for product in 2014.

1.2 Summary of Compliance Monitoring Program

Compliance monitoring consists of product monitoring, groundwater level monitoring and groundwater sampling described in detail in the *Compliance Monitoring Plan* (EMCON and LCI, 1999). The monitoring objectives have been categorized as confirmational, performance, and sentry:

- Performance monitoring is conducted to monitor the effectiveness of the cleanup actions. Performance monitoring consists of three components; product thickness and sheen monitoring, groundwater natural attenuation monitoring and groundwater quality monitoring.

- Confirmational monitoring is to confirm the long-term effectiveness of the cleanup action once performance and cleanup standards have been met. Confirmational product monitoring comprises of monitoring of product thickness and sheen.

- Sentry monitoring is to provide early warning of off-site contaminant migrations. Semi-annual sentry groundwater quality monitoring is conducted simultaneously with groundwater performance monitoring (URS, 2008). Wells included in the sentry monitoring are generally located at or near the property boundaries of the site.

Site wide quarterly monitoring was conducted until 2006 in accordance with the *Compliance Monitoring Plan*. Between 2006 and 2008 monitoring occurred in accordance to proposed changes (RETEC, 2006a and RETEC, 2006b). Reductions in the monitoring plan occurred in 2008 in accordance with email correspondence with Ecology in 2008 (URS, 2008).

In 2011, additional semi-annual samples were obtained from monitoring wells to assess the dissolved groundwater plume along 13th Avenue and the Main Tank Farm (URS, 2012), also referred to as the SH-04 area (Figure 2). In November 2011, monitoring wells MW-305 and MW-306 were installed in the SH-04 area and monitoring wells MW-301 through MW-304 were installed in the northern boundary of the north tank farm, referred to as the TX-03A area (Figure 2).

Quarterly samples were collected in 2012 to assess the dissolved hydrocarbon plumes in the SH-04 and the TX-03A areas. Three joint groundwater sampling events were conducted with the neighboring Kinder Morgan Terminal in the SH-04 Area. Monitoring wells MW-307 through MW-310 were installed in the TX-03A area in November 2012 and were sampled at least three times in 2013 to assist in the plume investigation. In 2014, monitoring wells MW-307 through MW-310 were sampled during the semi and annual sampling events, and monitoring wells MW-309 and MW-310 were sampled during additional TX-03A investigations.

In October 2014, monitoring wells MW-311 and MW-312 were installed downgradient of monitoring well TX-03A to delineate the extent of gasoline constituent impacts in groundwater. The newly installed wells were sampled during the annual monitoring event in November 2014.

The 2014 monitoring and analytical program, which includes additional investigation samples from the TX-03A area, is presented in Table 1. The site cleanup levels are presented in Table 2.

1.3 Geology and Hydrogeology

The 405-acre Harbor Island was constructed during the early 1900s in an area consisting of intertidal wetlands at the mouth the Duwamish River. The island was created using sediments dredged to facilitate navigation in the lower Duwamish River and West Waterway (KJC, 1990).

Soil underlying the site consists of man-emplaced grade and dredge fill overlying native estuarine deposits (LCI and EMCON, 1999). The uppermost grade fill unit consists of coarse-grained fill varying from less than one foot to approximately two feet thick. The dredge fill unit was created when estuarine deposits near the site were dredged and used as fill. The contact between the dredge fill and native estuarine units is not well defined due to similar properties of the two units. The dredge fill appears to vary from approximately 8 to 20 feet thick at the site. It consists of fine- to medium-grained sand with some gravel. Native estuarine deposits underlie the dredge fill at depths of approximately 8 to 20 feet below grade. These deposits are composed of primarily fine- to medium-grained sand with thin silt interbeds.

Groundwater occurs as a thin lens of fresh water overlying brackish water at depth. The water table occurs within the dredge fill 4 to 8 feet below the ground surface (bgs). Groundwater within the dredge fill unit occurs under unconfined conditions. The North Tank Farm and Main Tank Farm areas generally are unaffected by tides; whereas the Shoreline Manifold Area groundwater quality and elevations are affected by tides.

The native estuarine deposits are fully saturated, and groundwater within this unit is unconfined. Water quality and water elevations within this unit can be influenced by surrounding surface water bodies and associated tidal fluctuations. This shallow groundwater flows in a radial fashion to the north and to the south from a potentiometric high located within the Main Tank Farm area.

1.4 Groundwater Elevations and Flow

Monitoring wells at the site are screened at two depth intervals. The shallow depth interval includes groundwater within about 10 feet of the water table. The deep depth interval includes groundwater greater than 10 feet below the water table. The monitoring well screen intervals are presented on Table 1. Only monitoring wells MW-209, MW-213, and MW-214 are gauged at the deep depth interval.

Groundwater elevation data for the monitoring period (January 2014 through December 2014) and historical groundwater elevation data is presented in Appendix A. Localized groundwater elevations are discussed below.

North Tank Farm

Monitoring wells MW-201 through MW-204 and MW-206A were gauged for water levels during in April and November 2014. Groundwater elevations ranged from 6.49 feet (MW-204) to 6.89 feet (MW-206A) and 6.23 feet (MW-204) to 6.65 feet (MW-206A), respectively.

TX-03A Area (excluding the North Tank Farm)

Depth to water measurements were collected in monitoring wells MW-101, MW-102, MW-301 through MW-304, MW-307 through MW-310, TES-MW-1, and TX-03A in April and November 2014. Monitoring wells MW-311 and MW-312 were gauged for water levels in November 2014 following installation. Additional gauging events occurred in monitoring wells MW-301 through MW-304, MW-309 and MW-310, and TX-03A in association with investigation activities. Groundwater elevations ranged from 6.76 feet (MW-302) to 8.05 feet (MW-101) during the April event and 6.29 feet (MW-312) to 7.69 feet (MW-102) during the November event.

A localized groundwater elevation contour map for the shallow water zone beneath the TX-03A area using the November 2014 groundwater elevations data was generated in 2014 and is presented in Figure 3. Groundwater in the TX-03A area flows to the north.

SH-04 Area

Depth to water measurements were collected in monitoring wells MW-104, MW-111, MW-112A, MW-305, MW-306, and SH-04 in April and November 2014. Depth to water measurements were also collected in monitoring well MW-05 in November 2014. Groundwater elevations ranged from 6.62 feet (MW-112A) to 8.26 feet (MW-104) during the April event and 6.84 feet (MW-112A) to 8.32 feet (MW-05) during the November event.

Shoreline Manifold Area

Monitoring wells MW-208 through MW-214 were surveyed November 2014. Depth to water measurements were collected in December 2014 and converted to mean sea level by subtracting the measured value from the TOC elevation. In the December 2014 gauging event, groundwater elevations ranged from 5.59 feet (MW-214) to 7.88 feet (MW-208).

2 General Compliance Results

The analytical results of the groundwater monitoring and operation and maintenance (O&M) (product monitoring) activities are presented in this section. Field sampling data sheets, which include field parameter measurements and O&M field forms, are provided in Appendix B. Copies of the laboratory reports are presented in Appendix C. Data validation was performed on laboratory reports. Data were judged acceptable for their intended use with noted qualifiers. Data validation reports are presented in Appendix C. Recent and historic laboratory results are summarized in Tables 3 through 6.

2.1 Performance Product Monitoring

Monitoring wells MW-208 and MW-210 through MW-212, located in the Shoreline Manifold Area, were gauged for water levels and monitored for free product monthly (with the exception of May) in 2014. Monitoring well MW-204, located in the North Tank Farm, was gauged and monitored in April and November 2014. Product monitoring data is presented in Table 3. No measureable thickness of floating product was detected in monitoring wells MW-204, MW-208, or MW-211 during any of the 2014 monitoring events. Floating product ranging from 0.07 feet thick (August 2014) to 1.12 feet thick (March 2014) was observed in monitoring well MW-210 during all monitoring events except October. In addition, 0.04 feet of floating product was detected in monitoring well MW-212 during the January event and sheen was observed during four additional events (February, April, June and October). A sheen was also observed in monitoring well MW-208 in June 2014.

Monitoring well MW-209 was monitored in 2014 in response to the September 2013 release in the Shoreline Manifold Area (Section 1.1). Product was detected (0.05 feet) during the January monitoring event and a sheen was observed during the February monitoring event (Table 3).

2.2 Natural Attenuation Performance Criteria

In accordance with the C*ompliance Monitoring Plan* (EMCON and LCI, 1999) monitoring for natural attenuation is conducted annually. In November 2014 additional geochemical parameters including total alkalinity, hardness, ferrous iron, sulfate, dissolved iron and manganese, total calcium, iron and magnesium, nitrite, and nitrate were collected from monitoring wells TX-03A, MW-302, MW-304, MW-307, MW-310, MW-311, and MW-312, to assist in evaluating natural attenuation in the TX-03A area and monitoring wells MW-202 and MW-203 to assist in monitoring natural attenuation in the North Tank Farm. The results are presented in Table 4. The next evaluation of natural attenuation is scheduled for the 2015 annual report.

2.3 Groundwater Performance and Confirmational Monitoring

This section presents analytical results for the performance and compliance monitoring events conducted in 2014. Groundwater samples were collected from background monitoring well MW-206A, confirmational monitoring wells MW-213 and MW-214, and sentry monitoring wells, MW-05, MW-101, MW-102, MW-104, MW-105, MW-111, MW-112A, MW-201, MW-202, MW-203, MW-204, SH-04, TES-MW-1, TX-03A, TX-04, and TX-06A monitoring on either a semiannual or annual basis in April and November of 2014 according to Table 1. MW-305 and MW-306 are sampled in association with ongoing monitoring of the SH-04 area and the results are included in the sentry monitoring results discussion below. Monitoring wells MW-301 through MW-304, MW-308, MW-309, MW-311 and MW-312 were sampled in association with additional site investigations of the TX-03A area as discussed in Section 3.

2.3.1 Groundwater Quality Confirmation

Groundwater samples were collected from background monitoring well MW-206A, and confirmational monitoring wells MW-213 and MW-214. Groundwater from the background monitoring wells and the confirmation monitoring wells were analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX), gasoline range hydrocarbons (gasoline), diesel range hydrocarbons (diesel), and motor oil range hydrocarbons (oil). Groundwater from monitoring wells MW-213 and MW-214 were also analyzed for carcinogenic polycyclic aromatic hydrocarbons (cPAHs).

BTEX, gasoline, and cPAHs were not detected in any of the groundwater samples collected for groundwater quality confirmation. Diesel and oil were detected in the background monitoring well MW-206A at concentrations below the 10 milligrams per liter (mg/L) cleanup level. Diesel was also detected in the confirmational monitoring wells MW-213 and MW-214 during both the April and November 2014 events at concentrations below the 10 mg/L cleanup level. Oil was only detected during the November event in monitoring well MW-214 at 0.103 mg/L, below the cleanup level.

2.3.2 Sentry Monitoring Results

Groundwater from sentry monitoring wells were analyzed for BTEX, gasoline, diesel, oil, lead, and cPAHs. Concentrations of gasoline and diesel results are presented on Figure 4. Benzene results are presented on Figure 5.

North Tank Farm

Monitoring wells MW-201 through MW-204, and MW-206A are located in the North Tank Farm. Monitoring wells MW-201 and MW-204 are located along the north boundary, and groundwater quality data from these wells are characteristic of groundwater flowing off the north boundary of the North Tank Farm. Monitoring well MW-206A is considered a background well.

BTEX was analyzed during the annual groundwater monitoring event in monitoring wells MW-201, MW-202, MW-204, and MW-206A. BTEX was only detected in groundwater collected from monitoring well MW-202 at concentrations below the cleanup levels.

Gasoline, and diesel and oil were analyzed during the semi-annual monitoring event in monitoring wells MW-202 and MW-203, and during the annual monitoring event in monitoring wells MW-201 though MW-204, and MW-206A. Gasoline was detected during both monitoring events in monitoring wells MW-202 and MW-203. Concentrations of gasoline in monitoring well MW-202 were above the cleanup level of 1 mg/L in semi-annual and annual monitoring events at 3.22 mg/L and 5.10 mg/L respectively. Figure 6 shows the gasoline concentration trends for monitoring well MW-202. Diesel was detected in all monitoring wells during all sampling events at concentrations below the cleanup level of 10 mg/L ranging from 0.0933 mg/L (MW-203) to 2.45 mg/L (MW-202). With the exception of the semiannual monitoring event, oil was detected during all monitoring events below the 10 mg/L cleanup level, with the high and low concentrations both occurring at monitoring well MW-203 at 0.168 mg/L and 0.732 mg/L.

Main Tank Farm – Northern Boundary

Historically, monitoring well TX-03A was the representative sampling point for assessing the quality of groundwater flowing across the northern boundary of the Main Tank Farm. Monitoring wells MW-301 through MW-304 were installed in November 2011, monitoring wells MW-307 through MW-310 were installed in November of 2012, and monitoring wells MW-311 and MW-312 were installed in October 2014 to assist in determining the nature and extent of dissolved hydrocarbons observed in TX-03A. During the monitoring year, samples collected from monitoring wells TX-03A area contained concentrations of benzene and gasoline above the site cleanup levels. Further evaluation of the northern boundary is included in Section 3.

Main Tank Farm – Eastern Boundary

Monitoring wells TES-MW-1, TX-04, MW-05, and SH-04 were designated as the sentry wells for the eastern boundary of the Main Tank Farm. Groundwater collected from the eastern boundary sentry wells were analyzed for BTEX, gasoline, diesel and oil during the annual monitoring event. Groundwater from monitoring well SH-04 was also analyzed during the semi-annual event. Only monitoring well SH-04 and MW-05 had detections BTEX and/or gasoline, diesel and oil. All the detected concentrations in 2014 were below the cleanup levels. Figure 7 shows BTEX and gasoline concentration trends for monitoring well SH-04.

Monitoring well SH-04 is an off-site monitoring well, located along the southeast boundary of the Main Tank Farm. In November 2011, monitoring wells MW-305 and MW-306 were installed to delineate the extent of the petroleum hydrocarbons in the groundwater near monitoring well SH-04. In 2014, samples were collected from MW-305 and MW-306 during both monitoring events and analyzed for BTEX and gasoline. With the exception of November event at monitoring well MW-305, benzene and gasoline were detected above the cleanup levels during all events. Figures 8 and 9 show BTEX and gasoline concentration trends for monitoring wells MW-305 and MW-306, respectively.

The Monitoring Well Sampling Field Log (Appendix B) indicated that product was observed in monitoring well TX-04 (0.01 feet) during the November sampling event. To confirm the presence of product, monitoring well TX-04 was gauged for water levels on February 26, 2015. No product was observed.

Main Tank Farm – Southern Boundary

Monitoring wells MW-104, MW-105, MW-111 and MW-112A were sampled in the southern area of the Main Tank Farm. Groundwater collected from monitoring wells MW-105, MW-11, and MW-112A was analyzed for BTEX, gasoline, diesel and oil during the annual event. Groundwater from monitoring well MW-104 was analyzed for gasoline, and diesel and oil during both monitoring events. In addition, during the annual event, monitoring wells MW-104 and MW-105 were analyzed for total lead.

Gasoline was detected above the cleanup level of 1 mg/L in monitoring well MW-104 during the April monitoring event at 5.68 mg/L. No other detections above the cleanup levels were observed in the monitoring wells on the southern boundary.

Main Tank Farm – Western Boundary

Monitoring wells MW-102 and TX-06A are monitored at the west side of the Main Tank Farm property. Both wells were sampled annually for BTEX, gasoline, and diesel and oil. BTEX and gasoline were not detected in either well. Diesel was detected monitoring wells MW-102 and TX-06A at concentrations below the cleanup level of 10 mg/L at 0.0568 mg/l and 0.758 mg/L, respectively. Oil was only detected in monitoring well TX-06A at 0.184 mg/L, below the cleanup level of 10 mg/L.

3 TX-03A Area Investigation

The northern boundary area was identified for additional evaluation during the *EPA 5-Year review of the Harbor Island Superfund Site* (EPA, 2010a). The TX-03A investigation area is shown on Figure 2. In addition to the compliance monitoring, the following additional investigations were conducted during 2014:

- On January 16, 2014 groundwater sampling activities were conducted in association with the enhanced bioremediation pilot test. Monitoring wells TW-01, MW-302, MW-304, MW-310, and ASW-1 were gauged for water levels and groundwater samples were collected from monitoring wells TW-01, MW-302, ASW-1, MW-304, and MW-310. Monitoring wells TW-01 and ASW-1 are not included Compliance Monitoring Program and therefore were excluded from the evaluation below.

- On July 25, 2014 groundwater samples were collected from monitoring wells MW-301 through MW-304, MW-309, MW-310, and TX-03A to assist in the characterization of groundwater potentially infiltrating the Florida Street stormwater system. The results were reported in *Dry Weather Stormwater System Sampling Report* dated September 15, 2014 and are included in the summary below (Section 3.2).

- On September 25, 2014 groundwater samples were collected from monitoring wells MW-301, MW-302, MW-309, and TX-03A to supplement characterization activities of the Florida Street stormwater system conducted in July 2014. The results were reported in the *September 2014 Dry Weather Stormwater System Sampling Report* dated December 5, 2014 and are included in the summary below (Section 3.2).

3.1 TX-03A Area Groundwater Flow

A localized groundwater elevation contour map for the shallow water zone beneath the TX-03A is presented in Figure 3. Groundwater in the TX-03A area flows to the north across the north end of the Main Tank Farm towards SW Florida Street.

3.2 TX-03A Area Groundwater Analytical Results

Monitoring wells sampled in the TX-03A area were analyzed for one or more of the following: gasoline, diesel and oil, BTEX, PAHs, total and dissolved lead, and natural attenuation parameters (Table 1). The results are included in Tables 4 through 6. The BTEX and petroleum hydrocarbon concentrations detected in groundwater in the TX-03A area in 2014 are summarized below. Figure 10 shows BTEX and gasoline concentration trends for monitoring well TX-03A.

3.2.1 BTEX Results

During the monitoring period BTEX constituents were analyzed in 18 monitoring wells located in the TX-03A investigation area. BTEX constituents were not detected in eight of the 18 monitoring wells (MW-101, MW-102, MW-201, MW-204, MW-206A, MW-309, MW-311, and TES-MW-1).

Benzene exceeded the cleanup level of 0.071 mg/L, in all sampling events in monitoring wells MW-301 through MW-304, MW-307, MW-310, MW-312, and TX-03A at concentrations ranging from 0.108 mg/L (MW-301 in November 2014) to 1.64 mg/L (TX-03A in July 2014). During the April and November monitoring events, monitoring well MW-303 had the highest detection of benzene at 1.58 mg/L and 1.42 mg/L, respectively, and monitoring well MW-301 had the lowest detection of benzene exceeding the cleanup level at 0.252 mg/L and 0.108 mg/L, respectively. Benzene concentrations in the TX-03A area are shown on Figure 5.

The toluene and ethylbenzene detections were all below the cleanup levels of 200 mg/L and 29 mg/L, respectively. A cleanup level for xylenes has not been established for the site.

3.2.2 Petroleum Hydrocarbon Results

Gasoline, and diesel and oil were analyzed in 19 monitoring wells located in the TX-03A investigation area during the monitoring period. Diesel and oil were not detected above the cleanup level of 10 mg/L in any of the monitoring wells.

Gasoline exceeded the cleanup level of 1 mg/L in all sampling events in monitoring wells MW-202, MW-301 through MW-304, MW-307, MW-310, MW-312, and TX-03A at concentrations ranging from 1.64 mg/L (MW-312 November 2014) to 11.8 mg/L (MW-303 April 2014). The highest concentration of gasoline was detected in monitoring well MW-303 during all monitoring events at concentrations ranging from 9.8 mg/L to 11.8 mg/L. The remaining monitoring wells had similar concentrations during all events at concentrations ranging from 1.64 mg/L to 7.55 mg/L. Gasoline and diesel concentrations are shown on Figure 4.

4 Summary and Conclusions

Based on the analytical results of the January 2014 through December 2014 monitoring period, AECOM concludes the following:

- Groundwater elevations at the site appear to be consistent with historic levels. Groundwater elevation data will be collected in association with all monitoring events in 2015. In addition, in 2015, monitoring wells MW-101, MW-102, MW-201, MW-202, MW-203, MW-204, MW-206A, MW-301 through MW-304, MW-307 through MW-311, MW-TX-03A and TES-MW-1, will be gauged for water levels on a quarterly basis. The proposed 2015 groundwater gauging schedule is included in Table 7.

- During the past year, product was observed in monitoring wells MW-209, MW-210 and MW-212 in the Shoreline Manifold Area. Absorbent socks are present for product recovery in monitoring wells MW-209, MW-210, and MW-212. Based on product recovery monitoring wells MW-209, MW-210 and MW-212, measurable product from an older release is still present in the Shoreline Manifold Area. Given the presence of product, absorbent socks will remain in monitoring wells MW-210, and MW-212 and monthly product monitoring will continue. The product observed in MW-209 in January and February of 2014 may have been product from the September 2013 shoreline surface release. Based on the screen depth (39.5-49.0 feet bgs) and absence of product in monitoring well MW-209 after February 2014, further monitoring is not recommended. The proposed 2015 product monitoring schedule is included in Table 7.

- No product was observed in monitoring well MW-204 in the North Tank Farm or monitoring well MW-211 in the Shoreline Manifold Area during 2014. Product has not been observed in monitoring well MW-204 since November 2005. Measurable product has not been detected in monitoring well MW-211 since June 2008. AECOM recommends discontinuing product monitoring of MW-204 and MW-211 in 2015.

- Natural attenuation parameters were collected annually from seven monitoring wells (TX-03A, MW-302, MW-304, MW-307, MW-310, MW-311, MW-312) on the northern boundary of the Main Tank Farm and two monitoring wells (MW-202 and MW-203) in the North Tank Farm. In support of evaluating natural attenuation in 2015, the following geochemical parameters are recommended from monitoring wells MW-202, MW-203, MW-302, MW-304, MW-307, MW-308, MW-310, MW-311, MW-312, and TX-03A on an annual basis: nitrate/nitrite by EPA 353.2; sulfate by EPA 300.0; dissolved iron and dissolved manganese by EPA 6010B/6020A; and ferrous iron (collected in the field). The proposed 2015 groundwater monitoring program is included in Table 7.

- Concentrations of gasoline in the North Tank Farm in monitoring well MW-202 are consistent with historic results and continue to exceed the cleanup level.

- Concentrations of benzene and gasoline at the SH-04 Area in monitoring well SH-04 were below the cleanup levels in 2014. Due to the reductions of concentrations in monitoring well SH-04, further monitoring of monitoring wells MW-305 and MW-306 will be discontinued.

- Concentrations of benzene and gasoline are stable and consistent with historic results, but exceed cleanup levels in the source areas of theTX-03A area.

- Ongoing assessment activities are planned in 2015 for the TX-03A Area. The 2015 activities include quarterly monitoring of monitoring wells in the TX-03A area (Table 7) and mitigation of the petroleum impacted groundwater infiltration into the City of Seattle stormwater system north of the Main Tank Farm, under Florida Street.

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Tables

Table 1
2014 Compliance Monitoring Program
Shell Harbor Island Terminal
Seattle, Washington

Well ID	2014 Compliance Plan Sampling Frequency	Analysis						Compliance Well Class				Site Investigation	Well Construction	
		Lead	BTEX	TPH-Gx	TPH-Dx	cPAHs	Natural Attenuation Parameters	Performance Product	Natural Attenuation Performance	Groundwater Quality Confirmation	Sentry	TX-03 Area	Total Depth (ft bgs)	Screened Interval (ft bgs)
MW-104	Semi-Annual	X (total)	-	X	X	-	-	-	-	-	X	-	15	5.0 - 14.5
MW-202	Semi-Annual	-	X[1]	X	X	-	X[1]	-	X-plume	-	X	-	15	5.0 - 14.5
MW-203	Semi-Annual	-	-	X	X	-	X[1]	-	X-plume	-	X	-	15	5.0 - 14.5
MW-301	Semi-Annual	-	X	X	-	X[2]	-	-	-	-	X	DW - 9/25 DW - 7/25	15	5.0 - 15.0
MW-302	Semi-Annual	X[2] (dissolved)	X	X	X[1]	X[2]	X[1]	-	X-plume	-	X	PT - 1/16 DW - 7/25 DW - 9/25	15	5.0 - 15.0
MW-303	Semi-Annual	-	X	X	X[1]	X[2]	-	-	-	-	X	DW - 7/25	15	5.0 - 15.0
MW-304	Semi-Annual	X[2] (dissolved)	X	X	X[1]	X[2]	X[1]	-	X-plume	-	X	PT - 1/16 DW - 7/25	15	5.0 - 15.0
MW-305	Semi-Annual	-	X	X	-	-	-	-	-	-	X	-	15	5.0 - 15.0
MW-306	Semi-Annual	-	X	X	-	-	-	-	-	-	X	-	15	5.0 - 15.0
MW-307	Semi-Annual	-	X	X	X	-	X[1]	-	X-plume	-	-	-	15	5.0 - 15.0
MW-308	Semi-Annual	-	X	X	-	-	-	-	-	-	X	-	15	5.0 - 15.0
MW-309	Semi-Annual	-	X	X	X[1]	X[2]	-	-	-	-	X	DW - 7/25 DW - 9/25	15	5.0 - 15.0
MW-310	Semi-Annual	X[2] (dissolved)	X	X	X[1]	X[2]	X[1]	-	X-plume	-	-	DW - 7/25 PT - 1/16	15	5.0 - 15.0
SH-04	Semi-Annual	-	X	X	X	-	-	-	-	-	X	-	16	6 - 16
TX-03A	Semi-Annual	-	X	X	X[1]	X[2]	X[1]	-	X-plume	-	X	DW - 7/25 DW - 9/25	16	6 - 16
MW-05	Annual	-	X	X	X	-	-	-	-	-	X	-	15	5 - 15
MW-101	Annual	-	X	X	X	-	-	-		-	X	-	15	5.0 - 14.5
MW-102	Annual	-	X	X	X	-	-	-	-	-	X	-	15	5.0 - 14.5
MW-105	Annual	X (total)	X	X	X	-	-	-	-	-	X	-	15	5.0 - 14.5
MW-111	Annual	-	X	X	X	-	-	-	-	-	X	-	15	5.0 - 14.5
MW-112A	Annual	-	X	X	X	-	-	-	-	-	X	-	15	5.5 - 15.0
MW-201	Annual	-	X	X	X	-	-	-	-	-	X	-	15	5.0 - 14.5
MW-204	Annual	-	X	X	X	-	-	X[3]	-	-	X	-	15	5.0 - 14.5
MW-206A	Annual	-	X	X	X	-	-	-	-	X-background	-	-	15	5.0 - 14.5
MW-311	Annual	X (total)	X	X	X	X	X	-	X-plume	-	X	-	15	5.0 - 15.0
MW-312	Annual	X (total)	X	X	X	X	X	-	X-plume	-	X	-	15	5.0 - 15.0
TES-MW-1	Annual	-	X	X	X	-	-	-	-	-	X	-	18	3 -18
TX-04	Annual	-	X	X	X	-	-	-	-	-	X	-	16	6 -16
TX-06A	Annual	-	X	X	X	-	-	-	-	-	X	-	15.8	5.5 - 15.5
MW-204	Monthly	-	-	-	-	-	-	X	-	-	-	-	15	5.0 - 14.5
Shorline Manifold Area														
MW-208	Monthly	-	-	-	-	-	-	X	-	-	-	-	16.5	5.0 - 14.5
MW-209	Monthly	-	-	-	-	-	-	X	-	-	-	-	50.5	39.5 - 49.0
MW-210	Monthly	-	-	-	-	-	-	X	-	-	-	-	15	5.0 - 15.0
MW-211	Monthly	-	-	-	-	-	-	X	-	-	-	-	13	5.0 -13.0
MW-212	Monthly	-	-	-	-	-	-	X	-	-	-	-	12	5.0 -12.0
MW-213	Semi-Annual	-	X	X	X	X	-	-	-	X-confirmational	-	-	30	30.0 - 40.0
MW-214	Semi-Annual	-	X	X	X	X	-	-	-	X-confirmational	-	-	30	30.0 - 40.0

Notes:
[1] = Annual sampling only
[2] = Sampled in association with TX-03A Area investigation only
[3] = Product monitoring conducted semiannually
Red = Deviations from the 2008 sampling plan
ft bgs = feet below ground surface
BTEX = benzene, toulene, ethylbenzene, and total xylenes
cPAHs = carcinogenic polycyclic aromatic hydrocarbons
TPH-Gx = total petroleum hydrocarbons as gasoline
TPH-Dx = total petroleum hydrocarbons as diesel
PT = Sampling conducted in association with Pilot Test
DW = Sampling conducted in association with Dry Weather Stormwater System Sampling events

Table 2
Groundwater Cleanup Levels
Shell Harbor Island Terminal
Seattle, Washington

Constituent	Cleanup Level[a] (mg/L)
Arsenic	0.036[b]
Benzene	0.071
Benzo(a)anthracene	0.000031
Benzo(a)pyrene	0.000031
Benzo(b)fluoranthene	0.000031
Benzo(k)fluoranthene	0.000031
Chrysene	0.000031
Dibenzo(a,h)anthracene	0.000031
Ethylbenzene	29
Indeno(1 ,2,3-cd)pyrene	0.000031
Lead	0.0058
TPH-G	1
TPH-D	10
TPH-O	10
Toluene	200

Notes:
[a] Cleanup levels per the *Cleanup Action Plan* (Ecology, 1998), except where noted.
[b] Cleanup level based on ambient water quality criteria (chronic criteria for the protection of aquatic organisms) per WAC 173-201A-040.
mg/L = milligrams per liter
TPH-D = total petroleum hydrocarbons as diesel
TPH-G = total petroleum hydrocarbons as gasoline
TPH-O = total petroleum hydrocarbons as oil

Table 3
Product Monitoring Data
Shell Harbor Island Terminal
Seattle, Washington

	MW-204			MW-208			MW-209			MW-210			MW-211			MW-212		
Date	Water Depth	Product Depth	Product Thick	Water Depth	Prod Depth	Prod Thick	Water Depth	Prod Depth	Prod Thick	Water Depth	Prod Depth	Prod Thick	Water Depth	Prod Depth	Prod Thick	Water Depth	Prod Depth	Prod Thick
06/01/04	10.68	NP	NP	5.01	NP	NP	—	—	—	6.20	6.15	0.05	5.33	NP	NP	5.60	NP	NP
10/02/04	10.12	NP	NP	4.77	NP	NP	—	—	—	7.09	6.31	0.78	5.04	NP	NP	4.89	NP	NP
10/03/04	10.50	NP	NP	5.98	NP	NP	—	—	—	7.26	6.71	0.55	5.86	NP	NP	6.06	NP	NP
04/19/04	10.95	NP	NP	6.29	NP	NP	—	—	—	6.99	NP	NP	4.90	NP	NP	5.13	NP	NP
05/13/04	11.24	NP	NP	6.07	NP	NP	—	—	—	6.95	NP	NP	4.78	NP	NP	4.80	NP	NP
08/06/04	11.35	NP	NP	4.76	NP	NP	—	—	—	5.52	NP	NP	4.64	NP	NP	4.41	NP	NP
06/07/04	11.55	NP	NP	5.06	NP	NP	—	—	—	6.98	NP	NP	4.55	NP	NP	4.61	NP	NP
11/08/04	11.79	NP	NP	6.51	NP	NP	—	—	—	7.22	NP	NP	7.18	NP	NP	7.27	NP	NP
09/09/04	11.79	NP	NP	6.66	NP	NP	—	—	—	7.19	7.18	0.01	7.16	NP	NP	7.14	7.14	Trace
06/10/04	11.76	NP	NP	6.58	NP	NP	—	—	—	7.18	NP	NP	7.11	NP	NP	7.08	NP	NP
09/11/04	11.61	NP	NP	6.17	NP	NP	—	—	—	7.04	7.01	0.03	6.93	NP	NP	6.95	6.95	Trace
10/12/04	—	—	—	3.91	NP	NP	—	—	—	6.96	NP	NP	5.31	NP	NP	5.00	NP	NP
11/01/05	11.04	NP	NP	3.80	NP	NP	—	—	—	5.78	NP	NP	4.85	4.85	Trace	4.71	NP	NP
11/02/05	10.81	10.81	Trace	4.47	NP	NP	—	—	—	6.19	6.18	0.01	5.71	NP	NP	5.68	NP	NP
11/03/05	11.18	NP	NP	5.48	NP	NP	—	—	—	6.73	NP	NP	6.56	6.56	Trace	6.50	NP	NP
04/18/05	10.98	NP	NP	5.97	NP	NP	—	—	—	6.95	6.81	0.14	6.18	NP	NP	6.42	NP	NP
05/25/05	10.98	NP	NP	4.78	NP	NP	—	—	—	6.12	NP	NP	5.73	NP	NP	5.78	NP	NP
09/06/05	11.15	NP	NP	5.74	NP	NP	—	—	—	6.68	6.67	0.01	6.11	NP	NP	6.33	NP	NP
11/07/05	11.40	NP	NP	6.12	NP	NP	—	—	—	7.13	NP	NP	6.32	NP	NP	6.65	NP	NP
08/19/05	11.64	NP	NP	6.25	NP	NP	—	—	—	6.91	NP	NP	6.50	NP	NP	7.85	NP	NP
09/16/05	11.83	NP	NP	6.51	NP	NP	—	—	—	7.32	NP	NP	6.85	NP	NP	7.02	NP	NP
10/18/05	11.98	NP	NP	6.06	NP	NP	—	—	—	6.93	NP	NP	6.51	NP	NP	6.54	NP	NP
09/11/05	11.67	NP	NP	4.43	NP	NP	—	—	—	6.34	NP	NP	4.86	NP	NP	4.10	NP	NP
05/12/05	11.48	NP	NP	4.65	NP	NP	—	—	—	6.57	NP	NP	—	—	—	—	—	—
01/26/06	9.96	NP	NP	4.72	NP	NP	—	—	—	5.83	NP	NP	6.65	NP	NP	3.95	NP	NP
02/28/06	10.24	NP	NP	5.34	NP	NP	—	—	—	6.28	NP	NP	4.53	NP	NP	4.88	NP	NP
03/24/06	10.57	NP	NP	5.34	NP	NP	—	—	—	4.20	NP	NP	5.74	NP	NP	4.94	NP	NP
04/18/06	10.78	NP	NP	5.41	NP	NP	—	—	—	6.46	6.45	0.01	5.81	NP	NP	5.28	NP	NP
05/18/06	11.06	NP	NP	6.02	NP	NP	—	—	—	7.01	NP	NP	6.32	NP	NP	5.56	NP	NP
06/19/06	11.26	NP	NP	5.98	NP	NP	—	—	—	6.91	NP	NP	6.23	NP	NP	5.48	NP	NP
08/28/06	11.74	NP	NP	6.45	NP	NP	—	—	—	7.25	NP	NP	6.63	NP	NP	5.68	NP	NP
09/15/06	11.83	NP	NP	6.21	NP	NP	—	—	—	7.02	NP	NP	6.54	NP	NP	5.53	NP	NP
10/11/06	11.96	NP	NP	6.10	NP	NP	—	—	—	6.95	NP	NP	5.93	NP	NP	5.48	NP	NP
11/29/06	—	—	—	4.19	NP	NP	—	—	—	5.83	NP	NP	5.39	NP	NP	4.27	NP	NP
12/13/06	10.53	NP	NP	3.60	NP	NP	—	—	—	5.58	5.58	0.01	4.39	NP	NP	2.81	NP	NP
01/31/07	10.17	NP	NP	3.98	NP	NP	—	—	—	6.32	6.09	0.23	5.58	NP	NP	4.26	NP	NP
02/26/07	10.56	NP	NP	4.55	NP	NP	—	—	—	6.04	NP	NP	5.24	NP	NP	4.12	NP	NP
03/20/07	10.68	NP	NP	4.68	NP	NP	—	—	—	6.42	6.41	0.01	5.68	NP	NP	4.82	NP	NP
04/26/07	10.99	NP	NP	—	NP	NP	—	—	—	—	NP	NP	6.15	NP	NP	4.97	4.96	0.01
05/25/07	11.29	NP	NP	5.68	NP	NP	—	—	—	7.05	NP	NP	6.60	NP	NP	5.11	NP	NP
06/15/07	11.50	NP	NP	5.93	NP	NP	—	—	—	7.04	NP	NP	6.35	NP	NP	5.03	NP	NP
07/19/07	11.70	NP	NP	5.82	5.81	0.01	—	—	—	6.81	6.80	0.01	6.34	NP	NP	5.29	5.28	0.01
08/17/07	11.81	NP	NP	5.90	NP	NP	—	—	—	6.75	NP	NP	6.22	NP	NP	5.35	NP	NP
09/11/07	—	NP	NP	6.24	NP	NP	—	—	—	7.28	7.28	<.01	6.68	6.68	<.01	5.73	NP	NP
10/29/07	11.80	NP	NP	5.60	NP	NP	—	—	—	6.68	NP	NP	5.25	NP	NP	6.03	NP	NP
11/12/07	11.84	NP	NP	5.56	NP	NP	—	—	—	6.58	6.57- 6.58	<.01	5.82	NP	NP	4.83	—	—
12/26/07	10.84	NP	NP	4.09	NP	NP	—	—	—	5.85	5.84	<.01	4.84	4.85	<.01	4.44	4.43	<.01
01/11/08	10.64	NP	NP	3.84	NP	NP	—	—	—	5.26	5.25	0.01	4.13	4.12	<.01	3.64	3.63	<.01
02/13/08	10.65	NP	NP	4.58	NP	NP	—	—	—	6.60	6.25	0.35	5.75	NP	NP	4.84	NP	NP
03/14/08	11.05	NP	NP	5.37	NP	NP	—	—	—	6.31	NP	NP	5.65	NP	NP	5.01	NP	NP
04/18/08	10.78	NP	NP	5.41	NP	NP	—	—	—	6.46	6.45	0.01	5.81	NP	NP	5.28	NP	NP
05/05/08	11.39	NP	NP	5.84	NP	NP	—	—	—	7.06	7.05	0.01	6.39	NP	NP	5.49	NP	NP
05/20/08	11.53	NP	NP	5.84	NP	NP	—	—	—	7.03	7.02	0.01	6.69	NP	NP	5.52	NP	NP
06/30/08	11.67	NP	NP	5.85	NP	NP	—	—	—	dry	NP	NP	6.35	6.34	0.01	5.45	5.44	0.01
07/10/08	11.70	NP	NP	5.70	NP	NP	—	—	—	6.83	6.80	0.03	6.23	NP	NP	5.24	NP	NP
08/13/08	11.75	NP	NP	5.61	NP	NP	—	—	—	6.75	NP	NP	6.25	NP	NP	6.17	NP	NP
09/02/08	11.82	NP	NP	5.86	NP	NP	—	—	—	6.98	NP	NP	6.40	NP	NP	5.71	NP	NP
10/10/08	11.82	NP	NP	7.11	NP	NP	—	—	—	5.83	NP	NP	6.59	NP	NP	5.83	NP	NP
11/10/08	10.02	NP	NP	4.68	NP	NP	—	—	—	6.40	NP	NP	5.61	NP	NP	5.21	NP	NP
12/08/08	11.48	NP	NP	5.53	NP	NP	—	—	—	6.70	6.52	0.18	5.82	NP	Sheen	5.17	NP	Sheen
01/07/09	11.00	NP	NP	3.93	NP	NP	—	—	—	5.32	NP	Sheen	4.51	NP	Sheen	4.41	NP	Sheen
02/17/09	11.60	NP	NP	5.20	NP	NP	—	—	—	6.40	NP	Sheen	5.72	NP	Sheen	5.21	NP	Sheen
03/06/09	11.21	NP	NP	4.67	NP	NP	—	—	—	6.02	5.59	0.43	4.45	NP	Sheen	4.83	NP	Sheen
04/07/09	—	—	—	—	—	—	—	—	—	6.98	6.96	0.02	—	—	—	—	—	—
07/09/09	11.55	NP	NP	—	—	—	—	—	—	6.90	NP	Sheen	6.34	NP	Sheen	5.56	NP	Sheen
10/20/09	11.75	NP	NP	4.90	NP	NP	—	—	—	6.28	NP	Sheen	5.63	NP	Sheen	4.91	NP	Sheen

Table 3
Product Monitoring Data
Shell Harbor Island Terminal
Seattle, Washington

	MW-204			MW-208			MW-209			MW-210			MW-211			MW-212		
Date	Water Depth	Product Depth	Product Thick	Water Depth	Prod Depth	Prod Thick	Water Depth	Prod Depth	Prod Thick	Water Depth	Prod Depth	Prod Thick	Water Depth	Prod Depth	Prod Thick	Water Depth	Prod Depth	Prod Thick
01/05/10	10.98	NP	NP	3.60	NP	NP	—	—	—	5.78	NP	Sheen	3.55	NP	NP	3.30	NP	NP
04/26/10	10.7	NP	NP	5.04	NP	NP	—	—	—	6.29	6.28	0.01	5.76	NP	NP	5.05	NP	NP
07/22/10	11.44	NP	NP	5.83	NP	NP	—	—	—	10.02	NP	Sheen	6.74	NP	NP	5.37	NP	Sheen
10/20/10	11.68	NP	NP	5.90	NP	NP	—	—	—	6.78	NP	Sheen	6.20	NP	Sheen	5.45	NP	Sheen
12/12/10	10.79	NP	NP	4.45	NP	NP	—	—	—	5.97	NP	<0.01	5.27	NP	NP	4.62	NP	Sheen
04/08/11	9.97	NP	NP	4.62	NP	NP	—	—	—	5.72	5.71	0.01	5.22	NP	NP	4.82	NP	NP
07/28/11	11.08	NP	NP	5.71	NP	NP	—	—	—	6.90	6.89	0.01	6.22	NP	NP	5.38	NP	NP
09/21/11	11.75	NP	NP	6.19	NP	NP	—	—	—	7.06	7.05	0.01	6.55	NP	NP	5.78	NP	Sheen
03/26/12	—	—	—	4.68	NP	NP	—	—	—	6.09	5.76	0.33	5.08	NP	NP	4.19	NP	Sheen
06/12/12	11.20	NP	NP	5.24	NP	NP	—	—	—	7.25	6.38	0.87	5.86	NP	NP	4.69	NP	Sheen
09/27/12	—	—	—	8.39	NP	NP	—	—	—	7.29	6.98	0.31	6.73	NP	NP	5.47	NP	Sheen
11/27/12	10.81	NP	NP	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
12/20/12	—	—	—	2.15	NP	NP	—	—	—	5.40	4.72	0.68	1.97	NP	NP	0.00	NP	NP
02/22/13	10.81	NP	NP	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
03/29/13	—	—	—	—	—	—	—	—	—	6.53	6.44	0.09	5.97	NP	Sheen	4.90	NP	Sheen
05/16/13	11.30	NP	NP	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
06/28/13	—	—	—	4.98	NP	NP	—	—	—	6.35	6.33	0.02	5.68	NP	NP	4.42	NP	Sheen
09/06/13	11.77	NP	NP	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
09/11/13	—	—	—	5.67	NP	Sheen	—	—	—	6.63	NP	NP	—	—	—	5.32	4.82	0.50
09/12/13	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	5.52	5.03	0.49
10/30/13	—	—	—	5.97	NP	NP	—	—	—	7.08	6.96	0.12	6.43	NP	NP	5.29	5.28	0.01
11/07/13	11.73	NP	NP	5.51	NP	NP	—	—	—	6.44	6.41	0.03	5.68	NP	NP	5.54	5.51	0.03
01/16/14	—	—	—	5.46	NP	NP	5.46	5.51	0.05	6.48	6.36	0.12	5.51	NP	NP	5.47	5.43	0.04
02/27/14	—	—	—	4.72	NP	NP	6.04	NP	Sheen	6.79	6.12	0.67	5.01	NP	NP	6.12	NP	Sheen
03/25/14	—	—	—	4.91	NP	NP	5.90	NP	NP	6.96	5.84	1.12	5.38	NP	NP	6.30	NP	NP
04/22/14	10.78	NP	NP	4.98	NP	NP	5.89	NP	NP	6.32	5.98	0.34	5.33	NP	NP	5.85	NP	Sheen
06/10/14	—	—	—	5.62	NP	Sheen	8.31	NP	NP	7.08	6.85	0.23	6.02	NP	NP	—	NP	NP
07/24/14	—	—	—	5.50	NP	NP	6.91	NP	NP	6.64	6.56	0.08	6.85	NP	NP	6.06	NP	Sheen
08/28/14	—	—	—	5.73	NP	NP	6.79	NP	NP	6.72	6.65	0.07	6.06	NP	NP	6.23	NP	NP
09/23/14	—	—	—	5.76	NP	NP	5.73	NP	NP	6.65	6.55	0.10	5.96	NP	NP	6.08	NP	NP
10/22/14	—	—	—	4.82	NP	NP	4.91	NP	NP	5.87	NP	NP	4.96	NP	NP	4.13	NP	Sheen
11/05/14	11.04	NP	NP	4.50	NP	NP	6.60	NP	NP	6.45	5.90	0.55	4.70	NP	NP	5.12	NP	NP
12/18/14	—	—	—	4.28	NP	NP	5.77	NP	NP	5.49	5.26	0.23	4.50	NP	NP	4.89	NP	NP

Notes:
Depth relative to the top of PVC
Prod depth/thick = product depth/thickness in well measured in feet
— = not measured
NP = No Product Detected

Table 4
Compliance Monitoring Natural Attenuation Parameters
Shell Harbor Island Terminal
Seattle, Washington

Well	Date	Parameter																	
		Total Alkalinity (mg/L)	Dissolved Oxygen (mg/L)	Hardness (mg/L)	Iron Total (mg/L)	Ferrous Iron (mg/L)	ORP (mv)	pH	Specific Conductance (µS/cm)	Sulfate (mg/L)	Temperature (°C)	Turbidity (NTU)	Iron Dissolved (mg/L)	Manganese Dissolved (mg/L)	Calcium Total (mg/L)	Magnesium Total (mg/L)	Nitrogen, Nitrate (mg/L)	Nitrogen, Nitrite (mg/L)
TX-03A	01/13/04	NM	1.400	NM	NM	NM	-59	6.39	480	NM	14.0	1.8	NM	NM	NM	NM	NM	NM
	04/19/04	360	1.440	> 600	36.1	6.000	21	6.18	560	< 1	13.7	2.4	NM	NM	NM	NM	NM	NM
	07/27/04	NM	1.310	NM	NM	NM	68	6.26	589	NM	17.9	3.0	NM	NM	NM	NM	NM	NM
	10/18/04	NM	2.770	NM	NM	NM	-100	6.63	595	NM	16.7	42.0	NM	NM	NM	NM	NM	NM
	01/24/05	NM	1.79	NM	NM	NM	5.0	5.11	563	NM	14.6	43.1	NM	NM	NM	NM	NM	NM
	04/19/05	320	0	>600	35.3	4	-86	6.47	552	< 1	13.8	20	NM	NM	NM	NM	NM	NM
	07/12/05	NM	0.16	NM	NM	NM	-121.0	6.55	477	NM	17.3	55.6	NM	NM	NM	NM	NM	NM
	10/31/07	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	11/20/08	169	0.5	NM	39.3	30.4	-59	6.87	821	< 1	15.8	31.8	NM	NM	NM	NM	NM	NM
	04/08/09	NM	0	NM	NM	NM	-145	6.58	236	NM	12.8	43.1	NM	NM	NM	NM	NM	NM
	11/17/09	202	1.29	160	32.2	36	-102	6.39	50.6	1.2	16.3	9.7	NM	NM	NM	NM	NM	NM
	04/27/10	NM	0.21	NM	NM	NM	-153	5.76	52.8	NM	13.2	9.5	NM	NM	NM	NM	NM	NM
	10/25/10	181	1.39	140	34.6	30	-115	6.68	42.5	6.8	15.5	48.0	NM	NM	NM	NM	NM	NM
	05/23/11	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	10/27/11	247	1.72	196	30.8	20.3	-101	8.50	478	< 0.50	15.44	NM	NM	NM	NM	NM	NM	NM
	03/01/12	NM	0.00	NM	NM	NM	-118	6.71	564	NM	12.29	12.6	NM	NM	NM	NM	NM	NM
	06/12/12	NM	4.00	NM	NM	NM	-103	7.19	507	NM	14.0	4.5	NM	NM	NM	NM	NM	NM
	09/25/12	NM	0.00	NM	NM	NM	-139	6.48	514	NM	17.83	15.2	NM	NM	NM	NM	NM	NM
	11/28/12	164	0.00	127	33.9	NM	-104	6.70	439	< 0.50	13.79	NM	NM	NM	NM	NM	NM	NM
	11/05/13	188	0.06	152	44.9	4.0	-114	6.57	528	< 0.50	10.98	0.0	< 0.200	0.470	NM	NM	NM	NM
	11/04/14	170	0.38	132	39.4	6.0	-39.0	6.49	424	< 0.50	16.80	5.83	6.18	0.523	25.3	16.6	< 0.10	< 0.10
MW-302	03/01/12	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/12/12	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	06/28/12	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	09/25/12	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	11/25/12	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	11/05/13	102	0.10	84.3	2.11	6.0-6.5	-67	6.42	346	13.2	14.81	0.0	< 0.200	0.349	NM	NM	NM	NM
	11/03/14	148	0.53	103	26.9	2.5	-27.8	6.50	342	< 0.50	15.91	5.06	0.765	0.493	23.4	10.9	< 0.10	< 0.10
MW-304	11/05/13	128	0.10	88.6	35.5	7.0	-119	6.60	396	< 0.50	12.20	0.0	0.345	0.273	NM	NM	NM	NM
	11/03/14	125	0.62	88.1	35.9	5.0	-36.9	6.46	310	0.51	14.86	11.2	3.60 J	0.297 J	16.8	11.2	< 0.10	< 0.10
MW-307	11/26/12	144	0.00	84.9	33.5	NM	-62	7.18	332	1.5	12.70	36.6	NM	NM	NM	NM	NM	NM
	11/06/13	60.0	0.07	45.4	27.0	3.5	-106	6.42	231	< 0.50	12.31	0.8	< 0.200	0.217	NM	NM	NM	NM
	11/04/14	104	0.26	78.2	44.1	4.5	-107	6.86	383	< 0.50	14.49	6.9	18.2	0.513	19.1	7.41	< 0.10	< 0.10
MW-310	11/28/12	158	0.00	132	29.3	NM	-88	7.22	385	< 0.50	13.97	80.6	NM	NM	NM	NM	NM	NM
	11/05/13	134	0.05	114	29.6	2.0-2.5	-95	6.44	396	< 0.50	14.07	0.0	0.982	0.528	NM	NM	NM	NM
	11/04/14	122	0.03	102	41.4	1.5	-101	6.88	393	< 0.50	15.97	0.0	11.5	0.615	26.0	8.89	< 0.10	< 0.10
MW-311	11/05/14	188	0.00	222	32.6	1.5	-146	7.42	606	42.3	16.57	7.0	< 0.200	1.57	75.2	8.27	< 0.25	< 0.25
MW-312	11/05/14	202	0.58	195	25.6	5.7	-92.0	6.78	459	< 1.3	17.07	0.0	< 0.200	0.787	58.8	11.6	< 0.25	< 0.25
MW-202	01/14/04	NM	12.4	NM	NM	NM	-40.2	5.32	52	NM	8.0	9.1	NM	NM	NM	NM	NM	NM
	04/20/04	180	1.31	> 400	47.8	3	112	5.27	317	< 1	12.1	9.8	NM	NM	NM	NM	NM	NM
	01/26/05	NM	1.69	NM	NM	NM	3	4.8	218	NM	11.6	126	NM	NM	NM	NM	NM	NM
	04/20/05	200	0	>600	42.2	8	-60	7.78	44	<1	12.6	26.0	NM	NM	NM	NM	NM	NM
	07/13/05	NM	0.11	NM	NM	NM	-22	6.09	281	NM	15.7	6.3	NM	NM	NM	NM	NM	NM
	10/20/05	NM	0.44	NM	NM	NM	-47.9	6.42	576	NM	15.5	5.5	NM	NM	NM	NM	NM	NM
	01/26/06	NM	0.18	NM	NM	NM	-104.7	7.73	213	NM	10.78	70	NM	NM	NM	NM	NM	NM
	11/20/08	73	3.65	228	32.5	36.6	232.0	6.40	532	< 1	14.50	10	NM	NM	NM	NM	NM	NM
	04/07/09	NM	0	NM	NM	NM	-82	6.12	0.175	NM	11.86	56.1	NM	NM	NM	NM	NM	NM
	11/19/09	64	1.65	120	45.2	19	-53	5.81	51.6	82	12.4	29.5	NM	NM	NM	NM	NM	NM
	04/27/10	NM	0.22	NM	NM	NM	-96	5.46	34	NM	12.3	55.4	NM	NM	NM	NM	NM	NM
	10/27/10	75	2.35	70	34.8	7.4	-48	6.15	29.5	< 1.0	15	24	NM	NM	NM	NM	NM	NM
	10/26/11	84	2.45	45.4	27.4	8.5	-104	8.22	214	< 0.50	12.90	2.72	NM	NM	NM	NM	NM	NM
	03/02/12	NM	0.00	NM	NM	NM	-39	6.30	334	NM	10.03	27.2	NM	NM	NM	NM	NM	NM
	06/13/12	NM	4.36	NM	NM	NM	-59	7.22	284	NM	12.5	25.7	NM	NM	NM	NM	NM	NM
	09/26/12	NM	0.00	NM	NM	NM	-112	6.74	332	NM	14.20	25.0	NM	NM	NM	NM	NM	NM
	11/27/12	110	0.00	101	35.9	NM	-70	7.33	383	15.0	12.99	77.7	NM	NM	NM	NM	NM	NM
	11/06/13	80.0	2.28	71.8	37.9	3.0	-43.6	5.79	263	0.76	13.67	4.9	< 0.200	0.439	NM	NM	NM	NM
	11/06/14	92.0	0.00	92.3	34.9	5.0	-49	6.47	373	7.0	15.87	107.0	0.288	0.631	14.2	13.8	< 0.25	< 0.25

Table 4
Compliance Monitoring Natural Attenuation Parameters
Shell Harbor Island Terminal
Seattle, Washington

Well	Date	Parameter																
		Total Alkalinity (mg/L)	Dissolved Oxygen (mg/L)	Hardness (mg/L)	Iron Total (mg/L)	Ferrous Iron (mg/L)	ORP (mv)	pH	Specific Conductance (µS/cm)	Sulfate (mg/L)	Temperature (°C)	Turbidity (NTU)	Iron Dissolved (mg/L)	Manganese Dissolved (mg/L)	Calcium Total (mg/L)	Magnesium Total (mg/L)	Nitrogen, Nitrate (mg/L)	Nitrogen, Nitrite (mg/L)
MW-203	01/13/04	NM	2.91	NM	NM	NM	-6.9	6.38	243	NM	12.4	13.7	NM	NM	NM	NM	NM	NM
	04/19/04	220	1.02	180	12	1	110	6.58	369	2.4	13.0	39.2	NM	NM	NM	NM	NM	NM
	07/27/04	NM	1.12	NM	NM	NM	90.9	6.11	514	NM	16.4	32.2	NM	NM	NM	NM	NM	NM
	10/18/04	NM	0.35	NM	NM	NM	136.8	9.42	643	NM	14.8	110	NM	NM	NM	NM	NM	NM
	01/25/05	NM	2.79	NM	NM	NM	21	6.37	476	NM	12.9	210	NM	NM	NM	NM	NM	NM
	04/19/05	220	0	>600	26.7	5.5	0	6.22	44	6.48	12.8	5	NM	NM	NM	NM	NM	NM
	07/13/05	NM	0.67	NM	NM	NM	-46	6.34	351	NM	15.0	15	NM	NM	NM	NM	NM	NM
	10/20/05	NM	1.12	NM	NM	NM	-48.7	6.69	902	NM	15.9	34	NM	NM	NM	NM	NM	NM
	01/23/06	NM	2.2	NM	NM	NM	7.6	6.45	131	NM	11.4	60	NM	NM	NM	NM	NM	NM
	11/18/08	80	10.3	208	1.56	1.35	87.0	7.11	448	17.1	13.9	190	NM	NM	NM	NM	NM	NM
	04/08/09	NM	1.87	NM	NM	NM	-31.0	6.83	136	NM	12.2	338	NM	NM	NM	NM	NM	NM
	11/17/09	86	5.5	86	2.36	< 0.1	197	6.28	25.8	8.3	12.2	45.6	NM	NM	NM	NM	NM	NM
	04/26/10	NM	0.30	NM	NM	NM	-109.0	6.81	40.9	NM	12.7	80.1	NM	NM	NM	NM	NM	NM
	10/25/10	139	1.58	150	7.83	4.3	-4	6.10	43.8	14	14.1	51.8	NM	NM	NM	NM	NM	NM
	05/23/11	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM	NM
	10/26/11	180	2.94	146	28.1	8.8	-81	8.40	384.0	< 0.50	13.98	10.9	NM	NM	NM	NM	NM	NM
	06/13/12	NM	4.27	NM	NM	NM	-38	7.20	375	NM	12.8	22.3	NM	NM	NM	NM	NM	NM
	11/27/12	170	0.00	140	21.2	NM	22	6.61	250	24.4	14.83	41.7	NM	NM	NM	NM	NM	NM
	11/06/13	190	0.18	161	21.9	3.0	-51	6.35	486	< 0.50	12.59	0.0	3.68	0.178	NM	NM	NM	NM
	11/06/14	134	4.55	150	15.0	1.5	135.1	6.71	236	14.5	16.13	28.4	< 0.200	0.127	50.9	5.49	0.42 J	< 0.25

Note:
°C = degrees Celsius
J = indicates a estimated value.
mg/L = milligrams per liter
mV = millivolts
NM = Not measured
NTU = nephelometric turbidity unit
ORP = oxidation-reduction potential
µS/cm = microsiemens per centimeter

Table 5
BTEX, Petroleum Hydrocarbons, and Lead in Groundwater
Shell Harbor Island Terminal
Seattle, Washington

Location ID	Sample Date	Chemical (mg/L)							
		Benzene	Toluene	Ethyl-benzene	Total Xylenes (mixed isomers)	Gasoline Range Hydro-carbons	Diesel Range Hydro-carbons	Motor Oil Range Hydrocarbons	Total Lead
Cleanup Level*		**0.071**	**200**	**29**	**NE**	**1**	**10**	**10**	**0.0058**
MW-05	01/15/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	0.37	< 0.5	NA
	04/21/04	0.0015	< 0.001	0.0053	< 0.001	< 0.25	0.41	< 0.5	NA
	07/28/04	0.0015	0.001	< 0.001	0.0017	< 0.25	< 0.25	< 0.5	NA
	10/19/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	01/25/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	04/18/05	< 0.001	< 0.001	< 0.001	< 0.001	0.072	< 0.25	< 0.5	NA
	07/12/05	< 0.001	< 0.001	< 0.001	< 0.001	0.25	< 0.25	< 0.5	NA
	10/19/05	< 0.001	< 0.001	< 0.001	< 0.001	0.11	< 0.25	< 0.5	NA
	01/26/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.05	< 0.238	< 0.476	NA
	11/19/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.25	< 0.5	NA
	11/17/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	NA
	10/29/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.14	< 0.1	NA
	05/23/11	<.0003	<.0005	<.0003	<.0007	0.0744	NA	NA	NA
	10/25/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	0.115	< 0.095	< 0.19	NA
	11/29/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0954	< 0.095	NA
	11/07/13	< 0.00020	0.00083 J	< 0.00020	0.00087 J	0.345	< 0.049	< 0.097	NA
	11/06/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	0.0507 J	0.137	< 0.094	NA
MW-101	01/16/04	< 0.001	< 0.001	< 0.001	0.0028	0.55	< 0.25	< 0.5	NA
	04/20/04	0.0016	< 0.001	< 0.001	0.0014	0.67	< 0.25	< 0.5	NA
	07/28/04	0.0012	< 0.001	< 0.001	0.0011	1.0	< 0.25	< 0.5	NA
	10/18/04	0.0011	< 0.001	< 0.001	< 0.001	0.42	< 0.25	< 0.5	NA
	01/26/05	< 0.001	< 0.001	< 0.001	0.0011	0.51	< 0.25	< 0.5	NA
	04/19/05	0.0016	< 0.001	< 0.001	< 0.001	0.58	< 0.25	< 0.5	NA
	07/13/05	< 0.001	< 0.001	< 0.001	< 0.001	0.31	< 0.25	< 0.5	NA
	10/10/05	< 0.001	< 0.001	< 0.001	< 0.001	0.16	< 0.25	< 0.5	NA
	01/27/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	0.223	< 0.236	< 0.476	NA
	11/18/08	< 0.005	< 0.005	< 0.005	< 0.005	0.1	< 0.25	< 0.5	NA
	11/18/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	NA
	10/26/10	< 0.0005	< 0.001	< 0.001	< 0.001	0.15	0.13	< 0.1	NA
	10/27/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	0.0936	< 0.10	< 0.20	NA
	11/26/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	0.188 J	0.0937 J	< 0.10	NA
	11/06/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	0.118 J	< 0.0048	< 0.0095	NA
	11/04/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.0048	< 0.0095	NA
MW-102	01/14/04	0.0021	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	04/21/04	0.0036	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	07/28/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	10/18/04	0.0011	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	01/25/05	0.0024	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	04/18/05	0.0027	< 0.001	< 0.001	< 0.001	< 0.05	< 0.25	< 0.5	NA
	07/13/05	< 0.001	< 0.001	< 0.001	< 0.001	0.077	< 0.25	< 0.5	NA
	10/19/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.25	< 0.5	NA
	01/26/06	0.00498	< 0.0005	0.00174	0.00201	< 0.05	< 0.238	< 0.472	NA
	11/19/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.25	< 0.5	NA
	11/18/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	NA
	10/28/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	NA
	10/26/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.20	0.113	< 0.20	NA
	11/28/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.050	< 0.10	NA
	11/07/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.047	0.144 J	NA
	11/04/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0568 J	< 0.094	NA

Table 5
BTEX, Petroleum Hydrocarbons, and Lead in Groundwater
Shell Harbor Island Terminal
Seattle, Washington

Location ID	Sample Date	Chemical (mg/L)							
		Benzene	Toluene	Ethyl-benzene	Total Xylenes (mixed isomers)	Gasoline Range Hydro-carbons	Diesel Range Hydro-carbons	Motor Oil Range Hydrocarbons	Total Lead
Cleanup Level*		**0.071**	**200**	**29**	**NE**	**1**	**10**	**10**	**0.0058**
MW-104	01/15/04	0.0019	< 0.001	0.15	0.1028	**2.7**	1.2	< 0.5	0.00555
	01/15/04	0.0012	< 0.001	0.1	0.0706	**2**	1.3	< 0.5	< 0.005
	04/21/04	0.0066	0.0025	0.35	0.0931	**4.3**	1.7	< 0.5	0.00575
	07/28/04	0.0018	< 0.001	0.048	0.017	**2.2**	0.87	< 0.5	< 0.005
	07/28/04	0.0017	< 0.001	0.049	0.019	**2.1**	1.3	< 0.5	< 0.005
	10/19/04	< 0.001	< 0.001	0.0021	0.0016	< 0.25	0.61	< 0.5	< 0.005
	01/24/05	< 0.001	< 0.001	0.0012	< 0.001	< 0.25	0.74	< 0.5	< 0.005
	04/18/05	< 0.001	< 0.001	0.057	0.0067	**1.4**	1.2	< 0.5	< 0.005
	07/12/05	0.0014	< 0.001	0.11	0.012	**1.8**	0.7	< 0.5	< 0.005
	10/19/05	< 0.001	< 0.001	0.024	0.0049	0.29	0.62	< 0.5	< 0.005
	01/25/06	0.00245	0.00129	0.33	0.0273	**2.07**	3.73	< 0.962	0.0077
	10/30/07	NA	NA	NA	NA	**1.25**	NA	NA	< 0.002
	05/20/08	NA	NA	NA	NA	**4.00**	2.10	< 0.5	NA
	11/18/08	NA	NA	NA	NA	0.13	0.69	< 0.5	< 0.005
	04/08/09	NA	NA	NA	NA	**1.80**	1.60	< 0.1	0.00326
	11/17/09	< 0.0005	< 0.001	0.0016	< 0.001	0.21	0.17	< 0.1	0.00778
	04/27/10	NA	NA	NA	NA	**3.90**	2.50	0.27	0.00232
	10/26/10	NA	NA	NA	NA	0.23	0.23	< 0.1	NA
	05/23/11	<0.0006	0.003	0.104	0.0018	**4.44**	0.45	<0.097	< 0.01
	10/25/11	NA	NA	NA	NA	**3.38**	0.413	< 0.20	< 0.01
	03/01/12	0.00079 J	0.0015	0.0467	0.0016 J	**3.69**	NA	NA	NA
	06/13/12	NA	NA	NA	NA	**4.78**	0.423	< 0.10	< 0.01
	09/26/12	0.00066 J	0.0024	0.0509	0.0019 J	**4.54**	NA	NA	NA
	11/29/12	0.00038 J	0.00037 J	0.0113	< 0.00046	0.592	0.315	< 0.098	NA
	05/14/13	NA	NA	NA	NA	**5.07**	0.601	< 0.096	< 0.01
	11/07/13	NA	NA	NA	NA	**3.62**	0.666 J	< 0.095	< 0.01
	04/24/14	NA	NA	NA	NA	**5.68**	1.13	0.100 J	< 0.01
	11/05/14	NA	NA	NA	NA	0.441	0.527	0.221	< 0.01
MW-105	01/15/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	1.4	< 0.5	0.00647
	04/21/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	0.65	< 0.5	0.00793
	07/27/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	2.2	< 0.5	0.0128
	10/19/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	1.8	< 0.5	0.0311
	01/24/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	3	< 0.5	0.00824
	04/18/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	1.3	0.78	0.00615
	07/12/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	1.7	< 0.5	< 0.005
	10/18/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	1.7	0.66	< 0.005
	01/25/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.05	3.95	< 0.962	0.00321
	11/19/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	NA	NA	< 0.005
	11/17/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.17	< 0.1	0.021
	10/26/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	NA	NA	NA
	10/25/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.20	0.253	< 0.20	< 0.01
	11/26/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.291	< 0.098	< 0.01
	11/07/13	< 0.00020	< 0.00020	< 0.00020	< 0.000046	< 0.050	0.189	< 0.095	**0.0179**
	11/05/14	< 0.00020	< 0.00020	< 0.00020	< 0.000046	< 0.050	0.377	0.192	< 0.01
MW-111	01/15/04	0.047	< 0.001	< 0.001	< 0.001	< 0.25	0.98	< 0.5	NA
	04/21/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	0.48	< 0.5	NA
	07/27/04	0.015	< 0.001	< 0.001	0.0012	< 0.25	0.45	< 0.5	NA
	10/19/04	0.036	0.0012	< 0.001	0.0035	0.35	0.45	< 0.5	NA
	01/25/05	**0.079**	< 0.005	< 0.005	< 0.005	0.58 J	0.63	< 0.5	NA
	04/18/05	< 0.001	< 0.001	< 0.001	< 0.001	0.096	< 0.25	< 0.5	NA
	07/12/05	0.0094	< 0.001	< 0.001	< 0.001	0.23	0.26	< 0.5	NA
	10/18/05	0.017	< 0.001	< 0.001	0.0013	0.26	0.27	< 0.5	NA
	01/25/06	**0.0956**	0.00189	0.000796	0.0037	0.683	0.998	< 0.481	NA
	11/19/08	0.014	< 0.005	< 0.005	< 0.005	0.230	0.370	< 0.5	NA
	11/17/09	0.041	< 0.001	< 0.001	< 0.001	0.240	0.110	< 0.1	NA
	10/26/10	0.0043	< 0.001	< 0.001	< 0.001	< 0.1	0.120	< 0.1	NA
	05/23/11	0.0006	<.0005	<.0003	<.0007	<0.050	NA	NA	NA
	10/25/11	0.00094	< 0.0010	< 0.0010	< 0.0020	< 0.20	0.122	< 0.20	NA
	11/29/12	0.0248	0.0010	< 0.00020	0.0012 J	0.371	0.269	< 0.10	NA
	11/07/13	**0.0845**	0.0010	0.00023 J	0.00069 J	0.208	0.174	< 0.095	NA
	11/05/14	0.0574	0.0012	0.00083 J	0.00047 J	0.232	0.167	0.118 J	NA

Table 5
BTEX, Petroleum Hydrocarbons, and Lead in Groundwater
Shell Harbor Island Terminal
Seattle, Washington

Location ID	Sample Date	Chemical (mg/L)							
		Benzene	Toluene	Ethyl-benzene	Total Xylenes (mixed isomers)	Gasoline Range Hydro-carbons	Diesel Range Hydro-carbons	Motor Oil Range Hydrocarbons	Total Lead
Cleanup Level*		**0.071**	**200**	**29**	**NE**	**1**	**10**	**10**	**0.0058**
MW-112A	01/15/04	0.02	< 0.001	< 0.001	< 0.001	0.25	0.63	< 0.5	NA
	04/21/04	< 0.005	< 0.005	< 0.005	< 0.005	< 1.2	0.56	< 0.75	NA
	07/27/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	0.51	< 0.5	NA
	10/19/04	0.0013	< 0.001	< 0.001	< 0.001	< 0.25	0.68	< 0.5	NA
	01/24/05	0.003	0.0012	< 0.001	0.001	0.44	0.65	< 0.5	NA
	04/20/05	< 0.001	< 0.001	< 0.001	< 0.001	0.42	1.4	< 0.5	NA
	07/12/05	0.0029	< 0.001	< 0.001	< 0.001	0.28	0.48	< 0.5	NA
	10/18/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.25	< 0.5	NA
	01/26/06	0.00211	< 0.0005	< 0.0005	< 0.001	0.236	0.602	< 0.485	NA
	11/19/08	< 0.005	< 0.005	< 0.005	< 0.005	0.300	1.300	< 0.5	NA
	11/18/09	0.00075	< 0.001	< 0.001	< 0.001	0.200	0.230	< 0.1	NA
	10/29/10	0.03600	< 0.001	< 0.001	0.0015	0.770	0.600	< 0.1	NA
	05/24/11	0.00041	<0.0005	<0.0003	<0.0007	0.129	NA	NA	NA
	10/25/11	0.0055	< 0.0010	< 0.0010	< 0.0020	0.292	0.200	< 0.20	NA
	11/25/12	0.0058	0.00022 J	0.00037 J	< 0.00046	0.197 J	0.282	< 0.10	NA
	11/04/13	0.0238	0.00068 J	0.0376	0.0012 J	0.909	1.72	< 0.19	NA
	11/06/14	0.0156	0.0014	0.0280	0.0016 J	0.760	1.43	0.295	NA
MW-201	01/14/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	04/20/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	01/26/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	0.33	< 0.5	NA
	04/20/05	< 0.001	< 0.001	< 0.001	0.0021	< 0.25	< 0.25	< 0.5	NA
	07/13/05	< 0.001	< 0.001	< 0.001	< 0.001	0.12	0.7	< 0.5	NA
	10/20/05	< 0.001	< 0.001	< 0.001	< 0.001	0.22	4.6	2.3	NA
	01/26/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.050	0.342	< 0.476	NA
	11/20/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	0.41	< 0.5	NA
	11/19/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	NA
	10/27/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.18	< 0.1	NA
	10/26/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	0.0899	1.46	0.181	NA
	11/27/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.122	< 0.10	NA
	11/06/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	0.0964 J	0.520	< 0.094	NA
	11/06/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.173	0.195	NA
MW-202	01/14/04	< 0.001	< 0.001	< 0.001	< 0.001	**2.5**	**15**	< 10	NA
	04/20/04	0.014	0.0062	0.074	0.021	**4.4**	**28**	< 10	NA
	01/26/05	< 0.005	< 0.005	< 0.005	< 0.005	**7.7**	5.2	< 5	NA
	04/20/05	0.016	0.0022	0.036	0.0237	**3.7**	6.2	< 5	NA
	07/13/05	0.016	0.0033	0.067	0.0191	**3.5**	6.2	< 1	NA
	10/20/05	0.019	0.0021	0.058	0.0056	**3.3**	5.9	< 2.5	NA
	01/26/06	0.0224	0.00598	0.041	0.0191	**5.79**	**11.2**	< 4.76	NA
	04/25/06	0.007	0.0038	0.062	0.0124	**6.8**	8.7	<4.85	NA
	10/12/06	0.009	0.0034	0.083	0.0062	**5.7**	**11.5**	0.834	NA
	04/26/07	0.008	0.0048	0.063	<0.015	**4.8**	8.2	1.05	NA
	10/30/07	NA	NA	NA	NA	**4.55**	**10.9**	< 1	NA
	05/20/08	NA	NA	NA	NA	**2.3**	1.8	< 2.5	NA
	11/20/08	NA	NA	NA	NA	**5.0**	2.2	< 0.5	NA
	04/07/09	NA	NA	NA	NA	**4.8**	**14**	< 0.1	NA
	11/19/09	NA	NA	NA	NA	**6.6**	**20**	< 0.5	NA
	04/27/10	NA	NA	NA	NA	**3.3**	6.4	0.12	NA
	10/27/10	0.0081	0.0031	0.066	0.0022	**6.0**	5.4	< 0.1	NA
	05/23/11	NA	NA	NA	NA	**3.5**	1.84	< 0.097	NA
	10/26/11	NA	NA	NA	NA	**4.3**	1.02	< 0.21	NA
	03/02/12	0.0053	0.0019	0.0107	0.0013 J	**3.87**	NA	NA	NA
	06/13/12	NA	NA	NA	NA	**3.31**	1.54	< 0.10	NA
	09/26/12	0.0058	0.0029 J	0.0378	< 0.0018	**4.07**	NA	NA	NA
	11/27/12	0.0113	0.0034	0.0274	0.0022	**6.07**	2.67	< 0.30	NA
	05/15/13	NA	NA	NA	NA	**3.83**	1.62	< 0.096	NA
	11/06/13	< 0.00020	0.0027	0.0335	0.0012 J	**4.68**	1.29	< 0.095	NA
	04/22/14	NA	NA	NA	NA	**3.22**	2.18	< 0.28	NA
	11/06/14	0.0083	0.0026	0.0154	0.0011	**5.10**	2.45	0.282 J	NA

Table 5
BTEX, Petroleum Hydrocarbons, and Lead in Groundwater
Shell Harbor Island Terminal
Seattle, Washington

Location ID	Sample Date	Chemical (mg/L)							
		Benzene	Toluene	Ethyl-benzene	Total Xylenes (mixed isomers)	Gasoline Range Hydro-carbons	Diesel Range Hydro-carbons	Motor Oil Range Hydrocarbons	Total Lead
Cleanup Level*		**0.071**	**200**	**29**	**NE**	**1**	**10**	**10**	**0.0058**
MW-203	01/13/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	04/19/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	0.26	< 0.5	NA
	07/27/04	0.013	< 0.001	0.0069	< 0.001	**2.6**	0.45	< 0.5	NA
	10/19/04	0.013	< 0.001	0.015	0.0025	**1.6**	< 0.25	< 0.5	NA
	10/19/04	0.017	< 0.001	0.012	0.0018	**1.4**	< 0.25	< 0.5	NA
	01/25/05	0.0063	< 0.001	0.011	0.0013	**1.6**	0.52	0.68	NA
	04/19/05	0.0068	< 0.001	0.0018	< 0.001	0.63	< 0.25	0.55	NA
	07/13/05	0.01	< 0.001	0.0077	< 0.001	0.89	< 0.25	< 0.5	NA
	10/20/05	0.023	0.002	0.021	0.0026	**4.2**	2.1	1.1	NA
	01/23/06	0.00186	< 0.0005	0.00182	0.00125	0.76	0.565	< 0.943	NA
	04/26/06	0.00694	0.00076	0.00079	<0.003	**1.38**	0.660	0.625	NA
	10/13/06	0.02300	0.00553	0.00448	0.00652	**6.22**	7.390	1.34	NA
	04/27/07	0.00502	<0.0005	0.00053	<0.003	**1.24**	0.507	0.515	NA
	05/20/08	NA	NA	NA	NA	0.60	0.320	< 0.5	NA
	11/18/2008	NA	NA	NA	NA	0.17	< 0.25	< 0.5	NA
	04/08/09	NA	NA	NA	NA	< 0.1	0.12	0.11	NA
	11/17/09	NA	NA	NA	NA	< 0.1	< 0.1	< 0.1	NA
	04/26/10	NA	NA	NA	NA	0.16	0.18	< 0.1	NA
	10/25/10	NA	NA	NA	NA	0.92	0.36	< 0.1	NA
	05/23/11	NA	NA	NA	NA	0.333	0.085	0.314	NA
	10/26/11	NA	NA	NA	NA	**1.380**	0.262	0.118	NA
	06/13/12	NA	NA	NA	NA	0.459	0.134	0.332	NA
	11/27/12	NA	NA	NA	NA	**1.05**	0.0943 J	< 0.10	NA
	05/15/13	NA	NA	NA	NA	0.144 J	< 0.048	< 0.096	NA
	11/06/13	NA	NA	NA	NA	0.680	< 0.047	< 0.094	NA
	04/22/14	NA	NA	NA	NA	0.164	0.210 J	0.732 J	NA
	11/06/14	NA	NA	NA	NA	0.102	0.0933 J	0.168 J	NA
MW-204	07/27/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	1.6	< 0.5	NA
	01/26/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	6.2	< 1	NA
	04/18/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	1.5	0.79	NA
	07/13/05	< 0.001	< 0.001	< 0.001	< 0.001	0.076	1.1	0.59	NA
	10/19/05	< 0.001	< 0.001	< 0.001	< 0.001	0.082	0.45	< 0.5	NA
	01/26/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.05	5.53	< 0.952	NA
	04/25/06	<0.0005	<0.0005	<0.0005	<0.003	0.076	2.5	1.11	NA
	10/12/06	<0.0005	<0.0005	<0.0005	<0.003	0.0634	0.90	0.519	NA
	04/26/07	<0.0005	<0.0005	<0.0005	<0.003	0.086	1.81	0.749	NA
	10/30/07	NA	NA	NA	NA	< 0.05	NA	NA	NA
	11/20/08	< 0.005	< 0.005	< 0.005	< 0.005	0.13	1.0	< 0.5	NA
	11/19/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	3.5	0.16	NA
	10/27/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.29	< 0.1	NA
	10/27/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	0.0660	0.599	< 0.20	NA
	11/27/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.975	< 0.10	NA
	11/06/13	0.00057 J	< 0.00020	< 0.00020	< 0.00046	0.0762 J	0.280	0.0976 J	NA
	11/06/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.505	0.321	NA
MW-206A	01/22/04	< 0.001	< 0.001	< 0.001	0.004	< 0.25	< 0.25	< 0.5	NA
	04/19/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	07/27/04	< 0.005	< 0.005	< 0.005	< 0.005	< 1.2	1.8	0.78	NA
	10/19/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	2	1.1	NA
	01/25/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	2.1	2.2	NA
	04/18/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	1.3	1.5	NA
	07/13/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	1.2	1.9	NA
	10/20/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	2.1	7.9	NA
	01/26/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.05	4.41	2.54	NA
	11/20/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.25	2.1	1.7	NA
	11/19/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.1	< 0.1	NA
	10/25/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	0.18	NA
	10/26/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.20	0.141	< 0.20	NA
	11/27/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.116	0.111 J	NA
	11/06/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.047	< 0.094	NA
	11/06/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.236	0.392	NA

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Seattle, Washington

Location ID	Sample Date	Chemical (mg/L)							
		Benzene	Toluene	Ethyl-benzene	Total Xylenes (mixed isomers)	Gasoline Range Hydro-carbons	Diesel Range Hydro-carbons	Motor Oil Range Hydrocarbons	Total Lead
Cleanup Level*		**0.071**	**200**	**29**	**NE**	**1**	**10**	**10**	**0.0058**
MW-213	01/14/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	04/20/04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.25	< 0.25	< 0.5	NA
	07/28/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	10/19/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	01/25/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	04/19/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.25	< 0.5	NA
	07/12/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.25	< 0.5	NA
	10/20/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	0.34	< 0.5	NA
	01/26/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.05	0.653	< 0.495	NA
	10/30/07	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	NA	NA
	11/19/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.25	< 0.25	< 0.5	NA
	04/07/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	NA
	11/18/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	NA
	04/26/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	NA
	10/28/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	NA
	05/24/11	<0.0003	<0.0005	<0.0003	<0.0007	< 0.050	< 0.049	< 0.098	NA
	10/25/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.20	< 0.11	< 0.21	NA
	06/12/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.050	< 0.10	NA
	11/29/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.050	< 0.10	NA
	05/15/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.048	< 0.096	NA
	11/05/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0625 J	< 0.095	NA
	04/23/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0586	< 0.094	NA
	11/05/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0782 J	< 0.094	NA
MW-214	01/14/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	04/20/04	< 0.005	< 0.005	< 0.005	< 0.005	< 0.25	< 0.25	< 0.5	NA
	07/28/04	< 0.005	< 0.005	< 0.005	< 0.005	< 1.2	< 0.25	< 0.5	NA
	10/19/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	01/25/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	0.36	< 0.5	NA
	04/19/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	0.3	< 0.5	NA
	07/12/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	0.29	< 0.5	NA
	10/20/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	0.33	< 0.5	NA
	01/26/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.05	0.91	< 0.476	NA
	10/30/07	< 0.001	< 0.001	< 0.001	< 0.003	NA	NA	NA	NA
	05/05/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.25	0.91	< 0.5	NA
	07/10/08	-	-	-	-	-	< 0.5	< 1	NA
	11/19/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.25	0.80	< 0.5	NA
	04/07/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.17	< 0.1	NA
	11/18/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.11	< 0.1	NA
	04/26/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.19	< 0.1	NA
	10/28/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	NA
	05/24/11	<0.0003	<0.0005	<0.0003	<0.0007	<0.050	0.127	<0.097	NA
	10/25/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.20	0.126	< 0.21	NA
	06/12/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.050	0.135 J	NA
	11/29/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.048	< 0.095	NA
	05/15/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0857 J	< 0.096	NA
	11/05/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0552 J	< 0.094	NA
	04/23/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.118	< 0.094	NA
	11/05/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.168	0.103	NA
MW-301	03/02/12	**0.240**	0.0138	0.00990	0.0212	**3.37**	NA	NA	NA
	09/25/12	**0.333**	0.0131	0.0186	0.0192	**4.02**	NA	NA	NA
	11/28/12	**0.241**	0.0099	0.0125	0.0106	**2.76**	NA	NA	NA
	02/21/13	**0.659**	0.0175	0.0264	0.0173 J	**3.98**	0.315	< 0.10	NA
	05/15/13	**0.357**	0.0122	0.0231	0.0145	**3.63**	NA	NA	NA
	11/04/13	**0.160**	0.0097	0.0164	0.0109	**2.29**	NA	NA	NA
	04/23/14	**0.252**	0.0072	0.0135	0.0075	**3.57**	NA	NA	NA
	07/24/14	**0.314**	0.0080	0.0143	0.0096	**3.70**	0.361	< 0.094	NA
	11/03/14	**0.108**	0.0043 J	0.0046 J	0.0051 J	**1.76**	NA	NA	NA
MW-302	03/01/12	**0.831**	0.0275	0.213	0.248	**5.33**	NA	NA	NA
	06/12/12	**0.574**	0.0156	0.0183	0.0244	**4.18**	NA	NA	NA
	06/28/12	**1.23**	0.0437	0.403	0.289	**5.65**	NA	NA	NA
	09/25/12	**0.657**	0.0247	0.180	0.106	**4.07**	NA	NA	NA
	11/25/12	**0.449**	0.0152	0.191	0.177	**4.58**	NA	NA	NA
	02/22/13	**0.393**	0.0149	0.124	0.116	**4.15**	0.435	< 0.10	NA
	05/14/13	**0.873**	0.0231	0.236	0.145	**4.19**	NA	NA	NA
	09/05/13	**0.783**	0.0189	0.162	0.0746	**3.70**	NA	NA	NA
	11/05/13	**0.607**	0.0112	0.0977	0.0529	**2.69**	NA	NA	NA
	01/16/14	**0.404**	0.0161	0.0843	0.0504	**3.54**	NA	NA	NA
	04/23/14	**0.980**	0.0269	0.276	0.232	**5.86**	NA	NA	NA
	07/24/14	**0.656**	0.0206	0.178	0.131	**4.66**	0.363	< 0.094	NA
	11/03/14	**0.506**	0.0159	0.221	0.176	**4.06**	0.361	< 0.094	NA

Table 5
BTEX, Petroleum Hydrocarbons, and Lead in Groundwater
Shell Harbor Island Terminal
Seattle, Washington

Location ID	Sample Date	Chemical (mg/L)							
		Benzene	Toluene	Ethyl-benzene	Total Xylenes (mixed isomers)	Gasoline Range Hydro-carbons	Diesel Range Hydro-carbons	Motor Oil Range Hydrocarbons	Total Lead
Cleanup Level*		**0.071**	**200**	**29**	**NE**	**1**	**10**	**10**	**0.0058**
MW-303	03/02/12	**3.13**	0.0759	0.760	0.232	**12.3**	NA	NA	NA
	06/13/12	**2.90**	0.0957	0.884	0.268	**12.5**	NA	NA	NA
	09/25/12	**1.83**	0.0635	0.474	0.146	**9.14**	NA	NA	NA
	11/28/12	**1.94**	0.0873	1.18	0.319	**12.6**	NA	NA	NA
	02/21/13	**2.34**	0.0955	1.29	0.338	**12.8**	0.674	< 0.10	NA
	05/15/13	**1.90**	0.0864	0.983	0.272	**10.6**	NA	NA	NA
	11/04/13	**0.884**	0.0278	0.219	0.0544	**6.11**	NA	NA	NA
	04/23/14	**1.58**	0.0710	1.114	0.224	**11.8**	NA	NA	NA
	07/24/14	**0.808**	0.0471	0.653	0.161	**9.8**	0.622	< 0.094	NA
	11/04/14	**1.42**	0.0618	0.924	0.180	**11.5**	1.00	1.15	NA
MW-304	03/01/12	**0.686**	0.0351	0.214	0.264	**5.64**	NA	NA	NA
	06/12/12	**1.04**	0.0408	0.270	0.218	**5.98**	NA	NA	NA
	09/25/12	**0.630**	0.0240	0.198	0.105	**3.93**	NA	NA	NA
	11/28/12	**0.411**	0.0244	0.306	0.252	**5.89**	NA	NA	NA
	02/22/13	**0.507**	0.0225	0.208	0.149	**5.56**	0.762	0.186 J	NA
	05/14/13	**0.645**	0.0283	0.209	0.144	**4.73**	NA	NA	NA
	09/05/13	**0.862**	0.0188	0.0849	0.0616	**3.09**	NA	NA	NA
	11/05/13	**0.695**	0.0163	0.0629	0.0540	**2.67**	NA	NA	NA
	01/16/14	**0.790**	0.0194	0.0472	0.0571	**4.89**	NA	NA	NA
	04/23/14	**0.778**	0.0248	0.185	0.147	**5.93**	NA	NA	NA
	07/24/14	**0.437**	0.0173	0.109	0.0666	**3.59**	0.557	< 0.094	NA
	11/03/14	**1.11**	0.0421	0.48	0.2140	**3.32**	0.366	< 0.094	NA
MW-305	03/01/12	**1.14**	0.0227	0.0389	0.0375 J	**5.84**	NA	NA	NA
	06/11/12	**1.34**	0.0221	0.0517	0.0331 J	**5.97**	NA	NA	NA
	09/26/12	**1.27**	0.0229	0.0388	0.0355 J	**5.89**	NA	NA	NA
	11/28/12	**0.286**	0.0061	0.0032 J	0.0140	**1.53**	NA	NA	NA
	05/15/13	**0.397**	0.0263	0.290	0.0867	**6.28**	NA	NA	NA
	11/07/13	**0.0844**	0.0250	0.216	0.0919	**3.59**	NA	NA	NA
	04/23/14	**0.0884**	0.0139	0.0941	0.0454	**2.82**	NA	NA	NA
	11/06/14	0.0419	0.0052	0.0020	0.0306	**1.16**	NA	NA	NA
MW-306	03/01/12	**0.606**	0.0150	0.0353	0.718	**4.74**	NA	NA	NA
	06/11/12	**0.393**	0.0115	0.0509	0.763	**5.09**	NA	NA	NA
	09/26/12	**1.05**	0.0261	0.135	0.147	**6.56**	NA	NA	NA
	11/28/12	**0.393**	0.0125	0.0183	0.0895	**3.06**	NA	NA	NA
	05/15/13	**0.746**	0.0472	0.837	3.70	**18.5**	NA	NA	NA
	11/07/13	**0.101**	0.0502	0.482	2.65	**12.8**	NA	NA	NA
	04/23/14	**0.0762**	0.0345	0.325	1.97	**11.0**	NA	NA	NA
	11/06/14	**0.119**	0.0226	0.302 J	0.939 J	**5.59**	NA	NA	NA
MW-307	11/26/12	**2.150**	0.0858	0.833	0.513	**10.9**	NA	NA	NA
	02/22/13	**0.497**	0.0358	0.226	0.145	**6.02**	0.604	< 0.094	NA
	05/15/13	**0.437**	0.0461	0.167	0.120	**4.56**	NA	NA	NA
	09/05/13	**0.643**	0.0645	0.154	0.131	**5.30**	NA	NA	NA
	11/06/13	**0.568**	0.0448 J	0.104	0.0912	**4.39**	NA	NA	NA
	04/22/14	**0.520**	0.0408	0.241	0.152	**5.68**	NA	NA	NA
	11/04/14	**0.596**	0.0390	0.176	0.095	**5.16**	0.632	< 0.095	NA
MW-308	11/26/12	**0.144**	0.0010 J	0.0072	0.0013 J	0.778	NA	NA	NA
	02/22/13	**0.668**	0.0078 J	0.0443	0.0059 J	**3.48**	0.354	< 0.10	NA
	05/15/13	**0.392**	0.0052 J	0.0427	< 0.0046	**2.54**	NA	NA	NA
	11/06/13	**0.237**	0.0033 J	0.0056	0.0026 J	**1.65**	NA	NA	NA
	04/22/14	0.0165	< 0.00020	0.00036 J	< 0.00046	0.146	NA	NA	NA
	11/04/14	**0.132**	0.0012	0.0044	0.00058	0.782	< 0.048	< 0.095	NA
MW-309	11/28/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	NA	NA	NA
	02/21/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0790 J	< 0.10	NA
	05/16/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	NA	NA	NA
	11/06/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	NA	NA	NA
	04/23/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	NA	NA	NA
	07/24/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.102	< 0.094	NA
	11/03/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.048	< 0.095	NA
MW-310	11/28/12	**0.86**	0.0265	0.211	0.147	**5.74**	NA	NA	NA
	02/21/13	**1.80**	0.0768	0.506	0.180	**8.37**	0.603	< 0.10	NA
	05/14/13	**0.993**	0.0703	0.654	0.175	**6.49**	NA	NA	NA
	09/05/13	**0.960**	0.0598	0.310	0.110	**5.51**	NA	NA	NA
	11/05/13	**0.772**	0.0409	0.226	0.0846	**4.92**	NA	NA	NA
	01/16/14	**0.821**	0.0414	0.189	0.0775	**5.94**	NA	NA	< 0.001[1]
	04/23/14	**0.796**	0.0432	0.187	0.0607	**5.88**	NA	NA	NA
	07/24/14	**0.920**	0.0489	0.368	0.0647	**6.36**	0.605	< 0.094	NA
	11/04/14	**0.739**	0.0387	0.132	0.0538	**5.15**	0.613	< 0.094	NA
MW-311	11/05/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.048	< 0.095	< 0.010
MW-312	11/05/14	**0.239**	0.0058	0.0065	0.0102	**1.64**	1.13	0.132 J	< 0.010

Table 5
BTEX, Petroleum Hydrocarbons, and Lead in Groundwater
Shell Harbor Island Terminal
Seattle, Washington

Location ID	Sample Date	Chemical (mg/L)							
		Benzene	Toluene	Ethyl-benzene	Total Xylenes (mixed isomers)	Gasoline Range Hydro-carbons	Diesel Range Hydro-carbons	Motor Oil Range Hydrocarbons	Total Lead
Cleanup Level*		**0.071**	**200**	**29**	**NE**	**1**	**10**	**10**	**0.0058**
SH-04	01/13/04	**1.2**	0.21	0.14	2.11	**15.0**	4.7	< 2.5	NA
	04/20/04	**1.5**	0.49	0.64	5.79	**26.0**	6.2	< 10	NA
	07/27/04	**1.3**	0.13	0.55	1.78	**15.0**	5.4	0.53	NA
	04/20/05	**0.98**	0.061	0.36	1.07	**11.0**	4.2	< 1.5	NA
	04/25/06	**1.3**	0.09	0.65	2.31	**20.0**	8.2	2.52	NA
	10/30/07	**0.88**	0.032	0.32	0.08	**<5.0**	NA	NA	NA
	05/20/08	**1.1**	0.05	0.52	0.66	**8.9**	4.8	0.92	NA
	11/20/08	**0.79**	0.032	0.23	0.04	**6.6**	2.7	< 0.5	NA
	04/08/09	**0.9**	0.04	0.25	0.19	**9.2**	4.7	< 0.1	NA
	11/16/09	**0.48**	0.023	0.07	0.02	**4.9**	3.7	< 0.1	NA
	04/27/10	**0.7**	0.03	0.27	0.13	**7.3**	4.7	0.39	NA
	10/25/10	**0.58**	0.019	0.18	0.01	**4.0**	2.8	< 0.1	NA
	05/23/11	**0.66**	0.015	0.15	0.03	**5.4**	1.8	0.13	NA
	10/27/11	**0.393**	0.0200	0.0926	0.0279	**5.35**	1.22	< 0.19	NA
	03/01/12	**0.614**	0.0227	0.0932	0.0124 J	**5.53**	NA	NA	NA
	06/11/12	**0.426**	0.0142	0.112	0.0198 J	**6.00**	1.49	0.393	NA
	09/25/12	**0.124**	0.0184	0.461	0.139	**6.52**	NA	NA	NA
	11/25/12	**0.0730**	0.0079 J	0.609	0.326	**8.15**	0.762	< 0.098	NA
	05/15/13	0.0016 J	0.00050	0.0042	0.0032 J	**2.16**	0.376	< 0.096	NA
	11/04/13	0.0032	0.00043 J	0.0071	0.0050	**1.05**	0.134	< 0.094	NA
	04/24/14	0.0091	0.00053 J	0.00090 J	0.0014 J	0.938	0.469	0.0944 J	NA
	11/06/14	0.0249	0.0023	0.0173	0.0072	0.984	0.608	< 0.094	NA
TES-MW-1	01/14/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	04/20/04	0.0067	< 0.001	0.011	0.043	< 0.25	< 0.25	< 0.5	NA
	04/20/04	0.0075	< 0.001	0.013	0.049	< 0.25	< 0.25	< 0.5	NA
	07/28/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	10/18/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	01/25/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	01/25/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	< 0.25	< 0.5	NA
	04/19/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.05	< 0.25	< 0.5	NA
	07/13/05	0.001	< 0.001	0.006	0.0189	0.10	< 0.25	< 0.5	NA
	10/20/05	0.0039	< 0.001	0.013	0.0437	0.23	< 0.25	< 0.5	NA
	01/27/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	< 0.05	< 0.240	< 0.481	NA
	11/18/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	< 0.25	< 0.5	NA
	11/18/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	NA
	10/26/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	< 0.1	< 0.1	NA
	05/24/11	<0.0003	<0.0005	<0.0003	<0.0007	<0.050	NA	NA	NA
	10/27/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.20	< 0.10	< 0.20	NA
	11/26/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.050	< 0.10	NA
	11/06/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.048	< 0.095	NA
	11/04/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.048	< 0.095	NA
TX-03A	01/13/04	**2.9**	0.018	0.038	0.091	**2.7**	0.86	< 0.5	NA
	04/19/04	**4.4**	0.047	0.12	0.11	**12**	1.3	< 0.5	NA
	07/27/04	**1.7**	0.011	0.016	0.037	**5.2**	0.81	< 0.5	NA
	10/18/04	**3.2**	0.024	0.062	0.093	**7.5**	1.2	< 0.5	NA
	01/24/05	**2.5**	0.02	< 0.01	0.065	**8.2**	0.54	< 0.5	NA
	04/19/05	**2.5**	0.021	0.026	0.049	**6.1**	0.47	< 0.5	NA
	07/12/05	**3.1**	0.024	0.044	0.054	**10**	0.32	< 0.5	NA
	10/31/07	**2.2**	0.023	0.060	0.050	<5.0	NA	NA	NA
	05/20/08	**0.9**	0.007	0.016	0.010	**3.0**	NA	NA	NA
	11/20/08	**2.1**	0.019	0.038	0.018	**4.5**	NA	NA	NA
	04/08/09	**1.2**	< 0.025	0.028	< 0.025	**3.5**	NA	NA	NA
	11/17/09	**1.0**	0.008	0.016	0.011	**2.4**	NA	NA	NA
	04/27/10	**1.7**	0.010	0.009	0.010	**4.6**	NA	NA	NA
	10/25/10	**1.7**	0.011	0.067	0.013	**3.3**	NA	NA	NA
	05/23/11	**1.78**	<0.025	0.044	<0.035	**7.5**	NA	NA	NA
	10/27/11	**3.44**	0.0712	0.147	0.111	**8.51**	NA	NA	NA
	03/01/12	**1.74**	0.0261	0.0272	0.0345 J	**5.58**	NA	NA	NA
	06/12/12	**1.57**	0.0200 J	0.0139 J	0.0300 J	**6.78**	NA	NA	NA
	09/25/12	**1.7**	0.0298	0.0410	0.0501	**5.53**	NA	NA	NA
	11/28/12	**1.18**	0.0188 J	0.0232	0.0357 J	**4.91**	NA	NA	NA
	02/21/13	**2.81**	0.0403	0.0421	0.0489 J	**8.20**	0.320	< 0.10	NA
	05/15/13	**2.15**	0.0459 J	0.189	0.0643 J	**3.11**	NA	NA	NA
	11/05/13	**2.72**	0.0343 J	0.0364 J	0.0411 J	**6.01**	NA	NA	NA
	04/23/14	**1.22**	0.0171	0.0251	0.0270	**5.76**	NA	NA	NA
	07/24/14	**1.64**	0.0317	0.0698	0.0520	**7.55**	0.382	< 0.094	NA
	11/04/14	**0.941**	0.0137	0.0366	0.0269	**5.76**	0.448	< 0.094	NA

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Location ID	Sample Date	Chemical (mg/L)							
		Benzene	Toluene	Ethyl-benzene	Total Xylenes (mixed isomers)	Gasoline Range Hydro-carbons	Diesel Range Hydro-carbons	Motor Oil Range Hydrocarbons	Total Lead
Cleanup Level*		**0.071**	**200**	**29**	**NE**	**1**	**10**	**10**	**0.0058**
TX-04	01/13/04	0.025	0.0055	< 0.001	0.01940	0.650	0.59	< 0.5	NA
	04/21/04	0.0025	0.0017	< 0.001	0.0031	0.47	2.200	< 0.75	NA
	07/27/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	1.50	< 0.5	NA
	10/18/04	< 0.001	< 0.001	< 0.001	0.0022	0.28	1.2	< 0.5	NA
	01/24/05	0.0310	0.0071	< 0.001	0.020	0.87	0.64	< 0.5	NA
	04/20/05	0.014	0.00360	< 0.001	0.0085	0.54	0.73	< 0.5	NA
	07/12/05	< 0.001	< 0.001	< 0.001	0.00140	0.340	0.82	< 0.5	NA
	10/18/05	< 0.001	< 0.001	< 0.001	< 0.001	0.20	1.100	< 0.5	NA
	01/25/06	0.00127	0.001	< 0.0005	0.00151	0.206	0.84	< 0.476	NA
	11/18/08	< 0.005	< 0.005	< 0.005	< 0.005	0.076	< 0.25	< 0.5	NA
	11/16/09	< 0.0005	< 0.001	< 0.001	< 0.001	0.17	0.13	< 0.1	NA
	10/25/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.17	< 0.1	NA
	05/23/11	<0.0003	<0.0005	<0.0003	<0.0007	0.055	NA	NA	NA
	10/26/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.20	0.0966	< 0.20	NA
	11/26/12	0.0013	0.00038 J	< 0.00020	0.00052 J	0.0980 J	0.0807 J	< 0.10	NA
	11/04/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.0492 J	< 0.095	NA
	11/06/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	< 0.048	< 0.096	NA
TX-06A	01/14/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	5.8	< 1	NA
	04/21/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	3.4	< 0.75	NA
	07/27/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	3.6	< 0.5	NA
	10/18/04	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	4.1	< 0.5	NA
	01/24/05	< 0.001	< 0.001	< 0.001	< 0.001	< 0.25	2.7	< 0.5	NA
	04/20/05	< 0.001	< 0.001	< 0.001	< 0.001	0.18	6.3	< 1.5	NA
	07/13/05	< 0.001	< 0.001	< 0.001	< 0.001	0.26	2.5	< 0.5	NA
	10/18/05	< 0.001	< 0.001	< 0.001	< 0.001	0.072	0.93	< 0.5	NA
	01/26/06	< 0.0005	< 0.0005	< 0.0005	< 0.001	0.126	1.57	< 0.476	NA
	11/18/08	< 0.005	< 0.005	< 0.005	< 0.005	< 0.05	0.49	< 0.5	NA
	11/17/09	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.24	< 0.1	NA
	10/28/10	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.1	0.72	< 0.1	NA
	10/25/11	< 0.0010	< 0.0010	< 0.0010	< 0.0020	0.0519	0.499	< 0.21	NA
	11/25/12	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.50	0.716	< 0.098	NA
	11/07/13	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.358	< 0.095	NA
	11/06/14	< 0.00020	< 0.00020	< 0.00020	< 0.00046	< 0.050	0.758	0.184	NA

Note:
*** =** Cleanup levels per the Cleanup Action Plan (Ecology, 1998)
[1] = Dissolved lead result
Bold = indicate detected concentration greater than cleanup level
< = concentration undetected at the detection limit.
ID = identification
J = indicates a estimated value
mg/L = milligrams per liter
NA = not analyzed
NE = not established

Table 6
Carcinogenic PAHs in Groundwater
Shell Harbor Island Terminal
Seattle, Washington

Location ID	Sample Date	Chemical (mg/L)						
		Benzo(a)-anthracene	Benzo(a)-pyrene	Benzo(b)-fluoranthene	Benzo(k)-fluoranthene	Chrysene	Dibenz(a,h)-anthracene	Indeno(1,2,3-cd)pyrene
Cleanup Level*		**0.000031**	**0.000031**	**0.000031**	**0.000031**	**0.000031**	**0.000031**	**0.000031**
MW-213	01/14/04	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	04/20/04	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	07/28/04	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	10/19/04	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	01/25/05	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	04/19/05	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	07/12/05	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	10/20/05	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	01/26/06	< 0.0000943	< 0.0000943	< 0.0000943	< 0.0000943	< 0.0000943	< 0.0000943	< 0.0000943
	10/30/07	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/19/08	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	04/07/09	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	11/18/09	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	04/26/10	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	10/28/10	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	05/24/11	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003	<0.00003
	10/25/11	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
	06/12/12	< 0.000050	< 0.000041	< 0.000035	< 0.000039	< 0.000045	< 0.000035	< 0.000035
	11/29/12	< 0.000053	< 0.000041	< 0.000035	< 0.000039	< 0.000045	< 0.000035	< 0.000035
	05/15/13	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033
	11/05/13	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000043	< 0.000033	< 0.000033
	04/23/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000043	< 0.000033	< 0.000033
	11/05/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033
MW-214	01/30/03	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	04/17/03	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	07/17/03	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	10/16/03	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	01/14/04	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	04/20/04	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	07/28/04	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	10/19/04	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	01/25/05	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	04/19/05	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	07/12/05	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	10/20/05	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	01/26/06	< 0.000099	< 0.000099	< 0.000099	< 0.000099	< 0.000099	< 0.000099	< 0.000099
	10/30/07	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	05/05/08	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	11/19/08	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
	04/07/09	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	11/18/09	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	04/26/10	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	10/28/10	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001	< 0.0001
	05/24/11	< 0.000029	< 0.000029	< 0.000029	< 0.000029	< 0.000029	< 0.000029	< 0.000029
	10/25/11	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010	< 0.00010
	06/12/12	< 0.000051	< 0.000040	< 0.000034	< 0.000038	< 0.000044	< 0.000034	< 0.000034
	11/29/12	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033
	05/15/13	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033
	11/05/13	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033
	04/23/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000043	< 0.000033	< 0.000033
	11/05/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033
MW-301	07/24/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033
MW-302	07/24/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033
MW-303	07/24/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000043	< 0.000033	< 0.000033
MW-304	07/24/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033
MW-309	07/24/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033
MW-310	07/24/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033
MW-311	11/05/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033
MW-312	11/05/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033
TX-03A	07/24/14	< 0.000050	< 0.000039	< 0.000033	< 0.000037	< 0.000042	< 0.000033	< 0.000033

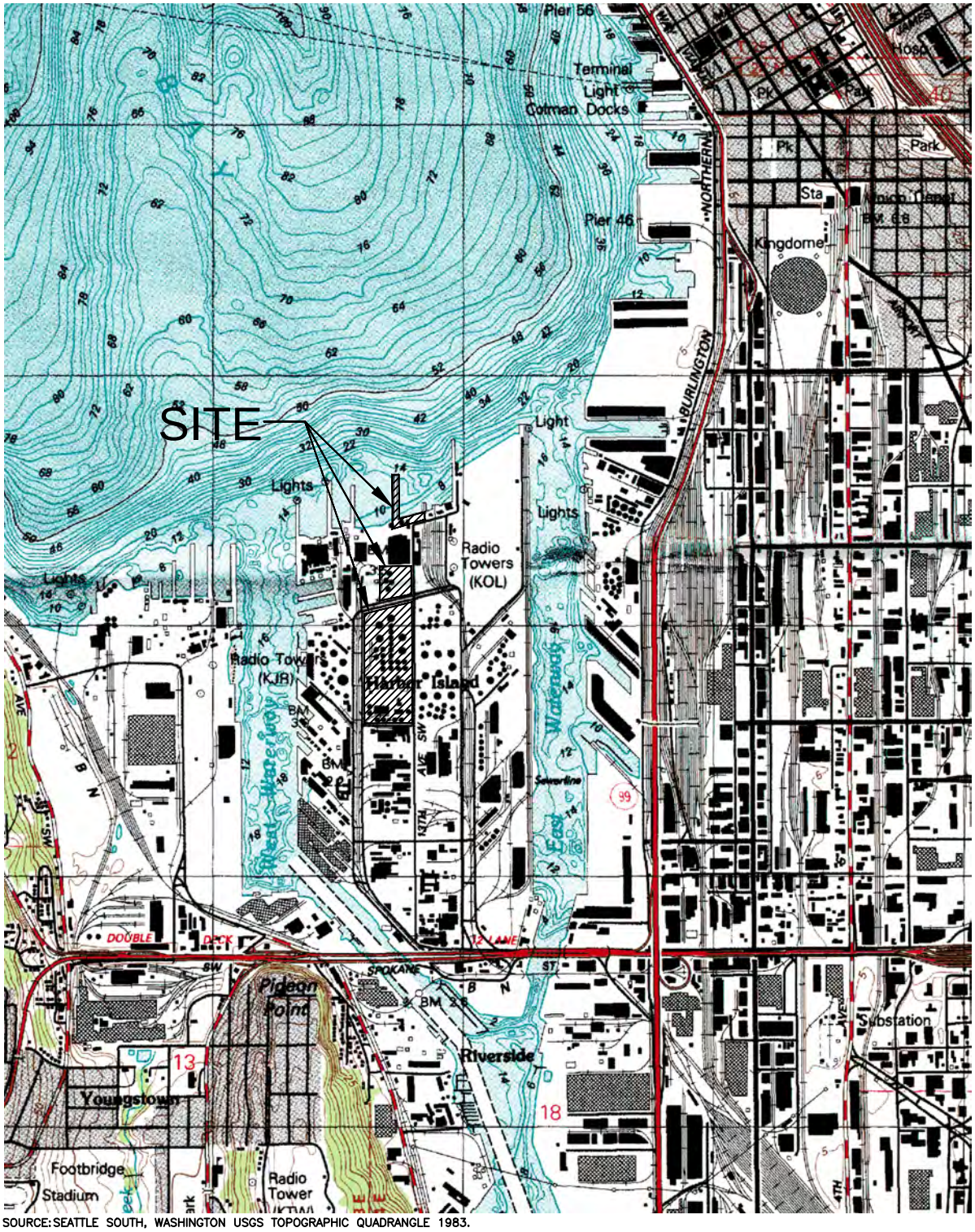
Note:
*** =** Cleanup levels per the Cleanup Action Plan (Ecology, 1998)
< = concentration undetected at the detection limit.
ID = identification
mg/L = milligrams per liter
PAHs = polycyclic aromatic hydrocarbons

Table 7
Proposed 2015 Groundwater Monitoring Program
Shell Harbor Island Terminal
Seattle, Washington

			Analysis						Compliance Well Class				Site Investigation	Well Construction	
Well ID	2015 Gauging Frequency	2015 Sampling Frequency	Total Lead	BTEX	TPH-Gx	TPH-Dx	PAHs	Natural Attenuation Parameters	Performance Product	Natural Attenuation Performance	Groundwater Quality Confirmation	Sentry	TX-03 Area	Total Depth (ft bgs)	Screened Interval (ft bgs)
MW-301	Quarterly	Quarterly	-	X	X	-	-	-	-	-	-	X	X	15	5.0 - 15.0
MW-307	Quarterly	Quarterly	-	X	X	X[2]	-	X[1]	-	X-Plume	-	-	X	15	5.0 - 15.0
MW-310	Quarterly	Quarterly	-	X	X	X[1]	-	X[1]	-	X-Plume	-	-	X	15	5.0 - 15.0
MW-308	Quarterly	Quarterly	-	X	X	-	-	X[1]	-	X-plume	-	X	X	15	5.0 - 15.0
MW-311	Quarterly	Quarterly	-	X	X	-	-	X[1]	-	X-plume	-	X	X	15	5.0 - 15.0
MW-312	Quarterly	Quarterly	-	X	X	-	-	X[1]	-	X-plume	-	X	X	15	5.0 - 15.0
TX-03A	Quarterly	Quarterly	-	X	X	X[1]	-	X[1]	-	X-plume	-	X	X	16	6-16
MW-202	Quarterly	Semi-Annual	-	X[1]	X	X	-	X[1]	-	X-plume	-	X	X	15	5.0 - 14.5
MW-203	Quarterly	Semi-Annual	-	-	X	X	-	X[1]	-	X-plume	-	X	X	15	5.0 - 14.5
MW-303	Quarterly	Semi-Annual	-	X	X	X[1]	-	-	-	-	-	X	X	15	5.0 - 15.0
MW-304	Quarterly	Semi-Annual	-	X	X	X[1]	-	X[1]	-	X-Plume	-	X	X	15	5.0 - 15.0
MW-101	Quarterly	Annual	-	X	X	X	-	-	-		-	X	X	15	5.0 - 14.5
MW-102	Quarterly	Annual	-	X	X	X	-	-	-	-	-	X	X	15	5.0 - 14.5
MW-201	Quarterly	Annual	-	X	X	X	-	-	-	-	-	X	X	15	5.0 - 14.5
MW-206A	Quarterly	Annual	-	X	X	X	-	-	-	-	X-background	-	X	15	5.0 - 14.5
TES-MW-1	Quarterly	Annual	-	X	X	X	-	-	-	-	-	X	X	18	3-18
MW-104	Semi-Annual	Semi-Annual	X	-	X	X	-	-	-	-	-	X	-	15	5.0 - 14.5
MW-302	Semi-Annual	Semi-Annual	-	X	X	X[1]	-	X[1]	-	X-Plume	-	X	-	15	5.0 - 15.0
MW-309	Semi-Annual	Semi-Annual	-	X	X	X[1]	-	-	-	-	-	X	-	15	5.0 - 15.0
SH-04	Semi-Annual	Semi-Annual	-	X	X	X	-	-	-	-	-	X	-	16	6-16
MW-05	Annual	Annual	-	X	X	X	-	-	-	-	-	X	-	15	5-15
MW-105	Annual	Annual	X	X	X	X	-	-	-	-	-	X	-	15	5.0 - 14.5
MW-111	Annual	Annual	-	X	X	X	-	-	-	-	-	X	-	15	5.0 - 14.5
MW-112A	Annual	Annual	-	X	X	X	-	-	-	-	-	X	-	15	5.5 - 15.0
MW-204	Annual	Annual	-	X	X	X	-	-	-	-	-	X	-	15	5.0 - 14.5
TX-04	Annual	Annual	-	X	X	X	-	-	-	-	-	X	-	16	6-16
TX-06A	Annual	Annual	-	X	X	X	-	-	-	-	-	X	-	15.8	5.5-15.5
Shorline Manifold Area															
MW-208	Monthly	Monthly	-	-	-	-	-	-	X	-	-	-	-	16.5	5.0 - 14.5
MW-210	Monthly	Monthly	-	-	-	-	-	-	X	-	-	-	-	15	5.0 - 15.0
MW-212	Monthly	Monthly	-	-	-	-	-	-	X	-	-	-	-	12	5.0 -12.0
MW-213	Monthly	Semi-Annual	-	X	X	X	X	-	-	-	X-confirmational	-	-	30	30.0 - 40.0
MW-214	Monthly	Semi-Annual	-	X	X	X	X	-	-	-	X-confirmational	-	-	30	30.0 - 40.0

Notes:
[1] = Annual sampling only
[2] = Semi-annual sampling only
Red = Deviations from the 2008 sampling plan
ft bgs = below ground surface
BTEX = benzene, toulene, ethylbenzene, and total xylenes by EPA Method 8260B
Natural Attenuation Parameters: Nitrate and Nitrite by EPA Method 353.2, Sulfate by EPA Method 300.0, Dissolved Iron and Manganese by EPA Method 6010B/6020A, and Ferrous Iron collected in the field.
PAHs = polycyclic aromatic hydrocarbons by EPA Method 8270C-SIM
Total Lead by EPA Method 6020
TPH-Gx = total petroleum hydrocarbons as gasoline by NWTPH-Gx
TPH-Dx = total petroleum hydrocarbons as diesel by NWTPH-Dx

Figures



SOURCE: SEATTLE SOUTH, WASHINGTON USGS TOPOGRAPHIC QUADRANGLE 1983.

SITE VICINITY MAP

SHELL - HARBOR ISLAND TERMINAL
ANNUAL COMPLIANCE MONITORING REPORT
SEATTLE, WASHINGTON

FIGURE 1

AECOM

LEGEND

MW-212	Shallow groundwater monitoring well location
MW-205	Deep groundwater monitoring well location
MW-210	Product recovery / monitoring well location
MW-103	Well Not Monitored in 2014
	Shell property line

100 0 100 200

SCALE IN FEET

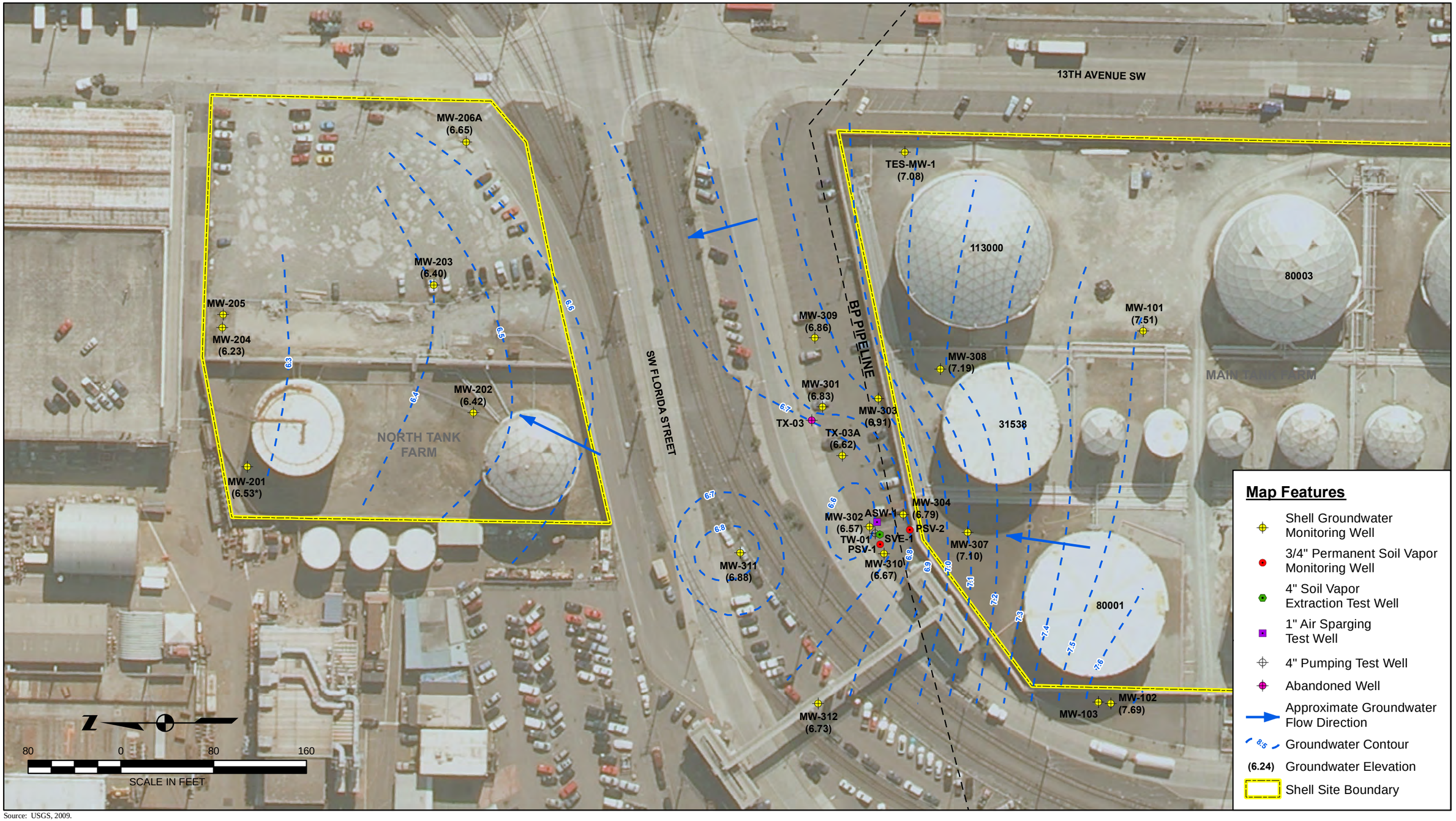
AECOM

SITE MAP

SHELL - HARBOR ISLAND TERMINAL
ANNUAL COMPLIANCE MONITORING REPORT
SEATTLE, WASHINGTON

FIGURE 2

K:\46194268_Seattle_Terminal\MXD\2014\2014_Annual_Report\Fig 2 Site Map.dwg Mar 26, 2015 - 9:25am



Source: USGS, 2009.

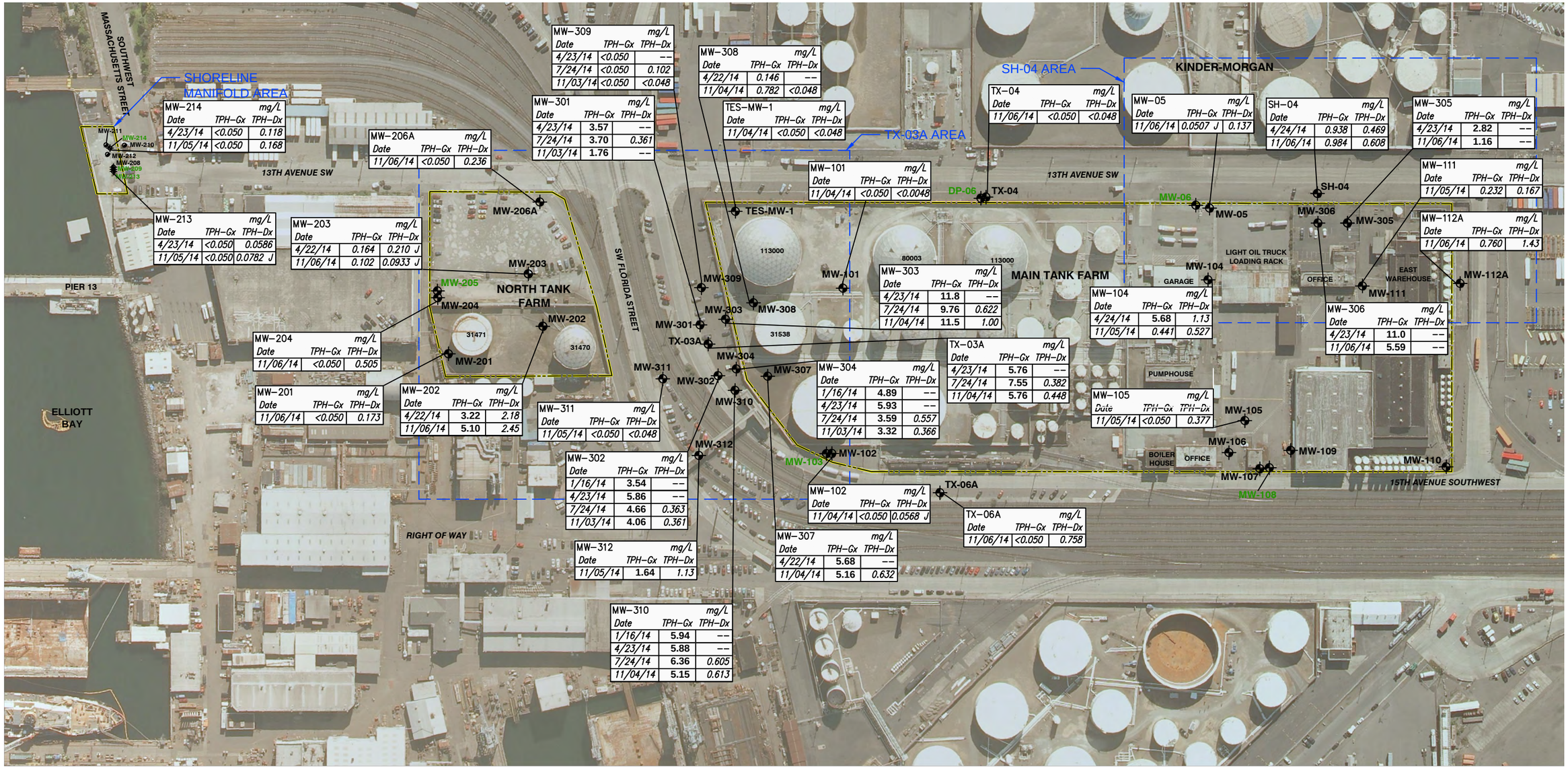
K:\46194268_Seattle_Terminal\MXD\20141204_Annual_Report\Fig 3 GW Contours - November 2014.mxd

TX-03A AREA GROUNDWATER SURFACE CONTOUR MAP – NOVEMBER 2014

SHELL - HARBOR ISLAND TERMINAL
ANNUAL COMPLIANCE MONITORING REPORT
SEATTLE, WASHINGTON

AECOM

FIGURE 3



MW-214		mg/L
Date	TPH-Gx	TPH-Dx
4/23/14	<0.050	0.118
11/05/14	<0.050	0.168

MW-213		mg/L
Date	TPH-Gx	TPH-Dx
4/23/14	<0.050	0.0586
11/05/14	<0.050	0.0782 J

MW-206A		mg/L
Date	TPH-Gx	TPH-Dx
11/06/14	<0.050	0.236

MW-203		mg/L
Date	TPH-Gx	TPH-Dx
4/22/14	0.164	0.210 J
11/06/14	0.102	0.0933 J

MW-204		mg/L
Date	TPH-Gx	TPH-Dx
11/06/14	<0.050	0.505

MW-201		mg/L
Date	TPH-Gx	TPH-Dx
11/06/14	<0.050	0.173

MW-202		mg/L
Date	TPH-Gx	TPH-Dx
4/22/14	3.22	2.18
11/06/14	5.10	2.45

MW-309		mg/L
Date	TPH-Gx	TPH-Dx
4/23/14	<0.050	--
7/24/14	<0.050	0.102
11/03/14	<0.050	<0.048

MW-301		mg/L
Date	TPH-Gx	TPH-Dx
4/23/14	3.57	--
7/24/14	3.70	0.361
11/03/14	1.76	--

MW-308		mg/L
Date	TPH-Gx	TPH-Dx
4/22/14	0.146	--
11/04/14	0.782	<0.048

TES-MW-1		mg/L
Date	TPH-Gx	TPH-Dx
11/04/14	<0.050	<0.048

MW-101		mg/L
Date	TPH-Gx	TPH-Dx
11/04/14	<0.050	<0.0048

MW-303		mg/L
Date	TPH-Gx	TPH-Dx
4/23/14	11.8	--
7/24/14	9.76	0.622
11/04/14	11.5	1.00

TX-03A		mg/L
Date	TPH-Gx	TPH-Dx
4/23/14	5.76	--
7/24/14	7.55	0.382
11/04/14	5.76	0.448

MW-304		mg/L
Date	TPH-Gx	TPH-Dx
1/16/14	4.89	--
4/23/14	5.93	--
7/24/14	3.59	0.557
11/03/14	3.32	0.366

MW-311		mg/L
Date	TPH-Gx	TPH-Dx
11/05/14	<0.050	<0.048

MW-302		mg/L
Date	TPH-Gx	TPH-Dx
1/16/14	3.54	--
4/23/14	5.86	--
7/24/14	4.66	0.363
11/03/14	4.06	0.361

MW-312		mg/L
Date	TPH-Gx	TPH-Dx
11/05/14	1.64	1.13

MW-310		mg/L
Date	TPH-Gx	TPH-Dx
1/16/14	5.94	--
4/23/14	5.88	--
7/24/14	6.36	0.605
11/04/14	5.15	0.613

MW-307		mg/L
Date	TPH-Gx	TPH-Dx
4/22/14	5.68	--
11/04/14	5.16	0.632

MW-102		mg/L
Date	TPH-Gx	TPH-Dx
11/04/14	<0.050	0.0568 J

TX-06A		mg/L
Date	TPH-Gx	TPH-Dx
11/06/14	<0.050	0.758

TX-04		mg/L
Date	TPH-Gx	TPH-Dx
11/06/14	<0.050	<0.048

MW-05		mg/L
Date	TPH-Gx	TPH-Dx
11/06/14	0.0507 J	0.137

SH-04		mg/L
Date	TPH-Gx	TPH-Dx
4/24/14	0.938	0.469
11/06/14	0.984	0.608

MW-305		mg/L
Date	TPH-Gx	TPH-Dx
4/23/14	2.82	--
11/06/14	1.16	--

MW-111		mg/L
Date	TPH-Gx	TPH-Dx
11/05/14	0.232	0.167

MW-112A		mg/L
Date	TPH-Gx	TPH-Dx
11/06/14	0.760	1.43

MW-104		mg/L
Date	TPH-Gx	TPH-Dx
4/24/14	5.68	1.13
11/05/14	0.441	0.527

MW-306		mg/L
Date	TPH-Gx	TPH-Dx
4/23/14	11.0	--
11/06/14	5.59	--

MW-105		mg/L
Date	TPH-Gx	TPH-Dx
11/05/14	<0.050	0.377

LEGEND

- MW-212 — Shallow groundwater monitoring well location
- MW-205 — Deep groundwater monitoring well location
- MW-210 — Product recovery / monitoring well location
- Shell property line

ANALYTE

TPH-Gx	GASOLINE
TPH-Dx	DIESEL

TPH-Gx CLEANUP LEVEL = 1 mg/L
TPH-Dx CLEANUP LEVEL = 10 mg/L

mg/L MILLIGRAMS PER LITER

BOLD INDICATE DETECTED CONCENTRATION GREATER THAN CLEANUP LEVEL

< NOT DETECTED AT OR ABOVE THE METHOD DETECTION LIMIT

-- NOT ANALYZED

J REPORTED VALUE IS ESTIMATED.

100 0 100 200
SCALE IN FEET

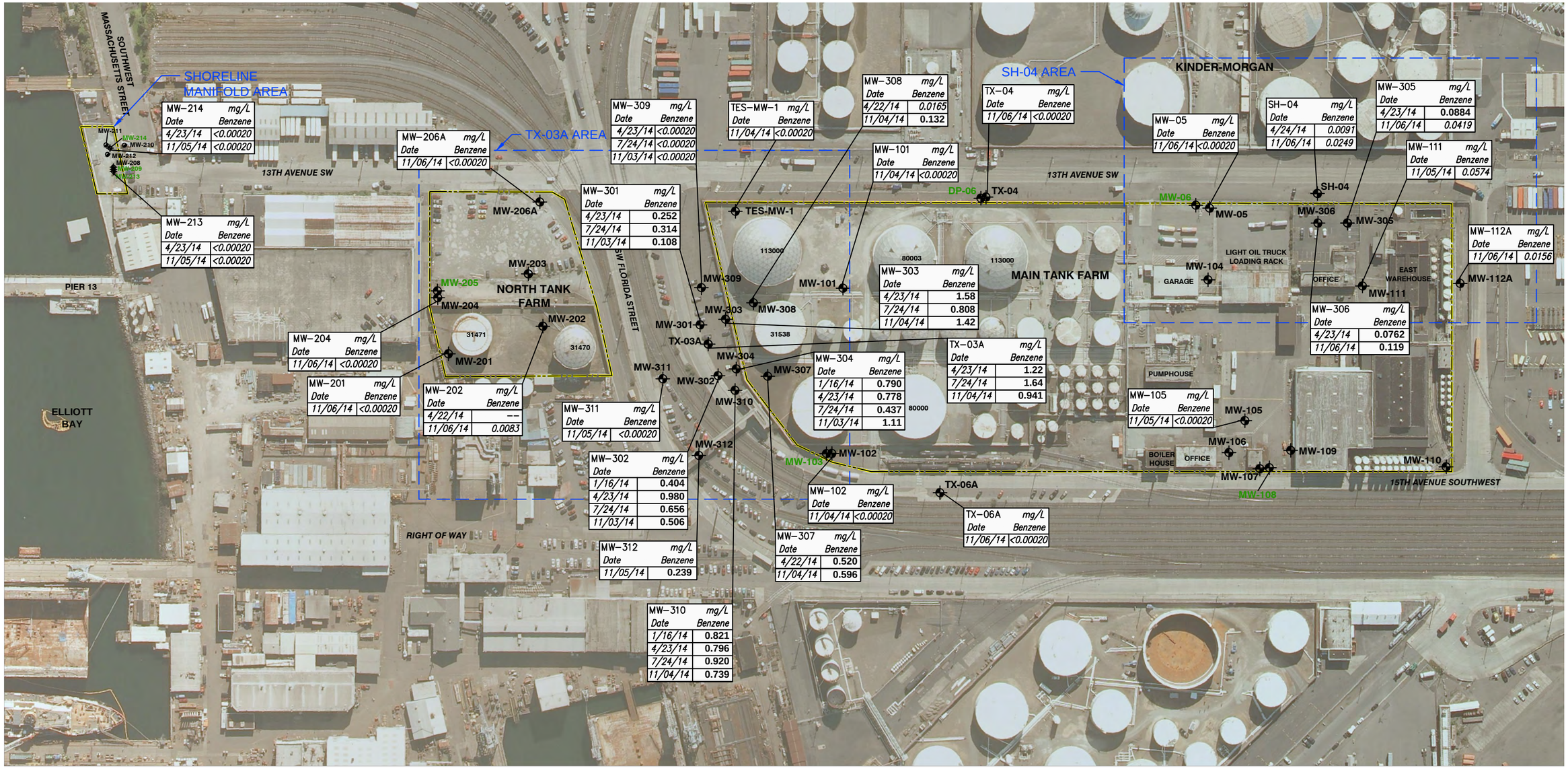
GASOLINE AND DIESEL CONCENTRATIONS - 2014

SHELL - HARBOR ISLAND TERMINAL
ANNUAL COMPLIANCE MONITORING REPORT
SEATTLE, WASHINGTON

FIGURE 4

AECOM

K:\46194268_Seattle_Terminal\MXD\2014\2014_Annual_Report\Fig 4 Gasoline Diesel Concentrations - 2014.dwg Mar 26, 2015 - 9:28am



LEGEND

- MW-212 — Shallow groundwater monitoring well location
- MW-205 — Deep groundwater monitoring well location
- MW-210 — Product recovery / monitoring well location
- Shell property line

BENZENE CLEANUP LEVEL = 0.071 mg/L

mg/L MILLIGRAMS PER LITER

BOLD INDICATE DETECTED CONCENTRATION GREATER THAN CLEANUP LEVEL

< NOT DETECTED AT OR ABOVE THE METHOD DETECTION LIMIT

-- NOT ANALYZED

J REPORTED VALUE IS ESTIMATED.

100 0 100 200

SCALE IN FEET

AECOM

BENZENE CONCENTRATIONS - 2014

SHELL - HARBOR ISLAND TERMINAL
ANNUAL COMPLIANCE MONITORING REPORT
SEATTLE, WASHINGTON

FIGURE 5

K:\46194268_Seattle_Terminal\MXD\2014\2014_Annual_Report\Fig 5 Benzene Concentrations - 2014.dwg Mar 26, 2015 - 9:58am

Figure 6: North Tank Farm Monitoring Well MW-202 Gasoline Concentrations

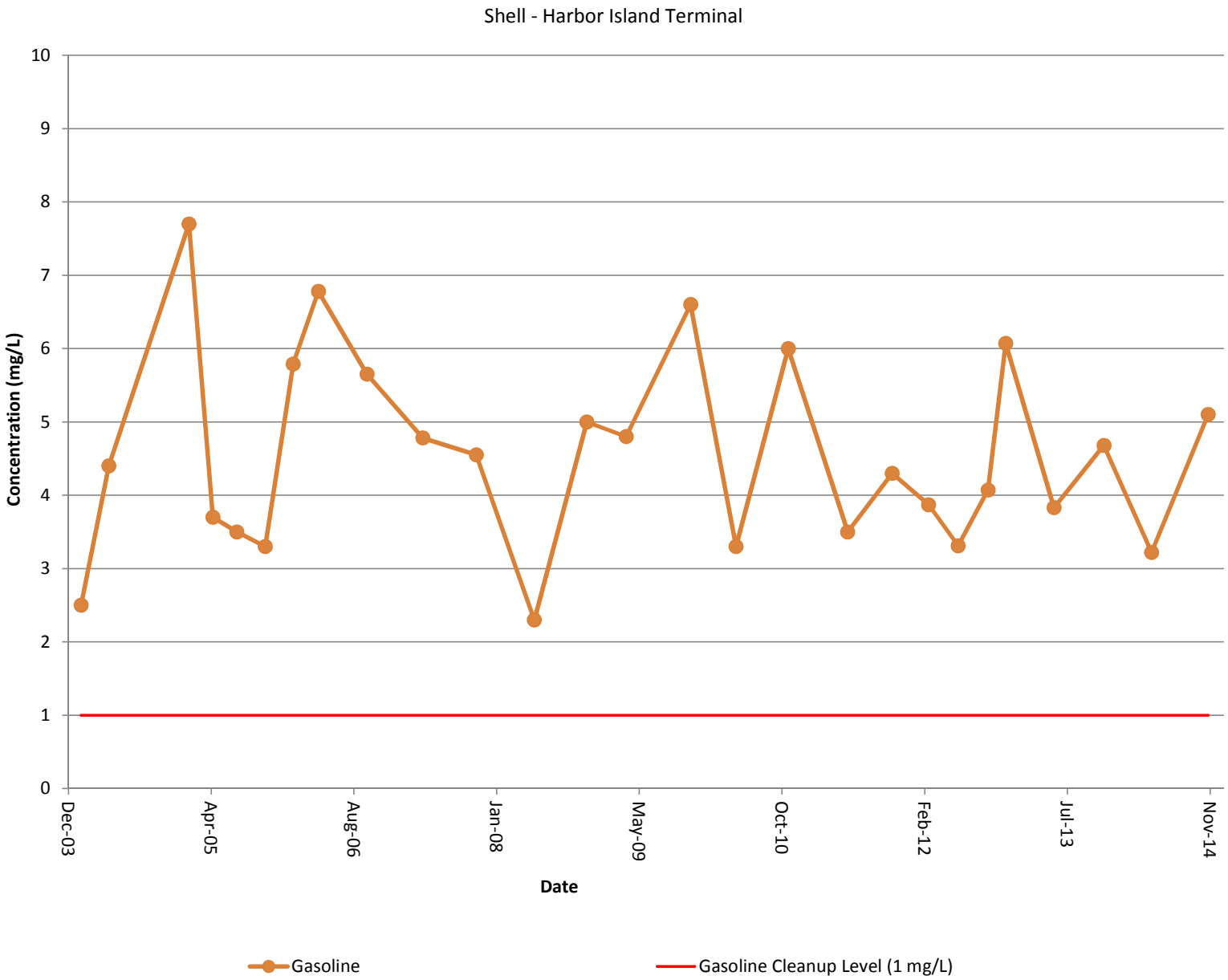


Figure 7: SH-04 Area Monitoring Well SH-04 BTEX and Gasoline Concentrations

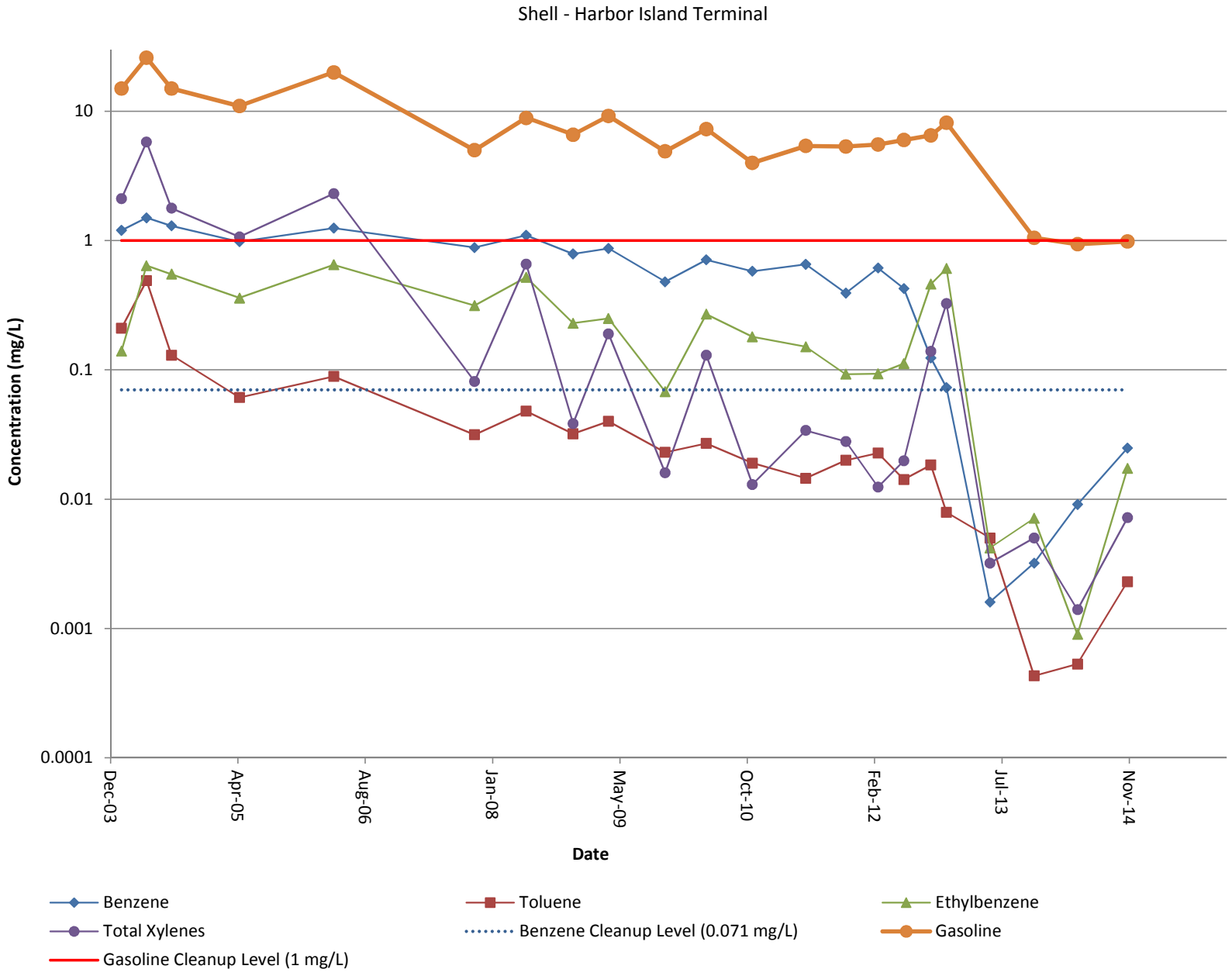


Figure 8: SH-04 Area Monitoring Well MW-305 BTEX and Gasoline Concentrations

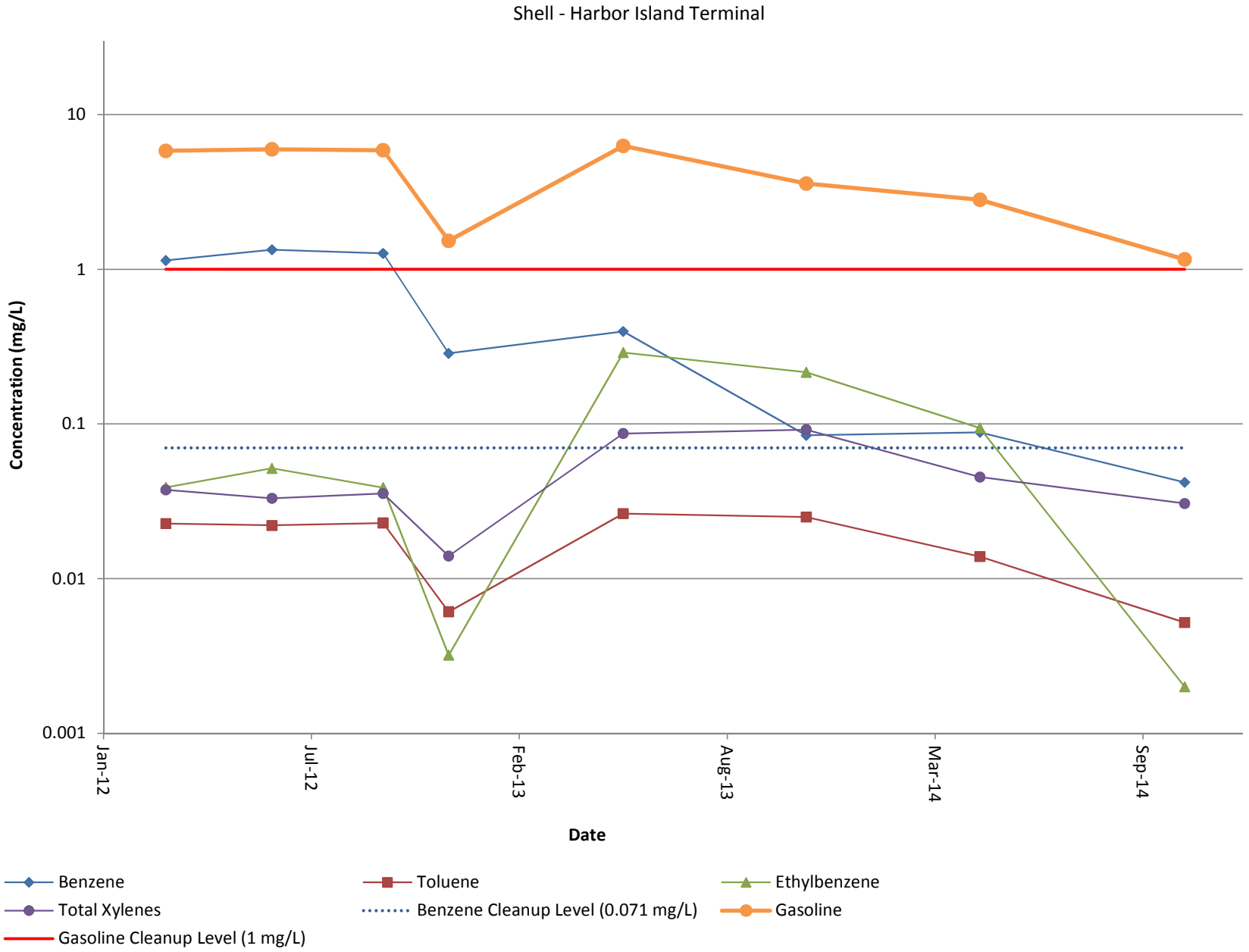


Figure 9: SH-04 Area Monitoring Well MW-306 BTEX and Gasoline Concentrations

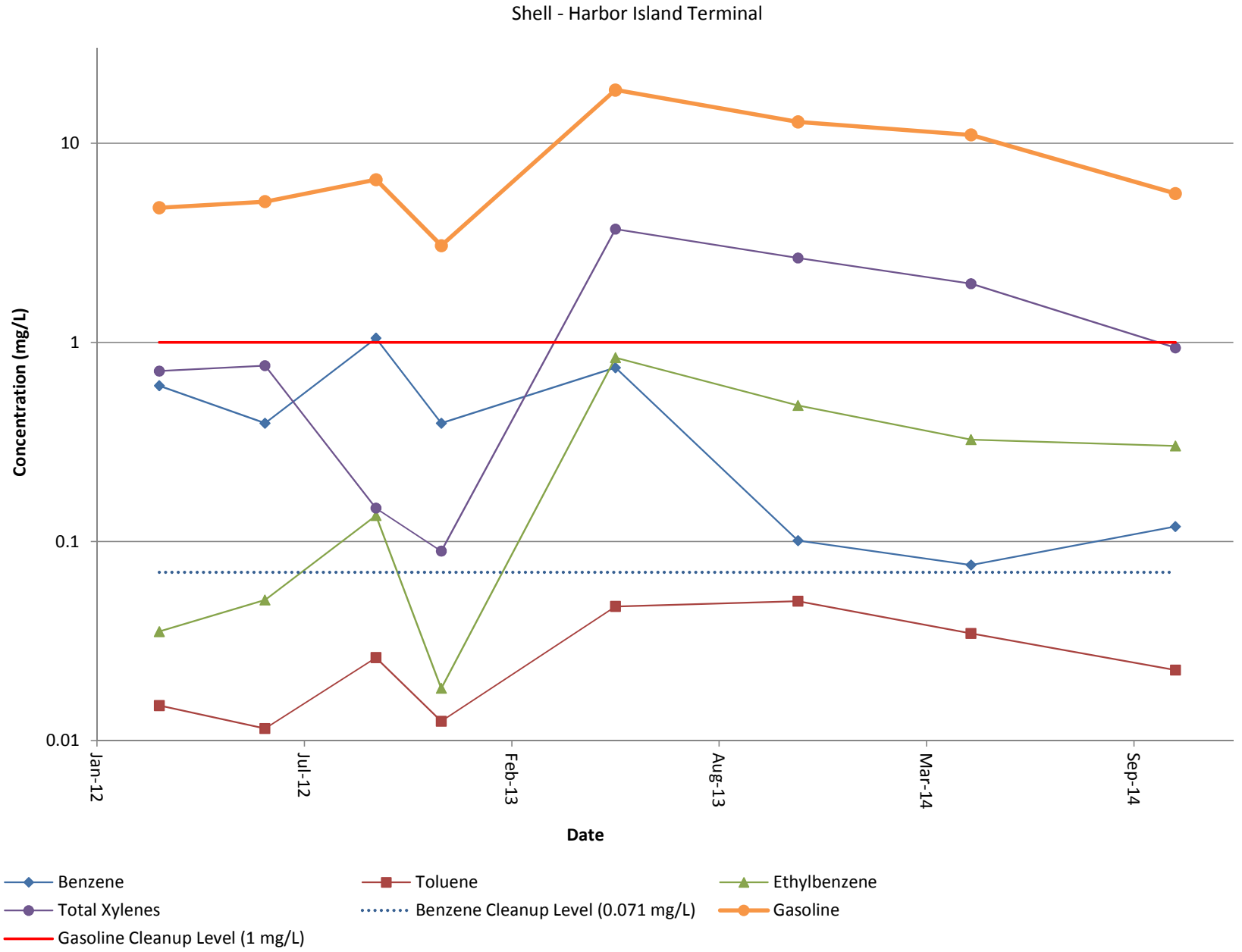
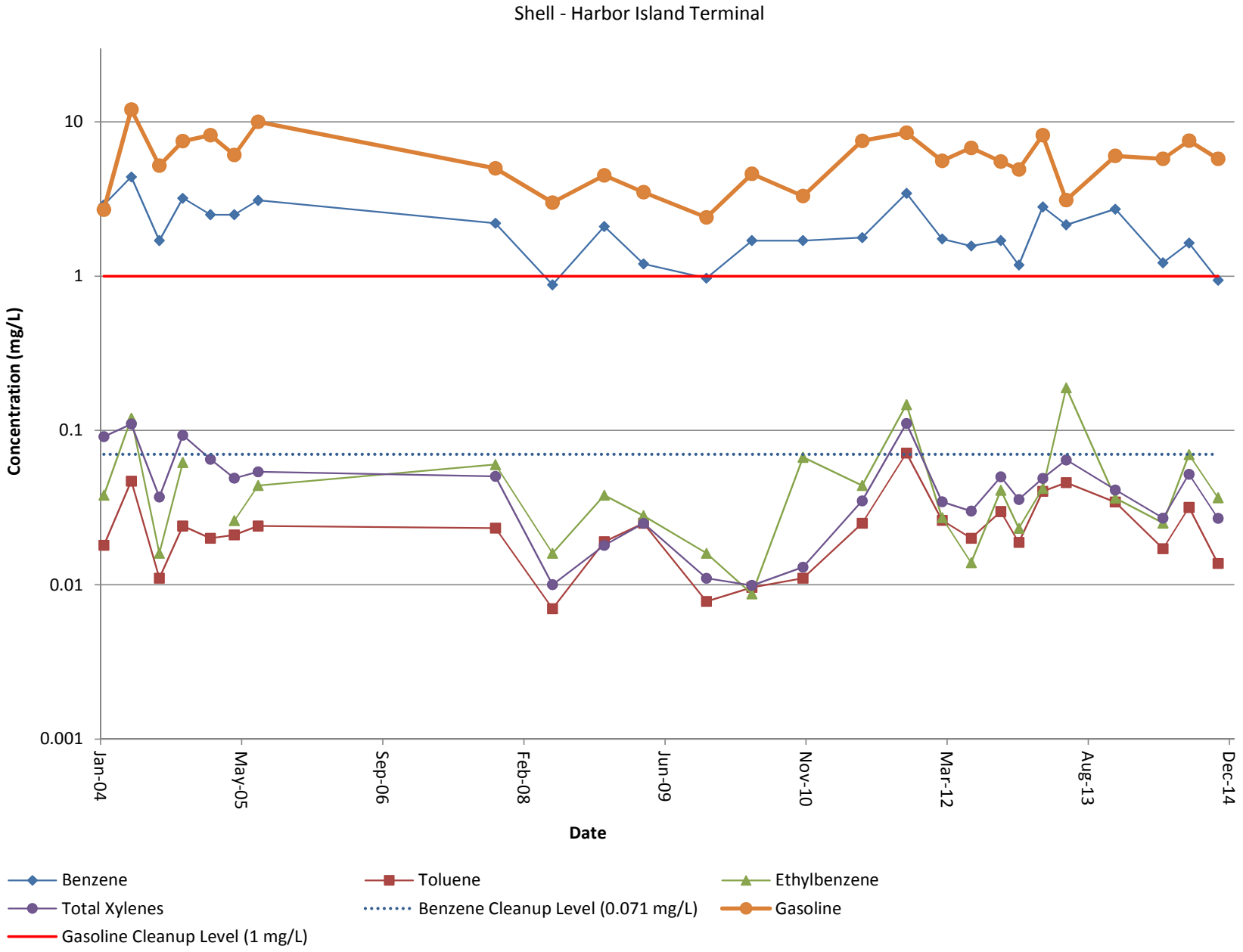


Figure 10: TX-03A Area Monitoring Well TX-03A BTEX and Gasoline Concentrations



Appendix A
Groundwater Elevation Data

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
MW-05	1/11/1900	10.39	5.15	5.24
	4/6/1993	10.39	6.12	4.27
	5/13/1993	10.39	5.92	4.47
	6/10/1993	10.39	5.98	4.41
	7/8/1993	10.39	6.23	4.16
	8/3/1993	10.39	6.50	3.89
	10/8/1993	10.39	7.22	3.17
	11/5/1993	10.39	7.42	2.97
	12/3/1993	10.39	7.38	3.01
	1/5/1994	10.39	6.64	3.75
	2/4/1994	10.39	6.54	3.85
	8/28/1995	10.39	Not Measured	Not Measured
	9/27/1995	10.39	8.35	2.04
	4/27/1999	10.39	8.07	2.32
	7/14/1999	10.39	5.88	4.51
	10/18/1999	10.39	7.00	3.39
	4/5/2000	10.39	5.05	5.34
	7/18/2000	10.39	6.30	4.09
	10/2/2000	10.39	7.15	3.24
	1/22/2001	10.39	6.50	3.89
	7/23/2001	10.39	7.43	2.96
	7/18/2002	10.39	7.10	3.29
	1/30/2003	10.39	5.84	4.55
	4/15/2003	10.39	5.80	4.59
	7/17/2003	10.39	7.12	3.27
	10/15/2003	10.39	7.78	2.61
	10/23/2003	10.39	7.80	2.59
	1/13/2004	10.39	5.65	4.74
	4/19/2004	13.57	6.35	7.22
	7/27/2004	13.57	7.32	6.25
	10/18/2004	13.57	7.36	6.21
	1/24/2005	13.57	6.26	7.31
	4/18/2005	13.57	6.27	7.30
	7/12/2005	13.57	6.85	6.72
	10/18/2005	13.57	7.60	5.97
	1/25/2006	13.57	4.78	8.79
	4/25/2006	13.57	5.90	7.67
	10/11/2006	13.57	7.62	5.95
	11/19/2008	13.57	8.23	5.34
	11/16/2009	13.57	6.44	7.13
	10/29/2010	13.57	6.57	7.00
	10/25/2011	13.57	7.25	6.32
	5/30/2012	13.57	5.86	7.71
	8/23/2012	13.57	6.63	6.94
	11/27/2012	13.57	5.30	8.27
	5/16/2013	13.57	5.72	7.85
	11/7/2013	13.57	6.49	7.08
	4/22/2014	13.57	5.25	8.32

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
MW-101	4/6/1993	15.14	10.48	4.66
	5/13/1993	15.14	10.32	4.82
	6/10/1993	15.14	10.45	4.69
	7/8/1993	15.14	10.75	4.39
	8/3/1993	15.14	11.09	4.05
	9/8/1993	15.14	11.52	3.62
	10/8/1993	15.14	11.89	3.25
	11/5/1993	15.14	12.13	3.01
	12/3/1993	15.14	12.14	3.00
	1/5/1994	15.14	11.16	3.98
	2/4/1994	15.14	11.02	4.12
	8/28/1995	15.14	11.25	3.89
	9/27/1995	15.14	11.49	3.65
	4/27/1999	15.14	9.22	5.92
	7/14/1999	15.14	10.73	4.41
	10/18/1999	15.14	11.78	3.36
	1/11/2000	15.14	9.73	5.41
	4/5/2000	15.14	9.85	5.29
	7/18/2000	15.14	11.01	4.13
	10/2/2000	15.14	11.85	3.29
	1/22/2001	15.14	11.67	3.47
	7/23/2001	15.14	12.33	2.81
	10/16/2001	15.14	13.15	1.99
	4/23/2002	15.14	10.81	4.33
	7/18/2002	15.14	11.88	3.26
	10/23/2002	15.14	12.73	2.41
	1/30/2003	15.14	10.09	5.05
	4/15/2003	15.14	10.36	4.78
	7/17/2003	15.14	11.94	3.20
	10/15/2003	15.14	12.68	2.46
	1/13/2004	15.14	10.06	5.08
	4/19/2004	18.21	11.13	7.08
	7/27/2004	18.21	12.07	6.14
	10/18/2004	18.21	12.19	6.02
	1/24/2005	18.21	10.61	7.60
	4/18/2005	18.21	10.86	7.35
	7/12/2005	18.21	11.61	6.60
	10/18/2005	18.21	12.45	5.76
	1/25/2006	18.21	9.21	9.00
	4/25/2006	18.21	10.75	7.46
	10/11/2006	18.21	12.39	5.82
	11/18/2008	18.21	11.45	6.76
	11/16/2009	18.21	10.95	7.26
	10/26/2010	18.21	11.36	6.85
	10/25/2011	18.21	12.15	6.06
	5/30/2012	18.21	10.79	7.42
	6/13/2012	18.21	10.90	7.31
	9/26/2012	18.21	12.04	6.17
	11/27/2012	18.21	9.90	8.31
	2/22/2013	18.21	10.24	7.97
	5/16/2013	18.21	10.89	7.32
	9/6/2013	18.21	11.99	6.22
	11/7/2013	18.21	11.78	6.43
	4/22/2014	18.21	10.16	8.05
	11/4/2014	18.21	10.70	7.51

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
MW-102	4/6/1993	12.51	7.99	4.52
	5/13/1993	12.51	7.82	4.69
	6/10/1993	12.51	7.80	4.71
	7/8/1993	12.51	8.32	4.19
	8/3/1993	12.51	8.68	3.83
	9/8/1993	12.51	9.03	3.48
	10/8/1993	12.51	9.44	3.07
	11/5/1993	12.51	9.62	2.89
	12/3/1993	12.51	9.42	3.09
	1/5/1994	12.51	8.50	4.01
	2/4/1994	12.51	8.52	3.99
	8/28/1995	12.51	8.86	3.65
	9/27/1995	12.51	9.17	3.34
	4/27/1999	12.51	6.68	5.83
	7/14/1999	12.51	8.40	4.11
	10/18/1999	12.51	9.38	3.13
	1/11/2000	12.51	7.43	5.08
	4/5/2000	12.51	7.55	4.96
	7/18/2000	12.51	8.37	4.14
	10/2/2000	12.51	9.45	3.06
	1/22/2001	12.51	9.12	3.39
	7/23/2001	12.51	9.91	2.60
	4/23/2002	12.51	8.17	4.34
	7/18/2002	12.51	9.44	3.07
	7/18/2002	12.51	9.44	3.07
	10/23/2002	12.51	10.05	2.46
	1/28/2003	12.51	7.20	5.31
	4/15/2003	12.51	7.75	4.76
	7/17/2003	12.51	9.51	3.00
	10/15/2003	12.51	10.11	2.40
	1/13/2004	12.51	7.49	5.02
	4/19/2004	15.60	8.72	6.88
	7/27/2004	15.60	9.62	5.98
	10/18/2004	15.60	9.54	6.06
	1/24/2005	15.60	7.92	7.68
	4/18/2005	15.60	8.20	7.40
	7/12/2005	15.60	9.10	6.50
	10/18/2005	15.60	9.87	5.73
	1/25/2006	15.60	3.94	11.66
	4/25/2006	15.60	8.24	7.36
	10/11/2006	15.60	9.84	5.76
	11/19/2008	15.60	8.79	6.81
	11/16/2009	15.60	8.10	7.50
	10/28/2010	15.60	8.64	6.96
	10/25/2011	15.60	9.59	6.01
	5/30/2012	15.60	8.27	7.33
	6/13/2012	15.60	8.32	7.28
	9/26/2012	15.60	9.53	6.07
	11/27/2012	15.60	7.03	8.57
	2/22/2013	15.60	7.88	7.72
	5/16/2013	15.60	8.40	7.20
	9/6/2013	15.60	9.36	6.24
	11/7/2013	15.60	9.18	6.42
	4/22/2014	15.60	7.69	7.91
	11/4/2014	15.60	7.91	7.69

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
MW-104	4/6/1993	10.22	5.98	4.24
	5/13/1993	10.22	6.79	3.43
	6/10/1993	10.22	5.85	4.37
	7/8/1993	10.22	6.13	4.09
	8/3/1993	10.22	6.38	3.84
	9/8/1993	10.22	6.72	3.50
	10/8/1993	10.22	7.05	3.17
	11/5/1993	10.22	7.26	2.96
	12/3/1993	10.22	7.26	2.96
	1/5/1994	10.22	6.64	3.58
	2/4/1994	10.22	6.46	3.76
	8/28/1995	10.22	6.43	3.79
	9/27/1995	10.22	6.70	3.52
	4/27/1999	10.22	2.41	7.81
	7/14/1999	10.22	5.62	4.60
	10/18/1999	10.22	6.80	3.42
	1/11/2000	10.22	5.04	5.18
	4/5/2000	10.22	4.80	5.42
	7/18/2000	10.22	6.15	4.07
	10/2/2000	10.22	7.02	3.20
	1/22/2001	10.22	6.45	3.77
	7/23/2001	10.22	7.39	2.83
	10/16/2001	10.22	8.59	1.63
	4/23/2002	10.22	5.91	4.31
	7/18/2002	10.22	7.07	3.15
	10/23/2002	10.22	7.74	2.48
	1/28/2003	10.22	6.03	4.19
	4/15/2003	10.22	5.75	4.47
	7/17/2003	10.22	7.08	3.14
	10/15/2003	10.22	7.76	2.46
	1/13/2004	10.22	5.58	4.64
	4/19/2004	13.46	6.30	7.16
	7/27/2004	13.46	7.25	6.21
	10/18/2004	13.46	7.34	6.12
	1/24/2005	13.46	6.27	7.19
	4/18/2005	13.46	6.22	7.24
	7/12/2005	13.46	6.81	6.65
	10/18/2005	13.46	7.55	5.91
	1/25/2006	13.46	4.78	8.68
	4/25/2006	13.46	5.82	7.64
	10/11/2006	13.46	7.54	5.92
	11/18/2008	13.46	6.74	6.72
	4/8/2009	13.46	6.27	7.19
	11/16/2009	13.46	6.39	7.07
	4/27/2010	13.46	5.45	8.01
	10/26/2010	13.46	6.53	6.93
	10/25/2011	13.46	7.15	6.31
	3/1/2012	13.46	5.82	7.64
	5/30/2012	13.46	5.74	7.72
	6/13/2012	13.46	5.86	7.60
	8/23/2012	13.46	6.50	6.96
	9/26/2012	13.46	6.90	6.56
	11/27/2012	13.46	5.24	8.22
	5/16/2013	13.46	5.65	7.81
	11/7/2013	13.46	6.44	7.02
	4/22/2014	13.46	5.20	8.26
	11/5/2014	13.46	6.02	7.44

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
MW-105	4/6/1993	9.05	4.97	4.08
	5/13/1993	9.05	4.88	4.17
	6/10/1993	9.05	4.83	4.22
	7/8/1993	9.05	5.20	3.85
	8/3/1993	9.05	5.43	3.62
	9/8/1993	9.05	6.76	2.29
	10/8/1993	9.05	6.06	2.99
	11/5/1993	9.05	6.28	2.77
	12/3/1993	9.05	6.18	2.87
	1/5/1994	9.05	5.65	3.40
	2/4/1994	9.05	5.63	3.42
	8/28/1995	9.05	5.39	3.66
	9/27/1995	9.05	5.70	3.35
	4/27/1999	9.05	3.39	5.66
	7/14/1999	9.05	4.58	4.47
	10/18/1999	9.05	5.79	3.26
	1/11/2000	9.05	3.97	5.08
	4/5/2000	9.05	3.84	5.21
	7/18/2000	9.05	4.90	4.15
	10/2/2000	9.05	6.22	2.83
	1/22/2001	9.05	5.56	3.49
	7/23/2001	9.05	6.48	2.57
	4/23/2002	9.05	5.25	3.80
	7/18/2002	9.05	6.17	2.88
	10/23/2002	9.05	6.78	2.27
	1/28/2003	9.05	5.02	4.03
	4/15/2003	9.05	4.97	4.08
	7/17/2003	9.05	6.2	2.85
	10/15/2003	9.05	6.66	2.39
	1/13/2004	9.05	5.01	4.04
	4/19/2004	12.18	5.51	6.67
	7/27/2004	12.18	6.28	5.90
	10/18/2004	12.18	6.15	6.03
	1/24/2005	12.18	5.02	7.16
	4/18/2005	12.18	5.19	6.99
	7/12/2005	12.18	5.82	6.36
	10/18/2005	12.18	6.44	5.74
	1/25/2006	12.18	4.05	8.13
	4/25/2006	12.18	5.00	7.18
	10/11/2006	12.18	6.51	5.67
	11/19/2008	12.18	5.52	6.66
	11/16/2009	12.18	5.03	7.15
	10/26/2010	12.18	5.33	6.85
	10/25/2011	12.18	6.06	6.12
	11/26/2012	12.18	3.82	8.36
	11/7/2013	12.18	5.42	6.76
	11/5/2014	12.18	4.62	7.56

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
MW-111	4/6/1993	8.61	4.95	3.66
	5/13/1993	8.61	4.87	3.74
	6/10/1993	8.61	4.84	3.77
	7/8/1993	8.61	5.11	3.50
	8/3/1993	8.61	5.29	3.32
	9/8/1993	8.61	5.56	3.05
	10/8/1993	8.61	5.81	2.80
	11/5/1993	8.61	5.97	2.64
	12/3/1993	8.61	5.93	2.68
	1/5/1994	8.61	5.45	3.16
	2/4/1994	8.61	5.28	3.33
	8/28/1995	8.61	5.28	3.33
	9/27/1995	8.61	5.45	3.16
	4/27/1999	8.61	3.55	5.06
	7/14/1999	8.61	4.65	3.96
	10/18/1999	8.61	5.59	3.02
	1/11/2000	8.61	4.18	4.43
	4/5/2000	8.61	3.94	4.67
	7/13/2000	8.61	5.30	3.31
	10/2/2000	8.61	5.68	2.93
	1/22/2001	8.61	5.37	3.24
	7/23/2001	8.61	6.22	2.39
	10/16/2001	8.61	7.37	1.24
	4/23/2002	8.61	5.28	3.33
	7/18/2002	8.61	5.94	2.67
	10/23/2002	8.61	6.50	2.11
	1/28/2003	8.61	5.05	3.56
	4/15/2003	8.61	5.03	3.58
	7/17/2003	8.61	6.05	2.56
	10/15/2003	8.61	6.45	2.16
	1/13/2004	8.61	4.84	3.77
	4/19/2004	11.88	5.46	6.42
	7/27/2004	11.88	6.16	5.72
	10/18/2004	11.88	6.11	5.77
	1/24/2005	11.88	5.33	6.55
	4/18/2005	11.88	5.27	6.61
	7/12/2005	11.88	5.75	6.13
	10/18/2005	11.88	6.26	5.62
	1/25/2006	11.88	4.42	7.46
	4/25/2006	11.88	4.88	7.00
	10/11/2006	11.88	6.30	5.58
	11/19/2008	11.88	8.62	3.26
	11/16/2009	11.88	5.30	6.58
	10/26/2010	11.88	5.35	6.53
	10/25/2011	11.88	5.89	5.99
	5/30/2012	11.88	4.81	7.07
	8/23/2012	11.88	Not Measured	Not Measured
	11/29/2012	11.88	4.14	7.74
	5/16/2013	11.88	4.63	7.25
	11/7/2013	11.88	5.10	6.78
	4/22/2014	11.88	4.32	7.56
	11/5/2014	11.88	4.58	7.30

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
MW-112	4/6/1993	9.98	6.69	3.29
	5/13/1993	9.98	6.61	3.37
	6/10/1993	9.98	6.51	3.47
	7/8/1993	9.98	6.83	3.15
	8/3/1993	9.98	7.00	2.98
	9/8/1993	9.98	7.24	2.74
	10/8/1993	9.98	7.50	2.48
	11/5/1993	9.98	7.56	2.42
	12/3/1993	9.98	7.41	2.57
	1/5/1994	9.98	6.93	3.05
	2/4/1994	9.98	6.83	3.15
	8/28/1995	9.98	6.98	3.00
	9/27/1995	9.98	7.13	2.85
	4/27/1999	9.98	5.66	4.32
	7/14/1999	9.98	6.57	3.41
	10/18/1999	9.98	7.36	2.62
	1/11/2000	9.98	5.89	4.09
	4/5/2000	9.98	5.81	4.17
	7/18/2000	9.98	7.11	2.87
	10/2/2000	9.98	7.57	2.41
	4/25/2006	9.98	6.44	3.54
MW-112A	4/24/2002	9.98	6.85	3.13
	7/18/2002	9.98	7.22	2.76
	10/23/2002	9.98	7.52	2.46
	1/28/2003	9.98	6.25	3.73
	4/15/2003	9.98	6.47	3.51
	7/17/2003	9.98	7.3	2.68
	10/15/2003	9.98	7.49	2.49
	1/13/2004	9.98	6.2	3.78
	4/19/2004	12.52	6.93	5.59
	7/27/2004	12.52	7.41	5.11
	10/18/2004	12.52	7.15	5.37
	1/24/2005	12.52	6.52	6.00
	4/18/2005	12.52	6.6	5.92
	7/12/2005	12.52	7.1	5.42
	10/18/2005	12.52	7.34	5.18
	1/25/2006	12.52	5.95	6.57
	10/11/2006	12.52	7.43	5.09
	11/19/2008	12.52	6.73	5.79
	11/16/2009	12.52	6.35	6.17
	10/29/2010	12.52	6.51	6.01
	10/25/2011	12.52	7.03	5.49
	5/30/2012	12.52	6.28	6.24
	8/23/2012	12.52	6.56	5.96
	11/25/2012	12.52	5.23	7.29
	5/16/2013	12.52	6.24	6.28
	11/4/2013	12.52	-	-
	4/22/2014	12.52	5.90	6.62
	11/6/2014	12.52	5.68	6.84

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
MW-201	4/6/1993	17.07	14.03	3.04
	5/13/1993	17.07	14.02	3.05
	6/10/1993	17.07	13.97	3.10
	7/8/1993	17.07	14.25	2.82
	8/3/1993	17.07	14.48	2.59
	9/8/1993	17.07	14.68	2.39
	10/8/1993	17.07	14.90	2.17
	11/5/1993	17.07	15.03	2.04
	12/3/1993	17.07	14.96	2.11
	1/5/1994	17.07	14.10	2.97
	2/4/1994	17.07	14.32	2.75
	8/28/1995	17.07	14.49	2.58
	9/27/1995	17.07	14.56	2.51
	4/27/1999	17.07	13.04	4.03
	7/14/1999	17.07	14.26	2.81
	10/18/1999	17.07	14.93	2.14
	1/11/2000	17.07	13.03	4.04
	4/5/2000	17.07	13.90	3.17
	7/18/2000	17.07	14.09	2.98
	10/2/2000	17.07	14.82	2.25
	1/22/2001	17.07	14.43	2.64
	7/23/2001	17.07	14.95	2.12
	10/16/2001	17.07	16.11	0.96
	4/24/2002	17.07	14.23	2.84
	7/18/2002	17.07	14.73	2.34
	10/23/2002	17.07	15.13	1.94
	1/28/2003	17.07	13.13	3.94
	4/15/2003	17.07	13.58	3.49
	7/17/2003	17.07	14.70	2.37
	10/15/2003	17.07	14.99	2.08
	1/13/2004	17.07	12.71	4.36
	4/19/2004	20.18	14.07	6.11
	7/27/2004	20.18	14.70	5.48
	10/18/2004	20.18	14.70	5.48
	1/24/2005	20.18	13.44	6.74
	4/18/2005	20.18	13.73	6.45
	7/12/2005	20.18	14.47	5.71
	10/18/2005	20.18	14.99	5.19
	1/25/2006	20.18	12.61	7.57
	4/25/2006	20.18	13.94	6.24
	10/11/2006	20.18	15.00	5.18
	11/20/2008	20.18	13.77	6.41
	11/16/2009	20.18	13.74	6.44
	10/27/2010	20.18	14.42	5.76
	10/26/2011	20.18	14.94	5.24
	11/27/2012	20.18	13.10	7.08
	2/22/2013	20.18	13.74	6.44
	5/16/2013	20.18	14.45	5.73
	9/6/2013	20.18	14.78	5.40
	11/7/2013	20.18	14.70	5.48
	4/22/2014	20.18	13.42	6.76
	11/4/2014	20.18	13.65	6.53

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
MW-202	4/6/1993	16.77	13.23	3.54
	5/13/1993	16.77	13.17	3.60
	6/10/1993	16.77	13.26	3.51
	7/8/1993	16.77	13.54	3.23
	8/3/1993	16.77	13.76	3.01
	9/8/1993	16.77	14.04	2.73
	10/8/1993	16.77	14.30	2.47
	11/5/1993	16.77	14.48	2.29
	12/3/1993	16.77	14.34	2.43
	1/5/1994	16.77	13.73	3.04
	2/4/1994	16.77	13.63	3.14
	8/28/1995	16.77	13.78	2.99
	9/27/1995	16.77	13.95	2.82
	4/27/1999	16.77	12.38	4.39
	7/14/1999	16.77	13.57	3.20
	10/18/1999	16.77	14.31	2.46
	1/11/2000	16.77	12.95	3.82
	4/5/2000	16.77	12.96	3.81
	7/18/2000	16.77	13.21	3.56
	10/2/2000	16.77	14.25	2.52
	1/22/2001	16.77	14.46	2.31
	7/23/2001	16.77	14.64	2.13
	10/16/2001	16.77	15.81	0.96
	4/24/2002	16.77	13.80	2.97
	7/18/2002	16.77	14.28	2.49
	10/23/2002	16.77	14.73	2.04
	1/28/2003	16.77	12.95	3.82
	4/15/2003	16.77	13.13	3.64
	7/17/2003	16.77	14.30	2.47
	10/15/2003	16.77	14.62	2.15
	1/13/2004	16.77	12.81	3.96
	4/19/2004	19.86	13.61	6.25
	7/27/2004	19.86	14.29	5.57
	10/18/2004	19.86	14.30	5.56
	1/24/2005	19.86	13.29	6.57
	4/18/2005	19.86	13.51	6.35
	7/12/2005	19.86	14.02	5.84
	10/18/2005	19.86	14.59	5.27
	1/25/2006	19.86	12.38	7.48
	4/25/2006	19.86	13.43	6.43
	10/11/2006	19.86	14.58	5.28
	11/20/2008	19.86	13.92	5.94
	4/7/2009	19.86	13.71	6.15
	11/16/2009	19.86	13.70	6.16
	4/27/2010	19.86	13.24	6.62
	10/27/2010	19.86	14.04	5.82
	10/26/2011	19.86	14.45	5.41
	3/2/2012	19.86	13.70	6.16
	5/30/2012	19.86	13.65	6.21
	6/13/2012	19.86	13.76	6.10
	9/26/2012	19.86	14.42	5.44
	11/27/2012	19.86	13.09	6.77
	2/22/2013	19.86	13.27	6.59
	5/16/2013	19.86	13.80	6.06
	9/6/2013	19.86	14.38	5.48
	11/7/2013	19.86	14.25	5.61
	4/22/2014	19.86	13.23	6.63
	11/4/2014	19.86	13.44	6.42

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
MW-203	4/6/1993	11.04	7.39	3.65
	5/13/1993	11.04	7.31	3.73
	6/10/1993	11.04	7.40	3.64
	7/8/1993	11.04	7.66	3.38
	8/3/1993	11.04	7.93	3.11
	9/8/1993	11.04	8.20	2.84
	10/8/1993	11.04	8.46	2.58
	11/5/1993	11.04	8.65	2.39
	12/3/1993	11.04	8.64	2.40
	1/5/1994	11.04	7.99	3.05
	2/4/1994	11.04	7.88	3.16
	8/28/1995	11.04	7.86	3.18
	9/27/1995	11.04	8.02	3.02
	4/27/1999	11.04	6.32	4.72
	7/14/1999	11.04	7.58	3.46
	10/18/1999	11.04	8.42	2.62
	1/11/2000	11.04	6.98	4.06
	4/5/2000	11.04	6.92	4.12
	7/18/2000	11.04	8.00	3.04
	10/2/2000	11.04	8.40	2.64
	1/22/2001	11.04	8.47	2.57
	7/23/2001	11.04	8.69	2.35
	10/16/2001	11.04	9.73	1.31
	4/24/2002	11.04	7.45	3.59
	10/23/2002	11.04	8.80	2.24
	1/28/2003	11.04	6.76	4.28
	4/15/2003	11.04	7.05	3.99
	7/17/2003	11.04	8.25	2.79
	1/13/2004	11.04	6.71	4.33
	4/19/2004	13.99	7.58	6.41
	7/27/2004	13.99	8.25	5.74
	10/18/2004	13.99	8.34	5.65
	1/24/2005	13.99	7.31	6.68
	4/18/2005	13.99	7.43	6.56
	7/12/2005	13.99	7.96	6.03
	10/18/2005	13.99	8.64	5.35
	1/25/2006	13.99	6.41	7.58
	4/25/2006	13.99	7.18	6.81
	10/11/2006	13.99	8.58	5.41
	11/18/2008	13.99	8.01	5.98
	4/8/2009	13.99	7.63	6.36
	11/16/2009	13.99	4.97	9.02
	4/26/2010	13.99	7.17	6.82
	10/25/2010	13.99	8.10	5.89
	10/26/2011	13.99	5.45	8.54
	5/30/2012	13.99	7.61	6.38
	6/13/2012	13.99	7.65	6.34
	9/26/2012	13.99	8.40	5.59
	11/27/2012	13.99	7.25	6.74
	2/22/2013	13.99	7.26	6.73
	5/16/2013	13.99	7.80	6.19
	9/6/2013	13.99	8.37	5.62
	11/7/2013	13.99	8.27	5.72
	4/22/2014	13.99	7.33	6.66
	11/4/2014	13.99	7.59	6.40

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
MW-204	4/6/1993	14.21	10.97	3.24
	5/13/1993	14.21	10.92	3.29
	6/10/1993	14.21	10.98	3.23
	7/8/1993	14.21	11.20	3.01
	8/3/1993	14.21	11.44	2.77
	9/8/1993	14.21	11.64	2.57
	10/8/1993	14.21	11.85	2.36
	11/5/1993	14.21	12.03	2.18
	12/3/1993	14.21	12.01	2.20
	1/5/1994	14.21	11.42	2.79
	2/4/1994	14.21	11.35	2.86
	8/28/1995	14.21	11.58	2.63
	9/27/1995	14.21	11.57	2.64
	4/5/2000	14.21	Not Measured	Not Measured
	10/2/2000	14.21	Not Measured	Not Measured
	1/22/2001	14.21	11.69	2.52
	7/23/2001	14.21	12.05	2.16
	10/16/2001	14.21	13.17	1.04
	7/27/2004	14.21	11.67	2.54
	10/18/2004	17.27	11.71	5.56
	1/24/2005	17.27	10.72	6.55
	4/18/2005	17.27	10.98	6.29
	7/12/2005	17.27	11.4	5.87
	10/18/2005	17.27	11.98	5.29
	1/25/2006	17.27	9.96	7.31
	10/11/2006	17.27	11.96	5.31
	11/20/2008	17.27	11.45	5.82
	11/16/2009	17.27	11.20	6.07
	10/27/2010	17.27	11.54	5.73
	10/27/2011	17.27	10.71	6.56
	3/26/2012	17.27	Not Measured	Not Measured
	6/12/2012	17.27	11.20	6.07
	9/27/2012	17.27	Not Measured	Not Measured
	11/27/2012	17.27	10.81	6.46
	12/20/2012	17.27	Not Measured	Not Measured
	2/22/2013	17.27	10.81	6.46
	5/16/2013	17.27	11.30	5.97
	9/6/2013	17.27	11.77	5.50
	11/7/2013	17.27	11.71	5.56
	4/22/2014	17.27	10.78	6.49
	11/4/2014	17.27	11.04	6.23

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
MW-206	4/6/1993	10.75	9.83	0.92
	5/13/1993	10.75	6.72	4.03
	6/10/1993	10.75	6.78	3.97
	7/8/1993	10.75	7.08	3.67
	8/3/1993	10.75	7.35	3.40
	9/8/1993	10.75	7.66	3.09
	10/8/1993	10.75	7.95	2.80
	11/5/1993	10.75	8.15	2.60
	12/3/1993	10.75	8.17	2.58
	1/5/1994	10.75	7.42	3.33
	2/4/1994	10.75	7.24	3.51
	8/28/1995	10.75	7.01	3.74
	9/27/1995	10.75	7.19	3.56
	4/27/1999	10.75	5.59	5.16
	7/14/1999	10.75	6.97	3.78
	10/18/1999	10.75	7.88	2.87
	1/11/2000	10.75	6.34	4.41
	4/5/2000	10.75	6.32	4.43
	7/18/2000	10.75	7.11	3.64
	10/2/2000	10.75	7.92	2.83
	1/22/2001	10.75	8.93	1.82
	4/25/2006	10.75	9.30	1.45
	10/11/2006	10.75	10.44	0.31
MW-206A	4/24/2002	10.75	7.43	3.32
	7/18/2002	10.75	8.07	2.68
	10/23/2002	10.75	8.55	2.20
	1/28/2003	10.75	6.40	4.35
	4/15/2003	10.75	5.26	5.49
	7/17/2003	10.75	8.06	2.69
	4/19/2004	15.9	9.51	6.39
	7/27/2004	15.9	10.23	5.67
	10/18/2004	15.9	10.17	5.73
	1/24/2005	15.9	9.18	6.72
	4/18/2005	15.9	9.38	6.52
	7/12/2005	15.9	9.87	6.03
	10/18/2005	15.9	10.50	5.40
	1/25/2006	15.9	8.23	7.67
	11/20/2008	15.9	9.81	6.09
	11/16/2009	15.9	9.48	6.42
	10/25/2010	15.9	9.74	6.16
	10/26/2011	15.9	10.25	5.65
	5/30/2012	15.9	9.44	6.46
	6/13/2012	15.9	9.49	6.41
	9/26/2012	15.9	10.21	5.69
	11/27/2012	15.9	9.05	6.85
	2/22/2013	15.9	9.04	6.86
	5/16/2013	15.9	8.44	7.46
	9/6/2013	15.9	10.06	5.84
	11/7/2013	15.9	10.04	5.86
	4/22/2014	15.9	9.01	6.89
	11/4/2014	15.9	9.25	6.65

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
MW-208	6/28/2013	--	4.98	--
	9/11/2013	--	5.67	--
	10/30/2013	--	5.97	--
	11/5/2013	--	5.51	--
	1/16/2014	--	5.46	--
	2/27/2014	--	4.72	--
	3/25/2014	--	4.91	--
	4/22/2014	--	4.98	--
	6/10/2014	--	5.62	--
	7/24/2014	--	5.50	--
	8/28/2014	--	5.73	--
	9/23/2014	--	5.76	--
	10/22/2014	--	4.82	--
	11/5/2014	--	4.50	--
	12/18/2014	12.16	4.28	7.88
MW-209	1/16/2014	--	5.56	--
	2/27/2014	--	6.04	--
	3/25/2014	--	5.90	--
	4/22/2014	--	5.89	--
	6/10/2014	--	8.31	--
	7/24/2014	--	6.91	--
	8/28/2014	--	6.79	--
	9/23/2014	--	5.73	--
	10/22/2014	--	4.91	--
	11/5/2014	--	6.60	--
	12/18/2014	12.10	5.27	6.83
MW-210	1/16/2014	--	6.48	--
	2/27/2014	--	6.79	--
	3/25/2014	--	6.96	--
	4/22/2014	--	6.32	--
	6/10/2014	--	7.08	--
	7/24/2014	--	6.64	--
	8/28/2014	--	6.72	--
	9/23/2014	--	6.56	--
	10/22/2014	--	5.87	--
	11/5/2014	--	6.45	--
	12/18/2014	12.85	5.49	7.36
MW-211	1/16/2014	--	5.51	--
	2/27/2014	--	5.01	--
	3/25/2014	--	5.38	--
	4/22/2014	--	5.33	--
	6/10/2014	--	6.02	--
	7/24/2014	--	6.85	--
	8/28/2014	--	6.06	--
	9/23/2014	--	5.96	--
	10/22/2014	--	4.96	--
	11/5/2014	--	4.70	--
	12/18/2014	12.21	4.50	7.71

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
MW-212	3/29/2013	--	4.90	--
	6/28/2013	--	4.42	--
	9/11/2013	--	5.32	--
	9/12/2013	--	5.52	--
	10/30/2013	--	5.28	--
	11/5/2013	--	5.51	--
	1/16/2014	--	5.47	--
	2/27/2014	--	6.12	--
	3/25/2014	--	6.30	--
	4/22/2014	--	5.85	--
	6/10/2014	--	Not Measured	Not Measured
	7/24/2014	--	6.06	--
	8/28/2014	--	6.23	--
	9/23/2014	--	6.08	--
	10/22/2014	--	4.13	--
	11/5/2014	--	5.12	--
	12/18/2014	11.95	4.89	7.06
MW-213	7/23/2001	8.57	10.17	-1.60
	10/16/2001	8.57	5.81	2.76
	4/24/2002	8.57	7.34	1.23
	7/18/2002	8.57	7.39	1.18
	10/23/2002	8.57	5.04	3.53
	1/28/2003	8.57	4.60	3.97
	4/15/2003	8.57	4.43	4.14
	7/17/2003	8.57	10.24	-1.67
	10/15/2003	8.57	5.85	2.72
	1/13/2004	8.57	5.02	3.55
	4/19/2004	8.57	7.91	0.66
	7/27/2004	8.57	6.94	1.63
	10/18/2004	8.57	5.70	2.87
	1/24/2005	8.57	4.70	3.87
	4/18/2005	8.57	7.43	1.14
	7/12/2005	8.57	8.72	-0.15
	10/18/2005	8.57	7.24	1.33
	1/25/2006	8.57	5.79	2.78
	4/25/2006	8.57	7.82	0.75
	10/11/2006	8.57	6.09	2.48
	11/19/2008	8.57	5.98	2.59
	4/7/2009	8.57	7.69	0.88
	11/16/2009	8.57	4.97	3.60
	4/26/2010	8.57	8.22	0.35
	10/28/2010	8.57	5.33	3.24
	10/25/2011	8.57	7.43	1.14
	6/12/2012	8.57	7.84	0.73
	11/29/2012	8.57	4.65	3.92
	5/15/2013	8.57	8.86	-0.29
	10/30/2013	8.57	5.45	3.12
	11/5/2013	8.57	5.29	3.28
	4/22/2014	8.57	6.39	2.18
	11/5/2014	12.17	6.55	5.62

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
MW-214	7/23/2001	8.63	10.37	-1.74
	10/19/2001	8.63	5.74	2.89
	4/24/2002	8.63	7.94	0.69
	7/18/2002	8.63	7.25	1.38
	10/23/2002	8.63	5.85	2.78
	1/28/2003	8.63	4.25	4.38
	4/15/2003	8.63	4.66	3.97
	7/17/2003	8.63	10.40	-1.77
	10/15/2003	8.63	4.89	3.74
	1/13/2004	8.63	4.86	3.77
	4/19/2004	8.63	7.92	0.71
	7/27/2004	8.63	6.42	2.21
	10/18/2004	8.63	5.37	3.26
	1/24/2005	8.63	5.00	3.63
	4/18/2005	8.63	7.65	0.98
	7/12/2005	8.63	8.82	-0.19
	10/18/2005	8.63	7.18	1.45
	1/25/2006	8.63	5.96	2.67
	4/25/2006	8.63	7.80	0.83
	10/11/2006	8.63	5.95	2.68
	11/19/2008	8.63	5.50	3.13
	4/7/2009	12.92	7.05	5.87
	11/16/2009	12.92	5.28	7.64
	4/26/2010	12.92	7.80	5.12
	10/28/2010	12.92	5.25	7.67
	10/25/2011	12.92	7.78	5.14
	6/12/2012	12.92	7.80	5.12
	11/29/2012	12.92	5.00	7.92
	5/15/2013	12.92	9.23	3.69
	10/30/2013	12.92	7.88	5.04
	11/5/2013	12.92	5.38	7.54
	2/27/2014	12.92	6.08	6.84
	4/22/2014	12.92	6.78	6.14
	11/5/2014	12.39	6.80	5.59
MW-301	3/2/2012	12.56	6.03	6.53
	5/30/2012	12.56	6.03	6.53
	6/13/2012	12.56	6.11	6.45
	9/26/2012	12.56	6.82	5.74
	11/27/2012	12.56	5.34	7.22
	2/21/2013	12.56	5.66	6.90
	5/16/2013	12.56	6.14	6.42
	9/6/2013	12.56	6.71	5.85
	11/7/2013	12.56	6.60	5.96
	4/22/2014	12.56	5.56	7.00
	7/24/2014	12.56	6.38	6.18
	9/23/2014	12.56	6.71	5.85
	11/4/2014	12.56	5.73	6.83
MW-302	3/1/2012	12.85	6.47	6.38
	5/30/2012	12.85	Not Measured	Not Measured
	6/13/2012	12.85	Not Measured	Not Measured
	9/26/2012	12.85	7.23	5.62
	11/27/2012	12.85	5.83	7.02
	2/22/2013	12.85	6.10	6.75
	5/16/2013	12.85	6.61	6.24
	9/6/2013	12.85	7.11	5.74
	11/7/2013	12.85	6.99	5.86
	1/16/2014	12.85	6.80	6.05
	4/22/2014	12.85	6.09	6.76
	6/10/2014	12.85	6.40	6.45
	7/24/2014	12.85	6.85	6.00
	9/23/2014	12.85	7.13	5.72
	11/4/2014	12.85	6.28	6.57

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
MW-303	3/2/2012	12.64	5.96	6.68
	5/30/2012	12.64	5.97	6.67
	6/13/2012	12.64	6.06	6.58
	9/26/2012	12.64	6.86	5.78
	11/27/2012	12.64	5.22	7.42
	2/21/2013	12.64	5.58	7.06
	5/16/2013	12.64	6.10	6.54
	9/6/2013	12.64	6.80	5.84
	11/7/2013	12.64	6.61	6.03
	4/22/2014	12.64	5.49	7.15
	7/24/2014	12.64	6.44	6.20
	9/23/2014	12.64	6.80	5.84
	11/4/2014	12.64	5.73	6.91
MW-304	3/1/2012	12.70	6.07	6.63
	5/30/2012	12.70	6.12	6.58
	6/13/2012	12.70	6.22	6.48
	9/26/2012	12.70	6.98	5.72
	11/27/2012	12.70	5.43	7.27
	2/22/2013	12.70	5.78	6.92
	5/16/2013	12.70	Not Measured	Not Measured
	9/6/2013	12.70	6.89	5.81
	11/7/2013	12.70	6.75	5.95
	1/16/2014	12.70	6.50	6.20
	4/22/2014	12.70	5.67	7.03
	7/24/2014	12.70	6.57	6.13
	9/23/2014	12.70	6.89	5.81
	11/4/2014	12.70	5.91	6.79
MW-305	3/1/2012	13.48	6.47	7.01
	5/30/2012	13.48	6.43	7.05
	6/11/2012	13.48	6.43	7.05
	9/26/2012	13.48	7.22	6.26
	11/28/2012	13.48	5.86	7.62
	5/16/2013	13.48	6.01	7.47
	11/7/2013	13.48	6.40	7.08
	4/22/2014	13.48	5.92	7.56
	11/6/2014	13.48	6.22	7.26
MW-306	3/1/2012	13.36	6.24	7.12
	5/30/2012	13.36	6.14	7.22
	6/11/2012	13.36	6.12	7.24
	9/26/2012	13.36	6.99	6.37
	11/28/2012	13.36	5.64	7.72
	5/16/2013	13.36	5.57	7.79
	11/7/2013	13.36	6.04	7.32
	4/22/2014	13.36	5.63	7.73
MW-307	11/27/2012	15.62	7.94	7.68
	2/22/2013	15.62	8.42	7.20
	5/16/2013	15.62	8.91	6.71
	9/6/2013	15.62	9.67	5.95
	11/7/2013	15.62	9.49	6.13
	4/22/2014	15.62	8.52	7.10
MW-308	11/27/2012	15.59	7.90	7.69
	2/22/2013	15.59	8.22	7.37
	5/16/2013	15.59	8.80	6.79
	9/6/2013	15.59	9.56	6.03
	11/7/2013	15.59	9.45	6.14
	4/22/2014	15.59	8.10	7.49
	11/4/2014	15.59	8.40	7.19

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
MW-309	11/27/2012	12.67	5.41	7.26
	2/21/2013	12.67	5.73	6.94
	5/16/2013	12.67	6.21	6.46
	9/6/2013	12.67	6.84	5.83
	11/7/2013	12.67	6.76	5.91
	4/22/2014	12.67	5.60	7.07
	7/24/2014	12.67	6.47	6.20
	9/23/2014	12.67	6.81	5.86
	11/4/2014	12.67	5.81	6.86
MW-310	11/27/2012	13.51	6.42	7.09
	2/21/2013	13.51	6.78	6.73
	5/16/2013	13.51	7.20	6.31
	9/6/2013	13.51	7.72	5.79
	11/7/2013	13.51	7.61	5.90
	1/16/2014	13.51	7.39	6.12
	4/23/2014	13.51	6.64	6.87
	7/24/2014	13.51	7.43	6.08
	9/23/2014	13.51	7.73	5.78
	11/4/2014	13.51	6.84	6.67
MW-311	11/5/2014	14.91	8.03	6.88
MW-312	11/5/2014	14.31	7.58	6.73

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
SH-04	7/8/1993	12.92	9.94	2.98
	8/3/1993	12.92	10.15	2.77
	9/8/1993	12.92	10.50	2.42
	10/8/1993	12.92	10.72	2.20
	11/5/1993	12.92	10.88	2.04
	12/3/1993	12.92	10.78	2.14
	1/5/1994	12.92	10.20	2.72
	2/4/1994	12.92	10.12	2.80
	8/28/1995	12.92	10.15	2.77
	9/27/1995	12.92	10.37	2.55
	4/27/1999	12.92	8.55	4.37
	7/14/1999	12.92	7.63	5.29
	10/18/1999	12.92	10.58	2.34
	1/11/2000	12.92	9.06	3.86
	4/5/2000	12.92	8.94	3.98
	7/18/2000	12.92	9.96	2.96
	10/2/2000	12.92	10.62	2.30
	1/22/2001	12.92	10.13	2.79
	7/23/2001	12.92	6.98	5.94
	10/16/2001	12.92	12.20	0.72
	4/23/2002	12.92	9.91	3.01
	7/18/2002	12.92	10.74	2.18
	10/23/2002	12.92	11.27	1.65
	1/28/2003	12.92	9.73	3.19
	4/15/2003	12.92	9.69	3.23
	7/17/2003	12.92	10.78	2.14
	10/15/2003	12.92	11.19	1.73
	1/13/2004	12.92	9.61	3.31
	4/19/2004	16.62	10.05	6.57
	7/27/2004	16.62	10.90	5.72
	10/18/2004	16.62	10.89	5.73
	1/24/2005	16.62	10.03	6.59
	4/18/2005	16.62	10.03	6.59
	7/12/2005	16.62	10.51	6.11
	10/18/2005	16.62	11.01	5.61
	1/25/2006	16.62	8.98	7.64
	10/11/2006	16.62	11.06	5.56
	11/20/2008	16.62	10.40	6.22
	4/8/2009	16.62	10.01	6.61
	11/16/2009	16.62	10.09	6.53
	4/27/2010	16.62	9.33	7.29
	10/25/2010	16.62	10.23	6.39
	10/27/2011	16.62	10.68	5.94
	3/1/2012	16.62	9.63	6.99
	5/30/2012	16.62	9.56	7.06
	6/11/2012	16.62	9.55	7.07
	8/23/2012	16.62	9.95	6.67
	9/25/2012	16.62	10.21	6.41
	11/25/2012	16.62	8.77	7.85
	5/16/2013	16.62	8.64	7.98
	11/4/2013	16.62	8.75	7.87
	4/22/2014	16.62	9.00	7.62
	11/6/2014	16.62	9.23	7.39

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
TES-MW-1	4/6/1993	13.10	8.79	4.31
	5/13/1993	13.10	8.61	4.49
	6/10/1993	13.10	8.63	4.47
	7/8/1993	13.10	8.98	4.12
	8/3/1993	13.10	9.28	3.82
	9/8/1993	13.10	8.66	4.44
	10/8/1993	13.10	9.98	3.12
	11/5/1993	13.1	10.20	2.90
	12/3/1993	13.10	10.17	2.93
	1/5/1994	13.10	9.30	3.80
	2/4/1994	13.10	9.19	3.91
	8/28/1995	13.10	9.26	3.84
	9/27/1995	13.10	9.53	3.57
	4/27/1999	13.10	7.49	5.61
	7/14/1999	13.10	8.90	4.20
	10/18/1999	13.10	9.88	3.22
	1/11/2000	13.10	7.59	5.51
	4/5/2000	13.10	8.20	4.90
	10/2/2000	13.10	9.99	3.11
	1/22/2001	13.10	9.65	3.45
	7/23/2001	13.10	10.77	2.33
	10/16/2001	13.10	11.93	1.17
	4/23/2002	13.10	9.32	3.78
	7/18/2002	13.10	10.34	2.76
	10/23/2002	13.10	10.92	2.18
	1/30/2003	13.10	8.43	4.67
	4/15/2003	13.10	8.89	4.21
	7/17/2003	13.10	10.41	2.69
	10/15/2003	13.10	10.82	2.28
	1/13/2004	13.10	8.82	4.28
	4/19/2004	16.15	9.76	6.39
	7/27/2004	16.15	10.48	5.67
	10/18/2004	16.15	10.27	5.88
	1/24/2005	16.15	9.26	6.89
	4/18/2005	16.15	9.46	6.69
	7/12/2005	16.15	10.10	6.05
	10/18/2005	16.15	10.70	5.45
	1/25/2006	16.15	8.17	7.98
	4/25/2006	16.15	9.33	6.82
	10/11/2006	16.15	10.66	5.49
	11/18/2008	16.15	9.85	6.30
	11/16/2009	16.15	9.35	6.80
	10/26/2010	16.15	9.66	6.49
	10/27/2011	16.15	10.42	5.73
	5/30/2012	16.15	9.37	6.78
	6/13/2012	16.15	9.43	6.72
	6/26/2012	16.15	10.31	5.84
	11/27/2012	16.15	8.62	7.53
	5/16/2013	16.15	9.46	6.69
	11/7/2013	16.15	10.06	6.09
	4/22/2014	16.15	8.70	7.45
	11/4/2014	16.15	9.07	7.08

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
TX-03	4/6/1993	9.58	5.57	I
	6/10/1993	9.58	5.50	4.08
	7/8/1993	9.58	5.81	3.77
	8/3/1993	9.58	6.08	3.50
	9/8/1993	9.58	6.42	3.16
	10/8/1993	9.58	6.74	2.84
	11/5/1993	9.58	6.91	2.67
	12/3/1993	9.58	6.90	2.68
	1/5/1994	9.58	6.16	3.42
	2/4/1994	9.58	Not Measured	Not Measured
	8/28/1995	9.58	6.16	3.42
	9/27/1995	9.58	Not Measured	Not Measured
	4/27/1999	9.58	4.68	4.90
	7/14/1999	9.58	5.87	3.71
	10/18/1999	9.58	6.71	2.87
	1/11/2000	9.58	5.30	4.28
	4/5/2000	9.58	5.31	4.27
	7/18/2000	9.58	5.98	3.60
	10/2/2000	9.58	6.65	2.93
TX-03A	4/23/2002	9.58	6.25	3.33
	7/18/2002	9.58	6.75	2.83
	10/23/2002	9.58	7.15	2.43
	1/28/2003	9.58	5.40	4.18
	4/15/2003	9.58	5.76	3.82
	7/17/2003	9.58	6.76	2.82
	10/15/2003	9.58	7.05	2.53
	1/13/2004	9.58	5.46	4.12
	4/19/2004	12.26	6.22	6.04
	7/27/2004	12.26	6.78	5.48
	10/18/2004	12.26	6.69	5.57
	1/24/2005	12.26	5.76	6.50
	4/18/2005	12.26	5.91	6.35
	7/12/2005	12.26	6.41	5.85
	10/18/2005	12.26	6.92	5.34
	1/25/2006	12.26	4.82	7.44
	4/25/2006	12.26	5.82	6.44
	10/11/2006	12.26	6.91	5.35
	11/20/2008	12.26	6.14	6.12
	4/8/2009	12.26	5.90	6.36
	11/16/2009	12.26	5.80	6.46
	4/27/2010	12.26	5.53	6.73
	10/25/2010	12.26	6.20	6.06
	10/27/2011	12.26	6.74	5.52
	3/1/2012	12.26	5.86	6.40
	6/13/2012	12.26	5.97	6.29
	9/26/2012	12.26	6.67	5.59
	11/27/2012	12.26	5.21	7.05
	2/21/2013	12.26	5.55	6.71
	5/16/2013	12.26	6.01	6.25
	9/6/2013	12.26	6.56	5.70
	11/7/2013	12.26	6.45	5.81
	4/22/2014	12.26	5.45	6.81
	7/24/2014	12.26	6.28	5.98
	9/23/2014	12.26	6.57	5.69
	11/4/2014	12.26	5.64	6.62

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
TX-04	4/6/1993	14.36	9.97	4.39
	5/13/1993	14.36	9.83	4.53
	6/10/1993	14.36	9.87	4.49
	7/8/1993	14.36	10.24	4.12
	8/3/1993	14.36	10.54	3.82
	9/8/1993	14.36	10.96	3.40
	10/8/1993	14.36	11.28	3.08
	11/5/1993	14.36	11.51	2.85
	12/3/1993	14.36	11.43	2.93
	1/5/1994	14.36	10.60	3.76
	2/4/1994	14.36	10.45	3.91
	8/28/1995	14.36	10.64	3.72
	9/27/1995	14.36	10.88	3.48
	4/27/1999	14.36	8.57	5.79
	7/14/1999	14.36	10.01	4.35
	10/18/1999	14.36	11.12	3.24
	1/11/2000	14.36	9.06	5.30
	4/5/2000	14.36	9.04	5.32
	7/18/2000	14.36	10.41	3.95
	10/2/2000	14.36	11.23	3.13
	1/22/2001	14.36	10.70	3.66
	7/23/2001	14.36	11.50	2.86
	10/16/2001	14.36	9.57	4.79
	4/23/2002	14.36	6.81	7.55
	7/18/2002	14.36	11.33	3.03
	10/23/2002	14.36	11.79	2.57
	1/28/2003	14.36	9.51	4.85
	4/15/2003	14.36	9.55	4.81
	7/17/2003	14.36	11.28	3.08
	10/15/2003	14.36	11.93	2.43
	1/13/2004	14.36	9.54	4.82
	4/19/2004	17.65	10.50	7.15
	7/27/2004	17.65	11.46	6.19
	10/18/2004	17.65	11.46	6.19
	1/24/2005	17.65	10.16	7.49
	4/18/2005	17.65	10.35	7.30
	7/12/2005	17.65	11.04	6.61
	10/18/2005	17.65	11.79	5.86
	1/25/2006	17.65	8.43	9.22
	4/25/2006	17.65	10.22	7.43
	10/11/2006	17.65	11.77	5.88
	11/18/2008	17.65	10.84	6.81
	11/16/2009	17.65	10.39	7.26
	10/25/2010	17.65	10.77	6.88
	10/26/2011	17.65	11.47	6.18
	11/26/2012	17.65	9.26	8.39
	11/4/2013	17.65	10.98	6.67
	11/6/2014	17.65	10.05	7.60

Groundwater Elevation Data
Shell Harbor Island Terminal
Seattle, Washington

Location	Date	Elevation (ft)	Depth to Water (ft)	Water Elevation (ft)
TX-06	4/6/1993	8.58	3.85	4.73
	6/10/1993	8.58	3.71	4.87
	9/8/1993	8.58	4.96	3.62
	10/8/1993	8.58	5.35	3.23
	11/5/1993	8.58	5.54	3.04
	12/3/1993	8.58	5.37	3.21
	1/5/1994	8.58	4.48	4.10
	2/4/1994	8.58	4.43	4.15
	8/28/1995	8.58	4.75	3.83
	9/27/1995	8.58	5.78	2.80
	4/27/1999	8.58	2.62	5.96
	7/14/1999	8.58	4.05	4.53
	10/18/1999	8.58	5.19	3.39
	1/11/2000	8.58	2.98	5.60
	4/5/2000	8.58	3.16	5.42
	7/18/2000	8.58	4.25	4.33
	10/2/2000	8.58	5.23	3.35
	4/25/2006	8.58	3.88	4.70
TX-06A	4/23/2002	8.58	3.98	4.60
	7/18/2002	8.58	4.14	4.44
	10/23/2002	8.58	5.98	2.60
	1/28/2003	8.58	3.40	5.18
	4/15/2003	8.58	3.57	5.01
	7/17/2003	8.58	5.24	3.34
	10/15/2003	8.58	6.01	2.57
	1/13/2004	8.58	3.36	5.22
	4/19/2004	11.67	4.41	7.26
	7/27/2004	11.67	5.39	6.28
	10/18/2004	11.67	5.23	6.44
	1/24/2005	11.67	3.66	8.01
	4/18/2005	11.67	3.89	7.78
	7/12/2005	11.67	4.78	6.89
	10/18/2005	11.67	5.63	6.04
	1/25/2006	11.67	3.00	8.67
	4/25/2006	11.67	5.54	6.13
	11/18/2008	11.67	4.56	7.11
	11/16/2009	11.67	3.99	7.68
	10/28/2010	11.67	4.47	7.2
	10/25/2011	11.67	5.4	6.27
	11/25/2012	11.67	3.03	8.64
	11/7/2013	11.67	4.87	6.80
	11/6/2014	11.67	4.03	7.64

Notes:
-- = Survey data not available
ft = feet

Appendix B
Field Sampling Data Sheets

Monitoring Well Gauging Field Log

URS

Date: 1-16-14
Job No.: 46194348
SAP: 3547032
Incident No 300036
Location: 2555 13th Ave SW Seattle (Harbor Island Terminal)
Personnel: Bret Walker 304 ~~302~~ 310

Well ID	MW-214	TW-01	~~MW-302~~	~~MW-310~~	~~MW-302~~	ASW-1
Well Diameter (inches)	--	4	2	2	2	3/4"
Well Depth (feet BTOC)	--	13.80	14.70	14.72	15.05	14.16
Depth to Water (feet BTOC)	--	7.39	7.39	6.50	6.80	7.08
Product (feet BTOC	--	ND	ND	ND	ND	ND
Comments/ Observations				Removed Sock prior to gauging Rust staining		

Monitoring Well Gauging Field Log

URS

Date: 1-16-14
Job No.: 46194348
SAP: 3547032
Incident No 300036
Location: 2555 13th Ave SW Seattle (Harbor Island Terminal)
Personnel: Bret Waldron

208

Well ID	MW-~~206~~	MW-209	MW-210	MW-211	MW-212	MW-213
Well Diameter (inches)	2"	2"	2"	4"	4"	--
Well Depth (feet BTOC)	13.8'	48.4'	14.7	13.00	11.32	--
Depth to Water (feet BTOC)	5.46	5.56	6.48	5.51	5.47	--
Product (feet BTOC	ND	~~5.56~~ 5.51	6.36	ND	5.43	--
Comments/ Observations	Soft bottom	Soft bottom Petroleum odor ; Sheen on meter	***Place sorbant sock*** Brown Product		***Place sorbant sock*** Brown Product	

High Tide

Placed Sorbent Sock. No cage available. Sock Only

URS

DATE 2/27/14

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

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		

PROJECT MANAGER: Brian Pletcher
PROJECT: Shell Seattle Terminal
JOB NO.: 46194348
URS FIELD REP: Mark Tauscher

SUB-CONTRACTORS ON SITE: N/A

EQUIPMENT ON SITE: field vehicle / Interface meter

WORK PERFORMED:

0700- on site for H&S meeting on the Terminal
Complete paperwork
0730- shoreline gate opened

	MW-211	DTW = 5.01	NO FP
	MW-208	DTW = 4.72	NO FP
	MW-214	DTW = 6.08	NO FP
NEW Sock	MW-209	DTW - 6.04	sheen / Trace
New Sock (3)	MW-212	DTW - 6.12	visible sheen / Trace
NEW sock	MW-210	DTP 6.12	6.79 DTW

The socks that were used are "Soak ease" brand TBZ-110 for 2" wells
3 were used for MW-212, inside a cage
1 was used per well for MW-209 and MW-210

0905- Sign out with terminal. dispose of socks on site
0930- Move to TX-03 Area to take measurments and photos
1010- Off Site

SHEET ____ OF ____

East Marginal

Monitoring Well Gauging Field Log

URS

Date: 1-16-14
Job No.: 46194348
SAP: 3547032
Incident No 300036
Location: 2555 13th Ave SW Seattle (Harbor Island Terminal)
Personnel: Bret Walker 304 ~~302~~ 310

Well ID	MW-214	TW-01	~~MW-302~~	~~MW-310~~	~~MW-302~~	ASW-1
Well Diameter (inches)	--	4	2	2	2	3/4"
Well Depth (feet BTOC)	--	13.80	14.70	14.72	15.05	14.16
Depth to Water (feet BTOC)	--	7.39	7.39	6.50	6.80	7.08
Product (feet BTOC	--	ND	ND	ND	ND	ND
Comments/ Observations				Removed Sock prior to gauging Rust staining		

Monitoring Well Sampling Field Log

Page 1 of 1

Well Number: TW-01

Date: 1-16-14

Project Information	
Project Name: Harbor Island Terminal	
URS Project Number:	46194348

Sampling Information	
Field Team:	Bret Waldron
Purge Method:	Low-Flow
Flow-Through Cell:	YSI 556
Sampling Method:	Low-Flow
Decontamination Method:	
N/A - all supplies disposable	
Purge Water Disposal:	Treated onsite
Field Conditions:	Overcast, 40°F

Comments:

Intake Depth = 13'

Ferrous Iron = 2.0 mg/L

Sample Containers

Number	Type	Preservative	Analytical Parameters	Filtered?
3	40 mL VOA	HCL	TPH-Gx	N
3	40 mL VOA	HCL	BTEX	N
1	250mL Poly	Nitric Acid	Dissolved Pb and Mn Field Filtered	Y

Purge Volume Information

Well Diameter:	4"
Depth to Bottom:	13.80
Depth to Water:	7.39
Depth to Product:	—
Water Column Height:	6.41
Conversion Factor:	0.65
One Well Volume:	4.17 gal

Conversion Factor:	3/4" = 0.023 gal/ft	2" = 0.165 gal/ft
	4" = 0.65 gal/ft	6" = 1.5 gal/ft

Well Purge Data

Time	Volume Purged (L)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
1527								Pump On
1529	0	12.48	363	2.75	6.45	12.4	CL	
1533	1	12.47	357	1.34	6.77	-22.5	CL	250mL/min
1540	2.75	12.50	356	0.81	6.82	-38.8	CL	
1544	3.75	12.51	357	0.71	6.83	-42.9	CL	
1548	4.75	12.50	358	0.64	6.85	-46.4	SC	

Sample Number: ~~TW-01~~ TW-01 Sample Time: 1548

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 1

Well Number: MW-302

Date: 1-16-14

Project Information	
Project Name: Harbor Island Terminal	
URS Project Number:	46194348
Sampling Information	
Field Team:	Bret Waldron
Purge Method:	Low-Flow
Flow-Through Cell:	YSI 556
Sampling Method:	Low-Flow
Decontamination Method:	
N/A - all supplies disposable	
Purge Water Disposal:	Treated onsite
Field Conditions:	Overcast - 40's

Comments:

Depth of intake = 14'

Ferrous Iron = 5.0 mg/L

Sample Containers

Number	Type	Preservative	Analytical Parameters	Filtered?
3	40 mL VOA	HCL	TPH-Gx	N
3	40 mL VOA	HCL	BTEX	N
1	250mL Poly	Nitric Acid	Dissolved Pb and Mn	Y
			Field Filtered	

Purge Volume Information	
Well Diameter:	2"
Depth to Bottom:	15.05
Depth to Water:	6.80
Depth to Product:	ND
Water Column Height:	8.25
Conversion Factor:	0.165
One Well Volume:	1.36 gal

Conversion Factor:	3/4" = 0.023 gal/ft	2" = 0.165 gal/ft
	4" = 0.65 gal/ft	6" = 1.5 gal/ft

Well Purge Data

Time	Volume Purged (L)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
1443	—	—	—	—		—	—	Pump On
1445	0	12.66	425	3.67	6.47	15.4	SC	320mL/min - reduce
1448	0.3	12.82	426	1.96	6.83	-12.1	C	220mL/min
1452	1.1	12.64	423	1.68	6.88	-20.7	C	180mL/min
1456	1.8	12.59	421	1.11	6.89	-25.9		
1501	2.7	12.60	415	0.89	6.90	-29.5		
1504	3.2	12.61	413	0.82	6.91	-30.8		
1507	3.8	12.64	411	0.76	6.91	-31.9		

Sample Number: MW-302 **Sample Time:** 1507

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 1

Well Number: ~~ASW1~~ ASW-1

Date: 1-16-14

Project Information	
Project Name: Harbor Island Terminal	
URS Project Number:	46194348
Sampling Information	
Field Team:	Bret Waldron
Purge Method:	Low-Flow
Flow-Through Cell:	YSI 556
Sampling Method:	Low-Flow
Decontamination Method:	
N/A - all supplies disposable	
Purge Water Disposal:	Treated onsite
Field Conditions:	Overcast, 40's

Comments:

Intake Depth = 13'

Ferrous Iron = 4.3 mg/L

Sample Containers

Number	Type	Preservative	Analytical Parameters	Filtered?
3	40 mL VOA	HCL	TPH-Gx	N
3	40 mL VOA	HCL	BTEX	N
1	250mL Poly	Nitric Acid	Dissolved Pb and Mn	Y
			Field Filter	

Purge Volume Information

Well Diameter:	3/4"
Depth to Bottom:	14.16
Depth to Water:	7.08
Depth to Product:	ND
Water Column Height:	7.08
Conversion Factor:	0.023
One Well Volume:	0.16 gal

Conversion Factor:	3/4" = 0.023 gal/ft	2" = 0.165 gal/ft
	4" = 0.65 gal/ft	6" = 1.5 gal/ft

Well Purge Data

Time	Volume Purged (L)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
1404	—	—	—	—	—	—	—	Pump On
1407	0	12.57	465	2.26	6.68	3.1	clear	150mL/min
1410	0.5	12.66	461	1.18	6.90	-20.3		
1413	0.9	12.74	457	1.24	6.98	-36.0		
1416	1.3	12.82	455	1.55	7.02	-45.4		
1419	1.8	12.85	452	1.33	7.06	-52.0		
1422	2.2	12.92	452	1.11	7.07	-54.2		
1425	2.7	12.92	450	0.94	7.08	-55.5		

Sample Number: ASW-1 Sample Time: 1425

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: 1-16-14

Project Information

Project Name: Harbor Island Terminal

URS Project Number: 46194348

Sampling Information

Field Team: Bret Waldron

Purge Method: Low-Flow

Flow-Through Cell: YSI 556

Sampling Method: Low-Flow

Decontamination Method:

N/A - all supplies disposable

Purge Water Disposal: Treated onsite

Field Conditions: Overcast- 40's

Comments:

Pump intake = 13.5

Ferrous Iron = 1.5 mg/L

Petroleum Odor

Sample Containers

Number	Type	Preservative	Analytical Parameters	Filtered?
3	40 mL VOA	HCL	TPH-Gx	N
3	40 mL VOA	HCL	BTEX	N
1	250mL Poly	Nitric Acid	Dissolved Pb and Mn Field Filtered	Y

Purge Volume Information

Well Diameter:	2"
Depth to Bottom:	14.72
Depth to Water:	6.50
Depth to Product:	ND
Water Column Height:	8.82
Conversion Factor:	0.165
One Well Volume:	1.46 gal

Conversion Factor: 3/4" = 0.023 gal/ft; 2" = 0.165 gal/ft; 4" = 0.65 gal/ft; 6" = 1.5 gal/ft

Well Purge Data

Time	Volume Purged (L)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
1311								Pump On
1313	~	12.01	422	2.13	6.32	3.0	Cloudy ~	50NTU
1320	1	11.62	421	1.87	7.01	-57.1		150mL/min
1325	2	12.10	423	1.34	7.09	-67.0		
1330	3	12.14	422	0.81	7.15	-71.0		
1333	3.5	12.17	422	0.78	7.16	-72.8	Clear	
1337	4	12.19	422	0.54	7.16	-74.5		
1340	4.5	12.19	422	0.43	7.16	-75.2		

Sample Number: MW-304 Sample Time: 1340

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 1

Well Number: MW-310

Date: 1-16-14

Project Information	
Project Name: Harbor Island Terminal	
URS Project Number:	46194348

Sampling Information	
Field Team:	Bret Waldron
Purge Method:	Low-Flow
Flow-Through Cell:	YSI 556
Sampling Method:	Low-Flow
Decontamination Method:	
N/A - all supplies disposable	
Purge Water Disposal:	Treated onsite
Field Conditions:	Low overcast, 40's, Dry

Comments:

Ferrous Fe = 1.0 mg/L

Pump Intake: 13.70

Sample Containers				Filtered?
Number	Type	Preservative	Analytical Parameters	
3	40 mL VOA	HCL	TPH-Gx	N
3	40 mL VOA	HCL	BTEX	N
1	250mL Poly	Nitric Acid	Dissolved Pb and Mn	Y
			Field Filtered	

Purge Volume Information	
Well Diameter:	2"
Depth to Bottom:	14.70
Depth to Water:	7.39
Depth to Product:	ND
Water Column Height:	7.31
Conversion Factor:	0.165
One Well Volume:	1.2 gal

Conversion Factor:	3/4" = 0.023 gal/ft	2" = 0.165 gal/ft
	4" = 0.65 gal/ft	6" = 1.5 gal/ft

Well Purge Data

Time	Volume Purged (L)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
1206	Pump On							
1212	←	12.28	475	3.46	6.72	-20.1	Clear	180 mL/min
1216	0.7	12.33	458	2.12	6.85	-41.2	clear	
1220	1.4	12.35	454	1.65	6.88	-46.4	Clear	
1224	2.1	12.34	452	1.43	6.89	-50.2	Clear	
1228	2.8	12.31	450	1.26	6.93	-52.3	↓	
1232	3.5	12.27	449	1.13	6.97	-53.9		
1236	4.2	12.27	452	1.04	7.00	-54.9		
1240	4.9	12.30	453	0.95	7.07	-55.4		
1246	6.3	12.30	454	0.80	7.08	-56.2		

Sample Number: MW-310 Sample Time: 1246

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

425 922-4934

URS

DATE 3/25/2014

DAY	S	M	(T)	W	TH	F	S

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)		

PROJECT MANAGER: Brian Pletcher

PROJECT: Harbor Island - Shoreline O&M

JOB NO.:

URS FIELD REP: Bret Waldron

SUB-CONTRACTORS ON SITE: URS

EQUIPMENT ON SITE: Interface probe - Absorbent Socks

WORK PERFORMED:

0645 URS onsite for 7am contractor's meeting.
0700 Attend Terminal safety meeting
0720 Richard escorts me to shoreline for access. Rain begins to fall more heavily.
Gauge wells after opening and letting equilibriate. Remove product socks from down hole and let set.

~~Well~~	DTP	DTW	Comments
MW-211	ND	5.38	
MW-208	ND	4.91	
MW-~~209~~	ND	5.90	Sock in great condition, floating high in water - No product spotted
MW-212	ND	6.30	Socks look good, little to no staining ~~Pull~~ leave down hole as socks are in good shape.
MW-210	5.84	6.96	Saturated in dark product. Replace sock.

0840 Mobilize to terminal to dispose of waste pads & sock.
0900 Close out permit and sign out.

SHEET 1 OF 1

URS

DATE 4/22/14

DAY	S	M	T	W	TH	F	S
			(T)				

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

PROJECT MANAGER: Brian Pletcher

PROJECT: Harbor Island

JOB NO.:

URS FIELD REP: Bret Waldron & Mark Tauscher

SUB-CONTRACTORS ON SITE: NA

EQUIPMENT ON SITE: Field vehicle / Groundwater sampling supplies

WORK PERFORMED:

0645 - URS on site. Learned very quickly that the terminal was not expecting us until next week. MBI notification was filled out for the wrong dates. Rich allowed us to work anyway, however the terminal is short operators

0715 - Safety meeting.

0815 - begin guaging wells and replacing absorbant socks in the shorline manifold area

0900 - Move to north tank farm area, Guage wells MW-202, MW-204, MW-209 Calibrate In-Situ meters, and begin sampling MW-202 and MW-203

1230 - Sampling / Guaging in N Tank farm area complete. Mob back onto main terminal to gain access to MW-102 / MW-103

* NOTE - Cleaning operations are going on in the TX-03 area. (Vac Truck, pressure washers). Looks like the overpass and ramps are being cleaned.

1500 Sampling / gauging in main tank farm complete. Begin gauging wells inside terminal.

1630 Sign out of secure area, continue gauging TX03A area and wells outside terminal.

1715 Left cones over wells at TX03 to sample tomorrow. Depart for the day. Wells sampled today include: MW-307, MW-308, MW-202, MW-203.

Sample ID	Sample Time	Parameters
MW-202	1100	Gx, Dx
MW-203	1143	Gx, Dx
MW-307	1435	BTEX, Gx
MW-308	1442	BTEX, Gx

BT and WL
4/22/14

SHEET 1 OF 1

DAILY QUALITY CONTROL REPORT

PROJECT: _____ REPORT NO. _____

JOB NO.: _____ DATE _____

PROBLEMS ENCOUNTERED/CORRECTION ACTION TAKEN:

SPECIAL NOTES:

TOMORROW'S EXPECTATIONS:

BY _____ TITLE _____

SHEET ____ OF ____

URS

DATE 4/23/14

DAY	S	M	T	(W)	TH	F	S

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		

PROJECT MANAGER: Brian Pletcher

PROJECT: Harbor Island 2Q GW Sampling

JOB NO.:

URS FIELD REP: Bret Waldron; Mark Tauscher

SUB-CONTRACTORS ON SITE: N/A

EQUIPMENT ON SITE: Groundwater Sampling

WORK PERFORMED:

0650 URS onsite. Check in with terminal staff and pickup permit. Conduct tailgate meeting.

0715 Mobilize to shoreline area.

0914 Mobilize to TX03 area after sampling MW-213 ; MW-214, Lock up shoreline area.

0920 Arrive at TX03. Getting a flat tire on the minivan. Screw punctured tire. Notify Enterprise.

1000 Road side assistance will come to fix tire, at the site. Parked in parking lot at TX-03A.

1145 Auto Rescue onsite to put on spare tire.

1200 Auto rescue departs, Spare installed.

1330 Bret Mobilizes to terminal to dump purge water and sample at the terminal office.

1400 Mark arrives at terminal office to sample in parking lot.

1440 Unload supplies; check out. 2 wells remaining to sample tomorrow.

1500 Depart site to get tire fixed.

RT
4/23/14

SHEET ____ OF ____

DAILY QUALITY CONTROL REPORT

PROJECT: _____ REPORT NO. _____

JOB NO.: _____ DATE _____

PROBLEMS ENCOUNTERED/CORRECTION ACTION TAKEN:

SPECIAL NOTES:

TOMORROW'S EXPECTATIONS:

BY _____ TITLE _____

SHEET ____ OF ____

URS

DATE 4/24/14

DAY	S	M	T	W	TH	F	S
					(TH)		

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

PROJECT MANAGER: Brian Pletcher

PROJECT: Harbor Island 2Q 2014 GW Sampling

JOB NO.:

URS FIELD REP: Bret Waldron ; Mark Tauscher

SUB-CONTRACTORS ON SITE: N/A

EQUIPMENT ON SITE: GW Sampling

WORK PERFORMED:

0650 URS onsite. Sign in, get permit, conduct tailgate meeting.

0710 Loaded up to continue sampling. Mark to setup at SLO-4 ; Bret to go get ziplocks, ice, and shipping supplies. Bret departs at 0730.

0815 Bret back onsite. Mark mobilizes to MW-104. Bret begins packing samples.

0900 Mark finished sampling. Continue packing and organizing van.

1025 URS signed out ; departs site.

BT 4/24/14

SHEET ____ OF ____

DAILY QUALITY CONTROL REPORT

PROJECT: _____ REPORT NO. _____

JOB NO.: _____ DATE _____

PROBLEMS ENCOUNTERED/CORRECTION ACTION TAKEN:

SPECIAL NOTES:

TOMORROW'S EXPECTATIONS:

BY _____ TITLE _____

SHEET _____ OF _____

URS

Monitoring Well Gauging Field Log

Date: 4/22
Job No.: 49241036
SAP: 3547032
Incident No 300036
Location: 2555 13th Ave SW Seattle (Harbor Island Terminal)
Personnel: Brett Walden / Mark Tasker

Well ID	Time Gauged	Depth to Water	Depth to Product	Comments
MW-16				
MW-05	1528	5.25	-	
MW-111	1543	4.32	-	Iron in well
MW-112A	1626	5.90	-	
MW-203	1108	7.33	-	
MW-206A	1147	9.01	-	
TES-MW-1	1344	8.70	-	
MW-101	1341	10.16	-	
MW-102	1255	7.69	-	
MW-305	1622	5.92	-	
MW-306	1619	5.63	-	
MW-307	1415	8.26		
MW-308	1353	8.10	-	
MW-309	1657	5.60	-	
MW-301	1652	5.56	-	
MW-302	1701	6.09	-	
MW-303	1654	5.49	-	
MW-304	1644	5.67	-	Absorbent sock - replaced interface meter has petro odor
MW-104	1538	5.20	-	
MW-202	0900	13.23	-	
SH-04	1708	9.00		
TX-03A	1648	5.45	-	
MW-203	1108	7.33	-	
MW-213	0732	6.39	-	
MW-214	0750	6.88	-	
MW-210	0817	6.52	5.98	
MW-211	0820	5.33	NA	
MW-212	0822	5.85	SHEEN	visible sheen on water
MW-208	0824	4.98	NA	
MW-209	0825	5.89	NA	

MW-06 7.62 (Time 1532)
MW-201 13.42 (1141 time)
MW-204 10.78 (1144 time)
DTW

Monitoring Well Sampling Field Log

Page 1 of ____

Well Number: MW-104

Date: 4/24/14

Project Information	
Project Name: Shell Seattle	
URS Project Number: 49241	
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: D.I. Water and Alconox	
Purge Water Disposal: On site treatment	
Field Conditions:	SUNNY, WINDY, 45°
Comments:	
Initial DTW:	5.17

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	DX	
2	Poly	Nitric	LEAD	
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
0828	Pump On		Initial 5.17	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
0833	0	200	-	15.16	373.00	0.16	6.45	-52.5	-	clear
0836	1.2	200	5.20	15.33	370.60	0.09	6.45	-57.4	-	clear
0838	1.8	200	5.20	15.41	370.5	0.07	6.45	-59.8	-	clear
0841	2.4	200	5.20	15.44	369.4	0.06	6.45	-61.0	-	clear
0844	3	200	5.20	15.48	366.8	0.05	6.45	-61.6	-	clear
0846	SAMPLE									

MT 4/24/14

Start Sampling 0846

End Sampling 0901

Final 5.20

Sample Number: MW-104 Sample Time: 0846

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-202

Date: 4/22/14

Page 1 of ____

Project Information
Project Name: Shell Seattle
URS Project Number: 49241
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: D.I. Water and Alconox
Purge Water Disposal: On site treatment
Field Conditions: Overcast 45°
Comments:
Initial DTW: 13.23 BTOC

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	
3	VOA	HCL	6X	
2	AMBER	NONE	DX	

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
1038	Pump On		Initial 13.23	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
1041	0	150	13.34	11.10	192.10	0.13	6.09	-11.70	-	Clear
1044		150	13.39	11.10	192.10	0.13	6.10	-11.70	-	Clear
1047		150	13.42	11.04	191.20	0.09	6.11	-12.00	-	Clear
1050	1.8L	150	13.40	11.04	190.10	0.06	6.12	-11.10	-	Clear
1053	1.95	150	13.43	11.29	190.8	0.04	6.13	-9.50	-	Clear
1056	2.10	150	13.45	11.89	190.1	0.03	6.13	-7.70	-	Clear
1059	2.25	150	13.45	12.12	188.1	0.02	6.13	-5.40	-	Clear
1100	SAMPLE									
						MT 4/22/14				
	Start Sampling 1100									
	End Sampling 1124		Final	Sample Number: MW-202					Sample Time: 1100	

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-203

Date: 4/22/14

Page 1 of ____

Project Information

Project Name: Shell Seattle

URS Project Number: 49241

Sampling Information

Field Team: Bret Waldron

Purge Method: Low Flow

Pump Intake Depth (ft btc): 13.5

Flow-Through Cell: Yes

Sampling Method: Low Flow

Decontamination Method: D.I. Water and Alconox

Purge Water Disposal: On site treatment

Field Conditions: Overcast - 50°

Comments:

Initial DTW: 7.33

Depth= 14.15

Pumped dry during sampling
let recharge to finish sample
Turbid after recharge

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	TPH-G	
2	1L Amber	—	TPH-D	

Well Purge Data

Sp. Con

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
1111	Pump On		Initial 14.15	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
1114	0	400	—	12.46	271.57	1.20	6.55	29.40	—	Cloudy, Brown
1117	0.5	150	9.33	11.93	272.85	1.15	6.51	48.70	—	
1120	1.0	150	9.32	11.84	273.94	1.20	6.51	46.80	—	
1123	1.25	130	9.68	11.93	274.61	0.99	6.51	47.30	~~35.2~~	Clear
1126	1.50	130	10.26	11.97	274.84	0.79	6.52	42.00	35.2	
1129	1.75	130	~~11.99~~ 10.80	11.94	276.35	0.71	6.52	35.10		
1132	2.0	130	10.82	11.91	279.15	0.75	6.52	30.30	35.1	
1135	2.25	130	—	11.96	281.17	0.67	6.52	24.90		
1138	2.5	130	11.68	12.29	284.12	0.60	6.51	20.10		
1141	2.75	130	-	12.29	286.80	0.47	6.51	14.90	—	
	Start Sampling 1143									
	End Sampling 1221		Final 13.90	Sample Number: MW-203					Sample Time: 1143	

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-213
Date: 4/23/14

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Project Information
Project Name: Shell Seattle
URS Project Number: 49241
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: D.I. Water and Alconox
Purge Water Disposal: On site treatment
Field Conditions: Overcast 45°
Comments:
Initial DTW: 6.39

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)
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	GX	
2	AMBER	NONE	DX	
3	VOA	HCL	BTEX	
2	AMBER	NONE	cPAH	

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							
0743	Pump On		6.39	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
0747	0	200	-	10.01	7125.7	9.99	7.16	59.60	-	clear
0750	0.6	200	-	10.89	14975.0	0.42	7.56	9.30	-	clear
0753	1.2	200	-	11.24	17744.0	0.14	7.82	-126.4	-	clear
0756	1.8	200	-	11.48	18925.6	0.09	7.98	-169.6	-	clear
0759	2.4	200	6.92	12.05	19285.7	0.06	8.06	-182.2	-	clear
0802	3	200	6.92	11.77	19605.6	0.05	8.10	-186.7	-	clear
0805	3.6	200	6.92	11.77	19694.7	0.04	8.12	-189.0	-	clear
0808	4.2	200	-	11.88	19730.2	0.3	8.13	-190.6	-	clear
0811	4.8	200	-	11.83	19794.1	0.3	8.14	-191.6	-	clear
0814	5.4	200	-	11.75	19854.1	0.2	8.14	-192.8	-	clear
0817	6	200	-	11.75	20015.1	0.2	8.16	-193.3	-	clear
0820	SAMPLE									

MT 4/23/14

Start Sampling 0820
End Sampling 0846
Final

Sample Number: MW-213 Sample Time: 0820

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-214

Date: 4/23/14

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Project Information	
Project Name: Shell Seattle	
URS Project Number: 49241	
Sampling Information	
Field Team: Brent Waldron	
Purge Method: Low Flow	
Pump Intake Depth (ft btc): 1ft off bottom	
Flow-Through Cell: Yes	
Sampling Method: Low Flow	
Decontamination Method: D.I. Water and Alconox	
Purge Water Disposal: On site treatment	
Field Conditions: Cold, breezy, 40°F	
Comments:	
Initial DTW: 6.78 @ 0750	

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	
3	VOA	HCl	TPH-Gx	N
3	VOA	HCl	BTEX	
2	1L	—	TPH-Dx	
2	1L	—	cPAHs	

Well Purge Data

See C

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			±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
0759	Pump On		6.82	-	±3%					
~~0802~~	0	400	—	11.55	14771.01	~~0.55~~	~~2.90~~	~~-175.40~~	—	C, Sulfur odor
0805	1.0	200	—	12.01	14535.82	0.09	7.95	-215.40	—	
0808	2.5	200	6.93	11.64	14405.70	0.05	7.98	-240.60	—	
0811	3.0	200	6.93	11.45	14473.70	0.01	7.99	-261.40	—	
0814	3.5	200	-	11.47	14503.49	0.00	8.00	-293.80	—	
0817	4.0	200	6.93	11.47	14445.55	0.00	8.01	-297.40	—	
0820	4.5	200	6.83	11.80	14548.98	0.00	8.01	-308.30	—	
0823	5.0	200	6.82	11.91	14494.77	0.00	8.01	-315.20	—	
0826	5.5	200	6.82	11.98	14509.10	0.00	8.01	-320.10	—	
0829	6.0	200	6.81	12.19	14480.40	0.00	8.00	-324.00	—	
	Start Sampling 0830									
	End Sampling 0905				Sample Number: MW-214				Sample Time: 0830	
			Final 6.75							

4/23/14

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

Page 1 of ____

Well Number: MW-301

Date: 4/23/14

Project Information
Project Name: Shell Seattle
URS Project Number: 49241
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: D.I. Water and Alconox
Purge Water Disposal: On site treatment
Field Conditions: OVERCAST 50°
Comments:
Initial DTW: 5.51

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	
3	VOA	HCL	GRX	
3	VOA	HCL	BTEX	

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
1034	Pump On		Initial 5.51	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
1037	0	200	-	13.17	459.0	0.26	6.80	-92.1	-	cloudy w/ Fines
1040	1.2	200	-	13.01	455.30	0.18	6.82	-94.0	-	AC
1043	1.8	200	-	13.05	452.2	0.18	6.83	-94.4	-	C
1046	2.4	200	5.53	13.18	453.3	0.11	6.83	-95.4	-	C
1049	3	200	5.53	13.20	453.5	0.09	6.83	-95.2	-	C
1053	SAMPLE									

MT 4/23/14

Start Sampling 1053

End Sampling 1057

Final 5.53

Sample Number: MW-301 **Sample Time:** 1053

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-302

Date: 4/23/14

Project Information	
Project Name: Shell Seattle	
URS Project Number: 49241	
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: D.I. Water and Alconox	
Purge Water Disposal: On site treatment	
Field Conditions: OVERCAST 50°	
Comments:	
Initial DTW: 6.09	

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	BTEX	
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
			Initial			±greater of 10% or 0.2mg/L				<= Stabilization Criteria
1227	Pump On		6.09	-	±3%		±0.1	±10mv	±10%	
1230	0	200	6.10	13.18	353.2	0.11	6.71	-52.3	-	Cloudy
1233	1.2	200	6.10	13.01	356.7	0.08	6.71	-53.90	-	Clear
1236	1.8	200	6.10	13.17	349.2	0.07	6.72	-55.5	-	clear
1239	2.4	200	6.10	13.10	347.3	0.07	6.72	-55.6	-	clear
1240	SAMPLE									
						MT 4/23/14				
	Start Sampling		1240							
	End Sampling									
			Final							

Sample Number: MW-302 **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

Well Number: MW-303

Date: 4/23/14

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Project Information
Project Name: Shell Seattle
URS Project Number: 49241
Sampling Information
Field Team: Bret Waldron
Purge Method: Low Flow
Pump Intake Depth (ft btc): 14'
Flow-Through Cell: Yes
Sampling Method: Low Flow
Decontamination Method: D.I. Water and Alconox
Purge Water Disposal: On site treatment
Field Conditions:
Comments:
Initial DTW: 5.47 @ 1143

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)
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	BTEX	N
3	VOA	HCl	TPH-Gx	N

Well Purge Data

Sp. Cond

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
1158	Pump On		Initial 5.48	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
1201	0	190	5.49	12.77	175.47	0.26	6.73	-68.90	-	C, H.C odor
1204	1.0	190	5.49	11.60	173.15	0.16	6.75	-76.20	6.01	
1207	1.5	190	5.49	11.41	180.69	0.06	6.76	-79.80	-	
1210	1.75	190	5.50	11.45	183.34	0.03	6.76	-82.20	-	
1213	2.0	190	5.51	11.54	185.65	0.01	6.77	-84.40	-	

4/23/14

Start Sampling	1216		
End Sampling	1225	Final 5.50	
Sample Number:	MW-303	Sample Time:	1216

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-304

Date: 4/23/14

Project Information
Project Name: Shell Seattle
URS Project Number: 49241
Sampling Information
Field Team: Bret Waldron
Purge Method: Low Flow
Pump Intake Depth (ft btc): 1 ft off bottom
Flow-Through Cell: Yes
Sampling Method: Low Flow
Decontamination Method: D.I. Water and Alconox
Purge Water Disposal: On site treatment
Field Conditions: Broken clouds, 50
Comments:
Initial DTW: 5.67 @ 1025

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	-	15	-	-	-

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	BTEX	N
3	~~HB~~ VOA	HCl	~~Ox~~ TPH-Dx	1

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
1038	Pump On		5.68 Initial	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
1041	0	180	5.69	13.29	351.70	0.15	6.97	-121.90	18.9	C, HC odor
1044	1.0	180	5.69	12.12	328.41	0.08	6.79	-116.30	-	
1047	1.5	180	5.69	11.96	322.10	0.07	6.75	-112.90	-	
1050	2.0	180	5.69	11.94	319.78	0.06	6.74	-110.50	-	
	Start Sampling	1052								
	End Sampling	1100								
			5.79 Final							

Sample Number: MW-304 **Sample Time:** 1052

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

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Well Number: MW-305

Date: 4/23/14

Project Information	
Project Name: Shell Seattle	
URS Project Number: 49241	
Sampling Information	
Field Team:	Bret Waldron
Purge Method: Low Flow	
Pump Intake Depth (ft btc):	Ft off bottom
Flow-Through Cell: Yes	
Sampling Method: Low Flow	
Decontamination Method: D.I. Water and Alconox	
Purge Water Disposal: On site treatment	
Field Conditions:	Overcast, breezy, 55°F
Comments:	
Initial DTW:	5.90 @ 1337

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)
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	BTEX	
3	VOA	HCl	TPH-Gx	

Well Purge Data

Sp. Cond.

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
1345	Pump On		5.91 Initial	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
1348	0	200	5.92	16.32	84.55	0.25	6.94	-61.80	-	C
1351	1.0	↓	5.92	15.55	85.41	0.07	6.96	-77.70	-	
1354	1.5		5.92	15.46	85.12	0.03	6.97	-82.20	-	
1357	2.0	↓	5.93	15.55	84.82	0.02	6.97	-84.40	-	
	Start Sampling	1400								
	End Sampling	1407								
			5.93 Final							

Sample Number: MW-305 **Sample Time:** 1400

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-306

Date: 4/23/14

Page 1 of ____

Project Information

Project Name: Shell Seattle

URS Project Number: 49241

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: D.I. Water and Alconox

Purge Water Disposal: On site treatment

Field Conditions: Overcast 50°, windy

Comments:

Initial DTW: 5.61

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	BTEX	
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
1406	Pump On		5.61 (Initial)	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
1409	0	200	5.62	15.91	106.70	0.29	6.75	-26.60	-	Clear
1412	1.2	200	5.63	14.80	107.50	0.13	6.76	-45.80	-	Clear
1415	1.8	200	5.63	14.55	108.60	0.08	6.76	-52.10	-	Clear
1418	2.4	200	5.64	14.51	108.40	0.06	6.76	-54.70	-	Clear
1421	3	200	5.64	14.49	109.50	0.05	6.76	-56.70	-	Clear
1425	SAMPLE									

MT 4/23/14

Start Sampling 1425

End Sampling 1429

5.64 (Final)

Sample Number: MW-306 Sample Time: 1425

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-307

Page 1 of ____

Date: 4/22/14

Project Information	
Project Name: Shell Seattle	
URS Project Number: 49241	
Sampling Information	
Field Team: Brad Waldron	
Purge Method: Low Flow	
Pump Intake Depth (ft btc): 1ft off bottom	
Flow-Through Cell: Yes	
Sampling Method: Low Flow	
Decontamination Method: D.I. Water and Alconox	
Purge Water Disposal: On site treatment	
Field Conditions: Rain / Wind	
Comments:	
Initial DTW: 8.26	

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	BTEX	
3	VOA	HCl	TPH-G	

Well Purge Data

Spec C

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
1420 ~~1220~~	Pump On		Initial 8.26	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
1423	0	100	—	12.85	268.63	1.90	6.56	-68.50	—	C
1426	0.75	200	8.45	12.24	272.~~87~~	0.10	6.51	-76.20	—	C
1429	1.0	200	—	11.93	272.56	0.05	6.51	-77.20	—	C
1432	1.5	200	—	11.73	272.36	0.03	6.51	-77.20	—	C
1435	2.0	200	—	11.73	272.18	0.02	6.51	-77.20	—	C
	Start Sampling 1435									
	End Sampling 1445		Final 8.50							
				Sample Number: MW-307					Sample Time: 1435	

4/22/14

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-308

Date: 4/22/14

Page 1 of ____

Project Information
Project Name: Shell Seattle
URS Project Number: 49241
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: D.I. Water and Alconox
Purge Water Disposal: On site treatment
Field Conditions: Rainy, 50°
Comments:
Initial DTW: 8.10

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	VOA	HCl	BTEX	
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
1409	Pump On		Initial 8.10	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
1413	0	150	-	12.00	747.3	0.25	6.84	-10.80	-	clear
1416		150	-	11.52	715.20	0.17	6.84	-17.00	-	clear
1419	1.5	150	-	11.18	654.4	0.16	6.85	-5.80	-	clear
1422	1.65	150	-	10.95	636.0	0.09	6.84	11.50	-	C
1425	1.80	150	-	10.91	633.7	0.08	6.84	14.00	-	C
1428	1.95	150	8.22	10.88	6324	0.12	6.84	17.00	-	C
1431	2.10	150	8.22	10.89	636.4	0.12	6.84	12.70	-	C
1434	2.25	150	8.23	10.95	635.0	0.13	6.84	11.50	-	C
1437	2.4	150	8.23	11.01	635.90	0.08	6.83	5.60	-	C
1440	2.55	150	8.23	11.06	637.0	0.07	6.83	2.70	-	C
1442	SAMPLE									

MT 4/22/14

Start Sampling 1442

End Sampling 1446

Final 8.23

Sample Number: MW-308 Sample Time: 1442

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-309

Date: 4/23/14

Project Information
Project Name: Shell Seattle
URS Project Number: 49241
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: D.I. Water and Alconox
Purge Water Disposal: On site treatment
Field Conditions:
Comments:
Initial DTW: 5.59

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	
3	VOA	HCL	BTEX GX	
3	VOA	HCL		

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
0953	Pump On		Initial 5.59	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
0956	0	200	5.61	13.28	459.90	0.29	7.00	-89.20	-	cloudy
0959	1.2	200	5.60	12.71	360.5	0.18	6.91	-80.4	-	AC
1002	1.8	200	5.60	12.47	346.1	0.15	6.88	-77.4	-	AC
1005	2.4	200	5.61	12.67	343.6	0.14	6.85	-76.2	-	C
1008	3	200	5.60	12.63	341.6	0.10	6.83	-75.0	-	C
1011	3.6	200	5.60	12.63	338.4	0.10	6.82	-72.9	-	C
1015	SAMPLE									

MT 4/23/14

Start Sampling 1015

End Sampling

Final 5.61

Sample Number: MW-309 **Sample Time:** 1015

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: 4/23/14

Project Information
Project Name: Shell Seattle
URS Project Number: 49241
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: D.I. Water and Alconox
Purge Water Disposal: On site treatment
Field Conditions: overcast, windy, 50°
Comments:
Initial DTW: 6.64

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	
3	VOA	HCL	GX	
3	VOA	HCL	BTEX	

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
1314	Pump On		Initial 6.64	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
1317	0	200	6.66	13.63	328.7	0.23	6.64	-54.3	-	Clear
1320	1.2	200	6.66	13.35	320.10	0.13	6.59	-57.9	-	Clear
1323	1.8	200	6.67	13.31	319.2	0.09	6.54	-59.9	-	Clear
1326	2.4	200	6.67	13.23	315.1	0.07	6.57	-60.0	-	Clear
1329	3	200	6.67	13.13	314.5	0.07	6.58	-60.0	-	Clear
1335	SAMPLE									

MT 4/23/14

Start Sampling 1335

End Sampling 1339

Final 6.67

Sample Number: MW-310 Sample Time: 1335

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: SH-04

Date: 4/24/14

Page 1 of ____

Project Information

Project Name: Shell Seattle

URS Project Number: 49241

Sampling Information

Field Team: MAEK TAUSCHER

Purge Method: Low Flow

Pump Intake Depth (ft btc):

Flow-Through Cell: Yes

Sampling Method: Low Flow

Decontamination Method: D.I. Water and Alconox

Purge Water Disposal: On site treatment

Field Conditions: Windy, Overcast, 45°

Comments:

Initial DTW: 8.97

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	CLX	HCL	
3	VOA	BTEX	HCL	
2	AMBER	DX	HCL	

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
0731	Pump On		Initial 8.97	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
0734	0	200	9.01	11.41	165.9	0.58	6.47	1.20	-	AC
0737	1.2	200	9.02	11.15	166.1	0.15	6.43	-2.80	-	C
0740	1.8	200	9.02	11.07	166.3	0.11	6.42	-3.90	-	C
0743	2.4	200	9.01	11.04	191.1	0.09	6.47	-9.80	-	C
0746	3	200	9.01	11.04	198.5	0.07	6.50	-14.20	-	C
0749	3.6	200	9.01	11.06	204.3	0.06	6.54	-18.10	-	C
0752	4.2	200	9.01	11.12	208.0	0.06	6.56	-21.10	-	C
0755	4.8	200	9.01	11.20	208.4	0.05	6.58	-23.8	-	C
0800	SAMPLE									

MM 4/24/14

Start Sampling 0800

End Sampling 0812

Final 9.01

Sample Number: SH-04 Sample Time: 0800

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: TX-03A

Date: 4/23/14

Project Information
Project Name: Shell Seattle
URS Project Number: 49241
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: D.I. Water and Alconox
Purge Water Disposal: On site treatment
Field Conditions:
Comments:
Initial DTW: 5.47

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)
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	BTEX	
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
1129	Pump On		Initial 5.47	-	±3%	±greater of 10% or 0.2mg/L	±0.1	±10mv	±10%	<= Stabilization Criteria
1132	0	150	5.47	13.04	315.8	0.24	6.74	-79.6	-	Cloudy
1135	.9	150	5.47	12.94	316.4	0.20	6.75	-81.5	-	AC
1138	1.35	150	5.47	12.90	316.7	0.26	6.75	-82.4	-	C
1141	1.8	150	5.47	12.91	314.4	0.29	6.76	-82.7	-	Clear
1144	2.25	150	5.47	12.90	313.8	0.21	6.75	-81.9	-	Clear
1145	Sample									

MT 4/23/14

Start Sampling 1145

End Sampling

Final

Sample Number: TX-03A **Sample Time:** 1145

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

Mark did this →

URS

DATE 6/10/14

Daily Quality Control Report

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

WEATHER: SNOW | RAIN | (OVERCAST) | CLEAR | BRIGHT SUN

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

WIND: Still | (Moder) | High

HUMIDITY: Dry | (Moder) | Humid

Report No. 2

PROJECT MANAGER: Brian Pletcher

PROJECT: D Street Site / Shell Harbor Island

JOB NO.: 46194223 / 492441036

URS FIELD REP: Matt Dobbs & Mark Tausler

SUB-CONTRACTORS ON SITE: N/A

EQUIPMENT ON SITE: Field vehicle

WORK PERFORMED:

0615 - URS departs Tacoma for Shell Harbor Island site.

0700 - URS arrives at Shell Harbor Island & attends morning safety meeting.

0735 - Permit issued, URS moves to shoreline to change out socks & check for free product.

MW-211: No free product, 6.60' btc (DTW)

MW-208: No free product, DTW = 5.60' btc → trace on probe

MW-212: No free product

MW-210: DTP = 6.85' btc, DTW = 7.08' btc

MW-209: No free product, DTW = 8.31' btc

Gauging - MW-202: 6.40' btc

Car parked on TX-03A, cannot gauge

Manhole: Small amount of standing water, no flow.

0840 - URS disposes of oily waste on site, signs out & off site.

Well	Sample Time
RR-3	1100
RR-2 (DUP)	1120
DMW-4	1250
T-2	1255
G-8	1440
E-22	1415

0940 - URS arrives at D-Street, checks in & has safety meeting / completes JSA.

1010 - URS begins setting up to sample wells.

DMW-4 monument broken, concrete badly chunked up, will repair w/ concrete.

1345 - URS has permission from fish warehouse to sample E-22 today, begins setting up.

Daily Quality Control Report

PROJECT: _____ REPORT NO. _____

JOB NO.: _____ DATE _____

LRS has also spoken w/ Globe, will look into gauging well on their property late today

1500 - Gauge MW-2 → DTP = 8.33
DTW = 6.35

NOTE: Oil detected in well. Field descriptions are: yellowish, light weight oil, smells like hyoraulic fluid (Petroleum smell) Flakes of rust and black specs. stained this daily (see top).

1575 - LRS begins cleaning work area & packing up equipment, along w/ packing samples in coolers.
1600 - LRS checks out with terminal & leaves site to drop off samples at lab.

PROBLEMS ENCOUNTERED/CORRECTION ACTION TAKEN:

SPECIAL NOTES:

TOMORROW'S EXPECTATIONS:

BY _____ TITLE _____

SHEET 2 OF 2

URS

Monitoring Well Gauging Field Log- Shoreline

Date: 7/24/14
Job No.: 49241036
SAP: 3547032
Incident No 300036
Location: 2555 13th Ave SW Seattle (Harbor Island Terminal)
Personnel: Bret Walston ; Mark Tauscher

Well ID	Time Gauged	Depth to Water	Depth to Product	Comments
MW-208	1446	5.50	ND	
MW-209	1441	6.91	ND	Absorbant Sock - Sheen on sock - Replaced
MW-210	1500	~~6.64~~ 6.66	6.56	Product on meter Product in sock - dark Absorbant Sock - Replaced
MW-211	1452	6.85	ND	
MW-212	1456	6.06	~~ND~~ Sheen	Absorbant Sock replaced -
MW-213	—	—	—	Do Not Guage
Mw-214	—	—	—	Do not Guage

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 odor noted (organic)

URS

Monitoring Well Gauging Field Log- Shoreline

Date:

Job No.: 49241036
SAP: 3547032
Incident No 300036
Location: 2555 13th Ave SW Seattle (Harbor Island Terminal)
Personnel:

Well ID	Time Gauged	Depth to Water	Depth to Product	Comments
MW-208	1043	5.73	NA	
MW-209	1050	6.79	NA	Absorbant Sock
MW-210	1110	6.72	6.65	Absorbant Sock
MW-211	1101	6.06	NA	
MW-212	1058	6.23	NA	NO Detected product - Sight petro odor Absorbant Sock
MW-213	–	–	–	Do Not Guage
Mw-214	–	–	–	Do Not Guage

Sock replaced

Bad as usual product,

Sock in pretty good shape, very little produc Replaced (DARK)

URS

Monitoring Well Gauging Field Log

Date: 9/23/14

Job No.: 49241036

SAP: 3547032

Incident No 300036

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

Personnel: Bret Waldron ; Gene Hailman

Well ID	Time Gauged	Depth to Water	Depth to Product	Comments
TX-03A ~~MW-301~~	1335	6.57	—	
MW-302	1350	6.71	—	
MW-303	1358	6.80	6.77	
MW-304	1343	6.89	—	
MW-309	1315	6.81	—	
MW-302 ~~MW-310~~	1329	7.13	—	
MW-310 ~~TX-03A~~	~~7.7~~ 1408	7.73	—	

URS

Monitoring Well Gauging Field Log- Shoreline

Date: 9/23/14

Job No.: 49241036
SAP: 3547032
Incident No 300036
Location: 2555 13th Ave SW Seattle (Harbor Island Terminal)
Personnel: Bret Waldron

Well ID	Time Gauged	Depth to Water	Depth to Product	Comments
MW-208	1531	5.76	ND	Bio matter in well.
MW-209	1536	~~5.76~~ 5.73	ND	Absorbant Sock
MW-210	1547	6.56	6.55	Absorbant Sock – Replaced w/ new
MW-211	1521	5.96	ND	Iron on meter High Tide
MW-212	1526	6.08	ND	Absorbant Sock – Little stainings & good condition piece back in hole.
MW-213	—	—	—	Do Not Guage
Mw-214	—	—	—	Do Not Guage

Monitoring Well Sampling Field Log

Well Number: MW-302
Date: 9/23/14

Page 1 of 1

Project Information	
Project Name:	Harbor Island Terminal
URS Project Number:	49241036
Sampling Information	
Field Team:	Bret Waldron
Purge Method:	Low-Flow
Flow-Through Cell:	YSI 556
Sampling Method:	Low-Flow
Decontamination Method:	
N/A - all supplies disposable	
Purge Water Disposal:	Treated onsite
Field Conditions:	Overcast, Light rain showers

Comments:

470 mL/min

Initial DTW = 7.13

Sample Containers				Filtered?
Number	Type	Preservative	Analytical Parameters	
3	40 mL VOA	HCL	TPH-Gx	N
3	40 mL VOA	HCL	VOCs	N
2	1L Amber		TPH-Dx	N
2	1L Amber		PAHs	N

Purge Volume Information	
Well Diameter:	2"
Depth to Bottom:	
Depth to Water:	7.13
Depth to Product:	
Water Column Height:	
Conversion Factor:	
One Well Volume:	

Conversion Factor:		
	3/4" = 0.023 gal/ft	2" = 0.165 gal/ft
	4" = 0.65 gal/ft	6" = 1.5 gal/ft

Well Purge Data

Time	Volume Purged (L)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
17:07	0							C
17:12	2.35	17.18	304	0.27	6.65	-24.3	—	C
17:17	4.70	17.36	306	0.17	6.62	-29.6	—	C
17:20	6.11	17.37	307	0.14	6.62	-32.1	—	C
17:23	7.520	17.38	309	0.12	6.62	-34.4	—	C

Sampling GRAB

Final DTW = 7.20

Sample Number: MW-302 Sample Time: 1725

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 1

Well Number: MW-309

Date: 9/23/14

Project Information	
Project Name:	Harbor Island Terminal
URS Project Number:	49241036

Sampling Information	
Field Team:	Bret Waldron
Purge Method:	Low-Flow
Flow-Through Cell:	YSI 556
Sampling Method:	Low-Flow
Decontamination Method:	N/A - all supplies disposable
Purge Water Disposal:	Treated onsite
Field Conditions:	Overcast / Light Rain

Comments:

DTW = 6.81

15cm on probe

Pump malfunctioning, will only pump very slow (100mL/min) or very fast. Pump will slow at 100mL/min

Sample Containers

Number	Type	Preservative	Analytical Parameters	Filtered?
3	40 mL VOA	HCL	TPH-Gx	N
3	40 mL VOA	HCL	VOCs	N
2	1L Amber	—	TPH-Dx	N
2	1L Amber	"	PAHs	N

Purge Volume Information

Well Diameter:	2"
Depth to Bottom:	
Depth to Water:	6.81
Depth to Product:	ND
Water Column Height:	
Conversion Factor:	
One Well Volume:	

Conversion Factor:	3/4" = 0.023 gal/ft	2" = 0.165 gal/ft
	4" = 0.65 gal/ft	6" = 1.5 gal/ft

Well Purge Data

Time	Volume Purged (L)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
1320								
1328	0	18.41	381	0.65	6.79	-51.4	—	C
1332	0.4	18.39	378	0.65	6.79	-51.7	—	C
1335	0.7	18.53	363	0.72	6.76	-44.9	—	C
1341	1.3	18.59	353	0.75	6.73	-41.6	—	C
1344	1.6	18.65	308	0.74	6.72	-39.1	—	C
1347	1.9	18.63	306	0.72	6.72	-38.6	—	C
1350	2.2	18.68	305	0.69	6.71	-39.2	—	C

100mL/min x uS/cm² x uS/cm² x uS/cm² x uS/cm² ... uS/cm

9/23/14

Sample Number: MW-309 **Sample Time:** 1350

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-301

Date: 9/23/14

Project Information	
Project Name:	Harbor Island Terminal
URS Project Number:	49241036
Sampling Information	
Field Team:	Bret Waldron
Purge Method:	Low-Flow
Flow-Through Cell:	YSI 556
Sampling Method:	Low-Flow
Decontamination Method:	
N/A - all supplies disposable	
Purge Water Disposal:	Treated onsite
Field Conditions:	
Comments:	

Sample Containers

Number	Type	Preservative	Analytical Parameters	Filtered?
3	40 mL VOA	HCL	TPH-Gx	N
3	40 mL VOA	HCL	VOCs	N
2	1L Amber		TPH-Dx	N
2	1L Amber		PAHs	N

Purge Volume Information

Well Diameter:	
Depth to Bottom:	
Depth to Water:	
Depth to Product:	
Water Column Height:	
Conversion Factor:	
One Well Volume:	

Conversion Factor: 3/4" = 0.023 gal/ft; 2" = 0.165 gal/ft; 4" = 0.65 gal/ft; 6" = 1.5 gal/ft

Well Purge Data

Time	Volume Purged (L)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
1535 ~~15:26~~ GRH	0	Started	Pump					
1539		17.41	464	0.16	6.81	-65.0	–	C
1543		17.44	373	0.11	6.80	-61.7	–	C
1547		17.51	364	0.13	6.79	-59.5	–	C
1551		17.55	362	0.18	6.77	-58.1	–	C
1555	9.46L Total	17.51	366	0.13	6.77	-58.9	–	C

Sampling GRH

Final WL = 6.67

Sample Number: MW-301 **Sample Time:** 1601

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 1

Well Number: TX-03A

Date: 7/23/14

Project Information	
Project Name:	Harbor Island Terminal
URS Project Number:	49241036
Sampling Information	
Field Team:	Bret Waldron
Purge Method:	Low-Flow
Flow-Through Cell:	YSI 556
Sampling Method:	Low-Flow
Decontamination Method:	
N/A - all supplies disposable	
Purge Water Disposal:	Treated onsite
Field Conditions:	

Comments:

Initial DTW = 7.73

410 mL/min

VOC odor to water

Sample Containers

Number	Type	Preservative	Analytical Parameters	Filtered?
3	40 mL VOA	HCL	TPH-Gx	N
3	40 mL VOA	HCL	VOCs	N
2	1L Amber		TPH-Dx	N
2	1L Amber		PAHs	N

Purge Volume Information

Well Diameter:	
Depth to Bottom:	
Depth to Water:	
Depth to Product:	
Water Column Height:	
Conversion Factor:	
One Well Volume:	

Conversion Factor:	3/4" = 0.023 gal/ft	2" = 0.165 gal/ft
	4" = 0.65 gal/ft	6" = 1.5 gal/ft

Well Purge Data

Time	Volume Purged (L)	Temp. (°C)	Conductivity (uS/cm)	D.O. (mg/L)	pH	ORP (mV)	Turbidity (NTUs)	Clarity / Color / Remarks
16:21	0	Pump	on					
16:23	8.20	17.34	375	0.77	6.75	-31.9	-	C
16:28	2.87	17.31	364	0.22	6.66	-37.4	-	C
16:31	4.10	17.42	364	0.18	6.64	-39.4	-	C
16:34	5.33	17.51	360	0.22	6.62	-40.4	-	C
16:37	6.56	17.54	355	0.22	6.58	-40.2	-	C

Sampling GRAB

Final DTW = 6.61

Sample Number: TX-03A Sample Time: 16:38

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 10/21/14

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)	001	

SUB-CONTRACTORS ON SITE: Cascade Drilling ; APS Locating

EQUIPMENT ON SITE: Vac Truck.

WORK PERFORMED:

-0645- Meet CDI and APS at Terminal office for SIMOPS meeting

-0830 Mobilize to City of Seattle parking lot to conduct utility locate and stage materials. Clear utilities for MW-311 ; MW-312. OPL clears utilities.

0900 Mobilize inside tank farm to clear and vac-ex MTF-1.

0930 Begin excavating MTF-1. APS departs.

0940 MTF-1 cleared to 6'.

1000- 2 samples collected - MTF-1-4-5 - 0935 4'-5' bgs

MTF-1-6-6.5 - 1000 6'-6.5' bgs

1015- CDI Mob VAC to TX-03 / City Parking lot to begin well vac clear.

Bret speaking with Brian about depth to set well @ MTF-1 area.

1030- Will install MTF-1 to 10ft w/ 5ft screen. Setup drill rig at MTF-1 to drill 6-10'. Mark accompanies vac-truck to MW-311 ; MW-312.

1055 Set temp well in MTF-1. Screened 5-10'.

1110 Tag water in MTF-1 at 5.4' bgs.

Begin pumping MTF-1. Mark overseeing Vac-Ex of MW-311 ; MW-312

1150 Collect water sample MTF-1

1230- Abandon MTF-1. Use 1 bag bentonite chips.

1255 MW-311 ; MW-312 cleared. MW-312 had asphalt layer at 2-3'. likely old road surface.

1315 Paul Kalina (URS) onsite for Safety Audit. Rig down for maintenance on PTO

1345 Paul Kalina departs. Rig up and running. Will advance 4" casing for well installation.

1410 MW-311 installed. Screened 5-15'. Sand up to 3'.

1425 Setup at MW-312 to advance hole beyond 7'.

1530 Install MW-312. Screen 5-15'.

1710- URS - CASCADE off Site

SHEET ____ OF ____

URS

DATE 10/22/14

DAY	S	M	T	W	TH	F	S

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		

PROJECT MANAGER: Brian Pletcher
PROJECT: Harbor Island
JOB NO.: 49241036
URS FIELD REP: MARK TAUSCHER

SUB-CONTRACTORS ON SITE: NA
EQUIPMENT ON SITE: VAN.

WORK PERFORMED:

0645- URS on site → SIMOPS Meeting
0730- SHORELINE - MW-210 5.87 0759 - No product detected changed sock
MW-211 - 4.96 0748
MW-208 - 4.87 0751
MW-209 - 4.91 0753 - Sock changed.
MW-212 4.13 0756 - Sock changed slight sheen →

0820 - MW-312 DTW= 8.06 TD= 14.86
1000 - MW-311 DTW= 8.60 TD= 14.98

1130- wells developed - see forms.

1230- Collect IDW Sample from 1 drum on site
IDW-D-1 1230 SOIL

1330- Deliver Samples to FEDEX

SHEET ____ OF ____

URS

Monitoring Well Gauging Field Log- Shoreline

Date: 11/5/14

Job No.: 49241036

SAP: 3547032

Incident No 300036

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

Personnel: Bret Waldron

Well ID	Time Gauged	Depth to Water	Depth to Product	Comments
MW-208	0818	4.50	ND	
MW-209	0822	6.60	ND	Absorbant Sock - Replaced - No staining on old one
MW-210	0830	6.45	5.90	Absorbant Sock - Saturated, replaced. Meter giving intermittent product alarm.
MW-211	0808	4.70	ND	
MW-212	0812	5.12	ND	Absorbant Sock - Little to no staining on sock - Replaced
MW-213	0804	6.55	ND	~~Do Not Guage~~ Gauge for Sampling
Mw-214	0806	6.80	ND	~~Do Not Guage~~ Gauge for Sampling

URS

Monitoring Well Gauging Field Log

Date: 11/4/14
Job No.: 49241036
SAP: 3547032
Incident No 300036
Location: 2555 13th Ave SW Seattle (Harbor Island Terminal)
Personnel: Bret Waldron

Well ID	Time Gauged	Depth to Water	Depth to Product	Comments
MW-101	0820	10.70	ND	
MW-102	1115	7.91	ND	
MW-103	–	–	–	Deep montoring well location
MW-201	0910	13.65	ND	
MW-202	0902	13.44	ND	
MW-203	0935	7.59	ND	Organic material on probe upon retrieval
MW-204	0915	11.04	ND	Organic Material on probe upon retrieval
MW-205	–	–	–	Deep montoring well location
MW-206A	0942	9.25	ND	Placed new lock on well
MW-207	–	–	–	In the roadway?
MW-301	1048	5.73	ND	H.C. odor
MW-302	1022	6.28	ND	
MW-303	1058	5.73	ND	
MW-304	1035	5.91	ND	
MW-307	0837	8.52	ND	H.C. Odor
MW-308	0833	8.40	ND	
MW-309	1054	5.81	ND	
MW-310	1030	6.84	ND	
MW-311	1012	8.03	ND	
MW-312	1001	7.58	ND	
TES-MW-1	0824	9.07	ND	
TX-03A	1043	5.64	ND	H.C. Odar

NC

URS

Monitoring Well Gauging Field Log- Shoreline

Date: 12/18/14

Job No.: ~~49241036~~ 49241036

SAP: 3547032

Incident No 300036

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

Personnel: Bret Waldron

Well ID	Time Gauged	Depth to Water	Depth to Product	Comments
MW-208	0839	4.28	ND	
MW-209	0845	5.27	ND	old one has heavy silty ~~sock~~, no odor or product noted Absorbant Sock – Replaced
MW-210	0901	5.49	5.26	Dark, brown product on sock- Petroleum odor Absorbant Sock – Replaced
MW-211	0852	4.50	ND	
MW-212	0859	4.89	ND	Dark staining on sock - Strong diesel odor Absorbant Sock - Replaced
MW-213				Do Not Guage
Mw-214				Do Not Guage

ND = Not Detected

Appendix C
Data Validation and Laboratory Analytical Reports

Final Data Review

The data quality review of the five primary groundwater samples and one trip blank, collected January 16th, 2014 at the Harbor Island site in Seattle, Washington has been completed. Samples were submitted to TestAmerica (TA) of Beaverton, Oregon. The samples submitted were analyzed for one or more of the following: benzene, toluene, ethylbenzene, and total xylene (BTEX; EPA Method 8260B); gasoline range hydrocarbons (NWTPH-Gx); and dissolved lead and manganese (EPA Method 6020).

The review included the analytical data presented in TA report 250-J16700-1. The data were reviewed based on *United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) National Functional Guidelines (NFGs) for Organic Data Review*, June 2008, *USEPA CLP NFGs for Inorganic Superfund Data Review*, January 2010, and laboratory quality control criteria. Items reviewed included: chain-of-custody (COC) records, hold times, surrogate recoveries, matrix spike and matrix spike duplicate results, laboratory control and laboratory control duplicate results, laboratory duplicate results, and method blank results. Data qualifiers assigned as a result of this review are included in Table 1.

The following criteria were evaluated during the review:

- COC Records – Acceptable

  The laboratory noted that a trip blank sample was submitted but not included on the COC. The analysis of the trip blank was not required for the project and not completed by the laboratory. No action is required.

  The sample containers for dissolved metals analysis did not indicate if the samples were field filtered. URS confirmed filtration with the laboratory during delivery of the samples. No action is required.

- Temperature – Acceptable
- Preservation – Acceptable
- Hold Times – Acceptable
- Method Blanks – Acceptable
- Surrogates – Acceptable
- Laboratory Control Samples (LCS/LCSD) – Acceptable
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) – Acceptable with the following exception:

  BTEX by EPA Method 8260B: The recoveries of benzene in the MS/MSD analyses were below the laboratory limit of 80% at 72%/67%. The LCS/LCSD recoveries were in control indicating the analytical batch was in control. Therefore, only the benzene

result of the parent sample ASW-1 (250-16700-3) was qualified as estimated and flagged 'J'.

- Reporting Limits – Acceptable

Overall Assessment of Data

The completeness of the analytical reports for this groundwater monitoring event is 100%. The usefulness of the data is based on the USEPA guidance documents referenced in the introduction of this report. Upon consideration of the information presented above, the data are considered usable. Data qualified as estimated, 'J', during this review process are included in Table 1.

Data Qualifier Definitions

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria.

DNR Do Not Report. Another result is available that is more reliable.

References

USEPA, 2008. U.S. Environmental Protection Agency Contract Laboratory Program National Functional Guidelines for Organic Data Review. June 2008.

USEPA, 2010. U.S. Environmental Protection Agency (USEPA) Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review. January 2010.

Table 1 Sample Qualification Summary

Sample Number	Laboratory ID	Analyte	Data Qualifier	Reason for Qualification
ASW-1	250-16700-3	Benzene	J	MS/MSD recovery

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Portland
9405 SW Nimbus Ave.
Beaverton, OR 97008
Tel: (503)906-9200

TestAmerica Job ID: 250-16700-1
Client Project/Site: Harbor Island
Revision: 1

For:
URS Corporation
111 SW Columbia St
Suite 1500
Portland, Oregon 97201-5850

Attn: Brian Pletcher

Vanessa Berry

Authorized for release by:
2/10/2014 9:20:17 PM

Vanessa Berry, Project Manager I
(503)906-9233
vanessa.berry@testamericainc.com

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Sample Summary

Client: URS Corporation
Project/Site: Harbor Island

TestAmerica Job ID: 250-16700-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
250-16700-1	MW-310	Water	01/16/14 12:46	01/17/14 09:10
250-16700-2	MW-304	Water	01/16/14 13:40	01/17/14 09:10
250-16700-3	ASW-1	Water	01/16/14 14:25	01/17/14 09:10
250-16700-4	MW-302	Water	01/16/14 15:07	01/17/14 09:10
250-16700-5	TW-01	Water	01/16/14 15:48	01/17/14 09:10

Job ID: 250-16700-1

Laboratory: TestAmerica Portland

Narrative

Job Narrative
250-16700-1

Comments
No additional comments.

Receipt
The samples were received on 1/17/2014 9:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.7º C.

Except:

A trip blank was submitted for analysis with these samples; however, it was not listed on the Chain of Custody (COC).

ASW-1 (250-16700-3), MW-302 (250-16700-4), MW-304 (250-16700-2), MW-310 (250-16700-1), TW-01 (250-16700-5) COC and containers do not indicate if HNO3 bottles are field filtered. Client indicated they all are indeed field filtered during drop off at the lab.

The following samples were activated by the client on 2-5-14 for dissoved Iron analysis.

GC/MS VOA
No analytical or quality issues were noted.

GC VOA
No analytical or quality issues were noted.

Metals
Method 200.8, 6020: The following sample(s) was diluted due to the nature of the sample matrix: (250-16709-1 DU), Liquid Acid w/ Metals (250-16709-1). Elevated reporting limits (RLs) are provided.

No other analytical or quality issues were noted.

Field Service / Mobile Lab
No analytical or quality issues were noted.

VOA Prep
No analytical or quality issues were noted.

Job ID: 250-16700-2

Laboratory: TestAmerica Portland

Narrative

Job Narrative
250-16700-2

All samples were activated by the client on 2-5-14, for dissoved iron analysis.

Metals
No analytical or quality issues were noted.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery exceeds the control limits

Metals

Qualifier	Qualifier Description
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.

Glossary

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

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

Client Sample ID: MW-310
Date Collected: 01/16/14 12:46
Date Received: 01/17/14 09:10

Lab Sample ID: 250-16700-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	**77.5**		20.0		ug/L			01/23/14 13:00	20
Benzene	**821**		4.00		ug/L			01/23/14 13:00	20
Ethylbenzene	**189**		10.0		ug/L			01/23/14 13:00	20
Toluene	**41.4**		10.0		ug/L			01/23/14 13:00	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*80 - 120*		*01/23/14 13:00*	*20*
4-Bromofluorobenzene (Surr)	*94*		*80 - 120*		*01/23/14 13:00*	*20*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*01/23/14 13:00*	*20*
Toluene-d8 (Surr)	*99*		*80 - 120*		*01/23/14 13:00*	*20*

Client Sample ID: MW-304
Date Collected: 01/16/14 13:40
Date Received: 01/17/14 09:10

Lab Sample ID: 250-16700-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	**57.1**		20.0		ug/L			01/23/14 13:51	20
Benzene	**790**		4.00		ug/L			01/23/14 13:51	20
Ethylbenzene	**47.2**		10.0		ug/L			01/23/14 13:51	20
Toluene	**19.4**		10.0		ug/L			01/23/14 13:51	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*		*01/23/14 13:51*	*20*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*01/23/14 13:51*	*20*
Dibromofluoromethane (Surr)	*98*		*80 - 120*		*01/23/14 13:51*	*20*
Toluene-d8 (Surr)	*98*		*80 - 120*		*01/23/14 13:51*	*20*

Client Sample ID: ASW-1
Date Collected: 01/16/14 14:25
Date Received: 01/17/14 09:10

Lab Sample ID: 250-16700-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		20.0		ug/L			01/23/14 14:15	20
Benzene	**505**		4.00		ug/L			01/23/14 14:15	20
Ethylbenzene	ND		10.0		ug/L			01/23/14 14:15	20
Toluene	ND		10.0		ug/L			01/23/14 14:15	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*01/23/14 14:15*	*20*
4-Bromofluorobenzene (Surr)	*90*		*80 - 120*		*01/23/14 14:15*	*20*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*01/23/14 14:15*	*20*
Toluene-d8 (Surr)	*98*		*80 - 120*		*01/23/14 14:15*	*20*

Client Sample ID: MW-302
Date Collected: 01/16/14 15:07
Date Received: 01/17/14 09:10

Lab Sample ID: 250-16700-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	**50.4**		20.0		ug/L			01/23/14 16:19	20
Benzene	**404**		4.00		ug/L			01/23/14 16:19	20
Ethylbenzene	**84.3**		10.0		ug/L			01/23/14 16:19	20
Toluene	**16.1**		10.0		ug/L			01/23/14 16:19	20

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

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		01/23/14 16:19	20
4-Bromofluorobenzene (Surr)	92		80 - 120		01/23/14 16:19	20
Dibromofluoromethane (Surr)	98		80 - 120		01/23/14 16:19	20
Toluene-d8 (Surr)	98		80 - 120		01/23/14 16:19	20

Client Sample ID: TW-01
Lab Sample ID: 250-16700-5
Date Collected: 01/16/14 15:48
Matrix: Water
Date Received: 01/17/14 09:10

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	64.8		20.0		ug/L			01/23/14 16:43	20
Benzene	521		4.00		ug/L			01/23/14 16:43	20
Ethylbenzene	107		10.0		ug/L			01/23/14 16:43	20
Toluene	29.4		10.0		ug/L			01/23/14 16:43	20

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		80 - 120		01/23/14 16:43	20
4-Bromofluorobenzene (Surr)	94		80 - 120		01/23/14 16:43	20
Dibromofluoromethane (Surr)	96		80 - 120		01/23/14 16:43	20
Toluene-d8 (Surr)	99		80 - 120		01/23/14 16:43	20

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Client Sample ID: MW-310
Date Collected: 01/16/14 12:46
Date Received: 01/17/14 09:10

Lab Sample ID: 250-16700-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	5940		500		ug/L			01/20/14 23:37	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*128*		*50 - 150*		*01/20/14 23:37*	*10*

Client Sample ID: MW-304
Date Collected: 01/16/14 13:40
Date Received: 01/17/14 09:10

Lab Sample ID: 250-16700-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	4890		500		ug/L			01/20/14 23:07	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*123*		*50 - 150*		*01/20/14 23:07*	*10*

Client Sample ID: ASW-1
Date Collected: 01/16/14 14:25
Date Received: 01/17/14 09:10

Lab Sample ID: 250-16700-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	2960		500		ug/L			01/20/14 22:36	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*116*		*50 - 150*		*01/20/14 22:36*	*10*

Client Sample ID: MW-302
Date Collected: 01/16/14 15:07
Date Received: 01/17/14 09:10

Lab Sample ID: 250-16700-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	3540		500		ug/L			01/20/14 21:05	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*120*		*50 - 150*		*01/20/14 21:05*	*10*

Client Sample ID: TW-01
Date Collected: 01/16/14 15:48
Date Received: 01/17/14 09:10

Lab Sample ID: 250-16700-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	5080		500		ug/L			01/20/14 20:35	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*127*		*50 - 150*		*01/20/14 20:35*	*10*

Client: URS Corporation
Project/Site: Harbor Island

TestAmerica Job ID: 250-16700-1

Method: 6020 - Metals (ICP/MS) - Dissolved

Client Sample ID: MW-310
Date Collected: 01/16/14 12:46
Date Received: 01/17/14 09:10

Lab Sample ID: 250-16700-1
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00100		mg/L		01/17/14 13:14	01/18/14 02:42	1
Manganese	**0.554**		0.00200		mg/L		01/17/14 13:14	01/18/14 02:42	1
Iron	**31.2**		0.250		mg/L		01/17/14 13:14	02/05/14 17:36	10

Client Sample ID: MW-304
Date Collected: 01/16/14 13:40
Date Received: 01/17/14 09:10

Lab Sample ID: 250-16700-2
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00100		mg/L		01/17/14 13:14	01/18/14 02:45	1
Manganese	**0.331**		0.00200		mg/L		01/17/14 13:14	01/18/14 02:45	1
Iron	**30.2**		0.250		mg/L		01/17/14 13:14	02/05/14 17:40	10

Client Sample ID: ASW-1
Date Collected: 01/16/14 14:25
Date Received: 01/17/14 09:10

Lab Sample ID: 250-16700-3
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00100		mg/L		01/17/14 13:14	01/18/14 02:48	1
Manganese	**0.513**		0.00200		mg/L		01/17/14 13:14	01/18/14 02:48	1
Iron	**14.9**		0.250		mg/L		01/17/14 13:14	02/05/14 17:43	10

Client Sample ID: MW-302
Date Collected: 01/16/14 15:07
Date Received: 01/17/14 09:10

Lab Sample ID: 250-16700-4
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00100		mg/L		01/17/14 13:14	01/18/14 02:52	1
Manganese	**0.410**		0.00200		mg/L		01/17/14 13:14	01/18/14 02:52	1
Iron	**20.8**		0.250		mg/L		01/17/14 13:14	02/05/14 18:13	10

Client Sample ID: TW-01
Date Collected: 01/16/14 15:48
Date Received: 01/17/14 09:10

Lab Sample ID: 250-16700-5
Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00100		mg/L		01/17/14 13:20	01/17/14 22:26	1
Manganese	**0.373**		0.00200		mg/L		01/17/14 13:20	01/17/14 22:26	1
Iron	**25.8**		0.250		mg/L		01/17/14 13:20	02/05/14 18:46	10

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

Lab Sample ID: MB 250-23898/8
Matrix: Water
Analysis Batch: 23898

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Xylenes, Total	ND		1.00		ug/L			01/23/14 12:36	1
Benzene	ND		0.200		ug/L			01/23/14 12:36	1
Ethylbenzene	ND		0.500		ug/L			01/23/14 12:36	1
Toluene	ND		0.500		ug/L			01/23/14 12:36	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*01/23/14 12:36*	*1*
4-Bromofluorobenzene (Surr)	*91*		*80 - 120*		*01/23/14 12:36*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*		*01/23/14 12:36*	*1*
Toluene-d8 (Surr)	*99*		*80 - 120*		*01/23/14 12:36*	*1*

Lab Sample ID: LCS 250-23898/4
Matrix: Water
Analysis Batch: 23898

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	60.0	55.10		ug/L		92	80 - 135
Benzene	20.0	18.37		ug/L		92	80 - 120
Ethylbenzene	20.0	18.21		ug/L		91	80 - 120
Toluene	20.0	18.44		ug/L		92	80 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*107*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*102*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: LCSD 250-23898/5
Matrix: Water
Analysis Batch: 23898

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

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	60.0	62.48		ug/L		104	80 - 135	13	25
Benzene	20.0	20.15		ug/L		101	80 - 120	9	25
Ethylbenzene	20.0	20.59		ug/L		103	80 - 120	12	25
Toluene	20.0	20.37		ug/L		102	80 - 125	10	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

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

Lab Sample ID: 250-16700-3 MS
Matrix: Water
Analysis Batch: 23898

Client Sample ID: ASW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Xylenes, Total	ND		1200	1119		ug/L		93	70 - 130
Benzene	505		400	790.9	F1	ug/L		72	80 - 125
Ethylbenzene	ND		400	377.7		ug/L		93	80 - 125
Toluene	ND		400	374.1		ug/L		91	75 - 135

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*
4-Bromofluorobenzene (Surr)	*96*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: 250-16700-3 MSD
Matrix: Water
Analysis Batch: 23898

Client Sample ID: ASW-1
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Xylenes, Total	ND		1200	1076		ug/L		90	70 - 130	4	25
Benzene	505		400	772.7	F1	ug/L		67	80 - 125	2	25
Ethylbenzene	ND		400	362.0		ug/L		89	80 - 125	4	25
Toluene	ND		400	361.1		ug/L		88	75 - 135	4	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*95*		*80 - 120*
Dibromofluoromethane (Surr)	*100*		*80 - 120*
Toluene-d8 (Surr)	*102*		*80 - 120*

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC)

Lab Sample ID: MB 250-23806/5
Matrix: Water
Analysis Batch: 23806

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

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Hydrocarbons	ND		50.0		ug/L			01/20/14 16:31	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*101*		*50 - 150*		*01/20/14 16:31*	*1*

Lab Sample ID: LCS 250-23806/3
Matrix: Water
Analysis Batch: 23806

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

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Gasoline Range Hydrocarbons	500	514.9		ug/L		103	70 - 130

Method: NWTPH-Gx - Northwest - Volatile Petroleum Products (GC) (Continued)

Lab Sample ID: LCS 250-23806/3
Matrix: Water
Analysis Batch: 23806

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

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene (Surr)	*107*		*50 - 150*

Lab Sample ID: LCSD 250-23806/4
Matrix: Water
Analysis Batch: 23806

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

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Hydrocarbons			500	505.9		ug/L		101	70 - 130	2	35

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
4-Bromofluorobenzene (Surr)	*107*		*50 - 150*

Lab Sample ID: 250-16494-H-2 DU
Matrix: Water
Analysis Batch: 23806

Client Sample ID: Duplicate
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Gasoline Range Hydrocarbons	ND			ND		ug/L				NC	35

Surrogate	DU %Recovery	DU Qualifier	Limits
4-Bromofluorobenzene (Surr)	*101*		*50 - 150*

Method: 6020 - Metals (ICP/MS)

Lab Sample ID: MB 250-23718/1-A
Matrix: Water
Analysis Batch: 23751

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23718

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00100		mg/L		01/17/14 13:14	01/18/14 01:10	1
Manganese	ND		0.00200		mg/L		01/17/14 13:14	01/18/14 01:10	1
Iron	ND		0.0250		mg/L		01/17/14 13:14	01/18/14 01:10	1

Lab Sample ID: MB 250-23718/1-A
Matrix: Water
Analysis Batch: 24206

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 23718

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.0250		mg/L		01/17/14 13:14	02/05/14 17:11	1

Lab Sample ID: LCS 250-23718/2-A
Matrix: Water
Analysis Batch: 23751

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23718

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Lead			0.100	0.1070		mg/L		107	80 - 120		
Manganese			0.100	0.1053		mg/L		105	80 - 120		
Iron			2.00	2.003		mg/L		100	80 - 120		

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 250-23718/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 24206 — **Prep Batch: 23718**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	2.00	2.021		mg/L		101	80 - 120

Lab Sample ID: 250-16663-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 23751 — **Prep Batch: 23718**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	ND		0.100	0.09989		mg/L		100	75 - 125
Manganese	0.690		0.100	0.7787	4	mg/L		88	75 - 125

Lab Sample ID: 250-16663-A-1-B MS — **Client Sample ID: Matrix Spike**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 24206 — **Prep Batch: 23718**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	26.7		2.00	28.22	4	mg/L		78	75 - 125

Lab Sample ID: 250-16709-A-1-B DU — **Client Sample ID: Duplicate**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 23751 — **Prep Batch: 23718**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	0.870		0.8920		mg/L		3	20
Manganese	ND		ND		mg/L		NC	20
Iron	ND		ND		mg/L		NC	20

Lab Sample ID: MB 250-23719/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 23751 — **Prep Batch: 23719**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	ND		0.00100		mg/L		01/17/14 13:20	01/17/14 22:19	1
Manganese	ND		0.00200		mg/L		01/17/14 13:20	01/17/14 22:19	1
Iron	ND		0.0250		mg/L		01/17/14 13:20	01/17/14 22:19	1

Lab Sample ID: MB 250-23719/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 24206 — **Prep Batch: 23719**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		0.0250		mg/L		01/17/14 13:20	02/05/14 18:38	1

Lab Sample ID: LCS 250-23719/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 23751 — **Prep Batch: 23719**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.100	0.1060		mg/L		106	80 - 120
Manganese	0.100	0.1082		mg/L		108	80 - 120

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 250-23719/2-A
Matrix: Water
Analysis Batch: 23751

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23719

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	2.00	2.042		mg/L		102	80 - 120

Lab Sample ID: LCS 250-23719/2-A
Matrix: Water
Analysis Batch: 24206

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 23719

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	2.00	2.051		mg/L		102	80 - 120

Lab Sample ID: 250-16683-A-4-B MS
Matrix: Water
Analysis Batch: 23751

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 23719

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Lead	0.0310		0.100	0.1249		mg/L		94	75 - 125
Manganese	0.324		0.100	0.4240		mg/L		100	75 - 125
Iron	1.38		2.00	3.388		mg/L		100	75 - 125

Lab Sample ID: 250-16683-A-4-B MS
Matrix: Water
Analysis Batch: 23751

Client Sample ID: Matrix Spike
Prep Type: Total/NA
Prep Batch: 23719

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Iron	1.39		2.00	3.373		mg/L		99	75 - 125

Lab Sample ID: 250-16709-A-1-B DU
Matrix: Water
Analysis Batch: 24206

Client Sample ID: Duplicate
Prep Type: Dissolved
Prep Batch: 23718

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Iron	ND		ND		mg/L		NC	20

Lab Sample ID: 250-16700-5 DU
Matrix: Water
Analysis Batch: 23751

Client Sample ID: TW-01
Prep Type: Dissolved
Prep Batch: 23719

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Lead	ND		ND		mg/L		NC	20
Manganese	0.373		0.3696		mg/L		1	20

Lab Sample ID: 250-16700-5 DU
Matrix: Water
Analysis Batch: 23751

Client Sample ID: TW-01
Prep Type: Dissolved
Prep Batch: 23719

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Iron	25.1		24.53		mg/L		2	20

Method: 6020 - Metals (ICP/MS) (Continued)

Lab Sample ID: 250-16700-5 DU
Matrix: Water
Analysis Batch: 24206

Client Sample ID: TW-01
Prep Type: Dissolved
Prep Batch: 23719

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Iron	25.8			25.14		mg/L				2	20

GC/MS VOA

Analysis Batch: 23898

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
250-16700-1	MW-310	Total/NA	Water	8260B	
250-16700-2	MW-304	Total/NA	Water	8260B	
250-16700-3	ASW-1	Total/NA	Water	8260B	
250-16700-3 MS	ASW-1	Total/NA	Water	8260B	
250-16700-3 MSD	ASW-1	Total/NA	Water	8260B	
250-16700-4	MW-302	Total/NA	Water	8260B	
250-16700-5	TW-01	Total/NA	Water	8260B	
LCS 250-23898/4	Lab Control Sample	Total/NA	Water	8260B	
LCSD 250-23898/5	Lab Control Sample Dup	Total/NA	Water	8260B	
MB 250-23898/8	Method Blank	Total/NA	Water	8260B	

GC VOA

Analysis Batch: 23806

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
250-16494-H-2 DU	Duplicate	Total/NA	Water	NWTPH-Gx	
250-16700-1	MW-310	Total/NA	Water	NWTPH-Gx	
250-16700-2	MW-304	Total/NA	Water	NWTPH-Gx	
250-16700-3	ASW-1	Total/NA	Water	NWTPH-Gx	
250-16700-4	MW-302	Total/NA	Water	NWTPH-Gx	
250-16700-5	TW-01	Total/NA	Water	NWTPH-Gx	
LCS 250-23806/3	Lab Control Sample	Total/NA	Water	NWTPH-Gx	
LCSD 250-23806/4	Lab Control Sample Dup	Total/NA	Water	NWTPH-Gx	
MB 250-23806/5	Method Blank	Total/NA	Water	NWTPH-Gx	

Metals

Prep Batch: 23718

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
250-16663-A-1-B MS	Matrix Spike	Total/NA	Water	3005A	
250-16700-1	MW-310	Dissolved	Water	3005A	
250-16700-2	MW-304	Dissolved	Water	3005A	
250-16700-3	ASW-1	Dissolved	Water	3005A	
250-16700-4	MW-302	Dissolved	Water	3005A	
250-16709-A-1-B DU	Duplicate	Dissolved	Water	3005A	
250-16709-A-1-B DU	Duplicate	Total/NA	Water	3005A	
LCS 250-23718/2-A	Lab Control Sample	Total/NA	Water	3005A	
MB 250-23718/1-A	Method Blank	Total/NA	Water	3005A	

Prep Batch: 23719

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
250-16683-A-4-B MS	Matrix Spike	Total/NA	Water	3005A	
250-16700-5	TW-01	Dissolved	Water	3005A	
250-16700-5 DU	TW-01	Dissolved	Water	3005A	
LCS 250-23719/2-A	Lab Control Sample	Total/NA	Water	3005A	
MB 250-23719/1-A	Method Blank	Total/NA	Water	3005A	

Analysis Batch: 23751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
250-16663-A-1-B MS	Matrix Spike	Total/NA	Water	6020	23718

Metals (Continued)

Analysis Batch: 23751 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
250-16683-A-4-B MS	Matrix Spike	Total/NA	Water	6020	23719
250-16683-A-4-B MS	Matrix Spike	Total/NA	Water	6020	23719
250-16700-1	MW-310	Dissolved	Water	6020	23718
250-16700-2	MW-304	Dissolved	Water	6020	23718
250-16700-3	ASW-1	Dissolved	Water	6020	23718
250-16700-4	MW-302	Dissolved	Water	6020	23718
250-16700-5	TW-01	Dissolved	Water	6020	23719
250-16700-5 DU	TW-01	Dissolved	Water	6020	23719
250-16700-5 DU	TW-01	Dissolved	Water	6020	23719
250-16709-A-1-B DU	Duplicate	Total/NA	Water	6020	23718
LCS 250-23718/2-A	Lab Control Sample	Total/NA	Water	6020	23718
LCS 250-23719/2-A	Lab Control Sample	Total/NA	Water	6020	23719
MB 250-23718/1-A	Method Blank	Total/NA	Water	6020	23718
MB 250-23719/1-A	Method Blank	Total/NA	Water	6020	23719

Analysis Batch: 24206

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
250-16663-A-1-B MS	Matrix Spike	Total/NA	Water	6020	23718
250-16700-1	MW-310	Dissolved	Water	6020	23718
250-16700-2	MW-304	Dissolved	Water	6020	23718
250-16700-3	ASW-1	Dissolved	Water	6020	23718
250-16700-4	MW-302	Dissolved	Water	6020	23718
250-16700-5	TW-01	Dissolved	Water	6020	23719
250-16700-5 DU	TW-01	Dissolved	Water	6020	23719
250-16709-A-1-B DU	Duplicate	Dissolved	Water	6020	23718
LCS 250-23718/2-A	Lab Control Sample	Total/NA	Water	6020	23718
LCS 250-23719/2-A	Lab Control Sample	Total/NA	Water	6020	23719
MB 250-23718/1-A	Method Blank	Total/NA	Water	6020	23718
MB 250-23719/1-A	Method Blank	Total/NA	Water	6020	23719

Lab Chronicle

Client: URS Corporation
Project/Site: Harbor Island

TestAmerica Job ID: 250-16700-1

Client Sample ID: MW-310

Lab Sample ID: 250-16700-1

Date Collected: 01/16/14 12:46

Matrix: Water

Date Received: 01/17/14 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	23898	01/23/14 13:00	TDB	TAL PRT
Total/NA	Analysis	NWTPH-Gx		10	23806	01/20/14 23:37	TDB	TAL PRT
Dissolved	Analysis	6020		1	23751	01/18/14 02:42	AJH	TAL PRT
Dissolved	Prep	3005A			23718	01/17/14 13:14	TNL	TAL PRT
Dissolved	Analysis	6020		10	24206	02/05/14 17:36	LQN	TAL PRT

Client Sample ID: MW-304

Lab Sample ID: 250-16700-2

Date Collected: 01/16/14 13:40

Matrix: Water

Date Received: 01/17/14 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	23898	01/23/14 13:51	TDB	TAL PRT
Total/NA	Analysis	NWTPH-Gx		10	23806	01/20/14 23:07	TDB	TAL PRT
Dissolved	Analysis	6020		1	23751	01/18/14 02:45	AJH	TAL PRT
Dissolved	Prep	3005A			23718	01/17/14 13:14	TNL	TAL PRT
Dissolved	Analysis	6020		10	24206	02/05/14 17:40	LQN	TAL PRT

Client Sample ID: ASW-1

Lab Sample ID: 250-16700-3

Date Collected: 01/16/14 14:25

Matrix: Water

Date Received: 01/17/14 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	23898	01/23/14 14:15	TDB	TAL PRT
Total/NA	Analysis	NWTPH-Gx		10	23806	01/20/14 22:36	TDB	TAL PRT
Dissolved	Prep	3005A			23718	01/17/14 13:14	TNL	TAL PRT
Dissolved	Analysis	6020		1	23751	01/18/14 02:48	AJH	TAL PRT
Dissolved	Analysis	6020		10	24206	02/05/14 17:43	LQN	TAL PRT

Client Sample ID: MW-302

Lab Sample ID: 250-16700-4

Date Collected: 01/16/14 15:07

Matrix: Water

Date Received: 01/17/14 09:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	23898	01/23/14 16:19	TDB	TAL PRT
Total/NA	Analysis	NWTPH-Gx		10	23806	01/20/14 21:05	TDB	TAL PRT
Dissolved	Analysis	6020		1	23751	01/18/14 02:52	AJH	TAL PRT
Dissolved	Prep	3005A			23718	01/17/14 13:14	TNL	TAL PRT
Dissolved	Analysis	6020		10	24206	02/05/14 18:13	LQN	TAL PRT

Lab Chronicle

Client: URS Corporation
Project/Site: Harbor Island

TestAmerica Job ID: 250-16700-1

Client Sample ID: TW-01
Date Collected: 01/16/14 15:48
Date Received: 01/17/14 09:10

Lab Sample ID: 250-16700-5
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260B		20	23898	01/23/14 16:43	TDB	TAL PRT
Total/NA	Analysis	NWTPH-Gx		10	23806	01/20/14 20:35	TDB	TAL PRT
Dissolved	Analysis	6020		1	23751	01/17/14 22:26	AJH	TAL PRT
Dissolved	Prep	3005A			23719	01/17/14 13:20	TNL	TAL PRT
Dissolved	Analysis	6020		10	24206	02/05/14 18:46	LQN	TAL PRT

Laboratory References:

TAL PRT = TestAmerica Portland, 9405 SW Nimbus Ave., Beaverton, OR 97008, TEL (503)906-9200

Certification Summary

Client: URS Corporation
Project/Site: Harbor Island

TestAmerica Job ID: 250-16700-1

Laboratory: TestAmerica Portland

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

Authority	Program	EPA Region	Certification ID	Expiration Date
Alaska (UST)	State Program	10	UST-012	12-26-13 *
California	State Program	9	2597	09-30-15
Oregon	NELAP	10	OR100021	01-09-15
USDA	Federal		P330-11-00092	02-17-14
Washington	State Program	10	C586	06-23-14

* Expired certification is currently pending renewal and is considered valid.

Method Summary

Client: URS Corporation
Project/Site: Harbor Island

TestAmerica Job ID: 250-16700-1

Method	Method Description	Protocol	Laboratory
8260B	Volatile Organic Compounds (GC/MS)	SW846	TAL PRT
NWTPH-Gx	Northwest - Volatile Petroleum Products (GC)	NWTPH	TAL PRT
6020	Metals (ICP/MS)	SW846	TAL PRT

Protocol References:

NWTPH = Northwest Total Petroleum Hydrocarbon

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

Laboratory References:

TAL PRT = TestAmerica Portland, 9405 SW Nimbus Ave., Beaverton, OR 97008, TEL (503)906-9200

TestAmerica Portland
9405 SW Nimbus Avenue

Beaverton, OR 97008
phone 503.906.9200 fax 503.906.9210

Chain of Custody Record

250-16700 Chain of Custody

Regulatory Program: ☐ DW ☐ NPDES ☐ RCRA ☐ Other:

Client Contact	Project Manager: Brian Fletcher	Site Contact: Bret Waldron	Date: 1-17-14	COC No:
Your Company Name here URS	Tel/Fax: 503-222-7200	Lab Contact:	Carrier:	1 of 1 COCs
Address 111 SW Columbia	Analysis Turnaround Time			For Lab Use Only:
City/State/Zip Portland/OR/97201	☐ CALENDAR DAYS ☐ WORKING DAYS			Walk-in Client:
(xxx) xxx-xxxx 503-222-7200 phone	TAT if different from Below			Lab Sampling:
(xxx) xxx-xxxx FAX	☐ 2 weeks			
Project Name: Harbor Island	☒ 1 week			Job / SDG No.:
Site:	☐ 2 days			
PO# 46194348	☐ 1 day			Sampler:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont.	Filtered Sample (Y/N)	Perform MS / MSD (Y/N)	BTEX - 8260B	TPH-Gx-NWTPH-Gx	Dissolved Pb, Mn EPA 6020												Sample Specific Notes:
MW-310	1-16-14	1246	G	W	7	Y	N	X	X	X												
MW-304	1-16-14	1340	G	W	7	Y	N	X	X	X												
ASW-1	1-16-14	1425	G	W	7	Y	N	X	X	X												
MW-302	1-16-14	1509	G	W	7	Y	N	X	X	X												
TW-01	1-16-14	1548	G	W	7	Y	N	X	X	X												

Preservation Used: 1=Ice, 2=HCl; 3=H2SO4; 4=HNO3; 5=NaOH; 6= Other

Possible Hazard Identification:
Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample.

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

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

☐ Return to Client ☒ Disposal by Lab ☐ Archive for _____ Months

Special Instructions/QC Requirements & Comments: Short Hold – Analyze immediately

5.7 IR/P-R

Custody Seals Intact: ☐ Yes ☐ No	Custody Seal No.:	Cooler Temp. (°C): Obs'd: _____ Corr'd: _____	Therm ID No.: _____

Relinquished by:	Company: URS	Date/Time: 1-17-14/0910	Received by:	Company: TAP	Date/Time: 1/17/14 @ 0910
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received in Laboratory by:	Company:	Date/Time:

TAL-1003 (0413)

Form No. CA-C-WI-002, Rev. 4.1, dated 02/20/2013

2/10/2014

Login Sample Receipt Checklist

Client: URS Corporation

Job Number: 250-16700-1

Login Number: 16700

List Source: TestAmerica Portland

List Number: 1

Creator: Svabik-Seror, Philip M

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

Final Data Review

The data quality review of 17 primary groundwater samples and one trip blank, collected April 22nd through April 24th, 2014 at the Harbor Island site in Seattle, Washington has been completed. Samples were submitted to Accutest Laboratories (Accutest) of San Jose, California. The samples submitted were analyzed for one or more of the following: benzene, toluene, ethylbenzene, and total xylene (BTEX; EPA Method 8260B); total petroleum hydrocarbons (TPH) as gasoline (Method NWTPH-GX); TPH as diesel (diesel) and motor oil (motor oil) (Method NWTPH-DX); polycyclic aromatic hydrocarbons (PAHs; EPA Method 8270C SIM) and total lead (EPA Method 6010B).

The review included the analytical data presented in Accutest report C33734. The data were reviewed based on *United States Environmental Protection Agency (USEPA) Contract Laboratory Program (CLP) National Functional Guidelines (NFGs) for Organic Data Review*, June 2008, *USEPA CLP NFGs for Inorganic Superfund Data Review*, January 2010, and laboratory quality control criteria. Items reviewed included: chain-of-custody (COC) records, hold times, surrogate recoveries, matrix spike and matrix spike duplicate results, laboratory control and laboratory control duplicate results, laboratory duplicate results, and method blank results. Data qualifiers assigned as a result of this review are included in Table 1.

The following criteria were evaluated during the review:

- COC Records – Acceptable
- Temperature – Acceptable
- Preservation – Acceptable
- Hold Times – Acceptable
- Method Blanks – Acceptable
- Surrogates – Acceptable with the following exceptions:

  Diesel and Motor Oil by NWTPH-DX: The hexacosane surrogate for sample MW-203 (C33734-2) was below the laboratory control limit of 50% at 20% due to matrix interference. The laboratory additionally noted that a heavy emulsion formed during the extraction process. Therefore, the TPH as diesel and motor oil results were qualified as estimated and flagged 'J'.

- Laboratory Control Samples (LCS/LCSD) – Acceptable
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) – Acceptable
- Reporting Limits – Acceptable

Overall Assessment of Data

The completeness of the analytical reports for this groundwater monitoring event is 100%. The usefulness of the data is based on the USEPA guidance documents referenced in the introduction of this report. Upon consideration of the information presented above, the data are considered usable. Data qualified as estimated, 'J', during this review process are included in Table 1.

Data Qualifier Definitions

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria.

DNR Do Not Report. Another result is available that is more reliable.

References

USEPA, 2008. U.S. Environmental Protection Agency Contract Laboratory Program National Functional Guidelines for Organic Data Review. June 2008.

USEPA, 2010. U.S. Environmental Protection Agency (USEPA) Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review. January 2010.

Table 1 Sample Qualification Summary

Sample Number	Laboratory ID	Analyte	Data Qualifier	Reason for Qualification
MW-203	C33734-2	Diesel	J	Surrogate recovery
		Motor Oil		

Northern California ACCUTEST LABORATORIES

05/09/14

Technical Report for

Shell Oil Company

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

49241036

Accutest Job Number: C33734

Sampling Dates: 04/22/14 - 04/24/14

Report to:

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

ATTN: Brian Pletcher

Total number of pages in report: **91**

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) AZ (AZ0762) DoD ELAP (L-A-B L2242)

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Accutest Laboratories

Sample Summary

Shell Oil Company

Job No: C33734

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
C33734-1	04/22/14	11:00	BW	04/25/14	AQ	Ground Water	MW-202
C33734-2	04/22/14	11:43	BW	04/25/14	AQ	Ground Water	MW-203
C33734-3	04/22/14	14:35	BW	04/25/14	AQ	Ground Water	MW-307
C33734-4	04/22/14	14:42	BW	04/25/14	AQ	Ground Water	MW-308
C33734-5	04/23/14	08:20	BW	04/25/14	AQ	Ground Water	MW-213
C33734-6	04/23/14	08:30	BW	04/25/14	AQ	Ground Water	MW-214
C33734-7	04/23/14	10:15	BW	04/25/14	AQ	Ground Water	MW-309
C33734-8	04/23/14	10:52	BW	04/25/14	AQ	Ground Water	MW-304
C33734-9	04/23/14	10:53	BW	04/25/14	AQ	Ground Water	MW-301
C33734-10	04/23/14	11:45	BW	04/25/14	AQ	Ground Water	TX-03A
C33734-11	04/23/14	12:16	BW	04/25/14	AQ	Ground Water	MW-303
C33734-12	04/23/14	12:40	BW	04/25/14	AQ	Ground Water	MW-302
C33734-13	04/23/14	13:35	BW	04/25/14	AQ	Ground Water	MW-310

Sample Summary
(continued)

Shell Oil Company

Job No: C33734

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
C33734-14	04/23/14	14:00	BW	04/25/14	AQ	Ground Water	MW-305
C33734-15	04/23/14	14:25	BW	04/25/14	AQ	Ground Water	MW-306
C33734-16	04/24/14	08:46	BW	04/25/14	AQ	Ground Water	MW-104
C33734-17	04/24/14	08:00	BW	04/25/14	AQ	Ground Water	SH-04
C33734-18	04/22/14	00:00	BW	04/25/14	AQ	Trip Blank Water	TRIP BLANK

Summary of Hits

Job Number: C33734
Account: Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 04/22/14 thru 04/24/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C33734-1	**MW-202**					
TPH (Gasoline)		3.22	1.0	0.50	mg/l	NWTPH-GX
TPH (Diesel)		2.18	0.28	0.14	mg/l	NWTPH-DX
C33734-2	**MW-203**					
TPH (Gasoline)		0.164	0.10	0.050	mg/l	NWTPH-GX
TPH (Diesel)		0.210	0.094	0.047	mg/l	NWTPH-DX
TPH (Motor Oil)		0.732	0.19	0.094	mg/l	NWTPH-DX
C33734-3	**MW-307**					
Benzene		520	10	2.0	ug/l	SW846 8260B
Toluene		40.8	10	2.0	ug/l	SW846 8260B
Ethylbenzene		241	10	2.0	ug/l	SW846 8260B
Xylene (total)		152	20	4.6	ug/l	SW846 8260B
TPH (Gasoline)		5.68	1.0	0.50	mg/l	NWTPH-GX
C33734-4	**MW-308**					
Benzene		16.5	1.0	0.20	ug/l	SW846 8260B
Ethylbenzene		0.36 J	1.0	0.20	ug/l	SW846 8260B
TPH (Gasoline)		0.146	0.10	0.050	mg/l	NWTPH-GX
C33734-5	**MW-213**					
TPH (Diesel)		0.0586 J	0.094	0.047	mg/l	NWTPH-DX
C33734-6	**MW-214**					
TPH (Diesel)		0.118	0.094	0.047	mg/l	NWTPH-DX
C33734-7	**MW-309**					
No hits reported in this sample.						
C33734-8	**MW-304**					
Benzene		778	10	2.0	ug/l	SW846 8260B
Toluene		24.8	10	2.0	ug/l	SW846 8260B
Ethylbenzene		185	10	2.0	ug/l	SW846 8260B
Xylene (total)		147	20	4.6	ug/l	SW846 8260B
TPH (Gasoline)		5.93	1.0	0.50	mg/l	NWTPH-GX

Summary of Hits

Job Number: C33734
Account: Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 04/22/14 thru 04/24/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C33734-9	**MW-301**					
Benzene		252	4.0	0.80	ug/l	SW846 8260B
Toluene		7.2	4.0	0.80	ug/l	SW846 8260B
Ethylbenzene		13.5	4.0	0.80	ug/l	SW846 8260B
Xylene (total)		7.5 J	8.0	1.8	ug/l	SW846 8260B
TPH (Gasoline)		3.57	1.0	0.50	mg/l	NWTPH-GX
C33734-10	**TX-03A**					
Benzene		1220	20	4.0	ug/l	SW846 8260B
Toluene		17.1 J	20	4.0	ug/l	SW846 8260B
Ethylbenzene		25.1	20	4.0	ug/l	SW846 8260B
Xylene (total)		27.0 J	40	9.2	ug/l	SW846 8260B
TPH (Gasoline)		5.76	2.0	1.0	mg/l	NWTPH-GX
C33734-11	**MW-303**					
Benzene		1580	20	4.0	ug/l	SW846 8260B
Toluene		71.0	20	4.0	ug/l	SW846 8260B
Ethylbenzene		1140	20	4.0	ug/l	SW846 8260B
Xylene (total)		224	40	9.2	ug/l	SW846 8260B
TPH (Gasoline)		11.8	4.0	2.0	mg/l	NWTPH-GX
C33734-12	**MW-302**					
Benzene		980	20	4.0	ug/l	SW846 8260B
Toluene		26.9	5.0	1.0	ug/l	SW846 8260B
Ethylbenzene		276	5.0	1.0	ug/l	SW846 8260B
Xylene (total)		232	10	2.3	ug/l	SW846 8260B
TPH (Gasoline)		5.86	1.0	0.50	mg/l	NWTPH-GX
C33734-13	**MW-310**					
Benzene		796	10	2.0	ug/l	SW846 8260B
Toluene		43.2	10	2.0	ug/l	SW846 8260B
Ethylbenzene		187	10	2.0	ug/l	SW846 8260B
Xylene (total)		60.7	20	4.6	ug/l	SW846 8260B
TPH (Gasoline)		5.88	2.0	1.0	mg/l	NWTPH-GX
C33734-14	**MW-305**					
Benzene		88.4	2.0	0.40	ug/l	SW846 8260B
Toluene		13.9	2.0	0.40	ug/l	SW846 8260B
Ethylbenzene		94.1	2.0	0.40	ug/l	SW846 8260B

Summary of Hits

Job Number: C33734
Account: Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 04/22/14 thru 04/24/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Xylene (total)		45.4	4.0	0.92	ug/l	SW846 8260B
TPH (Gasoline)		2.82	1.0	0.50	mg/l	NWTPH-GX
C33734-15	**MW-306**					
Benzene		76.2	20	4.0	ug/l	SW846 8260B
Toluene		34.5	20	4.0	ug/l	SW846 8260B
Ethylbenzene		325	20	4.0	ug/l	SW846 8260B
Xylene (total)		1970	40	9.2	ug/l	SW846 8260B
TPH (Gasoline)		11.0	5.0	2.5	mg/l	NWTPH-GX
C33734-16	**MW-104**					
TPH (Gasoline)		5.68	1.0	0.50	mg/l	NWTPH-GX
TPH (Diesel)		1.13	0.094	0.047	mg/l	NWTPH-DX
TPH (Motor Oil)		0.100 J	0.19	0.094	mg/l	NWTPH-DX
C33734-17	**SH-04**					
Benzene		9.1	1.0	0.20	ug/l	SW846 8260B
Toluene		0.53 J	1.0	0.20	ug/l	SW846 8260B
Ethylbenzene		0.90 J	1.0	0.20	ug/l	SW846 8260B
Xylene (total)		1.4 J	2.0	0.46	ug/l	SW846 8260B
TPH (Gasoline)		0.938	0.20	0.10	mg/l	NWTPH-GX
TPH (Diesel)		0.469	0.094	0.047	mg/l	NWTPH-DX
TPH (Motor Oil)		0.0944 J	0.19	0.094	mg/l	NWTPH-DX
C33734-18	**TRIP BLANK**					

No hits reported in this sample.

Northern California ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-202		
Lab Sample ID:	C33734-1	**Date Sampled:**	04/22/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	JK43762.D	10	04/30/14	TT	n/a	n/a	GJK1791
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	3.22	1.0	0.50	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	104%		50-150%
460-00-4	4-Bromofluorobenzene	105%		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-202		
Lab Sample ID:	C33734-1	**Date Sampled:**	04/22/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	HH312766.D	3	04/29/14	AG	04/28/14	OP9953	GHH1248
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)	2.18	0.28	0.14	mg/l	
	TPH (Motor Oil)	ND	0.57	0.28	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	67%		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-203		
Lab Sample ID:	C33734-2	**Date Sampled:**	04/22/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	JK43763.D	1	04/30/14	TT	n/a	n/a	GJK1791
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	0.164	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	105%		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-203		
Lab Sample ID:	C33734-2	**Date Sampled:**	04/22/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	HH312767.D	1	04/29/14	AG	04/28/14	OP9953	GHH1248
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)	0.210	0.094	0.047	mg/l	
	TPH (Motor Oil)	0.732	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	20% [a]		50-150%

(a) Surrogate outside control limits due to matrix interference. Heavy 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:	MW-307		
Lab Sample ID:	C33734-3	**Date Sampled:**	04/22/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	V19875.D	10	05/01/14	RD	n/a	n/a	VV796
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	520	10	2.0	ug/l	
108-88-3	Toluene	40.8	10	2.0	ug/l	
100-41-4	Ethylbenzene	241	10	2.0	ug/l	
1330-20-7	Xylene (total)	152	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%
460-00-4	4-Bromofluorobenzene	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-307		
Lab Sample ID:	C33734-3	**Date Sampled:**	04/22/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	JK43765.D	10	04/30/14	TT	n/a	n/a	GJK1791
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	5.68	1.0	0.50	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	106%		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-308		
Lab Sample ID:	C33734-4	**Date Sampled:**	04/22/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	Q21023.D	1	05/02/14	RD	n/a	n/a	VQ868
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	16.5	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	0.36	1.0	0.20	ug/l	J
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	113%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	98%		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-308		
Lab Sample ID:	C33734-4	**Date Sampled:**	04/22/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	JK43787.D	1	05/01/14	TT	n/a	n/a	GJK1791
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	0.146	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	106%		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:	MW-213		
Lab Sample ID:	C33734-5	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	V19872.D	1	05/01/14	RD	n/a	n/a	VV796
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	100%		70-130%
2037-26-5	Toluene-D8	105%		70-130%
460-00-4	4-Bromofluorobenzene	113%		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-213		
Lab Sample ID:	C33734-5	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	X36085.D	1	04/26/14	AA	04/25/14	OP9944	EX1576
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.48	0.048	ug/l	
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	ND	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	ND	0.48	0.095	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.48	0.095	ug/l	
91-20-3	Naphthalene	ND	0.48	0.095	ug/l	
85-01-8	Phenanthrene	ND	0.48	0.048	ug/l	
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	78%		31-128%
321-60-8	2-Fluorobiphenyl	71%		34-123%
1718-51-0	Terphenyl-d14	81%		43-136%

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-213		
Lab Sample ID:	C33734-5	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	JK43788.D	1	05/01/14	TT	n/a	n/a	GJK1791
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	105%		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-213		
Lab Sample ID:	C33734-5	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	HH312768.D	1	04/29/14	AG	04/28/14	OP9953	GHH1248
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)	0.0586	0.094	0.047	mg/l	J
	TPH (Motor Oil)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	95%		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-214		
Lab Sample ID:	C33734-6	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	V19873.D	1	05/01/14	RD	n/a	n/a	VV796
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	100%		70-130%
2037-26-5	Toluene-D8	122%		70-130%
460-00-4	4-Bromofluorobenzene	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-214		
Lab Sample ID:	C33734-6	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	X36086.D	1	04/26/14	AA	04/25/14	OP9944	EX1576
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	0.48	0.048	ug/l	
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	ND	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	ND	0.48	0.095	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.48	0.095	ug/l	
91-20-3	Naphthalene	ND	0.48	0.095	ug/l	
85-01-8	Phenanthrene	ND	0.48	0.048	ug/l	
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	73%		31-128%
321-60-8	2-Fluorobiphenyl	68%		34-123%
1718-51-0	Terphenyl-d14	80%		43-136%

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-214		
Lab Sample ID:	C33734-6	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	JK43789.D	1	05/01/14	TT	n/a	n/a	GJK1791
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	104%		50-150%
460-00-4	4-Bromofluorobenzene	108%		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-214		
Lab Sample ID:	C33734-6	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	HH312763.D	1	04/29/14	AG	04/28/14	OP9953	GHH1248
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)	0.118	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	57%		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:	C33734-7	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	V19874.D	1	05/01/14	RD	n/a	n/a	VV796
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	101%		70-130%
2037-26-5	Toluene-D8	121%		70-130%
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-309		
Lab Sample ID:	C33734-7	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	JK43769.D	1	04/30/14	TT	n/a	n/a	GJK1791
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	109%		50-150%
460-00-4	4-Bromofluorobenzene	110%		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:	C33734-8	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	V19877.D	10	05/01/14	RD	n/a	n/a	VV796
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	778	10	2.0	ug/l	
108-88-3	Toluene	24.8	10	2.0	ug/l	
100-41-4	Ethylbenzene	185	10	2.0	ug/l	
1330-20-7	Xylene (total)	147	20	4.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	111%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
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-304		
Lab Sample ID:	C33734-8	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	JK43770.D	10	04/30/14	TT	n/a	n/a	GJK1791
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	5.93	1.0	0.50	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	108%		50-150%
460-00-4	4-Bromofluorobenzene	116%		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:	C33734-9	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	Q21024.D	4	05/02/14	RD	n/a	n/a	VQ868
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	252	4.0	0.80	ug/l	
108-88-3	Toluene	7.2	4.0	0.80	ug/l	
100-41-4	Ethylbenzene	13.5	4.0	0.80	ug/l	
1330-20-7	Xylene (total)	7.5	8.0	1.8	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	114%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	98%		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:	C33734-9	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	JK43771.D	10	04/30/14	TT	n/a	n/a	GJK1791
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	3.57	1.0	0.50	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	111%		50-150%
460-00-4	4-Bromofluorobenzene	124%		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:	C33734-10	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	Q21025.D	20	05/02/14	RD	n/a	n/a	VQ868
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1220	20	4.0	ug/l	
108-88-3	Toluene	17.1	20	4.0	ug/l	J
100-41-4	Ethylbenzene	25.1	20	4.0	ug/l	
1330-20-7	Xylene (total)	27.0	40	9.2	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	98%		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:	C33734-10	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	JK43773.D	20	04/30/14	TT	n/a	n/a	GJK1791
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	5.76	2.0	1.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	110%		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:	MW-303		
Lab Sample ID:	C33734-11	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	Q21026.D	20	05/02/14	RD	n/a	n/a	VQ868
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1580	20	4.0	ug/l	
108-88-3	Toluene	71.0	20	4.0	ug/l	
100-41-4	Ethylbenzene	1140	20	4.0	ug/l	
1330-20-7	Xylene (total)	224	40	9.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%		70-130%
2037-26-5	Toluene-D8	104%		70-130%
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-303		
Lab Sample ID:	C33734-11	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	JK43774.D	40	04/30/14	TT	n/a	n/a	GJK1791
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	11.8	4.0	2.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	104%		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-302		
Lab Sample ID:	C33734-12	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	V19881.D	5	05/01/14	RD	n/a	n/a	VV796
Run #2	Q21027.D	20	05/02/14	RD	n/a	n/a	VQ868

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	980 [a]	20	4.0	ug/l	
108-88-3	Toluene	26.9	5.0	1.0	ug/l	
100-41-4	Ethylbenzene	276	5.0	1.0	ug/l	
1330-20-7	Xylene (total)	232	10	2.3	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%	112%	70-130%
2037-26-5	Toluene-D8	101%	103%	70-130%
460-00-4	4-Bromofluorobenzene	100%	98%	70-130%

(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:	C33734-12	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	JK43775.D	10	04/30/14	TT	n/a	n/a	GJK1791
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	5.86	1.0	0.50	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	109%		50-150%
460-00-4	4-Bromofluorobenzene	116%		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

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-310		
Lab Sample ID:	C33734-13	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	Q21028.D	10	05/02/14	RD	n/a	n/a	VQ868
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	796	10	2.0	ug/l	
108-88-3	Toluene	43.2	10	2.0	ug/l	
100-41-4	Ethylbenzene	187	10	2.0	ug/l	
1330-20-7	Xylene (total)	60.7	20	4.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
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-310		
Lab Sample ID:	C33734-13	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	JK43776.D	20	04/30/14	TT	n/a	n/a	GJK1791
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	5.88	2.0	1.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	108%		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

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-305		
Lab Sample ID:	C33734-14	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	V19883.D	2	05/01/14	RD	n/a	n/a	VV796
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	88.4	2.0	0.40	ug/l	
108-88-3	Toluene	13.9	2.0	0.40	ug/l	
100-41-4	Ethylbenzene	94.1	2.0	0.40	ug/l	
1330-20-7	Xylene (total)	45.4	4.0	0.92	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
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-305		
Lab Sample ID:	C33734-14	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	JK43778.D	10	05/01/14	TT	n/a	n/a	GJK1791
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	2.82	1.0	0.50	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	109%		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:	MW-306		
Lab Sample ID:	C33734-15	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	V19884.D	20	05/01/14	RD	n/a	n/a	VV796
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	76.2	20	4.0	ug/l	
108-88-3	Toluene	34.5	20	4.0	ug/l	
100-41-4	Ethylbenzene	325	20	4.0	ug/l	
1330-20-7	Xylene (total)	1970	40	9.2	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		70-130%
2037-26-5	Toluene-D8	111%		70-130%
460-00-4	4-Bromofluorobenzene	112%		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

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-306		
Lab Sample ID:	C33734-15	**Date Sampled:**	04/23/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	JK43779.D	50	05/01/14	TT	n/a	n/a	GJK1791
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	11.0	5.0	2.5	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	107%		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-104		
Lab Sample ID:	C33734-16	**Date Sampled:**	04/24/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	JK43873.D	10	05/05/14	TT	n/a	n/a	GJK1795
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	5.68	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	141%		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-104
Lab Sample ID: C33734-16 **Date Sampled:** 04/24/14
Matrix: AQ - Ground Water **Date Received:** 04/25/14
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	HH312771.D	1	04/29/14	AG	04/28/14	OP9953	GHH1248
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)	1.13	0.094	0.047	mg/l	
	TPH (Motor Oil)	0.100	0.19	0.094	mg/l	J

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-104		
Lab Sample ID:	C33734-16	**Date Sampled:**	04/24/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
		Percent Solids:	n/a
Project:	URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Lead	< 10	10	ug/l	1	04/30/14	05/01/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA3923
(2) Prep QC Batch: MP7770

RL = Reporting Limit

Report of Analysis

Client Sample ID:	SH-04		
Lab Sample ID:	C33734-17	**Date Sampled:**	04/24/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	V19871.D	1	05/01/14	RD	n/a	n/a	VV796
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	9.1	1.0	0.20	ug/l	
108-88-3	Toluene	0.53	1.0	0.20	ug/l	J
100-41-4	Ethylbenzene	0.90	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	1.4	2.0	0.46	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	93%		70-130%
460-00-4	4-Bromofluorobenzene	87%		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:	SH-04		
Lab Sample ID:	C33734-17	**Date Sampled:**	04/24/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	JK43874.D	2	05/05/14	TT	n/a	n/a	GJK1795
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	0.938	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	105%		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:	SH-04		
Lab Sample ID:	C33734-17	**Date Sampled:**	04/24/14
Matrix:	AQ - Ground Water	**Date Received:**	04/25/14
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	HH312772.D	1	04/29/14	AG	04/28/14	OP9953	GHH1248
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)	0.469	0.094	0.047	mg/l	
	TPH (Motor Oil)	0.0944	0.19	0.094	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	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:	TRIP BLANK		
Lab Sample ID:	C33734-18	**Date Sampled:**	04/22/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	04/25/14
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	V19870.D	1	05/01/14	RD	n/a	n/a	VV796
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	99%		70-130%
2037-26-5	Toluene-D8	105%		70-130%
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

Northern California ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

1 of 2 3 coolers

CHAIN OF CUSTODY

ACCUTEST LABORATORIES
2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking # 8037 3420 3312 | Bottle Order Control #
Accutest Quote # | Accutest NC Job #: C C33734

Client / Reporting Information | **Project Information**

Company Name: URS - Portland | Project Name: Shell - Harbor Island
Address: 111 SW Columbia Ste 1500 | Street:
City: Portland State: OR Zip: 97201 | City: Seattle State: WA
Project Contact: Brian Pletcher / Cliff Pearson | Project #: 49241036
Phone #: 503-222-7200 | EMAIL: ~~cliff.pearson@urs.com~~ cliff.d.pearson@urs.com
Samplers's Name: Bret Waldron / Mark Tauscher | Client Purchase Order #:

Requested Analysis: BTEX; NWTPH-Gx; NWTPH-Dx; cPAHs; Total Lead

Matrix Codes: WW- Wastewater; GW- Ground Water; SW- Surface Water; SO- Soil; OI-Oil; WP-Wipe; LIQ - Non-aqueous Liquid; AIR; DW- Drinking Water (Perchlorate Only)

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection: Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MEOH	ENCORE	BTEX	NWTPH-Gx	NWTPH-Dx	cPAHs	Total Lead
1	MW-202	4/22/14	1100	MT	GW	5	3				2					X	X		
2	MW-203	4/22/14	1143	BWW	GW	5	3				2					X	X		
3	MW-307	4/22/14	1435	BWW	GW	6	6								X	X			
4	MW-308	4/22/14	1442	MT	GW	6	6								X	X			
5	MW-213	4/23/14	0820	MT	GW	10	6				4				X	X	X	X	
6	MW-214	4/23/14	0830	BWW	GW	10	6				4				X	X	X	X	
7	MW-309	4/23/14	1015	MT	GW	6	6								X	X			
8	MW-304	4/23/14	1052	BWW	GW	6	6								X	X			
9	MW-301	4/23/14	1053	MT	GW	6	6								X	X			
10	TX-03A	4/23/14	1145	MT	GW	6	6								X	X			

Turnaround Time (Business days)

Approved By/ Date:

- [X] 10 Day
- [ ] 5 Day
- [ ] 3 Day
- [ ] 2 Day
- [ ] 1 Day
- [ ] Same Day

Emergency T/A data available VIA Labilnk

Data Deliverable Information

- [ ] Commercial "A" - Results only
- [X] Commercial "B" - Results with QC summaries
- [ ] Commercial "B*" - Results, QC, and chromatograms
- [ ] FULT1 - Level 4 data package
- [ ] EDF for Geotracker [ ] EDD Format
- Provide EDF Global ID:
- Provide EDF Logcode:

Comments / Remarks

Temp Blank in Cooler

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		4/24/14 1110	FED EX	FedEx	4/25/14 0851	
2						
3						
4						
5						

Custody Seal #: Y

Appropriate Bottle / Pres. Y / N | Headspace Y / N | On Ice Y | Cooler Temp. 2.9, 2.7, 3.3

Labels match Coc? Y / N | Separate Receiving Check List used: Y / N

C33734: Chain of Custody
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2 of 2

3 Coolers

CHAIN OF CUSTODY

ACCUTEST LABORATORIES

2105 Lundy Ave, San Jose, CA 95131
(408) 588-0200 FAX: (408) 588-0201

FED-EX Tracking # 8037 3420 3312 | Bottle Order Control #
Accutest Quote # | Accutest NC Job #: C 33734

Client / Reporting Information

Company Name: URS - Portland
Address: 111 SW Columbia St. Ste 1500
City: Portland State: OR Zip: 97201
Project Contact: Brian Fletcher / Cliff Pearson
Phone #: 503-222-7200
Samplers's Name: Bret Waldron / Mark Tauscher

Project Information

Project Name: Shell - Harbor Island
Street:
City: Seattle State: WA
Project #: 49241036
EMAIL: clifford.pearson@urs.com
Client Purchase Order #:

Requested Analysis

Matrix Codes

WW- Wastewater
GW- Ground Water
SW- Surface Water
SO- Soil
OI-Oil
WP-Wipe
LIQ - Non-aqueous Liquid
AIR
DW- Drinking Water (Perchlorate Only)

Accutest Sample ID	Sample ID / Field Point / Point of Collection	Collection Date	Time	Sampled by	Matrix	# of bottles	Number of preserved Bottles: HCl	NaOH	HNO3	H2SO4	NONE	NaHSO4	MeOH	ENCORE	BTEX	NWTPH-Gx	NWTPH-Dx	cPAHs	Total Lead	LAB USE ONLY
11	MW-303	4/23/14	1216	BWW	GW	6	6								X	X				
12	MW-302	4/23/14	1240	MT	GW	6	6								X	X				
13	MW-310	4/23/14	1335	MT	GW	6	6								X	X				
14	MW-305	4/23/14	1400	BWW	GW	6	6								X	X				
15	MW-306	4/23/14	1425	MT	GW	6	6								X	X				
16	MW-104	4/24/14	0846	MT	GW	7	3		2		2					X	X		X	
17	SH-04	4/24/14	0850	MT	GW	8	6				2				X	X	X			
18	Trip Blank	—	—	—	—	3	3								X					
		4/24/14																		

Turnaround Time (Business days)

Approved By:/ Date:

- [X] 10 Day
- [ ] 5 Day
- [ ] 3 Day
- [ ] 2 Day
- [ ] 1 Day
- [ ] Same Day

Emergency T/A data available VIA Labilnk

Data Deliverable Information

- [ ] Commercial "A" - Results only
- [X] Commercial "B" - Results with QC summaries
- [ ] Commercial "B+" - Results, QC, and chromatograms
- [ ] FULT1 - Level 4 data package
- [ ] EDF for Geotracker [ ] EDD Format
- Provide EDF Global ID
- Provide EDF Logcode:

Comments / Remarks

Temp blank in cooler

Sample Custody must be documented below each time samples change possession, including courier delivery.

	Relinquished by Sampler:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
1		4/24/14 1110	FED EX	Fed ex	4/25/14 0851	
2						
3	Relinquished by:	Date Time:	Received By:	Relinquished By:	Date Time:	Received By:
4						
5	Relinquished by:	Date Time:	Received By:	Custody Seal #	Appropriate Bottle / Pres. Y/N	Headspace Y/N	On Ice Y/N	Cooler Temp.
6				Y	Labels match Coc? Y / N	Separate Receiving Check List used: Y / N		2.9, 2.7, 3.3

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C33734 **Client:** URS-PORTLAND **Project:** SHELL-HARBOR ISLAND

Date / Time Received: 4/25/2014 **Delivery Method:** FedEx **Airbill #'s:** 803734203312

Cooler Temps (Initial/Adjusted): #1: (2.9/2.9); #2: (2.7/2.7); #3: (3.3/3.3);

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:	IR2;		
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
V:408.588.0200
2105 Lundy Avenue
F: 408.588.0201
San Jose, CA 95131
www/accutest.com

C33734: Chain of Custody
Page 3 of 3

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: C33734
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
VV796-MB	V19869.D	1	05/01/14	RD	n/a	n/a	VV796

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

C33734-3, C33734-5, C33734-6, C33734-7, C33734-8, C33734-12, C33734-14, C33734-15, C33734-17, C33734-18

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	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	101%	70-130%
2037-26-5	Toluene-D8	97%	70-130%
460-00-4	4-Bromofluorobenzene	97%	70-130%

Method Blank Summary

Job Number: C33734
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
VQ868-MB	Q21018.D	1	05/02/14	RD	n/a	n/a	VQ868

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

C33734-4, C33734-9, C33734-10, C33734-11, C33734-12, C33734-13

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	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	108%	70-130%
2037-26-5	Toluene-D8	103%	70-130%
460-00-4	4-Bromofluorobenzene	94%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C33734
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
VV796-BS	V19866.D	1	05/01/14	RD	n/a	n/a	VV796
VV796-BSD	V19867.D	1	05/01/14	RD	n/a	n/a	VV796

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

C33734-3, C33734-5, C33734-6, C33734-7, C33734-8, C33734-12, C33734-14, C33734-15, C33734-17, C33734-18

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	20.1	101	20.2	101	0	77-122/25
100-41-4	Ethylbenzene	20	20.1	101	19.8	99	2	76-126/17
108-88-3	Toluene	20	20.1	101	19.8	99	2	75-122/17
1330-20-7	Xylene (total)	60	62.7	105	61.8	103	1	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	107%	108%	70-130%
2037-26-5	Toluene-D8	103%	101%	70-130%
460-00-4	4-Bromofluorobenzene	101%	101%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C33734
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
VQ868-BS	Q21015.D	1	05/02/14	RD	n/a	n/a	VQ868
VQ868-BSD	Q21016.D	1	05/02/14	RD	n/a	n/a	VQ868

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

C33734-4, C33734-9, C33734-10, C33734-11, C33734-12, C33734-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	21.5	108	21.2	106	1	77-122/25
100-41-4	Ethylbenzene	20	20.9	105	20.6	103	1	76-126/17
108-88-3	Toluene	20	20.8	104	20.6	103	1	75-122/17
1330-20-7	Xylene (total)	60	63.9	107	63.0	105	1	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	111%	110%	70-130%
2037-26-5	Toluene-D8	102%	101%	70-130%
460-00-4	4-Bromofluorobenzene	101%	100%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C33734
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
VV796-LCS	V19868.D	1	05/01/14	RD	n/a	n/a	VV796

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

C33734-3, C33734-5, C33734-6, C33734-7, C33734-8, C33734-12, C33734-14, C33734-15, C33734-17, C33734-18

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

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	103%	70-130%
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	102%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C33734
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
VQ868-LCS	Q21017.D	1	05/02/14	RD	n/a	n/a	VQ868

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

C33734-4, C33734-9, C33734-10, C33734-11, C33734-12, C33734-13

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

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	109%	70-130%
2037-26-5	Toluene-D8	103%	70-130%
460-00-4	4-Bromofluorobenzene	97%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C33734
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
C33734-11MS	V19886.D	50	05/01/14	RD	n/a	n/a	VV796
C33734-11MSD	V19887.D	50	05/01/14	RD	n/a	n/a	VV796
C33734-11 [a]	V19880.D	50	05/01/14	RD	n/a	n/a	VV796

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

C33734-3, C33734-5, C33734-6, C33734-7, C33734-8, C33734-12, C33734-14, C33734-15, C33734-17, C33734-18

CAS No.	Compound	C33734-11 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	1270		1000	2360	109	1000	2370	110	0	77-122/16
100-41-4	Ethylbenzene	875		1000	1920	105	1000	2010	114	5	76-126/17
108-88-3	Toluene	60.9		1000	1110	105	1000	1060	100	5	75-122/17
1330-20-7	Xylene (total)	205		3000	3440	108	3000	3470	109	1	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C33734-11	Limits
1868-53-7	Dibromofluoromethane	109%	107%		70-130%
2037-26-5	Toluene-D8	101%	98%		70-130%
460-00-4	4-Bromofluorobenzene	99%	110%		70-130%

(a) Sample used for QC purposes only.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C33734
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
C33731-10MS	Q21033.D	100	05/02/14	RD	n/a	n/a	VQ868
C33731-10MSD	Q21034.D	100	05/02/14	RD	n/a	n/a	VQ868
C33731-10	Q21031.D	100	05/02/14	RD	n/a	n/a	VQ868

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

C33734-4, C33734-9, C33734-10, C33734-11, C33734-12, C33734-13

CAS No.	Compound	C33731-10 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		2000	2130	107	2000	2090	105	2	77-122/16
100-41-4	Ethylbenzene	829		2000	3000	109	2000	2940	106	2	76-126/17
108-88-3	Toluene	47.9	J	2000	2080	102	2000	2050	100	1	75-122/17
1330-20-7	Xylene (total)	1720		6000	8330	110	6000	8180	108	2	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C33731-10	Limits
1868-53-7	Dibromofluoromethane	111%	112%	116%	70-130%
2037-26-5	Toluene-D8	101%	101%	103%	70-130%
460-00-4	4-Bromofluorobenzene	101%	101%	98%	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: C33734
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
OP9944-MB	X36096.D	1	04/28/14	AA	04/25/14	OP9944	EX1577

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

C33734-5, C33734-6

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	87%	31-128%
321-60-8	2-Fluorobiphenyl	81%	34-123%
1718-51-0	Terphenyl-d14	102%	43-136%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C33734
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
OP9944-BS	X36048.D	1	04/25/14	AA	04/25/14	OP9944	EX1576
OP9944-BSD	X36049.D	1	04/25/14	AA	04/25/14	OP9944	EX1576

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

C33734-5, C33734-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	5	3.4	68	3.4	68	0	57-113/24
208-96-8	Acenaphthylene	5	3.4	68	3.4	68	0	58-117/25
120-12-7	Anthracene	5	3.7	74	3.7	74	0	65-121/23
56-55-3	Benzo(a)anthracene	5	3.9	78	4.0	80	3	62-121/21
50-32-8	Benzo(a)pyrene	5	3.7	74	3.6	72	3	65-125/20
205-99-2	Benzo(b)fluoranthene	5	3.9	78	4.0	80	3	62-126/22
191-24-2	Benzo(g,h,i)perylene	5	4.1	82	4.3	86	5	45-133/22
207-08-9	Benzo(k)fluoranthene	5	4.1	82	4.1	82	0	61-122/20
218-01-9	Chrysene	5	3.8	76	4.0	80	5	62-118/20
53-70-3	Dibenzo(a,h)anthracene	5	4.2	84	4.3	86	2	45-135/25
206-44-0	Fluoranthene	5	4.0	80	3.9	78	3	63-118/21
86-73-7	Fluorene	5	3.7	74	3.6	72	3	59-115/24
193-39-5	Indeno(1,2,3-cd)pyrene	5	4.2	84	4.2	84	0	51-130/26
90-12-0	1-Methylnaphthalene	5	3.3	66	3.2	64	3	53-107/25
91-57-6	2-Methylnaphthalene	5	3.4	68	3.4	68	0	56-115/26
91-20-3	Naphthalene	5	3.2	64	3.2	64	0	54-110/23
85-01-8	Phenanthrene	5	3.6	72	3.6	72	0	60-114/26
129-00-0	Pyrene	5	4.0	80	4.2	84	5	58-124/21

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	76%	72%	31-128%
321-60-8	2-Fluorobiphenyl	76%	72%	34-123%
1718-51-0	Terphenyl-d14	92%	92%	43-136%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C33734
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
OP9944-MS	X36051.D	1	04/25/14	AA	04/25/14	OP9944	EX1576
OP9944-MSD	X36052.D	1	04/25/14	AA	04/25/14	OP9944	EX1576
C33727-5	X36050.D	1	04/25/14	AA	04/25/14	OP9944	EX1576

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

C33734-5, C33734-6

CAS No.	Compound	C33727-5 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	0.058	J	4.9	3.2	64	4.9	3.3	66	3	57-113/24
208-96-8	Acenaphthylene	ND		4.9	3.2	65	4.9	3.3	67	3	58-117/25
120-12-7	Anthracene	ND		4.9	3.5	71	4.9	3.6	73	3	65-121/23
56-55-3	Benzo(a)anthracene	ND		4.9	3.9	80	4.9	4.0	82	3	62-121/21
50-32-8	Benzo(a)pyrene	ND		4.9	3.7	75	4.9	3.8	78	3	65-125/20
205-99-2	Benzo(b)fluoranthene	ND		4.9	3.6	73	4.9	4.1	84	13	62-126/22
191-24-2	Benzo(g,h,i)perylene	ND		4.9	4.1	84	4.9	4.2	86	2	45-133/22
207-08-9	Benzo(k)fluoranthene	ND		4.9	3.8	78	4.9	3.6	73	5	61-122/20
218-01-9	Chrysene	ND		4.9	3.7	75	4.9	3.7	75	0	62-118/20
53-70-3	Dibenzo(a,h)anthracene	ND		4.9	4.4	90	4.9	4.4	90	0	45-135/25
206-44-0	Fluoranthene	ND		4.9	3.8	78	4.9	4.0	82	5	63-118/21
86-73-7	Fluorene	ND		4.9	3.5	71	4.9	3.7	75	6	59-115/24
193-39-5	Indeno(1,2,3-cd)pyrene	ND		4.9	4.4	90	4.9	4.5	92	2	51-130/26
90-12-0	1-Methylnaphthalene	1.2		4.9	4.0	57	4.9	4.2	61	5	53-107/25
91-57-6	2-Methylnaphthalene	0.47	J	4.9	3.5	62	4.9	3.6	64	3	56-115/26
91-20-3	Naphthalene	1.2		4.9	3.9	55	4.9	4.1	59	5	54-110/23
85-01-8	Phenanthrene	ND		4.9	3.4	69	4.9	3.6	73	6	60-114/26
129-00-0	Pyrene	ND		4.9	3.8	78	4.9	4.1	84	8	58-124/21

CAS No.	Surrogate Recoveries	MS	MSD	C33727-5	Limits
4165-60-0	Nitrobenzene-d5	72%	73%	74%	31-128%
321-60-8	2-Fluorobiphenyl	70%	73%	74%	34-123%
1718-51-0	Terphenyl-d14	88%	91%	88%	43-136%

* = 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: C33734
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
GJK1791-MB	JK43757.D	1	04/30/14	TT	n/a	n/a	GJK1791

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

C33734-1, C33734-2, C33734-3, C33734-7, C33734-8, C33734-9, C33734-10, C33734-11, C33734-12, C33734-13, C33734-14, C33734-15

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	107%	50-150%
460-00-4	4-Bromofluorobenzene	107%	50-150%

Method Blank Summary

Job Number: C33734
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
GJK1791-MB1	JK43785.D	1	05/01/14	TT	n/a	n/a	GJK1791

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

C33734-4, C33734-5, C33734-6

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	104%	50-150%
460-00-4	4-Bromofluorobenzene	102%	50-150%

Method Blank Summary

Job Number: C33734
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
GJK1795-MB	JK43870.D	1	05/05/14	TT	n/a	n/a	GJK1795

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

C33734-16, C33734-17

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	103%	50-150%
460-00-4	4-Bromofluorobenzene	102%	50-150%

Method Blank Summary

Job Number: C33734
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
GJK1795-MB1	JK43881.D	1	05/05/14	TT	n/a	n/a	GJK1795

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

C33787-9MS, C33787-9MSD

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	103%	50-150%
460-00-4	4-Bromofluorobenzene	109%	50-150%

Blank Spike Summary

Job Number: C33734
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
GJK1791-BS1	JK43786.D	1	05/01/14	TT	n/a	n/a	GJK1791

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

C33734-4, C33734-5, C33734-6

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	Limits
	TPH (Gasoline)	0.4	0.397	99	69-127

CAS No.	Surrogate Recoveries	BSP	Limits
98-08-8	aaa-Trifluorotoluene	101%	50-150%
460-00-4	4-Bromofluorobenzene	106%	50-150%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C33734
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
GJK1791-BS	JK43755.D	1	04/30/14	TT	n/a	n/a	GJK1791
GJK1791-BSD	JK43756.D	1	04/30/14	TT	n/a	n/a	GJK1791

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

C33734-1, C33734-2, C33734-3, C33734-4, C33734-5, C33734-6, C33734-7, C33734-8, C33734-9, C33734-10, C33734-11, C33734-12, C33734-13, C33734-14, C33734-15

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	0.4	0.382	96	0.393	98	3	69-127/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
98-08-8	aaa-Trifluorotoluene	97%	97%	50-150%
460-00-4	4-Bromofluorobenzene	99%	100%	50-150%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C33734
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
GJK1795-BS	JK43871.D	1	05/05/14	TT	n/a	n/a	GJK1795
GJK1795-BSD	JK43872.D	1	05/05/14	TT	n/a	n/a	GJK1795

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

C33734-16, C33734-17

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	0.4	0.407	102	0.403	101	1	69-127/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
98-08-8	aaa-Trifluorotoluene	95%	98%	50-150%
460-00-4	4-Bromofluorobenzene	104%	104%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C33734
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
C33573-3MS	JK43759.D	5	04/30/14	TT	n/a	n/a	GJK1791
C33573-3MSD	JK43760.D	5	04/30/14	TT	n/a	n/a	GJK1791
C33573-3	JK43758.D	5	04/30/14	TT	n/a	n/a	GJK1791

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

C33734-1, C33734-2, C33734-3, C33734-4, C33734-5, C33734-6, C33734-7, C33734-8, C33734-9, C33734-10, C33734-11, C33734-12, C33734-13, C33734-14, C33734-15

CAS No.	Compound	C33573-3 mg/l	Q	Spike mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	3.12		2	5.03	96	2	5.04	96	0	69-127/13

CAS No.	Surrogate Recoveries	MS	MSD	C33573-3	Limits
98-08-8	aaa-Trifluorotoluene	99%	94%	102%	50-150%
460-00-4	4-Bromofluorobenzene	110%	110%	106%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C33734
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
C33787-9MS	JK43888.D	1	05/06/14	TT	n/a	n/a	GJK1795
C33787-9MSD	JK43889.D	1	05/06/14	TT	n/a	n/a	GJK1795
C33787-9	JK43887.D	1	05/06/14	TT	n/a	n/a	GJK1795

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

C33734-16, C33734-17

CAS No.	Compound	C33787-9 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	0.414	104	0.4	0.411	103	1	69-127/13

CAS No.	Surrogate Recoveries	MS	MSD	C33787-9	Limits
98-08-8	aaa-Trifluorotoluene	106%	104%	103%	50-150%
460-00-4	4-Bromofluorobenzene	112%	111%	107%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C33734
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
C33734-2DUP	JK43764.D	1	04/30/14	TT	n/a	n/a	GJK1791
C33734-2	JK43763.D	1	04/30/14	TT	n/a	n/a	GJK1791

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

C33734-2

CAS No.	Compound	C33734-2 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Gasoline)	0.164		0.169		3	13

CAS No.	Surrogate Recoveries	DUP	C33734-2	Limits
98-08-8	aaa-Trifluorotoluene	105%	105%	50-150%
460-00-4	4-Bromofluorobenzene	109%	107%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C33734
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
C33734-13DUP	JK43777.D	20	04/30/14	TT	n/a	n/a	GJK1791
C33734-13	JK43776.D	20	04/30/14	TT	n/a	n/a	GJK1791

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

C33734-1, C33734-3, C33734-4, C33734-5, C33734-6, C33734-7, C33734-8, C33734-9, C33734-10, C33734-11, C33734-12, C33734-13, C33734-14, C33734-15

CAS No.	Compound	C33734-13 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Gasoline)	5.88		5.72		3	13

CAS No.	Surrogate Recoveries	DUP	C33734-13	Limits
98-08-8	aaa-Trifluorotoluene	105%	108%	50-150%
460-00-4	4-Bromofluorobenzene	110%	113%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C33734
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
C33787-1DUP	JK43876.D	1	05/05/14	TT	n/a	n/a	GJK1795
C33787-1	JK43875.D	1	05/05/14	TT	n/a	n/a	GJK1795

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

C33734-16, C33734-17

CAS No.	Compound	C33787-1 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Gasoline)	0.531		0.532		0	13

CAS No.	Surrogate Recoveries	DUP	C33787-1	Limits
98-08-8	aaa-Trifluorotoluene	102%	100%	50-150%
460-00-4	4-Bromofluorobenzene	143%	141%	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: C33734
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
OP9953-MB	HH312775.D	1	04/29/14	AG	04/28/14	OP9953	GHH1248

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

C33734-1, C33734-2, C33734-5, C33734-6, C33734-16, C33734-17

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	91%	50-150%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C33734
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
OP9953-BS	HH312773.D	1	04/29/14	AG	04/28/14	OP9953	GHH1248
OP9953-BSD	HH312774.D	1	04/29/14	AG	04/28/14	OP9953	GHH1248

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

C33734-1, C33734-2, C33734-5, C33734-6, C33734-16, C33734-17

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Diesel)	1	0.678	68	0.647	65	5	37-112/30
	TPH (Motor Oil)	1	0.759	76	0.781	78	3	49-120/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	95%	91%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C33734
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
OP9953-MS	HH312764.D	1	04/29/14	AG	04/28/14	OP9953	GHH1248
OP9953-MSD	HH312765.D	1	04/29/14	AG	04/28/14	OP9953	GHH1248
C33734-6	HH312763.D	1	04/29/14	AG	04/28/14	OP9953	GHH1248

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

C33734-1, C33734-2, C33734-5, C33734-6, C33734-16, C33734-17

CAS No.	Compound	C33734-6 mg/l	Q	Spike mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (Diesel)	0.118		1.92	1.52	73	1.92	1.40	67	8	37-112/31
	TPH (Motor Oil)	ND		1.92	1.67	87	1.92	1.60	83	4	49-120/33

CAS No.	Surrogate Recoveries	MS	MSD	C33734-6	Limits
630-01-3	Hexacosane	99%	95%	57%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C33734
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
OP9953-DUP	HH312770.D	1	04/29/14	AG	04/28/14	OP9953	GHH1248
C33734-5	HH312768.D	1	04/29/14	AG	04/28/14	OP9953	GHH1248

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

C33734-1, C33734-2, C33734-5, C33734-6, C33734-16, C33734-17

CAS No.	Compound	C33734-5 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Diesel)	0.0586	J	0.0630	J	7	31
	TPH (Motor Oil)	ND		ND		nc	33

CAS No.	Surrogate Recoveries	DUP	C33734-5	Limits
630-01-3	Hexacosane	102%	95%	50-150%

* = Outside of Control Limits.

Northern California ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C33734
Account: SHELLWIC - Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP7770
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 04/30/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	13	8.5		
Antimony	6.0	.7	.51		
Arsenic	10	.7	.65		
Barium	200	.4	.35		
Beryllium	5.0	.2	.4		
Boron	100	.9	.64		
Cadmium	2.0	.2	.15		
Calcium	5000	7.1	12		
Chromium	10	.3	.41		
Cobalt	5.0	.2	.3		
Copper	10	1.2	3		
Iron	200	6.4	12		
Lead	10	.7	.85	3.1	<10
Lithium	50		2		
Magnesium	5000	27	36		
Manganese	15	.1	1.3		
Molybdenum	20	.2	.22		
Nickel	5.0	.2	.12		
Potassium	10000	18	44		
Selenium	10	1.8	2.2		
Silicon	100	1.2	6.9		
Silver	5.0	.3	.47		
Sodium	10000	15	13		
Strontium	10	.2	.24		
Thallium	10	.5	.54		
Tin	50	.2	.7		
Titanium	10	.4	.34		
Vanadium	10	.3	.3		
Zinc	20	.3	4.2		

Associated samples MP7770: C33734-16

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33734
Account: SHELLWIC - Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP7770
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 04/30/14

Metal	C33761-2F Original MS		Spikelot MPIR5	% Rec	QC Limits
Aluminum	anr				
Antimony					
Arsenic	anr				
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper	anr				
Iron	anr				
Lead	0.90	512	500	102.2	75-125
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel	anr				
Potassium					
Selenium					
Silicon					
Silver					
Sodium					
Strontium					
Thallium					
Tin					
Titanium					
Vanadium					
Zinc	anr				

Associated samples MP7770: C33734-16

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C33734
Account: SHELLWIC - Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP7770
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 04/30/14

Metal	C33761-2F Original	MSD	Spikelot MPIR5	% Rec	MSD RPD	QC Limit
Aluminum	anr					
Antimony						
Arsenic	anr					
Barium						
Beryllium						
Boron						
Cadmium						
Calcium						
Chromium						
Cobalt						
Copper	anr					
Iron	anr					
Lead	0.90	510	500	101.8	0.4	20
Lithium						
Magnesium						
Manganese						
Molybdenum						
Nickel	anr					
Potassium						
Selenium						
Silicon						
Silver						
Sodium						
Strontium						
Thallium						
Tin						
Titanium						
Vanadium						
Zinc	anr					

Associated samples MP7770: C33734-16

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C33734
Account: SHELLWIC - Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP7770
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 04/30/14

Metal	BSP Result	Spikelot MPIR5	% Rec	QC Limits
Aluminum	anr			
Antimony				
Arsenic	anr			
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper	anr			
Iron	anr			
Lead	493	500	98.6	80-120
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP7770: C33734-16

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C33734
Account: SHELLWIC - Shell Oil Company
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP7770
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 04/30/14

Metal	C33761-2F Original	SDL 1:5	%DIF	QC Limits
Aluminum	anr			
Antimony				
Arsenic	anr			
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper	anr			
Iron	anr			
Lead	0.900	19.3	2044.4(a	0-10
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Potassium				
Selenium				
Silicon				
Silver				
Sodium				
Strontium				
Thallium				
Tin				
Titanium				
Vanadium				
Zinc	anr			

Associated samples MP7770: C33734-16

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Final Data Review

The data quality review of eight primary groundwater samples collected July 24th, 2014, five primary stormwater samples collected July 25th, 2014, and four primary groundwater samples and six stormwater samples collected September 23rd, 2014, at the Harbor Island site in Seattle, Washington has been completed. Samples were submitted to Accutest Laboratories (Accutest) of San Jose, California. The samples submitted were analyzed for one or more of the following: volatile organic compounds (VOCs; EPA Method 8260B); polycyclic aromatic hydrocarbons (PAHs; EPA Method 8270C-SIM); total petroleum hydrocarbons (TPH) as gasoline (Method NWTPH-GX); and TPH as diesel (diesel) and motor oil (motor oil) (Method NWTPH-DX).

The review included the analytical data presented in Accutest reports C35213, C35253, and C36184. The data were reviewed based on *National Functional Guidelines for Superfund Organic Methods Data Review*, October 2013, and laboratory quality control criteria. Items reviewed included: chain-of-custody (COC) records, hold times, surrogate recoveries, matrix spike and matrix spike duplicate results, laboratory control and laboratory control duplicate results, laboratory duplicate results, and method blank results. Data qualifiers assigned as a result of this review are included in Table 1.

The following criteria were evaluated during the review:

- COC Records – Acceptable
- Temperature – Acceptable
- Preservation – Acceptable
- Hold Times – Acceptable
- Method Blanks – Acceptable
- Surrogates – Acceptable with the following exceptions:

PAH by EPA Method 8270C SIM: The terphenyl-d14 surrogate associated with sample D050-014 (C35253-5) and D050-015 (C35253-3) was below the laboratory limit of 45% at 42% and 42%, respectively. The laboratory noted that an emulsion formed during the extraction process. Therefore, PAH results not previously qualified as estimated by the laboratory, were qualified as estimated and flagged 'UJ/J'.

- Laboratory Control Samples (LCS/LCSD) – Acceptable
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) – Acceptable with the following exceptions:

PAHs by EPA Method 8270C SIM: The MS/MSD recovery for naphthalene (106%/106%) was above the laboratory control limit 102% in the analytical batch EX1649. The LCS recovery was in control indicating the analytical batch was in control, therefore; only the parent sample, MW-310 (C35213-8), was qualified as

estimated and flagged 'J'.

- Laboratory Duplicates – Acceptable
- Reporting Limits – Acceptable
- Other Laboratory Notes

The laboratory noted that the continuing calibration verification (CCV) sample associated with hexachlorobutadiene and carbon tetrachloride in samples D050-016 (C36184-2), D050-099 (C36184-3), D050-015 (C36184-4), D050-039 (C36184-5), MW-309 (C36184-6), MW-301 (C36184-7), TX-03A (C36184-8), MW-302 (C36184-9), and SW FLORIDA SD (C36184-10) was above laboratory control limits. Hexachlorobutadiene and carbon tetrachloride were not detected in the associated samples; therefore, no qualification is necessary.

Overall Assessment of Data

The completeness of the analytical reports for this quarter laboratory analysis is 100%. The usefulness of the data is based on the USEPA guidance documents referenced in the introduction of this report. Upon consideration of the information presented above, the data are considered usable. Data qualified as estimated, 'UJ/J', during this review process are included in Table 1.

Data Qualifier Definitions

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria.

DNR Do Not Report. Another result is available that is more reliable.

References

EPA, 2013. National Functional Guidelines for Superfund Organic Methods Data Review. October 2013.

Table 1 Sample Qualification Summary

Sample Number	Laboratory ID	Analyte	Data Qualifier	Reason for Qualification
MW-310	C35213-8	Naphthalene	J	MS recovery
D050-014	C35253-5	Acenaphthylene	UJ	Surrogate recovery
		Anthracene		
		Benzo(a)anthracene		
		Benzo(a)pyrene		
		Benzo(b)fluoranthene		
		Benzo(g,h,i)perylene		
		Benzo(k)fluoranthene		
		Chrysene		
		Dibenzo(a,h)anthracene		
		Fluoranthene		
		Indeno(1,2,3-cd)pyrene		
		Pyrene		
		1-Methylnaphthalene	J	
		2-Methylnaphthalene		
		Naphthalene		
D050-015	C35253-3	Acenaphthylene	UJ	Surrogate recovery
		Anthracene		
		Benzo(a)anthracene		
		Benzo(a)pyrene		
		Benzo(b)fluoranthene		
		Benzo(g,h,i)perylene		
		Benzo(k)fluoranthene		
		Chrysene		
		Dibenzo(a,h)anthracene		
		Fluoranthene		
		Indeno(1,2,3-cd)pyrene		
		Pyrene		
		1-Methylnaphthalene	J	
		2-Methylnaphthalene		
		Naphthalene		

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 J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range 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 J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range 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 J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range 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
Matrix: AQ - Ground Water
Method: SW846 8260B
Project: URSORP: Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Date Sampled: 07/24/14
Date Received: 07/25/14
Percent Solids: n/a

	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 J = Indicates an estimated value
RL = Reporting Limit B = Indicates analyte found in associated method blank
E = Indicates value exceeds calibration range 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&CH ☐ 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 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	Container PID Readings or Laboratory Notes
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		

FIELD NOTES:
TEMPERATURE ON RECEIPT C°: 0

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

052/06 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
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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	10	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	[illegible]	106* [b]	0	51-102/23
85-01-8	Phenanthrene	ND		9.43	8.3	88	9.43	[illegible]	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	[illegible]	9.43	60.2	57	1	52-108/25
91-20-3	Naphthalene	206 [a]		9.43	216	[illegible]* [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:

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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)

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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%

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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%

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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
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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%

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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:	DO50-116		
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:

INCIDENT # (ENV. SERVICES): 97595801
☐ CHECK IF NO INCIDENT # APPLIES
DATE: 7/25/14
PAGE: 1 of 1

PO #:
SAP #: 1214145

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: C35253

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
☐ MOTIVA 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	FIELD NOTES: Container PID Readings or Laboratory Notes
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		Short Hold
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		

TEMPERATURE ON RECEIPT C°
3.2-0.3 = 2.9
4.4-0.5 = 4.1
4.2-0.3 = 3.9

Relinquished by: (Signature)	Received by: (Signature) FED EX	Date: 7/28/14	Time: 11:00am
Relinquished by: (Signature) Fedex	Received by: (Signature)	Date: 7-29-14	Time: 0854
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

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

C35253: Chain of Custody
Page 2 of 2

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.

Northern California ACCUTEST LABORATORIES

10/08/14

Technical Report for

Shell Oil Company

URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA 49241036

Accutest Job Number: C36184

Sampling Date: 09/23/14

Report to:

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ATTN: Brian Pletcher

Total number of pages in report: **103**

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: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925) DoD ELAP (L-A-B L2242)

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Sample Summary

Shell Oil Company

Job No: C36184

URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Project No: 49241036

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
C36184-1	09/23/14	08:03	BW	09/25/14	AQ	Ground Water	D050-014
C36184-2	09/23/14	09:16	BW	09/25/14	AQ	Ground Water	D050-016
C36184-3	09/23/14	09:45	BW	09/25/14	AQ	Ground Water	D050-099
C36184-4	09/23/14	10:43	BW	09/25/14	AQ	Ground Water	D050-015
C36184-5	09/23/14	11:16	BW	09/25/14	AQ	Ground Water	D050-039
C36184-6	09/23/14	13:50	BW	09/25/14	AQ	Ground Water	MW-309
C36184-7	09/23/14	16:01	BW	09/25/14	AQ	Ground Water	MW-301
C36184-8	09/23/14	16:38	BW	09/25/14	AQ	Ground Water	TX-03A
C36184-9	09/23/14	17:25	BW	09/25/14	AQ	Ground Water	MW-302
C36184-10	09/23/14	12:10	BW	09/25/14	AQ	Ground Water	SW FLORIDA SD

Summary of Hits

Job Number: C36184
Account: Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 09/23/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C36184-1	**D050-014**					
Acetone		23.0 J	40	8.0	ug/l	SW846 8260B
Benzene		133	2.0	0.40	ug/l	SW846 8260B
n-Butylbenzene		2.4 J	4.0	0.40	ug/l	SW846 8260B
sec-Butylbenzene		2.7 J	4.0	0.40	ug/l	SW846 8260B
Chloroethane		1.4 J	2.0	0.40	ug/l	SW846 8260B
cis-1,2-Dichloroethylene		0.68 J	2.0	0.40	ug/l	SW846 8260B
Ethylbenzene		4.4	2.0	0.40	ug/l	SW846 8260B
Isopropylbenzene		8.0	2.0	0.40	ug/l	SW846 8260B
Methyl chloride		1.5 J	2.0	0.60	ug/l	SW846 8260B
Naphthalene		6.5 J	10	1.0	ug/l	SW846 8260B
n-Propylbenzene		16.9	4.0	0.40	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		0.41 J	4.0	0.40	ug/l	SW846 8260B
Toluene		2.6	2.0	0.40	ug/l	SW846 8260B
Xylene (total)		1.9 J	4.0	0.92	ug/l	SW846 8260B
Acenaphthene		0.42 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluoranthene		0.19 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluorene		0.45 J	0.47	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		12.3	0.47	0.094	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		10.4	0.47	0.094	ug/l	SW846 8270C BY SIM
Naphthalene		5.7	0.47	0.094	ug/l	SW846 8270C BY SIM
Phenanthrene		0.40 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Pyrene		0.11 J	0.47	0.047	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		0.876	0.20	0.10	mg/l	NWTPH-GX
TPH (Diesel)		0.218	0.094	0.047	mg/l	NWTPH-DX
C36184-2	**D050-016**					
Acetone		5.6 J	20	4.0	ug/l	SW846 8260B
Methyl chloride		0.76 J	1.0	0.30	ug/l	SW846 8260B
Trichloroethylene		1.2	1.0	0.20	ug/l	SW846 8260B
Acenaphthene		0.055 J	0.47	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		1.1	0.47	0.094	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		2.5	0.47	0.094	ug/l	SW846 8270C BY SIM
Naphthalene		4.7	0.47	0.094	ug/l	SW846 8270C BY SIM
TPH (Diesel)		0.0879 J	0.094	0.047	mg/l	NWTPH-DX
C36184-3	**D050-099**					
Acetone		4.6 J	20	4.0	ug/l	SW846 8260B
Methyl chloride		0.53 J	1.0	0.30	ug/l	SW846 8260B
Trichloroethylene		0.41 J	1.0	0.20	ug/l	SW846 8260B
Acenaphthene		0.050 J	0.47	0.047	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		0.0516 J	0.10	0.050	mg/l	NWTPH-GX

Summary of Hits

Job Number: C36184
Account: Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 09/23/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
TPH (Diesel)		0.0998	0.094	0.047	mg/l	NWTPH-DX
C36184-4	**D050-015**					
Benzene		280	5.0	1.0	ug/l	SW846 8260B
n-Butylbenzene		4.8 J	10	1.0	ug/l	SW846 8260B
sec-Butylbenzene		5.2 J	10	1.0	ug/l	SW846 8260B
Ethylbenzene		11.2	5.0	1.0	ug/l	SW846 8260B
Isopropylbenzene		18.1	5.0	1.0	ug/l	SW846 8260B
Naphthalene		15.9 J	25	2.5	ug/l	SW846 8260B
n-Propylbenzene		35.6	10	1.0	ug/l	SW846 8260B
Toluene		6.9	5.0	1.0	ug/l	SW846 8260B
Xylene (total)		6.6 J	10	2.3	ug/l	SW846 8260B
Acenaphthene		0.22 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluorene		0.27 J	0.47	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		12.5	0.47	0.094	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		10.4	0.47	0.094	ug/l	SW846 8270C BY SIM
Naphthalene		3.7	0.47	0.094	ug/l	SW846 8270C BY SIM
Phenanthrene		0.082 J	0.47	0.047	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		1.36	0.50	0.25	mg/l	NWTPH-GX
TPH (Diesel)		0.359	0.095	0.048	mg/l	NWTPH-DX
C36184-5	**D050-039**					
Acetone		25.2	20	4.0	ug/l	SW846 8260B
Benzene		65.9	1.0	0.20	ug/l	SW846 8260B
n-Butylbenzene		1.5 J	2.0	0.20	ug/l	SW846 8260B
sec-Butylbenzene		1.6 J	2.0	0.20	ug/l	SW846 8260B
Chloroethane		0.62 J	1.0	0.20	ug/l	SW846 8260B
Ethylbenzene		3.0	1.0	0.20	ug/l	SW846 8260B
Isopropylbenzene		5.1	1.0	0.20	ug/l	SW846 8260B
Methyl chloride		0.71 J	1.0	0.30	ug/l	SW846 8260B
Methyl ethyl ketone		4.4 J	10	2.0	ug/l	SW846 8260B
Naphthalene		6.5	5.0	0.50	ug/l	SW846 8260B
n-Propylbenzene		9.7	2.0	0.20	ug/l	SW846 8260B
Toluene		1.8	1.0	0.20	ug/l	SW846 8260B
Xylene (total)		1.8 J	2.0	0.46	ug/l	SW846 8260B
Acenaphthene		0.32 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluoranthene		0.085 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluorene		0.63	0.47	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		11.9	0.47	0.094	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		9.1	0.47	0.094	ug/l	SW846 8270C BY SIM
Naphthalene		3.3	0.47	0.094	ug/l	SW846 8270C BY SIM
Phenanthrene		0.21 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Pyrene		0.058 J	0.47	0.047	ug/l	SW846 8270C BY SIM

Summary of Hits

Job Number: C36184
Account: Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 09/23/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
TPH (Gasoline)		0.466	0.10	0.050	mg/l	NWTPH-GX
TPH (Diesel)		0.326	0.095	0.048	mg/l	NWTPH-DX
C36184-6	**MW-309**					
Acenaphthene		0.081 J	0.47	0.047	ug/l	SW846 8270C BY SIM
TPH (Diesel)		0.0751 J	0.095	0.048	mg/l	NWTPH-DX
C36184-7	**MW-301**					
Acetone		39.8 J	100	20	ug/l	SW846 8260B
Benzene		184	5.0	1.0	ug/l	SW846 8260B
n-Butylbenzene		10.5	10	1.0	ug/l	SW846 8260B
sec-Butylbenzene		13.3	10	1.0	ug/l	SW846 8260B
Chloroethane		3.2 J	5.0	1.0	ug/l	SW846 8260B
Ethylbenzene		7.3	5.0	1.0	ug/l	SW846 8260B
Isopropylbenzene		60.3	5.0	1.0	ug/l	SW846 8260B
Methyl chloride		2.7 J	5.0	1.5	ug/l	SW846 8260B
n-Propylbenzene		139	10	1.0	ug/l	SW846 8260B
Toluene		5.6	5.0	1.0	ug/l	SW846 8260B
Xylene (total)		6.1 J	10	2.3	ug/l	SW846 8260B
Acenaphthene		0.28 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluorene		0.14 J	0.47	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		30.4	2.4	0.47	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		17.3	0.47	0.094	ug/l	SW846 8270C BY SIM
Naphthalene		0.67	0.47	0.094	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		2.85	1.0	0.50	mg/l	NWTPH-GX
TPH (Diesel)		0.372	0.094	0.047	mg/l	NWTPH-DX
C36184-8	**TX-03A**					
Benzene		1700	25	5.0	ug/l	SW846 8260B
n-Butylbenzene		12.4 J	50	5.0	ug/l	SW846 8260B
sec-Butylbenzene		10.7 J	50	5.0	ug/l	SW846 8260B
Ethylbenzene		104	25	5.0	ug/l	SW846 8260B
Isopropylbenzene		60.1	25	5.0	ug/l	SW846 8260B
Naphthalene		280	130	13	ug/l	SW846 8260B
n-Propylbenzene		137	50	5.0	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		5.2 J	50	5.0	ug/l	SW846 8260B
Toluene		28.2	25	5.0	ug/l	SW846 8260B
Xylene (total)		44.1 J	50	12	ug/l	SW846 8260B
Acenaphthene		0.18 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		40.7	4.7	0.94	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		50.0	4.7	0.94	ug/l	SW846 8270C BY SIM

Summary of Hits

Job Number: C36184
Account: Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 09/23/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Naphthalene		2.9	0.47	0.094	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		6.80	2.0	1.0	mg/l	NWTPH-GX
TPH (Diesel)		0.385	0.094	0.047	mg/l	NWTPH-DX
C36184-9	**MW-302**					
Benzene		461	10	2.0	ug/l	SW846 8260B
n-Butylbenzene		7.6 J	20	2.0	ug/l	SW846 8260B
sec-Butylbenzene		10.0 J	20	2.0	ug/l	SW846 8260B
Ethylbenzene		59.8	10	2.0	ug/l	SW846 8260B
Isopropylbenzene		25.8	10	2.0	ug/l	SW846 8260B
Naphthalene		90.0	50	5.0	ug/l	SW846 8260B
n-Propylbenzene		32.9	20	2.0	ug/l	SW846 8260B
1,2,4-Trimethylbenzene		12.6 J	20	2.0	ug/l	SW846 8260B
1,3,5-Trimethylbenzene		5.9 J	20	2.0	ug/l	SW846 8260B
Toluene		14.0	10	2.0	ug/l	SW846 8260B
Xylene (total)		51.8	20	4.6	ug/l	SW846 8260B
Acenaphthene		0.12 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluorene		0.27 J	0.47	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		30.2	4.7	0.94	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		9.7	0.47	0.094	ug/l	SW846 8270C BY SIM
Naphthalene		56.9	4.7	0.94	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		3.26	2.0	1.0	mg/l	NWTPH-GX
TPH (Diesel)		0.358	0.094	0.047	mg/l	NWTPH-DX
C36184-10	**SW FLORIDA SD**					
Acetone		8.6 J	20	4.0	ug/l	SW846 8260B
Benzene		8.5	1.0	0.20	ug/l	SW846 8260B
n-Butylbenzene		0.24 J	2.0	0.20	ug/l	SW846 8260B
sec-Butylbenzene		0.28 J	2.0	0.20	ug/l	SW846 8260B
Ethylbenzene		0.51 J	1.0	0.20	ug/l	SW846 8260B
Isopropylbenzene		0.84 J	1.0	0.20	ug/l	SW846 8260B
Naphthalene		1.4 J	5.0	0.50	ug/l	SW846 8260B
n-Propylbenzene		1.5 J	2.0	0.20	ug/l	SW846 8260B
Toluene		0.33 J	1.0	0.20	ug/l	SW846 8260B
Xylene (total)		0.50 J	2.0	0.46	ug/l	SW846 8260B
Acenaphthene		0.11 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluorene		0.15 J	0.47	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		2.2	0.47	0.094	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		1.5	0.47	0.094	ug/l	SW846 8270C BY SIM
Naphthalene		0.71	0.47	0.094	ug/l	SW846 8270C BY SIM
Phenanthrene		0.057 J	0.47	0.047	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		0.0891 J	0.10	0.050	mg/l	NWTPH-GX
TPH (Diesel)		0.165	0.096	0.048	mg/l	NWTPH-DX

Northern California ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	D050-014		
Lab Sample ID:	C36184-1	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q24356.D	2	10/06/14	BQ	n/a	n/a	VQ1024
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	23.0	40	8.0	ug/l	J
71-43-2	Benzene	133	2.0	0.40	ug/l	
108-86-1	Bromobenzene	ND	2.0	0.40	ug/l	
74-97-5	Bromochloromethane	ND	2.0	0.40	ug/l	
75-27-4	Bromodichloromethane	ND	2.0	0.40	ug/l	
75-25-2	Bromoform	ND	2.0	0.44	ug/l	
104-51-8	n-Butylbenzene	2.4	4.0	0.40	ug/l	J
135-98-8	sec-Butylbenzene	2.7	4.0	0.40	ug/l	J
98-06-6	tert-Butylbenzene	ND	4.0	0.56	ug/l	
108-90-7	Chlorobenzene	ND	2.0	0.40	ug/l	
75-00-3	Chloroethane	1.4	2.0	0.40	ug/l	J
67-66-3	Chloroform	ND	2.0	0.40	ug/l	
95-49-8	o-Chlorotoluene	ND	4.0	0.40	ug/l	
106-43-4	p-Chlorotoluene	ND	4.0	0.52	ug/l	
56-23-5	Carbon tetrachloride	ND	2.0	0.40	ug/l	
75-34-3	1,1-Dichloroethane	ND	2.0	0.40	ug/l	
75-35-4	1,1-Dichloroethylene	ND	2.0	0.40	ug/l	
563-58-6	1,1-Dichloropropene	ND	2.0	0.40	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	4.0	0.80	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	0.40	ug/l	
107-06-2	1,2-Dichloroethane	ND	2.0	0.40	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	0.40	ug/l	
142-28-9	1,3-Dichloropropane	ND	2.0	0.40	ug/l	
108-20-3	Di-Isopropyl ether	ND	4.0	0.44	ug/l	
594-20-7	2,2-Dichloropropane	ND	2.0	0.40	ug/l	
124-48-1	Dibromochloromethane	ND	2.0	0.40	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	0.40	ug/l	
156-59-2	cis-1,2-Dichloroethylene	0.68	2.0	0.40	ug/l	J
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	0.40	ug/l	
541-73-1	m-Dichlorobenzene	ND	2.0	0.40	ug/l	
95-50-1	o-Dichlorobenzene	ND	2.0	0.40	ug/l	
106-46-7	p-Dichlorobenzene	ND	2.0	0.40	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: D050-014
Lab Sample ID: C36184-1 **Date Sampled:** 09/23/14
Matrix: AQ - Ground Water **Date Received:** 09/25/14
Method: SW846 8260B **Percent Solids:** n/a
Project: URSORP:INC#97995801 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	2.0	0.40	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	0.60	ug/l	
100-41-4	Ethylbenzene	4.4	2.0	0.40	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	4.0	0.44	ug/l	
591-78-6	2-Hexanone	ND	20	4.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	4.0	0.40	ug/l	
98-82-8	Isopropylbenzene	8.0	2.0	0.40	ug/l	
99-87-6	p-Isopropyltoluene	ND	4.0	0.40	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	20	2.0	ug/l	
74-83-9	Methyl bromide	ND	4.0	0.40	ug/l	
74-87-3	Methyl chloride	1.5	2.0	0.60	ug/l	J
74-95-3	Methylene bromide	ND	2.0	0.40	ug/l	
75-09-2	Methylene chloride	ND	20	4.0	ug/l	
78-93-3	Methyl ethyl ketone	ND	20	4.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	0.40	ug/l	
91-20-3	Naphthalene	6.5	10	1.0	ug/l	J
103-65-1	n-Propylbenzene	16.9	4.0	0.40	ug/l	
100-42-5	Styrene	ND	2.0	0.40	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	4.0	0.80	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	20	4.8	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	2.0	0.60	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	2.0	0.40	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	0.40	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	2.0	0.44	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	4.0	0.40	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	4.0	0.40	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	4.0	0.40	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	4.0	0.40	ug/l	
108-67-8	1,3,5-Trimethylbenzene	0.41	4.0	0.40	ug/l	J
127-18-4	Tetrachloroethylene	ND	2.0	0.60	ug/l	
108-88-3	Toluene	2.6	2.0	0.40	ug/l	
79-01-6	Trichloroethylene	ND	2.0	0.40	ug/l	
75-69-4	Trichlorofluoromethane	ND	2.0	0.40	ug/l	
75-01-4	Vinyl chloride	ND	2.0	0.40	ug/l	
1330-20-7	Xylene (total)	1.9	4.0	0.92	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	78%		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:	D050-014		
Lab Sample ID:	C36184-1	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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:	D050-014		
Lab Sample ID:	C36184-1	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T15853.D	1	09/26/14	BJ	09/26/14	OP10826	ET700
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	0.42	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	0.19	0.47	0.047	ug/l	J
86-73-7	Fluorene	0.45	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	12.3	0.47	0.094	ug/l	
91-57-6	2-Methylnaphthalene	10.4	0.47	0.094	ug/l	
91-20-3	Naphthalene	5.7	0.47	0.094	ug/l	
85-01-8	Phenanthrene	0.40	0.47	0.047	ug/l	J
129-00-0	Pyrene	0.11	0.47	0.047	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	78%		42-116%
321-60-8	2-Fluorobiphenyl	85%		44-115%
1718-51-0	Terphenyl-d14	107%		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:	D050-014		
Lab Sample ID:	C36184-1	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK47909.D	2	10/02/14	EA	n/a	n/a	GJK1991
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	0.876	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	110%		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:	D050-014		
Lab Sample ID:	C36184-1	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH317271.D	1	09/27/14	AG	09/26/14	OP10833	GHH1364
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)	0.218	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	93%		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:	D050-016		
Lab Sample ID:	C36184-2	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R29283.D	1	10/05/14	TN	n/a	n/a	VR1092
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	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 [a]	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:	D050-016		
Lab Sample ID:	C36184-2	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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 [a]	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	0.76	1.0	0.30	ug/l	J
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	1.2	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	90%		70-130%
2037-26-5	Toluene-D8	71%		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:	D050-016		
Lab Sample ID:	C36184-2	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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	91%		70-130%

(a) CCV outside of control limits (biased high); not detected in sample.

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:	D050-016		
Lab Sample ID:	C36184-2	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T15854.D	1	09/26/14	BJ	09/26/14	OP10826	ET700
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	0.055	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	1.1	0.47	0.094	ug/l	
91-57-6	2-Methylnaphthalene	2.5	0.47	0.094	ug/l	
91-20-3	Naphthalene	4.7	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	82%		42-116%
321-60-8	2-Fluorobiphenyl	86%		44-115%
1718-51-0	Terphenyl-d14	95%		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:	D050-016		
Lab Sample ID:	C36184-2	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK47910.D	1	10/02/14	EA	n/a	n/a	GJK1991
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	109%		50-150%
460-00-4	4-Bromofluorobenzene	110%		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:	D050-016		
Lab Sample ID:	C36184-2	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH317272.D	1	09/27/14	AG	09/26/14	OP10833	GHH1364
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)	0.0879	0.094	0.047	mg/l	J
	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:	D050-099		
Lab Sample ID:	C36184-3	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R29284.D	1	10/05/14	TN	n/a	n/a	VR1092
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	4.6	20	4.0	ug/l	J
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 [a]	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:	D050-099		
Lab Sample ID:	C36184-3	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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 [a]	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	0.53	1.0	0.30	ug/l	J
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	0.41	1.0	0.20	ug/l	J
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	90%		70-130%
2037-26-5	Toluene-D8	73%		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:	D050-099		
Lab Sample ID:	C36184-3	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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	93%		70-130%

(a) CCV outside of control limits (biased high); not detected in sample.

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:	D050-099		
Lab Sample ID:	C36184-3	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T15855.D	1	09/26/14	BJ	09/26/14	OP10826	ET700
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	0.050	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	88%		42-116%
321-60-8	2-Fluorobiphenyl	94%		44-115%
1718-51-0	Terphenyl-d14	106%		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:	D050-099		
Lab Sample ID:	C36184-3	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK47912.D	1	10/02/14	EA	n/a	n/a	GJK1991
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	0.0516	0.10	0.050	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	110%		50-150%
460-00-4	4-Bromofluorobenzene	110%		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:	D050-099		
Lab Sample ID:	C36184-3	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH317273.D	1	09/27/14	AG	09/26/14	OP10833	GHH1364
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)	0.0998	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:	D050-015		
Lab Sample ID:	C36184-4	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R29292.D	5	10/06/14	TN	n/a	n/a	VR1092
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	100	20	ug/l	
71-43-2	Benzene	280	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	4.8	10	1.0	ug/l	J
135-98-8	sec-Butylbenzene	5.2	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 [a]	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:	D050-015		
Lab Sample ID:	C36184-4	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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	11.2	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 [a]	ND	10	1.0	ug/l	
98-82-8	Isopropylbenzene	18.1	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	15.9	25	2.5	ug/l	J
103-65-1	n-Propylbenzene	35.6	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	6.9	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)	6.6	10	2.3	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	88%		70-130%
2037-26-5	Toluene-D8	81%		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:	D050-015		
Lab Sample ID:	C36184-4	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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	93%		70-130%

(a) CCV outside of control limits (biased high); not detected in sample.

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:	D050-015		
Lab Sample ID:	C36184-4	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T15856.D	1	09/26/14	BJ	09/26/14	OP10826	ET700
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	0.22	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	0.27	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	12.5	0.47	0.094	ug/l	
91-57-6	2-Methylnaphthalene	10.4	0.47	0.094	ug/l	
91-20-3	Naphthalene	3.7	0.47	0.094	ug/l	
85-01-8	Phenanthrene	0.082	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	79%		42-116%
321-60-8	2-Fluorobiphenyl	86%		44-115%
1718-51-0	Terphenyl-d14	94%		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:	D050-015		
Lab Sample ID:	C36184-4	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK47933.D	5	10/03/14	EA	n/a	n/a	GJK1991
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	1.36	0.50	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	94%		50-150%
460-00-4	4-Bromofluorobenzene	99%		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:	D050-015		
Lab Sample ID:	C36184-4	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH317274.D	1	09/27/14	AG	09/26/14	OP10833	GHH1364
Run #2							

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

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.359	0.095	0.048	mg/l	
	TPH (Motor Oil)	ND	0.19	0.095	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:	D050-039		
Lab Sample ID:	C36184-5	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R29285.D	1	10/05/14	TN	n/a	n/a	VR1092
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	25.2	20	4.0	ug/l	
71-43-2	Benzene	65.9	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	1.5	2.0	0.20	ug/l	J
135-98-8	sec-Butylbenzene	1.6	2.0	0.20	ug/l	J
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	0.62	1.0	0.20	ug/l	J
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 [a]	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: D050-039
Lab Sample ID: C36184-5 **Date Sampled:** 09/23/14
Matrix: AQ - Ground Water **Date Received:** 09/25/14
Method: SW846 8260B **Percent Solids:** n/a
Project: URSORP:INC#97995801 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	3.0	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 [a]	ND	2.0	0.20	ug/l	
98-82-8	Isopropylbenzene	5.1	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	0.71	1.0	0.30	ug/l	J
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	4.4	10	2.0	ug/l	J
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.20	ug/l	
91-20-3	Naphthalene	6.5	5.0	0.50	ug/l	
103-65-1	n-Propylbenzene	9.7	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	1.8	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)	1.8	2.0	0.46	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		70-130%
2037-26-5	Toluene-D8	84%		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:	D050-039		
Lab Sample ID:	C36184-5	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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	95%		70-130%

(a) CCV outside of control limits (biased high); not detected in sample.

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:	D050-039		
Lab Sample ID:	C36184-5	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T15857.D	1	09/26/14	BJ	09/26/14	OP10826	ET700
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	0.32	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	0.085	0.47	0.047	ug/l	J
86-73-7	Fluorene	0.63	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	11.9	0.47	0.094	ug/l	
91-57-6	2-Methylnaphthalene	9.1	0.47	0.094	ug/l	
91-20-3	Naphthalene	3.3	0.47	0.094	ug/l	
85-01-8	Phenanthrene	0.21	0.47	0.047	ug/l	J
129-00-0	Pyrene	0.058	0.47	0.047	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	93%		42-116%
321-60-8	2-Fluorobiphenyl	99%		44-115%
1718-51-0	Terphenyl-d14	111%		45-141%

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

Report of Analysis

Client Sample ID:	D050-039		
Lab Sample ID:	C36184-5	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK47914.D	1	10/02/14	EA	n/a	n/a	GJK1991
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	0.466	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	110%		50-150%
460-00-4	4-Bromofluorobenzene	120%		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:	D050-039		
Lab Sample ID:	C36184-5	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH317275.D	1	09/27/14	AG	09/26/14	OP10833	GHH1364
Run #2							

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

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.326	0.095	0.048	mg/l	
	TPH (Motor Oil)	ND	0.19	0.095	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	93%		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:	C36184-6	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R29286.D	1	10/06/14	TN	n/a	n/a	VR1092
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 [a]	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:	C36184-6	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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 [a]	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	90%		70-130%
2037-26-5	Toluene-D8	80%		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:	C36184-6	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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	95%		70-130%

(a) CCV outside of control limits (biased high); not detected in sample.

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:	C36184-6	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T15858.D	1	09/26/14	BJ	09/26/14	OP10826	ET700
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	0.081	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	75%		42-116%
321-60-8	2-Fluorobiphenyl	92%		44-115%
1718-51-0	Terphenyl-d14	96%		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:	C36184-6	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK47920.D	1	10/03/14	EA	n/a	n/a	GJK1991
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	107%		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-309		
Lab Sample ID:	C36184-6	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH317276.D	1	09/27/14	AG	09/26/14	OP10833	GHH1364
Run #2							

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

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.0751	0.095	0.048	mg/l	J
	TPH (Motor Oil)	ND	0.19	0.095	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	93%		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: C36184-7 **Date Sampled:** 09/23/14
Matrix: AQ - Ground Water **Date Received:** 09/25/14
Method: SW846 8260B **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R29289.D	5	10/06/14	TN	n/a	n/a	VR1092
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	39.8	100	20	ug/l	J
71-43-2	Benzene	184	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	10.5	10	1.0	ug/l	
135-98-8	sec-Butylbenzene	13.3	10	1.0	ug/l	
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	3.2	5.0	1.0	ug/l	J
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 [a]	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:	MW-301		
Lab Sample ID:	C36184-7	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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	7.3	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 [a]	ND	10	1.0	ug/l	
98-82-8	Isopropylbenzene	60.3	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	2.7	5.0	1.5	ug/l	J
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	ND	25	2.5	ug/l	
103-65-1	n-Propylbenzene	139	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	5.6	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)	6.1	10	2.3	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	90%		70-130%
2037-26-5	Toluene-D8	78%		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:	C36184-7	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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	94%		70-130%

(a) CCV outside of control limits (biased high); not detected in sample.

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: C36184-7 **Date Sampled:** 09/23/14
Matrix: AQ - Ground Water **Date Received:** 09/25/14
Method: SW846 8270C BY SIM SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T15859.D	1	09/26/14	BJ	09/26/14	OP10826	ET700
Run #2	X39694.D	5	09/29/14	BJ	09/26/14	OP10826	EX1699

	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	0.28	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	0.14	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	30.4 [a]	2.4	0.47	ug/l	
91-57-6	2-Methylnaphthalene	17.3	0.47	0.094	ug/l	
91-20-3	Naphthalene	0.67	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	72%	72%	42-116%
321-60-8	2-Fluorobiphenyl	96%	91%	44-115%
1718-51-0	Terphenyl-d14	104%	97%	45-141%

(a) Result is from Run# 2

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

Report of Analysis

Client Sample ID:	MW-301		
Lab Sample ID:	C36184-7	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK47915.D	10	10/02/14	EA	n/a	n/a	GJK1991
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	2.85	1.0	0.50	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	108%		50-150%
460-00-4	4-Bromofluorobenzene	119%		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:	C36184-7	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH317277.D	1	09/27/14	AG	09/26/14	OP10833	GHH1364
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)	0.372	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:	TX-03A		
Lab Sample ID:	C36184-8	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R29290.D	25	10/06/14	TN	n/a	n/a	VR1092
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	500	100	ug/l	
71-43-2	Benzene	1700	25	5.0	ug/l	
108-86-1	Bromobenzene	ND	25	5.0	ug/l	
74-97-5	Bromochloromethane	ND	25	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	25	5.0	ug/l	
75-25-2	Bromoform	ND	25	5.5	ug/l	
104-51-8	n-Butylbenzene	12.4	50	5.0	ug/l	J
135-98-8	sec-Butylbenzene	10.7	50	5.0	ug/l	J
98-06-6	tert-Butylbenzene	ND	50	7.0	ug/l	
108-90-7	Chlorobenzene	ND	25	5.0	ug/l	
75-00-3	Chloroethane	ND	25	5.0	ug/l	
67-66-3	Chloroform	ND	25	5.0	ug/l	
95-49-8	o-Chlorotoluene	ND	50	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	50	6.5	ug/l	
56-23-5	Carbon tetrachloride [a]	ND	25	5.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	25	5.0	ug/l	
75-35-4	1,1-Dichloroethylene	ND	25	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	25	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	50	10	ug/l	
106-93-4	1,2-Dibromoethane	ND	25	5.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	25	5.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	25	5.0	ug/l	
142-28-9	1,3-Dichloropropane	ND	25	5.0	ug/l	
108-20-3	Di-Isopropyl ether	ND	50	5.5	ug/l	
594-20-7	2,2-Dichloropropane	ND	25	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	25	5.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	25	5.0	ug/l	
156-59-2	cis-1,2-Dichloroethylene	ND	25	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	25	5.0	ug/l	
541-73-1	m-Dichlorobenzene	ND	25	5.0	ug/l	
95-50-1	o-Dichlorobenzene	ND	25	5.0	ug/l	
106-46-7	p-Dichlorobenzene	ND	25	5.0	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:	C36184-8	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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	25	5.0	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	25	7.5	ug/l	
100-41-4	Ethylbenzene	104	25	5.0	ug/l	
637-92-3	Ethyl Tert Butyl Ether	ND	50	5.5	ug/l	
591-78-6	2-Hexanone	ND	250	50	ug/l	
87-68-3	Hexachlorobutadiene [a]	ND	50	5.0	ug/l	
98-82-8	Isopropylbenzene	60.1	25	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	50	5.0	ug/l	
108-10-1	4-Methyl-2-pentanone	ND	250	25	ug/l	
74-83-9	Methyl bromide	ND	50	5.0	ug/l	
74-87-3	Methyl chloride	ND	25	7.5	ug/l	
74-95-3	Methylene bromide	ND	25	5.0	ug/l	
75-09-2	Methylene chloride	ND	250	50	ug/l	
78-93-3	Methyl ethyl ketone	ND	250	50	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	25	5.0	ug/l	
91-20-3	Naphthalene	280	130	13	ug/l	
103-65-1	n-Propylbenzene	137	50	5.0	ug/l	
100-42-5	Styrene	ND	25	5.0	ug/l	
994-05-8	Tert-Amyl Methyl Ether	ND	50	10	ug/l	
75-65-0	Tert-Butyl Alcohol	ND	250	60	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	25	7.5	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	25	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	25	5.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	25	5.5	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	50	5.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	50	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	50	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	50	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	5.2	50	5.0	ug/l	J
127-18-4	Tetrachloroethylene	ND	25	7.5	ug/l	
108-88-3	Toluene	28.2	25	5.0	ug/l	
79-01-6	Trichloroethylene	ND	25	5.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	25	5.0	ug/l	
75-01-4	Vinyl chloride	ND	25	5.0	ug/l	
1330-20-7	Xylene (total)	44.1	50	12	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	88%		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:	C36184-8	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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	94%		70-130%

(a) CCV outside of control limits (biased high); not detected in sample.

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:	C36184-8	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T15860.D	1	09/26/14	BJ	09/26/14	OP10826	ET700
Run #2	T15900.D	10	09/29/14	MT	09/26/14	OP10826	ET701

	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	0.18	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	40.7 [a]	4.7	0.94	ug/l	
91-57-6	2-Methylnaphthalene	50.0 [a]	4.7	0.94	ug/l	
91-20-3	Naphthalene	2.9	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	78%	81%	42-116%
321-60-8	2-Fluorobiphenyl	87%	92%	44-115%
1718-51-0	Terphenyl-d14	111%	106%	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:	C36184-8	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK47917.D	20	10/03/14	EA	n/a	n/a	GJK1991
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	6.80	2.0	1.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	108%		50-150%
460-00-4	4-Bromofluorobenzene	114%		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:	C36184-8	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH317278.D	1	09/27/14	AG	09/26/14	OP10833	GHH1364
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)	0.385	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:	MW-302		
Lab Sample ID:	C36184-9	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R29291.D	10	10/06/14	TN	n/a	n/a	VR1092
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	461	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	7.6	20	2.0	ug/l	J
135-98-8	sec-Butylbenzene	10.0	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 [a]	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:	C36184-9	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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	59.8	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 [a]	ND	20	2.0	ug/l	
98-82-8	Isopropylbenzene	25.8	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	90.0	50	5.0	ug/l	
103-65-1	n-Propylbenzene	32.9	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	12.6	20	2.0	ug/l	J
108-67-8	1,3,5-Trimethylbenzene	5.9	20	2.0	ug/l	J
127-18-4	Tetrachloroethylene	ND	10	3.0	ug/l	
108-88-3	Toluene	14.0	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)	51.8	20	4.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	87%		70-130%
2037-26-5	Toluene-D8	86%		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:	C36184-9	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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	93%		70-130%

(a) CCV outside of control limits (biased high); not detected in sample.

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: C36184-9 **Date Sampled:** 09/23/14
Matrix: AQ - Ground Water **Date Received:** 09/25/14
Method: SW846 8270C BY SIM SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T15861.D	1	09/26/14	BJ	09/26/14	OP10826	ET700
Run #2	T15901.D	10	09/29/14	MT	09/26/14	OP10826	ET701

	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	0.12	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	0.27	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	30.2 [a]	4.7	0.94	ug/l	
91-57-6	2-Methylnaphthalene	9.7	0.47	0.094	ug/l	
91-20-3	Naphthalene	56.9 [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	76%	84%	42-116%
321-60-8	2-Fluorobiphenyl	94%	86%	44-115%
1718-51-0	Terphenyl-d14	105%	104%	45-141%

(a) Result is from Run# 2

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

Report of Analysis

Client Sample ID:	MW-302		
Lab Sample ID:	C36184-9	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK47918.D	20	10/03/14	EA	n/a	n/a	GJK1991
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	3.26	2.0	1.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	109%		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:	MW-302		
Lab Sample ID:	C36184-9	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH317279.D	1	09/27/14	AG	09/26/14	OP10833	GHH1364
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)	0.358	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: SW FLORIDA SD
Lab Sample ID: C36184-10 **Date Sampled:** 09/23/14
Matrix: AQ - Ground Water **Date Received:** 09/25/14
Method: SW846 8260B **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	R29287.D	1	10/06/14	TN	n/a	n/a	VR1092
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	8.6	20	4.0	ug/l	J
71-43-2	Benzene	8.5	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	0.24	2.0	0.20	ug/l	J
135-98-8	sec-Butylbenzene	0.28	2.0	0.20	ug/l	J
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 [a]	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:	SW FLORIDA SD		
Lab Sample ID:	C36184-10	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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	0.51	1.0	0.20	ug/l	J
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 [a]	ND	2.0	0.20	ug/l	
98-82-8	Isopropylbenzene	0.84	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	1.4	5.0	0.50	ug/l	J
103-65-1	n-Propylbenzene	1.5	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	0.33	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)	0.50	2.0	0.46	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%
2037-26-5	Toluene-D8	89%		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:	SW FLORIDA SD		
Lab Sample ID:	C36184-10	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 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	95%		70-130%

(a) CCV outside of control limits (biased high); not detected in sample.

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:	SW FLORIDA SD		
Lab Sample ID:	C36184-10	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T15862.D	1	09/26/14	BJ	09/26/14	OP10826	ET700
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	0.11	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	0.15	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	2.2	0.47	0.094	ug/l	
91-57-6	2-Methylnaphthalene	1.5	0.47	0.094	ug/l	
91-20-3	Naphthalene	0.71	0.47	0.094	ug/l	
85-01-8	Phenanthrene	0.057	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	78%		42-116%
321-60-8	2-Fluorobiphenyl	85%		44-115%
1718-51-0	Terphenyl-d14	95%		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:	SW FLORIDA SD		
Lab Sample ID:	C36184-10	**Date Sampled:**	09/23/14
Matrix:	AQ - Ground Water	**Date Received:**	09/25/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK47919.D	1	10/03/14	EA	n/a	n/a	GJK1991
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	0.0891	0.10	0.050	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	109%		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: SW FLORIDA SD
Lab Sample ID: C36184-10 **Date Sampled:** 09/23/14
Matrix: AQ - Ground Water **Date Received:** 09/25/14
Method: NWTPH-DX SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH317280.D	1	09/27/14	AG	09/26/14	OP10833	GHH1364
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.165	0.096	0.048	mg/l	
	TPH (Motor Oil)	ND	0.19	0.096	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

Shell Oil Products Chain Of Custody Record

URS

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

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: 9/23/14

PO #:

SAP #: 1 2 1 4 1 5

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

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): G. Heilman / B. Waldvogel
LAB USE ONLY: C36184

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:
5 coolers Total.
SW Florida SD has 1 bottle each for NWTPH-Dx and PAH, 3rd 1L Amber is spare volume.

☑ 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-Dx	NWTPH-Dx (Diesel and Oil range)	VOCs (8260B)	PAHs (8270 SIM)	NON-UNIT COST
1	D050-014	9/23/14	0803	W	X					10	X	X	X	X	
2	D050-016		0916												
3	D050-099		0945							9					
4	D050-015		1043												
5	D050-039		1116												
6	MW-309		1350												
7	MW-301		1601												
8	TX-03A		1638		↓										
9	MW-302	↓	1725	↓	↓					↓	↓	↓	↓	↓	
10	SW Florida SD	9/23/14	1210	W	X					9	X	X	X	X	

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

TEMPS =
5.2 - 0.1 = 5.1 °C
3.1 - 0.1 = 3.0 °C
4.5 - 0.1 = 4.4 °C
2.1 - 0.1 = 2.0 °C
2.5 - 0.1 = 2.4 °C

Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
FEDEX	LaBauve	9/25/14	0950
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature)	Date:	Time:

05/2/06 Revision

C36184: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C36184 **Client:** SHELL OIL **Project:** 2555 13TH AVENUE

Date / Time Received: 9/25/2014 9:50:00 AM **Delivery Method:** FedEx **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (5.2/5.1); #2: (3.1/3); #3: (4.5/4.4); #4: (2.1/2); #5: (2.5/2.4);

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:	IR2;		
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

C36184: Chain of Custody
Page 2 of 2

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: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1092-MB	R29275.D	1	10/05/14	TN	n/a	n/a	VR1092

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

C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

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: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1092-MB	R29275.D	1	10/05/14	TN	n/a	n/a	VR1092

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

C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

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	85%	70-130%

Method Blank Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1092-MB	R29275.D	1	10/05/14	TN	n/a	n/a	VR1092

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

C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

CAS No.	Surrogate Recoveries		Limits
2037-26-5	Toluene-D8	90%	70-130%
460-00-4	4-Bromofluorobenzene	92%	70-130%

Method Blank Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1024-MB	Q24351.D	1	10/06/14	BQ	n/a	n/a	VQ1024

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

C36184-1

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: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1024-MB	Q24351.D	1	10/06/14	BQ	n/a	n/a	VQ1024

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

C36184-1

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	98%	70-130%

Method Blank Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1024-MB	Q24351.D	1	10/06/14	BQ	n/a	n/a	VQ1024

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

C36184-1

CAS No.	Surrogate Recoveries		Limits
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	99%	70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/l	

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1092-BS	R29272.D	1	10/05/14	TN	n/a	n/a	VR1092
VR1092-BSD	R29273.D	1	10/05/14	TN	n/a	n/a	VR1092

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

C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	71.4	89	67.8	85	5	38-159/24
71-43-2	Benzene	20	20.3	102	20.2	101	0	77-122/25
108-86-1	Bromobenzene	20	21.5	108	21.6	108	0	76-126/17
74-97-5	Bromochloromethane	20	21.1	106	21.5	108	2	77-130/17
75-27-4	Bromodichloromethane	20	23.4	117	23.4	117	0	75-127/16
75-25-2	Bromoform	20	21.4	107	21.6	108	1	69-141/17
104-51-8	n-Butylbenzene	20	20.5	103	20.1	101	2	72-129/18
135-98-8	sec-Butylbenzene	20	20.3	102	20.1	101	1	74-128/18
98-06-6	tert-Butylbenzene	20	19.7	99	19.6	98	1	73-127/18
108-90-7	Chlorobenzene	20	21.2	106	21.3	107	0	77-122/16
75-00-3	Chloroethane	20	17.4	87	17.3	87	1	69-133/18
67-66-3	Chloroform	20	20.0	100	20.1	101	0	74-126/17
95-49-8	o-Chlorotoluene	20	19.6	98	19.9	100	2	72-127/20
106-43-4	p-Chlorotoluene	20	19.8	99	19.3	97	3	68-127/18
56-23-5	Carbon tetrachloride	20	23.6	118	23.1	116	2	71-133/19
75-34-3	1,1-Dichloroethane	20	18.5	93	18.5	93	0	71-125/17
75-35-4	1,1-Dichloroethylene	20	19.4	97	19.3	97	1	66-125/20
563-58-6	1,1-Dichloropropene	20	21.2	106	20.8	104	2	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	20	20.5	103	20.5	103	0	65-131/20
106-93-4	1,2-Dibromoethane	20	22.2	111	22.5	113	1	75-135/17
107-06-2	1,2-Dichloroethane	20	22.2	111	22.2	111	0	71-131/17
78-87-5	1,2-Dichloropropane	20	20.6	103	20.7	104	0	78-124/16
142-28-9	1,3-Dichloropropane	20	20.7	104	20.9	105	1	78-123/16
108-20-3	Di-Isopropyl ether	20	18.5	93	18.7	94	1	68-129/17
594-20-7	2,2-Dichloropropane	20	20.5	103	20.2	101	1	70-131/19
124-48-1	Dibromochloromethane	20	23.7	119	24.0	120	1	76-132/16
75-71-8	Dichlorodifluoromethane	20	20.1	101	18.5	93	8	32-168/28
156-59-2	cis-1,2-Dichloroethylene	20	19.3	97	19.5	98	1	73-126/17
10061-01-5	cis-1,3-Dichloropropene	20	22.6	113	22.7	114	0	72-130/16
541-73-1	m-Dichlorobenzene	20	21.3	107	21.3	107	0	75-124/16
95-50-1	o-Dichlorobenzene	20	21.9	110	22.0	110	0	76-124/16
106-46-7	p-Dichlorobenzene	20	21.3	107	21.4	107	0	75-124/16
156-60-5	trans-1,2-Dichloroethylene	20	18.8	94	18.8	94	0	71-126/18
10061-02-6	trans-1,3-Dichloropropene	20	22.1	111	22.3	112	1	71-126/16
100-41-4	Ethylbenzene	20	20.8	104	20.8	104	0	76-126/17
637-92-3	Ethyl Tert Butyl Ether	20	20.5	103	20.7	104	1	75-134/17

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1092-BS	R29272.D	1	10/05/14	TN	n/a	n/a	VR1092
VR1092-BSD	R29273.D	1	10/05/14	TN	n/a	n/a	VR1092

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

C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	74.5	93	75.4	94	1	67-150/22
87-68-3	Hexachlorobutadiene	20	25.1	126	24.8	124	1	69-135/20
98-82-8	Isopropylbenzene	20	21.7	109	21.6	108	0	61-125/17
99-87-6	p-Isopropyltoluene	20	20.9	105	20.7	104	1	68-127/18
108-10-1	4-Methyl-2-pentanone	80	76.8	96	78.0	98	2	71-142/21
74-83-9	Methyl bromide	20	18.5	93	18.3	92	1	68-132/18
74-87-3	Methyl chloride	20	16.7	84	16.9	85	1	39-150/28
74-95-3	Methylene bromide	20	22.9	115	22.9	115	0	77-127/16
75-09-2	Methylene chloride	20	19.3	97	19.5	98	1	67-128/18
78-93-3	Methyl ethyl ketone	80	73.0	91	73.1	91	0	56-155/23
1634-04-4	Methyl Tert Butyl Ether	20	21.5	108	21.8	109	1	73-132/17
91-20-3	Naphthalene	20	23.0	115	23.2	116	1	70-136/20
103-65-1	n-Propylbenzene	20	19.7	99	19.5	98	1	71-127/17
100-42-5	Styrene	20	22.1	111	22.3	112	1	72-134/16
994-05-8	Tert-Amyl Methyl Ether	20	21.5	108	21.8	109	1	73-133/17
75-65-0	Tert-Butyl Alcohol	100	106	106	104	104	2	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	20	23.2	116	23.4	117	1	77-130/16
71-55-6	1,1,1-Trichloroethane	20	20.7	104	20.5	103	1	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	20	20.1	101	20.2	101	0	77-129/17
79-00-5	1,1,2-Trichloroethane	20	20.5	103	20.8	104	1	77-125/16
87-61-6	1,2,3-Trichlorobenzene	20	24.3	122	24.6	123	1	70-133/18
96-18-4	1,2,3-Trichloropropane	20	20.6	103	21.1	106	2	69-126/18
120-82-1	1,2,4-Trichlorobenzene	20	24.4	122	24.6	123	1	68-129/17
95-63-6	1,2,4-Trimethylbenzene	20	20.3	102	20.2	101	0	74-129/17
108-67-8	1,3,5-Trimethylbenzene	20	20.4	102	20.2	101	1	77-129/17
127-18-4	Tetrachloroethylene	20	21.4	107	21.6	108	1	69-127/20
108-88-3	Toluene	20	19.9	100	19.9	100	0	75-122/17
79-01-6	Trichloroethylene	20	21.2	106	21.1	106	0	78-123/17
75-69-4	Trichlorofluoromethane	20	20.5	103	19.6	98	4	65-136/23
75-01-4	Vinyl chloride	20	16.7	84	16.9	85	1	57-146/22
1330-20-7	Xylene (total)	60	62.5	104	62.9	105	1	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	89%	89%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VR1092-BS	R29272.D	1	10/05/14	TN	n/a	n/a	VR1092
VR1092-BSD	R29273.D	1	10/05/14	TN	n/a	n/a	VR1092

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

C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
2037-26-5	Toluene-D8	88%	88%	70-130%
460-00-4	4-Bromofluorobenzene	95%	95%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1024-BS	Q24348.D	1	10/06/14	BQ	n/a	n/a	VQ1024
VQ1024-BSD	Q24349.D	1	10/06/14	BQ	n/a	n/a	VQ1024

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

C36184-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	80	78.7	98	71.1	89	10	38-159/24
71-43-2	Benzene	20	18.4	92	17.9	90	3	77-122/25
108-86-1	Bromobenzene	20	18.8	94	18.4	92	2	76-126/17
74-97-5	Bromochloromethane	20	18.8	94	18.1	91	4	77-130/17
75-27-4	Bromodichloromethane	20	19.7	99	19.0	95	4	75-127/16
75-25-2	Bromoform	20	17.7	89	16.9	85	5	69-141/17
104-51-8	n-Butylbenzene	20	19.6	98	19.1	96	3	72-129/18
135-98-8	sec-Butylbenzene	20	20.4	102	19.9	100	2	74-128/18
98-06-6	tert-Butylbenzene	20	19.7	99	19.3	97	2	73-127/18
108-90-7	Chlorobenzene	20	19.0	95	18.6	93	2	77-122/16
75-00-3	Chloroethane	20	17.2	86	16.4	82	5	69-133/18
67-66-3	Chloroform	20	19.0	95	18.3	92	4	74-126/17
95-49-8	o-Chlorotoluene	20	19.9	100	19.8	99	1	72-127/20
106-43-4	p-Chlorotoluene	20	19.1	96	18.7	94	2	68-127/18
56-23-5	Carbon tetrachloride	20	20.1	101	19.3	97	4	71-133/19
75-34-3	1,1-Dichloroethane	20	18.4	92	17.6	88	4	71-125/17
75-35-4	1,1-Dichloroethylene	20	18.4	92	17.4	87	6	66-125/20
563-58-6	1,1-Dichloropropene	20	20.2	101	19.5	98	4	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	20	21.3	107	19.7	99	8	65-131/20
106-93-4	1,2-Dibromoethane	20	19.8	99	18.9	95	5	75-135/17
107-06-2	1,2-Dichloroethane	20	19.6	98	18.7	94	5	71-131/17
78-87-5	1,2-Dichloropropane	20	19.1	96	18.7	94	2	78-124/16
142-28-9	1,3-Dichloropropane	20	18.8	94	18.2	91	3	78-123/16
108-20-3	Di-Isopropyl ether	20	18.1	91	17.4	87	4	68-129/17
594-20-7	2,2-Dichloropropane	20	20.1	101	19.1	96	5	70-131/19
124-48-1	Dibromochloromethane	20	19.6	98	18.9	95	4	76-132/16
75-71-8	Dichlorodifluoromethane	20	13.5	68	12.1	61	11	32-168/28
156-59-2	cis-1,2-Dichloroethylene	20	18.8	94	18.1	91	4	73-126/17
10061-01-5	cis-1,3-Dichloropropene	20	20.7	104	20.2	101	2	72-130/16
541-73-1	m-Dichlorobenzene	20	19.5	98	19.1	96	2	75-124/16
95-50-1	o-Dichlorobenzene	20	19.4	97	19.1	96	2	76-124/16
106-46-7	p-Dichlorobenzene	20	18.5	93	18.3	92	1	75-124/16
156-60-5	trans-1,2-Dichloroethylene	20	18.3	92	17.5	88	4	71-126/18
10061-02-6	trans-1,3-Dichloropropene	20	19.7	99	19.2	96	3	71-126/16
100-41-4	Ethylbenzene	20	18.7	94	18.3	92	2	76-126/17
637-92-3	Ethyl Tert Butyl Ether	20	20.2	101	19.3	97	5	75-134/17

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1024-BS	Q24348.D	1	10/06/14	BQ	n/a	n/a	VQ1024
VQ1024-BSD	Q24349.D	1	10/06/14	BQ	n/a	n/a	VQ1024

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

C36184-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
591-78-6	2-Hexanone	80	87.4	109	80.9	101	8	67-150/22
87-68-3	Hexachlorobutadiene	20	20.1	101	19.6	98	3	69-135/20
98-82-8	Isopropylbenzene	20	19.9	100	19.5	98	2	61-125/17
99-87-6	p-Isopropyltoluene	20	19.8	99	19.5	98	2	68-127/18
108-10-1	4-Methyl-2-pentanone	80	78.8	99	73.2	92	7	71-142/21
74-83-9	Methyl bromide	20	15.3	77	14.6	73	5	68-132/18
74-87-3	Methyl chloride	20	16.6	83	15.1	76	9	39-150/28
74-95-3	Methylene bromide	20	19.9	100	19.0	95	5	77-127/16
75-09-2	Methylene chloride	20	19.1	96	18.4	92	4	67-128/18
78-93-3	Methyl ethyl ketone	80	85.8	107	77.8	97	10	56-155/23
1634-04-4	Methyl Tert Butyl Ether	20	19.5	98	18.4	92	6	73-132/17
91-20-3	Naphthalene	20	20.6	103	19.6	98	5	70-136/20
103-65-1	n-Propylbenzene	20	19.8	99	19.4	97	2	71-127/17
100-42-5	Styrene	20	19.3	97	18.9	95	2	72-134/16
994-05-8	Tert-Amyl Methyl Ether	20	19.6	98	18.7	94	5	73-133/17
75-65-0	Tert-Butyl Alcohol	100	104	104	89.5	90	15	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	20	19.8	99	19.0	95	4	77-130/16
71-55-6	1,1,1-Trichloroethane	20	19.5	98	18.7	94	4	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	20	20.1	101	19.1	96	5	77-129/17
79-00-5	1,1,2-Trichloroethane	20	19.1	96	18.6	93	3	77-125/16
87-61-6	1,2,3-Trichlorobenzene	20	20.0	100	19.3	97	4	70-133/18
96-18-4	1,2,3-Trichloropropane	20	20.3	102	19.3	97	5	69-126/18
120-82-1	1,2,4-Trichlorobenzene	20	19.7	99	19.0	95	4	68-129/17
95-63-6	1,2,4-Trimethylbenzene	20	19.2	96	18.9	95	2	74-129/17
108-67-8	1,3,5-Trimethylbenzene	20	20.1	101	19.8	99	2	77-129/17
127-18-4	Tetrachloroethylene	20	18.0	90	17.7	89	2	69-127/20
108-88-3	Toluene	20	18.3	92	17.9	90	2	75-122/17
79-01-6	Trichloroethylene	20	18.9	95	18.4	92	3	78-123/17
75-69-4	Trichlorofluoromethane	20	18.7	94	17.5	88	7	65-136/23
75-01-4	Vinyl chloride	20	18.6	93	17.7	89	5	57-146/22
1330-20-7	Xylene (total)	60	57.6	96	56.3	94	2	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	102%	101%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1024-BS	Q24348.D	1	10/06/14	BQ	n/a	n/a	VQ1024
VQ1024-BSD	Q24349.D	1	10/06/14	BQ	n/a	n/a	VQ1024

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

C36184-1

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
2037-26-5	Toluene-D8	100%	101%	70-130%
460-00-4	4-Bromofluorobenzene	103%	102%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36184-4MS	R29293.D	5	10/06/14	TN	n/a	n/a	VR1092
C36184-4MSD	R29294.D	5	10/06/14	TN	n/a	n/a	VR1092
C36184-4	R29292.D	5	10/06/14	TN	n/a	n/a	VR1092

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

C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

CAS No.	Compound	C36184-4 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		400	397	99	400	396	99	0	38-159/24
71-43-2	Benzene	280		100	364	84	100	367	87	1	77-122/16
108-86-1	Bromobenzene	ND		100	111	111	100	111	111	0	76-126/17
74-97-5	Bromochloromethane	ND		100	107	107	100	108	108	1	77-130/17
75-27-4	Bromodichloromethane	ND		100	106	106	100	105	105	1	75-127/16
75-25-2	Bromoform	ND		100	78.7	79	100	79.5	80	1	69-141/17
104-51-8	n-Butylbenzene	4.8	J	100	100	95	100	102	97	2	72-129/18
135-98-8	sec-Butylbenzene	5.2	J	100	105	100	100	106	101	1	74-128/18
98-06-6	tert-Butylbenzene	ND		100	96.4	96	100	97.4	97	1	73-127/18
108-90-7	Chlorobenzene	ND		100	106	106	100	108	108	2	77-122/16
75-00-3	Chloroethane	ND		100	85.8	86	100	83.7	84	2	69-133/18
67-66-3	Chloroform	ND		100	99.2	99	100	98.0	98	1	74-126/17
95-49-8	o-Chlorotoluene	ND		100	96.9	97	100	92.0	92	5	72-127/20
106-43-4	p-Chlorotoluene	ND		100	92.9	93	100	92.1	92	1	68-127/18
56-23-5	Carbon tetrachloride	ND		100	115	115	100	116	116	1	71-133/19
75-34-3	1,1-Dichloroethane	ND		100	91.3	91	100	90.0	90	1	71-125/17
75-35-4	1,1-Dichloroethylene	ND		100	95.9	96	100	96.0	96	0	66-125/20
563-58-6	1,1-Dichloropropene	ND		100	105	105	100	104	104	1	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	ND		100	111	111	100	110	110	1	65-131/20
106-93-4	1,2-Dibromoethane	ND		100	114	114	100	116	116	2	75-135/17
107-06-2	1,2-Dichloroethane	ND		100	112	112	100	111	111	1	71-131/17
78-87-5	1,2-Dichloropropane	ND		100	102	102	100	103	103	1	78-124/16
142-28-9	1,3-Dichloropropane	ND		100	104	104	100	105	105	1	78-123/16
108-20-3	Di-Isopropyl ether	ND		100	89.2	89	100	88.4	88	1	68-129/17
594-20-7	2,2-Dichloropropane	ND		100	84.4	84	100	83.0	83	2	70-131/19
124-48-1	Dibromochloromethane	ND		100	96.9	97	100	97.8	98	1	76-132/16
75-71-8	Dichlorodifluoromethane	ND		100	102	102	100	90.9	91	12	32-168/28
156-59-2	cis-1,2-Dichloroethylene	ND		100	94.0	94	100	94.2	94	0	73-126/17
10061-01-5	cis-1,3-Dichloropropene	ND		100	103	103	100	104	104	1	72-130/16
541-73-1	m-Dichlorobenzene	ND		100	106	106	100	107	107	1	75-124/16
95-50-1	o-Dichlorobenzene	ND		100	109	109	100	109	109	0	76-124/16
106-46-7	p-Dichlorobenzene	ND		100	106	106	100	107	107	1	75-124/16
156-60-5	trans-1,2-Dichloroethylene	ND		100	92.1	92	100	92.1	92	0	71-126/18
10061-02-6	trans-1,3-Dichloropropene	ND		100	100	100	100	102	102	2	71-126/16
100-41-4	Ethylbenzene	11.2		100	113	102	100	114	103	1	76-126/17
637-92-3	Ethyl Tert Butyl Ether	ND		100	99.9	100	100	98.3	98	2	75-134/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36184-4MS	R29293.D	5	10/06/14	TN	n/a	n/a	VR1092
C36184-4MSD	R29294.D	5	10/06/14	TN	n/a	n/a	VR1092
C36184-4	R29292.D	5	10/06/14	TN	n/a	n/a	VR1092

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

C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

CAS No.	Compound	C36184-4 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		400	401	100	400	405	101	1	67-150/22
87-68-3	Hexachlorobutadiene	ND		100	121	121	100	126	126	4	69-135/20
98-82-8	Isopropylbenzene	18.1		100	125	107	100	127	109	2	61-125/17
99-87-6	p-Isopropyltoluene	ND		100	100	100	100	101	101	1	68-127/18
108-10-1	4-Methyl-2-pentanone	ND		400	408	102	400	409	102	0	71-142/21
74-83-9	Methyl bromide	ND		100	88.9	89	100	87.3	87	2	68-132/18
74-87-3	Methyl chloride	ND		100	83.7	84	100	81.2	81	3	39-150/28
74-95-3	Methylene bromide	ND		100	116	116	100	115	115	1	77-127/16
75-09-2	Methylene chloride	ND		100	95.6	96	100	94.5	95	1	67-128/18
78-93-3	Methyl ethyl ketone	ND		400	407	102	400	410	103	1	56-155/23
1634-04-4	Methyl Tert Butyl Ether	ND		100	107	107	100	106	106	1	73-132/17
91-20-3	Naphthalene	15.9	J	100	132	116	100	136	120	3	70-136/20
103-65-1	n-Propylbenzene	35.6		100	131	95	100	132	96	1	71-127/17
100-42-5	Styrene	ND		100	94.6	95	100	95.5	96	1	72-134/16
994-05-8	Tert-Amyl Methyl Ether	ND		100	106	106	100	105	105	1	73-133/17
75-65-0	Tert-Butyl Alcohol	ND		500	650	130	500	650	130	0	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	ND		100	117	117	100	117	117	0	77-130/16
71-55-6	1,1,1-Trichloroethane	ND		100	104	104	100	103	103	1	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	ND		100	105	105	100	104	104	1	77-129/17
79-00-5	1,1,2-Trichloroethane	ND		100	104	104	100	105	105	1	77-125/16
87-61-6	1,2,3-Trichlorobenzene	ND		100	118	118	100	124	124	5	70-133/18
96-18-4	1,2,3-Trichloropropane	ND		100	100	100	100	102	102	2	69-126/18
120-82-1	1,2,4-Trichlorobenzene	ND		100	118	118	100	122	122	3	68-129/17
95-63-6	1,2,4-Trimethylbenzene	ND		100	92.3	92	100	92.4	92	0	74-129/17
108-67-8	1,3,5-Trimethylbenzene	ND		100	89.9	90	100	90.2	90	0	77-129/17
127-18-4	Tetrachloroethylene	ND		100	106	106	100	108	108	2	69-127/20
108-88-3	Toluene	6.9		100	104	97	100	104	97	0	75-122/17
79-01-6	Trichloroethylene	ND		100	107	107	100	107	107	0	78-123/17
75-69-4	Trichlorofluoromethane	ND		100	102	102	100	97.8	98	4	65-136/23
75-01-4	Vinyl chloride	ND		100	78.4	78	100	76.4	76	3	57-146/22
1330-20-7	Xylene (total)	6.6	J	300	303	99	300	308	100	2	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C36184-4	Limits
1868-53-7	Dibromofluoromethane	89%	87%	88%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36184-4MS	R29293.D	5	10/06/14	TN	n/a	n/a	VR1092
C36184-4MSD	R29294.D	5	10/06/14	TN	n/a	n/a	VR1092
C36184-4	R29292.D	5	10/06/14	TN	n/a	n/a	VR1092

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

C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

CAS No.	Surrogate Recoveries	MS	MSD	C36184-4	Limits
2037-26-5	Toluene-D8	85%	86%	81%	70-130%
460-00-4	4-Bromofluorobenzene	94%	94%	93%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36194-65MS	Q24365.D	1000	10/06/14	BQ	n/a	n/a	VQ1024
C36194-65MSD	Q24366.D	1000	10/07/14	BQ	n/a	n/a	VQ1024
C36194-65	Q24352.D	1000	10/06/14	BQ	n/a	n/a	VQ1024

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

C36184-1

CAS No.	Compound	C36194-65 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		80000	88800	111	80000	84100	105	5	38-159/24
71-43-2	Benzene	217	J	20000	19800	98	20000	19600	97	1	77-122/16
108-86-1	Bromobenzene	ND		20000	19700	99	20000	19600	98	1	76-126/17
74-97-5	Bromochloromethane	ND		20000	20300	102	20000	20000	100	1	77-130/17
75-27-4	Bromodichloromethane	ND		20000	20400	102	20000	20500	103	0	75-127/16
75-25-2	Bromoform	ND		20000	14800	74	20000	16100	81	8	69-141/17
104-51-8	n-Butylbenzene	ND		20000	20000	100	20000	19800	99	1	72-129/18
135-98-8	sec-Butylbenzene	ND		20000	21000	105	20000	20900	105	0	74-128/18
98-06-6	tert-Butylbenzene	ND		20000	20400	102	20000	20500	103	0	73-127/18
108-90-7	Chlorobenzene	ND		20000	19800	99	20000	19800	99	0	77-122/16
75-00-3	Chloroethane	ND		20000	17800	89	20000	17600	88	1	69-133/18
67-66-3	Chloroform	652	J	20000	21800	106	20000	21300	103	2	74-126/17
95-49-8	o-Chlorotoluene	ND		20000	21100	106	20000	21000	105	0	72-127/20
106-43-4	p-Chlorotoluene	ND		20000	20000	100	20000	19900	100	1	68-127/18
56-23-5	Carbon tetrachloride	ND		20000	21500	108	20000	21300	107	1	71-133/19
75-34-3	1,1-Dichloroethane	927	J	20000	21100	101	20000	20700	99	2	71-125/17
75-35-4	1,1-Dichloroethylene	1850		20000	21700	99	20000	21600	99	0	66-125/20
563-58-6	1,1-Dichloropropene	ND		20000	21200	106	20000	21100	106	0	75-124/18
96-12-8	1,2-Dibromo-3-chloropropane	ND		20000	21400	107	20000	21600	108	1	65-131/20
106-93-4	1,2-Dibromoethane	ND		20000	20400	102	20000	20300	102	0	75-135/17
107-06-2	1,2-Dichloroethane	7290		20000	30300	115	20000	29300	110	3	71-131/17
78-87-5	1,2-Dichloropropane	ND		20000	20400	102	20000	20100	101	1	78-124/16
142-28-9	1,3-Dichloropropane	ND		20000	19700	99	20000	19400	97	2	78-123/16
108-20-3	Di-Isopropyl ether	ND		20000	19700	99	20000	19300	97	2	68-129/17
594-20-7	2,2-Dichloropropane	ND		20000	17900	90	20000	17600	88	2	70-131/19
124-48-1	Dibromochloromethane	ND		20000	18400	92	20000	19200	96	4	76-132/16
75-71-8	Dichlorodifluoromethane	ND		20000	13200	66	20000	12900	65	2	32-168/28
156-59-2	cis-1,2-Dichloroethylene	39700		20000	64900	126	20000	64200	123	1	73-126/17
10061-01-5	cis-1,3-Dichloropropene	ND		20000	20600	103	20000	20800	104	1	72-130/16
541-73-1	m-Dichlorobenzene	ND		20000	20300	102	20000	20100	101	1	75-124/16
95-50-1	o-Dichlorobenzene	ND		20000	20300	102	20000	20200	101	0	76-124/16
106-46-7	p-Dichlorobenzene	ND		20000	19300	97	20000	19100	96	1	75-124/16
156-60-5	trans-1,2-Dichloroethylene	216	J	20000	19700	97	20000	19600	97	1	71-126/18
10061-02-6	trans-1,3-Dichloropropene	ND		20000	19400	97	20000	19600	98	1	71-126/16
100-41-4	Ethylbenzene	ND		20000	19700	99	20000	19600	98	1	76-126/17
637-92-3	Ethyl Tert Butyl Ether	ND		20000	21700	109	20000	21400	107	1	75-134/17

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36194-65MS	Q24365.D	1000	10/06/14	BQ	n/a	n/a	VQ1024
C36194-65MSD	Q24366.D	1000	10/07/14	BQ	n/a	n/a	VQ1024
C36194-65	Q24352.D	1000	10/06/14	BQ	n/a	n/a	VQ1024

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

C36184-1

CAS No.	Compound	C36194-65 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		80000	89900	112	80000	89400	112	1	67-150/22
87-68-3	Hexachlorobutadiene	ND		20000	20200	101	20000	20200	101	0	69-135/20
98-82-8	Isopropylbenzene	ND		20000	20800	104	20000	20600	103	1	61-125/17
99-87-6	p-Isopropyltoluene	ND		20000	20300	102	20000	20300	102	0	68-127/18
108-10-1	4-Methyl-2-pentanone	ND		80000	78800	99	80000	79000	99	0	71-142/21
74-83-9	Methyl bromide	ND		20000	15800	79	20000	15700	79	1	68-132/18
74-87-3	Methyl chloride	ND		20000	17100	86	20000	17100	86	0	39-150/28
74-95-3	Methylene bromide	ND		20000	21200	106	20000	20700	104	2	77-127/16
75-09-2	Methylene chloride	ND		20000	20500	103	20000	20200	101	1	67-128/18
78-93-3	Methyl ethyl ketone	ND		80000	91400	114	80000	89000	111	3	56-155/23
1634-04-4	Methyl Tert Butyl Ether	ND		20000	20700	104	20000	20400	102	1	73-132/17
91-20-3	Naphthalene	ND		20000	20800	104	20000	21000	105	1	70-136/20
103-65-1	n-Propylbenzene	ND		20000	20400	102	20000	20500	103	0	71-127/17
100-42-5	Styrene	ND		20000	20200	101	20000	20100	101	0	72-134/16
994-05-8	Tert-Amyl Methyl Ether	ND		20000	20700	104	20000	20500	103	1	73-133/17
75-65-0	Tert-Butyl Alcohol	ND		100000	117000	117	100000	113000	113	3	60-149/26
630-20-6	1,1,1,2-Tetrachloroethane	ND		20000	20400	102	20000	20300	102	0	77-130/16
71-55-6	1,1,1-Trichloroethane	ND		20000	21300	107	20000	21000	105	1	74-128/19
79-34-5	1,1,2,2-Tetrachloroethane	ND		20000	20500	103	20000	20600	103	0	77-129/17
79-00-5	1,1,2-Trichloroethane	ND		20000	20100	101	20000	19700	99	2	77-125/16
87-61-6	1,2,3-Trichlorobenzene	ND		20000	20300	102	20000	20400	102	0	70-133/18
96-18-4	1,2,3-Trichloropropane	ND		20000	19400	97	20000	19300	97	1	69-126/18
120-82-1	1,2,4-Trichlorobenzene	ND		20000	19900	100	20000	19900	100	0	68-129/17
95-63-6	1,2,4-Trimethylbenzene	ND		20000	20100	101	20000	20000	100	0	74-129/17
108-67-8	1,3,5-Trimethylbenzene	ND		20000	21000	105	20000	20900	105	0	77-129/17
127-18-4	Tetrachloroethylene	ND		20000	18400	92	20000	18500	93	1	69-127/20
108-88-3	Toluene	851	J	20000	20100	96	20000	20000	96	0	75-122/17
79-01-6	Trichloroethylene	ND		20000	20300	102	20000	20100	101	1	78-123/17
75-69-4	Trichlorofluoromethane	ND		20000	18800	94	20000	18500	93	2	65-136/23
75-01-4	Vinyl chloride	31500		20000	47800	82	20000	48000	83	0	57-146/22
1330-20-7	Xylene (total)	ND		60000	60300	101	60000	59900	100	1	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C36194-65	Limits
1868-53-7	Dibromofluoromethane	108%	107%	103%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36194-65MS	Q24365.D	1000	10/06/14	BQ	n/a	n/a	VQ1024
C36194-65MSD	Q24366.D	1000	10/07/14	BQ	n/a	n/a	VQ1024
C36194-65	Q24352.D	1000	10/06/14	BQ	n/a	n/a	VQ1024

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

C36184-1

CAS No.	Surrogate Recoveries	MS	MSD	C36194-65	Limits
2037-26-5	Toluene-D8	100%	101%	103%	70-130%
460-00-4	4-Bromofluorobenzene	104%	103%	99%	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: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10826-MB	X39665.D	1	09/26/14	BJ	09/25/14	OP10826	EX1698

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

C36184-1, C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

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	75%	42-116%
321-60-8	2-Fluorobiphenyl	80%	44-115%
1718-51-0	Terphenyl-d14	98%	45-141%

Method Blank Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10826-MB	T15863.D	1	09/26/14	BJ	09/25/14	OP10826	ET700

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

C36184-1, C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

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	82%	42-116%
321-60-8	2-Fluorobiphenyl	89%	44-115%
1718-51-0	Terphenyl-d14	113%	45-141%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10826-BS	X39666.D	1	09/26/14	BJ	09/25/14	OP10826	EX1698
OP10826-BSD	X39667.D	1	09/26/14	BJ	09/25/14	OP10826	EX1698

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

C36184-1, C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	5	3.5	70	3.4	68	3	54-108/21
208-96-8	Acenaphthylene	5	3.4	68	3.3	66	3	53-108/22
120-12-7	Anthracene	5	3.8	76	3.6	72	5	58-111/19
56-55-3	Benzo(a)anthracene	5	3.8	76	3.6	72	5	59-120/14
50-32-8	Benzo(a)pyrene	5	3.8	76	3.6	72	5	53-113/18
205-99-2	Benzo(b)fluoranthene	5	3.7	74	3.8	76	3	57-127/18
191-24-2	Benzo(g,h,i)perylene	5	3.6	72	3.3	66	9	52-126/21
207-08-9	Benzo(k)fluoranthene	5	4.6	92	4.4	88	4	60-125/16
218-01-9	Chrysene	5	4.1	82	4.0	80	2	63-120/14
53-70-3	Dibenzo(a,h)anthracene	5	3.4	68	3.0	60	13	53-127/22
206-44-0	Fluoranthene	5	3.9	78	3.7	74	5	59-123/17
86-73-7	Fluorene	5	3.6	72	3.4	68	6	57-113/21
193-39-5	Indeno(1,2,3-cd)pyrene	5	3.3	66	3.0	60	10	48-130/22
90-12-0	1-Methylnaphthalene	5	3.2	64	3.0	60	6	51-104/24
91-57-6	2-Methylnaphthalene	5	3.3	66	3.1	62	6	52-108/25
91-20-3	Naphthalene	5	3.2	64	3.1	62	3	51-102/23
85-01-8	Phenanthrene	5	3.7	74	3.6	72	3	58-112/18
129-00-0	Pyrene	5	4.4	88	4.3	86	2	52-124/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	68%	66%	42-116%
321-60-8	2-Fluorobiphenyl	76%	73%	44-115%
1718-51-0	Terphenyl-d14	92%	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: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK1991-MB	JK47906.D	1	10/02/14	EA	n/a	n/a	GJK1991

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

C36184-1, C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

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	108%	50-150%
460-00-4	4-Bromofluorobenzene	107%	50-150%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK1991-BS	JK47907.D	1	10/02/14	EA	n/a	n/a	GJK1991
GJK1991-BSD	JK47908.D	1	10/02/14	EA	n/a	n/a	GJK1991

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

C36184-1, C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	0.4	0.381	95	0.384	96	1	69-127/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
98-08-8	aaa-Trifluorotoluene	98%	90%	50-150%
460-00-4	4-Bromofluorobenzene	102%	103%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36184-6MS	JK47921.D	1	10/03/14	EA	n/a	n/a	GJK1991
C36184-6MSD	JK47922.D	1	10/03/14	EA	n/a	n/a	GJK1991
C36184-6	JK47920.D	1	10/03/14	EA	n/a	n/a	GJK1991

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

C36184-1, C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

CAS No.	Compound	C36184-6 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	0.370	93	0.4	0.376	94	2	69-127/13

CAS No.	Surrogate Recoveries	MS	MSD	C36184-6	Limits
98-08-8	aaa-Trifluorotoluene	100%	103%	107%	50-150%
460-00-4	4-Bromofluorobenzene	106%	108%	107%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36184-2DUP	JK47911.D	1	10/02/14	EA	n/a	n/a	GJK1991
C36184-2	JK47910.D	1	10/02/14	EA	n/a	n/a	GJK1991

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

C36184-1, C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

CAS No.	Compound	C36184-2 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Gasoline)	ND		ND		nc	13

CAS No.	Surrogate Recoveries	DUP	C36184-2	Limits
98-08-8	aaa-Trifluorotoluene	109%	109%	50-150%
460-00-4	4-Bromofluorobenzene	110%	110%	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: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10833-MB	HH317285.D	1	09/27/14	AG	09/26/14	OP10833	GHH1364

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

C36184-1, C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

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	91%	50-150%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10833-BS	HH317283.D	1	09/27/14	AG	09/26/14	OP10833	GHH1364
OP10833-BSD	HH317284.D	1	09/27/14	AG	09/26/14	OP10833	GHH1364

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

C36184-1, C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Diesel)	1	0.564	56	0.551	55	2	37-112/30
	TPH (Motor Oil)	1	0.788	79	0.730	73	8	49-120/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	88%	84%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C36184
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP10833-DUP	HH317281.D	1	09/27/14	AG	09/26/14	OP10833	GHH1364
C36184-1	HH317271.D	1	09/27/14	AG	09/26/14	OP10833	GHH1364

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

C36184-1, C36184-2, C36184-3, C36184-4, C36184-5, C36184-6, C36184-7, C36184-8, C36184-9, C36184-10

CAS No.	Compound	C36184-1 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Diesel)	0.218		318		37* [a]	31
	TPH (Motor Oil)	ND		ND		nc	33

CAS No.	Surrogate Recoveries	DUP	C36184-1	Limits
630-01-3	Hexacosane	94%	93%	50-150%

(a) Outside laboratory control limits.

* = Outside of Control Limits.

Final Data Review

The data quality review of 31 primary groundwater, two field duplicate groundwater samples and two trip blanks samples collected November 3rd, 2014 through November 6th, 2014 at the Harbor Island site in Seattle, Washington has been completed. Samples were submitted to Accutest Laboratories (Accutest) of San Jose, California. The samples submitted were analyzed for one or more of the following: volatile organic compounds (VOCs; EPA Method 8260B); polycyclic aromatic hydrocarbons (PAHs; EPA Method 8270C-SIM); total petroleum hydrocarbons (TPH) as gasoline (gasoline) (Method NWTPH-GX); TPH as diesel (diesel) and motor oil (motor oil) (Method NWTPH-DX); total metals (calcium, iron, lead, magnesium) (EPA 6010B); alkalinity (SM2320); nitrate, nitrite, and sulfate (EPA Method 300.0); and dissolved metals (iron and manganese) (EPA Method 6010B).

The review included the analytical data presented in Accutest reports C36969 and C37022. The data were reviewed based on *National Functional Guidelines for Superfund Organic Methods Data Review* (EPA 2013a), *National Functional Guidelines for Inorganic Superfund Data Review* (EPA, 2013b), and laboratory quality control criteria. Items reviewed included: chain-of-custody (COC) records, hold times, surrogate recoveries, matrix spike and matrix spike duplicate results, laboratory control and laboratory control duplicate results, laboratory duplicate results, field duplicates, trip blanks, and method blank results. Data qualifiers assigned as a result of this review are included in Table 1.

The following criteria were evaluated during the review:

- COC Records – Acceptable with the following exceptions:

  The COCs requested Nitrate/Nitrite (combined) analysis by EPA Method 353.2, however, sulfate preserved sample volume was not submitted due to an error in the bottle order. Nitrite and Nitrate were analyzed separately by EPA Method 300.0 for sample bottles without preservation. Nitrogen results are used to evaluate natural attenuation and quantifiable results are not necessary; therefore, no action is required.

- Temperature – Acceptable

- Preservation – Acceptable

- Hold Times – Acceptable with the following exceptions:

  Nitrate and Nitrite by EPA Method 300.0: Samples MW-304 (C36939-2), MW-302 (C36939-4), MW-312 (C37022-4), MW-311 (C37022-5), MW-202 (C37022-12), and MW-203 (C37022-13) were run approximately 3 to 6 hours outside the 48 hour method hold time. As noted above the nitrite and nitrate sample results are not used for quantitative purposes, and therefore the results were reported as estimated and qualified 'UJ'/'J'.

- Method Blanks – Acceptable
- Trip Blanks - Acceptable
- Surrogates – Acceptable
- Laboratory Control Samples (LCS/LCSD) – Acceptable
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) – Acceptable with the following exceptions:

VOCs by EPA Method 8260B: The MS/MSD recoveries for ethylbenzene (129%/129%) and xylene (130%/129%) in analytical batch VQ1060 exceeded the laboratory limits of 126% and 125%, respectively. In addition, the MS/MSD recovery for xylene (54%/58%) in analytical batch VQ1062 was below the laboratory limit of 77%. In both cases, the LCS was in control indicating the analytical batches were in control; therefore, only the associated results in parent samples, MW-306 (C37022-19) and MW-204 (C37022-11) were qualified as estimated and flagged 'J/UJ'.

- Laboratory Duplicates – Acceptable
- Field Duplicates – Acceptable

Sample MW-223 (C37022-2) was submitted as a field duplicate for sample MW-213 (C37022-1) and sample MW-411 (C37022-6) was submitted as a field duplicate for sample MW-311 (C37022-5). Field duplicate and primary samples were submitted for VOC analysis only due to the analytes of interest at the site. VOCs were not detected in either the field duplicate or primary samples and therefore the RPD was not calculated.

- Reporting Limits – Acceptable
- Other Laboratory Notes

The percent difference for the serial dilution on sample MW-304 (C36939-2F) exceeded the method limits of 10% for dissolved iron and dissolved manganese at 13% for both analytes. The sample results were qualified as estimated and flagged 'J' to account for the potential chemical or physical interference.

Overall Assessment of Data

The completeness of the analytical reports for this quarter laboratory analysis is 100%. The usefulness of the data is based on the USEPA guidance documents referenced in the introduction of this report. Upon consideration of the information presented above, the data are considered usable. Data qualified as estimated, 'UJ/J', during this review process are included in Table 1.

Data Qualifier Definitions

U The analyte was analyzed for, but was not detected above the reported sample quantitation limit.

J The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.

UJ The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.

R The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria.

DNR Do Not Report. Another result is available that is more reliable.

References

EPA, 2013a. National Functional Guidelines for Superfund Organic Methods Data Review. October 2013.

EPA, 2013b. National Functional Guidelines for Inorganic Superfund Data Review. October 2013.

Table 1 Sample Qualification Summary

Sample Number	Laboratory ID	Analyte	Data Qualifier	Reason for Qualification
MW-304	C36939-2F	Dissolved Iron	J	Serial dilution
		Dissolved Manganese		
	C36939-2	Nitrate	UJ	Hold time
		Nitrite		
MW-302	C36939-4	Nitrate		
		Nitrite		
MW-312	C37022-4	Nitrate		
		Nitrite		
MW-311	C37022-5	Nitrate		
		Nitrite		
MW-202	C37022-12	Nitrate		
		Nitrite		
MW-203	C37022-13	Nitrate	J	
		Nitrite	UJ	
MW-306	C37022-19	Ethylbenzene	J	MS/MSD recovery
		Xylene		
MW-204	C37022-11	Xylene	UJ	

Northern California ACCUTEST LABORATORIES

11/06/14

Technical Report for

Shell Oil Company

URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

49241036

Accutest Job Number: C36651

Sampling Date: 10/21/14

Report to:

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Total number of pages in report: **63**

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: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925) DoD ELAP (L-A-B L2242)

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Accutest Laboratories

Sample Summary

Shell Oil Company

Job No: C36651

URSORP:INC#97995801 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
C36651-1	10/21/14	09:35	BW	10/23/14	SO	Soil	MTF-1-3.4
C36651-2	10/21/14	10:00	BW	10/23/14	SO	Soil	MTF-1-6-6.5
C36651-3	10/21/14	10:45	BW	10/23/14	SO	Soil	MTF-311-3-3.5
C36651-4	10/21/14	13:10	BW	10/23/14	SO	Soil	MTF-311-9-10
C36651-5	10/21/14	12:00	BW	10/23/14	SO	Soil	MTF-312-3-3.5
C36651-6	10/21/14	14:35	BW	10/23/14	SO	Soil	MTF-312-7-8

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Summary of Hits

Job Number: C36651
Account: Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 10/21/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C36651-1	**MTF-1-3.4**					
Acenaphthene [a]		6.3 J	45	4.5	ug/kg	SW846 8270C BY SIM
Benzo(a)pyrene [a]		1.7 J	9.0	1.5	ug/kg	SW846 8270C BY SIM
Pyrene [a]		4.9 J	45	4.5	ug/kg	SW846 8270C BY SIM
TPH (Diesel)		7.78	4.5	2.3	mg/kg	NWTPH-DX
TPH (Motor Oil)		24.1	9.1	4.5	mg/kg	NWTPH-DX
C36651-2	**MTF-1-6-6.5**					
Anthracene [b]		25.0 J	250	25	ug/kg	SW846 8270C BY SIM
Benzo(a)anthracene [b]		58.7	49	12	ug/kg	SW846 8270C BY SIM
Benzo(a)pyrene [b]		105	49	8.4	ug/kg	SW846 8270C BY SIM
Benzo(b)fluoranthene [b]		127	49	9.8	ug/kg	SW846 8270C BY SIM
Benzo(g,h,i)perylene [b]		69.1	49	11	ug/kg	SW846 8270C BY SIM
Benzo(k)fluoranthene [b]		80.7	49	11	ug/kg	SW846 8270C BY SIM
Chrysene [b]		127	49	9.8	ug/kg	SW846 8270C BY SIM
Fluoranthene [b]		80.6 J	250	25	ug/kg	SW846 8270C BY SIM
Indeno(1,2,3-cd)pyrene [b]		69.2	49	12	ug/kg	SW846 8270C BY SIM
Phenanthrene [b]		51.2 J	250	25	ug/kg	SW846 8270C BY SIM
Pyrene [b]		358	250	25	ug/kg	SW846 8270C BY SIM
TPH (Diesel)		190	25	12	mg/kg	NWTPH-DX
TPH (Motor Oil)		397	49	25	mg/kg	NWTPH-DX
C36651-3	**MTF-311-3-3.5**					
Benzo(a)anthracene [c]		67.4 J	100	26	ug/kg	SW846 8270C BY SIM
Chrysene [c]		125	100	21	ug/kg	SW846 8270C BY SIM
Pyrene [c]		61.4 J	520	52	ug/kg	SW846 8270C BY SIM
TPH (Gasoline)		5.69	5.3	2.7	mg/kg	NWTPH-GX
TPH (Diesel)		101	69	35	mg/kg	NWTPH-DX
TPH (Motor Oil)		1120	140	69	mg/kg	NWTPH-DX
C36651-4	**MTF-311-9-10**					
TPH (Motor Oil)		8.59	7.9	4.0	mg/kg	NWTPH-DX
C36651-5	**MTF-312-3-3.5**					
Benzene		66.3	5.0	0.50	ug/kg	SW846 8260B
Toluene		0.94 J	5.0	0.50	ug/kg	SW846 8260B
Ethylbenzene		28.8	5.0	0.50	ug/kg	SW846 8260B
Xylene (total)		15.6	10	1.0	ug/kg	SW846 8260B
Acenaphthene [b]		8.7 J	86	8.6	ug/kg	SW846 8270C BY SIM
Benzo(g,h,i)perylene [b]		4.4 J	17	3.8	ug/kg	SW846 8270C BY SIM

Summary of Hits

Job Number: C36651
Account: Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 10/21/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Chrysene [b]		6.5 J	17	3.4	ug/kg	SW846 8270C BY SIM
Indeno(1,2,3-cd)pyrene [b]		4.6 J	17	4.3	ug/kg	SW846 8270C BY SIM
1-Methylnaphthalene [b]		51.0 J	86	17	ug/kg	SW846 8270C BY SIM
2-Methylnaphthalene [b]		79.4 J	86	17	ug/kg	SW846 8270C BY SIM
Naphthalene [b]		27.6 J	86	17	ug/kg	SW846 8270C BY SIM
TPH (Gasoline)		9.83	5.0	2.5	mg/kg	NWTPH-GX
TPH (Diesel)		11.3	3.4	1.7	mg/kg	NWTPH-DX
TPH (Motor Oil)		54.8	6.9	3.4	mg/kg	NWTPH-DX
C36651-6	**MTF-312-7-8**					
Benzene [d]		6450 J	6900	690	ug/kg	SW846 8260B
Ethylbenzene [d]		3780 J	6900	690	ug/kg	SW846 8260B
Fluorene		2100	1500	150	ug/kg	SW846 8270C BY SIM
1-Methylnaphthalene		26100	1500	290	ug/kg	SW846 8270C BY SIM
2-Methylnaphthalene		34900	1500	290	ug/kg	SW846 8270C BY SIM
Naphthalene		1760	1500	290	ug/kg	SW846 8270C BY SIM
Phenanthrene		267 J	1500	150	ug/kg	SW846 8270C BY SIM
TPH (Gasoline)		1020	440	220	mg/kg	NWTPH-GX
TPH (Diesel)		5390	1200	590	mg/kg	NWTPH-DX

(a) Reporting Limit increased due to high moisture in the sample. 15grams prepared instead of the standard 30grams.
(b) Dilution required due to matrix interference (dark and viscous extract; high concentration of non-target hydrocarbons).
(c) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous); and high concentration of non-target hydrocarbons.
(d) Dilution required due to high concentration of non-target hydrocarbons.

Northern California ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MTF-1-3.4		
Lab Sample ID:	C36651-1	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	SW846 8260B	**Percent Solids:**	73.3
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M50211.D	1	10/27/14	XB	n/a	n/a	VM1521
Run #2							

	Initial Weight
Run #1	5.70 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	6.0	0.60	ug/kg	
108-88-3	Toluene	ND	6.0	0.60	ug/kg	
100-41-4	Ethylbenzene	ND	6.0	0.60	ug/kg	
1330-20-7	Xylene (total)	ND	12	1.2	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		70-130%
2037-26-5	Toluene-D8	104%		70-130%
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:	MTF-1-3.4		
Lab Sample ID:	C36651-1	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	SW846 8270C BY SIM SW846 3550B	**Percent Solids:**	73.3
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	X40219.D	1	10/24/14	BJ	10/23/14	OP11031	EX1720
Run #2							

	Initial Weight	Final Volume
Run #1	15.1 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	6.3	45	4.5	ug/kg	J
208-96-8	Acenaphthylene	ND	45	4.5	ug/kg	
120-12-7	Anthracene	ND	45	4.5	ug/kg	
56-55-3	Benzo(a)anthracene	ND	9.0	2.3	ug/kg	
50-32-8	Benzo(a)pyrene	1.7	9.0	1.5	ug/kg	J
205-99-2	Benzo(b)fluoranthene	ND	9.0	1.8	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	9.0	2.0	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	9.0	2.1	ug/kg	
218-01-9	Chrysene	ND	9.0	1.8	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	9.0	2.5	ug/kg	
206-44-0	Fluoranthene	ND	45	4.5	ug/kg	
86-73-7	Fluorene	ND	45	4.5	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	9.0	2.3	ug/kg	
90-12-0	1-Methylnaphthalene	ND	45	9.0	ug/kg	
91-57-6	2-Methylnaphthalene	ND	45	9.0	ug/kg	
91-20-3	Naphthalene	ND	45	9.0	ug/kg	
85-01-8	Phenanthrene	ND	45	4.5	ug/kg	
129-00-0	Pyrene	4.9	45	4.5	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	76%		32-128%
321-60-8	2-Fluorobiphenyl	76%		48-122%
1718-51-0	Terphenyl-d14	92%		48-148%

(a) Reporting Limit increased due to high moisture in the sample. 15grams prepared instead of the standard 30grams.

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:	MTF-1-3.4		
Lab Sample ID:	C36651-1	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	NWTPH-GX	**Percent Solids:**	73.3
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK48765.D	1	10/28/14	EA	n/a	n/a	GJK2033
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.82 g	5.0 ml	100 ul
Run #2			

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	ND	5.9	2.9	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	97%		50-150%
460-00-4	4-Bromofluorobenzene	98%		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:	MTF-1-3.4		
Lab Sample ID:	C36651-1	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	NWTPH-DX SW846 3550B	**Percent Solids:**	73.3
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318206.D	1	10/24/14	AG	10/24/14	OP11032	GHH1387
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	7.78	4.5	2.3	mg/kg	
	TPH (Motor Oil)	24.1	9.1	4.5	mg/kg	

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:	MTF-1-3.4		
Lab Sample ID:	C36651-1	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
		Percent Solids:	73.3
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	26.7		%	1	10/24/14 11:15	TN	SM2540MOD G-97

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MTF-1-6-6.5		
Lab Sample ID:	C36651-2	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	SW846 8260B	**Percent Solids:**	67.5
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M50212.D	1	10/27/14	XB	n/a	n/a	VM1521
Run #2							

	Initial Weight
Run #1	5.50 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	6.7	0.67	ug/kg	
108-88-3	Toluene	ND	6.7	0.67	ug/kg	
100-41-4	Ethylbenzene	ND	6.7	0.67	ug/kg	
1330-20-7	Xylene (total)	ND	13	1.3	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	108%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	107%		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: MTF-1-6-6.5
Lab Sample ID: C36651-2 **Date Sampled:** 10/21/14
Matrix: SO - Soil **Date Received:** 10/23/14
Method: SW846 8270C BY SIM SW846 3550B **Percent Solids:** 67.5
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	X40220.D	10	10/24/14	BJ	10/23/14	OP11031	EX1720
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	250	25	ug/kg	
208-96-8	Acenaphthylene	ND	250	25	ug/kg	
120-12-7	Anthracene	25.0	250	25	ug/kg	J
56-55-3	Benzo(a)anthracene	58.7	49	12	ug/kg	
50-32-8	Benzo(a)pyrene	105	49	8.4	ug/kg	
205-99-2	Benzo(b)fluoranthene	127	49	9.8	ug/kg	
191-24-2	Benzo(g,h,i)perylene	69.1	49	11	ug/kg	
207-08-9	Benzo(k)fluoranthene	80.7	49	11	ug/kg	
218-01-9	Chrysene	127	49	9.8	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	49	14	ug/kg	
206-44-0	Fluoranthene	80.6	250	25	ug/kg	J
86-73-7	Fluorene	ND	250	25	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	69.2	49	12	ug/kg	
90-12-0	1-Methylnaphthalene	ND	250	49	ug/kg	
91-57-6	2-Methylnaphthalene	ND	250	49	ug/kg	
91-20-3	Naphthalene	ND	250	49	ug/kg	
85-01-8	Phenanthrene	51.2	250	25	ug/kg	J
129-00-0	Pyrene	358	250	25	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	70%		32-128%
321-60-8	2-Fluorobiphenyl	75%		48-122%
1718-51-0	Terphenyl-d14	92%		48-148%

(a) Dilution required due to matrix interference (dark and viscous extract; high concentration of non-target hydrocarbons).

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:	MTF-1-6-6.5		
Lab Sample ID:	C36651-2	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	NWTPH-GX	**Percent Solids:**	67.5
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK48766.D	1	10/28/14	EA	n/a	n/a	GJK2033
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.25 g	5.0 ml	100 ul
Run #2			

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	ND	7.1	3.5	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	107%		50-150%
460-00-4	4-Bromofluorobenzene	110%		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: MTF-1-6-6.5
Lab Sample ID: C36651-2 **Date Sampled:** 10/21/14
Matrix: SO - Soil **Date Received:** 10/23/14
Method: NWTPH-DX SW846 3550B **Percent Solids:** 67.5
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318207.D	5	10/24/14	AG	10/24/14	OP11032	GHH1387
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	190	25	12	mg/kg	
	TPH (Motor Oil)	397	49	25	mg/kg	

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:	MTF-1-6-6.5		
Lab Sample ID:	C36651-2	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
		Percent Solids:	67.5
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	32.5		%	1	10/24/14 11:15	TN	SM2540MOD G-97

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MTF-311-3-3.5		
Lab Sample ID:	C36651-3	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	SW846 8260B	**Percent Solids:**	95.8
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M50213.D	1	10/27/14	XB	n/a	n/a	VM1521
Run #2							

	Initial Weight
Run #1	4.85 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	5.4	0.54	ug/kg	
108-88-3	Toluene	ND	5.4	0.54	ug/kg	
100-41-4	Ethylbenzene	ND	5.4	0.54	ug/kg	
1330-20-7	Xylene (total)	ND	11	1.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	108%		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:	MTF-311-3-3.5		
Lab Sample ID:	C36651-3	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	SW846 8270C BY SIM SW846 3550B	**Percent Solids:**	95.8
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	X40221.D	20	10/24/14	BJ	10/23/14	OP11031	EX1720
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	1.5 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	520	52	ug/kg	
208-96-8	Acenaphthylene	ND	520	52	ug/kg	
120-12-7	Anthracene	ND	520	52	ug/kg	
56-55-3	Benzo(a)anthracene	67.4	100	26	ug/kg	J
50-32-8	Benzo(a)pyrene	ND	100	18	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	100	21	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	100	23	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	100	24	ug/kg	
218-01-9	Chrysene	125	100	21	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	100	29	ug/kg	
206-44-0	Fluoranthene	ND	520	52	ug/kg	
86-73-7	Fluorene	ND	520	52	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	100	26	ug/kg	
90-12-0	1-Methylnaphthalene	ND	520	100	ug/kg	
91-57-6	2-Methylnaphthalene	ND	520	100	ug/kg	
91-20-3	Naphthalene	ND	520	100	ug/kg	
85-01-8	Phenanthrene	ND	520	52	ug/kg	
129-00-0	Pyrene	61.4	520	52	ug/kg	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	79%		32-128%
321-60-8	2-Fluorobiphenyl	86%		48-122%
1718-51-0	Terphenyl-d14	99%		48-148%

(a) Dilution required due to matrix interference. Extract would not concentrate (dark and viscous); and high concentration of non-target hydrocarbons.

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:	MTF-311-3-3.5		
Lab Sample ID:	C36651-3	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	NWTPH-GX	**Percent Solids:**	95.8
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK48767.D	1	10/28/14	EA	n/a	n/a	GJK2033
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.90 g	5.0 ml	100 ul
Run #2			

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	5.69	5.3	2.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	105%		50-150%
460-00-4	4-Bromofluorobenzene	108%		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:	MTF-311-3-3.5		
Lab Sample ID:	C36651-3	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	NWTPH-DX SW846 3550B	**Percent Solids:**	95.8
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318208.D	20	10/24/14	AG	10/24/14	OP11032	GHH1387
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	101	69	35	mg/kg	
	TPH (Motor Oil)	1120	140	69	mg/kg	

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:	MTF-311-3-3.5		
Lab Sample ID:	C36651-3	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
		Percent Solids:	95.8
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	4.2		%	1	10/24/14 11:15	TN	SM2540MOD G-97

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MTF-311-9-10		
Lab Sample ID:	C36651-4	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	SW846 8260B	**Percent Solids:**	83.8
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M50214.D	1	10/27/14	XB	n/a	n/a	VM1521
Run #2							

	Initial Weight
Run #1	5.51 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	5.4	0.54	ug/kg	
108-88-3	Toluene	ND	5.4	0.54	ug/kg	
100-41-4	Ethylbenzene	ND	5.4	0.54	ug/kg	
1330-20-7	Xylene (total)	ND	11	1.1	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	110%		70-130%
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	107%		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:	MTF-311-9-10		
Lab Sample ID:	C36651-4	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	SW846 8270C BY SIM SW846 3550B	**Percent Solids:**	83.8
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X40222.D	1	10/24/14	BJ	10/23/14	OP11031	EX1720
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	20	2.0	ug/kg	
208-96-8	Acenaphthylene	ND	20	2.0	ug/kg	
120-12-7	Anthracene	ND	20	2.0	ug/kg	
56-55-3	Benzo(a)anthracene	ND	4.0	0.99	ug/kg	
50-32-8	Benzo(a)pyrene	ND	4.0	0.68	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	4.0	0.79	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	4.0	0.87	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	4.0	0.91	ug/kg	
218-01-9	Chrysene	ND	4.0	0.79	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	4.0	1.1	ug/kg	
206-44-0	Fluoranthene	ND	20	2.0	ug/kg	
86-73-7	Fluorene	ND	20	2.0	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	4.0	0.99	ug/kg	
90-12-0	1-Methylnaphthalene	ND	20	4.0	ug/kg	
91-57-6	2-Methylnaphthalene	ND	20	4.0	ug/kg	
91-20-3	Naphthalene	ND	20	4.0	ug/kg	
85-01-8	Phenanthrene	ND	20	2.0	ug/kg	
129-00-0	Pyrene	ND	20	2.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	79%		32-128%
321-60-8	2-Fluorobiphenyl	79%		48-122%
1718-51-0	Terphenyl-d14	98%		48-148%

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:	MTF-311-9-10		
Lab Sample ID:	C36651-4	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	NWTPH-GX	**Percent Solids:**	83.8
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK48768.D	1	10/28/14	EA	n/a	n/a	GJK2033
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.47 g	5.0 ml	100 ul
Run #2			

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	ND	5.5	2.7	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	94%		50-150%
460-00-4	4-Bromofluorobenzene	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:	MTF-311-9-10		
Lab Sample ID:	C36651-4	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	NWTPH-DX SW846 3550B	**Percent Solids:**	83.8
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318209.D	1	10/24/14	AG	10/24/14	OP11032	GHH1387
Run #2							

	Initial Weight	Final Volume
Run #1	30.2 g	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	ND	4.0	2.0	mg/kg	
	TPH (Motor Oil)	8.59	7.9	4.0	mg/kg	

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:	MTF-311-9-10		
Lab Sample ID:	C36651-4	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
		Percent Solids:	83.8
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	16.2		%	1	10/24/14 11:15	TN	SM2540MOD G-97

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MTF-312-3-3.5		
Lab Sample ID:	C36651-5	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	SW846 8260B	**Percent Solids:**	96.6
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M50215.D	1	10/27/14	XB	n/a	n/a	VM1521
Run #2							

	Initial Weight
Run #1	5.20 g
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	66.3	5.0	0.50	ug/kg	
108-88-3	Toluene	0.94	5.0	0.50	ug/kg	J
100-41-4	Ethylbenzene	28.8	5.0	0.50	ug/kg	
1330-20-7	Xylene (total)	15.6	10	1.0	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	112%		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:	MTF-312-3-3.5		
Lab Sample ID:	C36651-5	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	SW846 8270C BY SIM SW846 3550B	**Percent Solids:**	96.6
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	X40223.D	5	10/24/14	BJ	10/23/14	OP11031	EX1720
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	8.7	86	8.6	ug/kg	J
208-96-8	Acenaphthylene	ND	86	8.6	ug/kg	
120-12-7	Anthracene	ND	86	8.6	ug/kg	
56-55-3	Benzo(a)anthracene	ND	17	4.3	ug/kg	
50-32-8	Benzo(a)pyrene	ND	17	2.9	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	17	3.4	ug/kg	
191-24-2	Benzo(g,h,i)perylene	4.4	17	3.8	ug/kg	J
207-08-9	Benzo(k)fluoranthene	ND	17	4.0	ug/kg	
218-01-9	Chrysene	6.5	17	3.4	ug/kg	J
53-70-3	Dibenzo(a,h)anthracene	ND	17	4.8	ug/kg	
206-44-0	Fluoranthene	ND	86	8.6	ug/kg	
86-73-7	Fluorene	ND	86	8.6	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	4.6	17	4.3	ug/kg	J
90-12-0	1-Methylnaphthalene	51.0	86	17	ug/kg	J
91-57-6	2-Methylnaphthalene	79.4	86	17	ug/kg	J
91-20-3	Naphthalene	27.6	86	17	ug/kg	J
85-01-8	Phenanthrene	ND	86	8.6	ug/kg	
129-00-0	Pyrene	ND	86	8.6	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	76%		32-128%
321-60-8	2-Fluorobiphenyl	80%		48-122%
1718-51-0	Terphenyl-d14	106%		48-148%

(a) Dilution required due to matrix interference (dark and viscous extract; high concentration of non-target hydrocarbons).

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:	MTF-312-3-3.5		
Lab Sample ID:	C36651-5	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	NWTPH-GX	**Percent Solids:**	96.6
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK48769.D	1	10/28/14	EA	n/a	n/a	GJK2033
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.17 g	5.0 ml	100 ul
Run #2			

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	9.83	5.0	2.5	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	101%		50-150%
460-00-4	4-Bromofluorobenzene	105%		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:	MTF-312-3-3.5		
Lab Sample ID:	C36651-5	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	NWTPH-DX SW846 3550B	**Percent Solids:**	96.6
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318210.D	1	10/24/14	AG	10/24/14	OP11032	GHH1387
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	11.3	3.4	1.7	mg/kg	
	TPH (Motor Oil)	54.8	6.9	3.4	mg/kg	

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:	MTF-312-3-3.5		
Lab Sample ID:	C36651-5	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
		Percent Solids:	96.6
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	3.4		%	1	10/24/14 11:15	TN	SM2540MOD G-97

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MTF-312-7-8		
Lab Sample ID:	C36651-6	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	SW846 8260B	**Percent Solids:**	56.6
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1 [a]	M50277.D	1	10/29/14	XB	n/a	n/a	VM1523
Run #2							

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	4.40 g	5.0 ml	10.0 ul
Run #2			

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	6450	6900	690	ug/kg	J
108-88-3	Toluene	ND	6900	690	ug/kg	
100-41-4	Ethylbenzene	3780	6900	690	ug/kg	J
1330-20-7	Xylene (total)	ND	14000	1400	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	109%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	110%		70-130%

(a) Dilution required due to high concentration of non-target hydrocarbons.

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: MTF-312-7-8
Lab Sample ID: C36651-6 **Date Sampled:** 10/21/14
Matrix: SO - Soil **Date Received:** 10/23/14
Method: SW846 8270C BY SIM SW846 3550B **Percent Solids:** 56.6
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X40262.D	50	10/27/14	BJ	10/23/14	OP11031	EX1722
Run #2							

	Initial Weight	Final Volume
Run #1	30.1 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	1500	150	ug/kg	
208-96-8	Acenaphthylene	ND	1500	150	ug/kg	
120-12-7	Anthracene	ND	1500	150	ug/kg	
56-55-3	Benzo(a)anthracene	ND	290	73	ug/kg	
50-32-8	Benzo(a)pyrene	ND	290	50	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	290	59	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	290	64	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	290	67	ug/kg	
218-01-9	Chrysene	ND	290	59	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	290	82	ug/kg	
206-44-0	Fluoranthene	ND	1500	150	ug/kg	
86-73-7	Fluorene	2100	1500	150	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	290	73	ug/kg	
90-12-0	1-Methylnaphthalene	26100	1500	290	ug/kg	
91-57-6	2-Methylnaphthalene	34900	1500	290	ug/kg	
91-20-3	Naphthalene	1760	1500	290	ug/kg	
85-01-8	Phenanthrene	267	1500	150	ug/kg	J
129-00-0	Pyrene	ND	1500	150	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	1349% [a]		32-128%
321-60-8	2-Fluorobiphenyl	86%		48-122%
1718-51-0	Terphenyl-d14	118%		48-148%

(a) Outside control limits due to dilution and matrix interference.

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

Report of Analysis

Client Sample ID:	MTF-312-7-8		
Lab Sample ID:	C36651-6	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	NWTPH-GX	**Percent Solids:**	56.6
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK48949.D	1	11/04/14	EA	n/a	n/a	GJK2048
Run #2 [a]	JK48770.D	1	10/28/14	EA	n/a	n/a	GJK2033

	Initial Weight	Final Volume	Methanol Aliquot
Run #1	5.05 g	5.0 ml	2.0 ul
Run #2	5.05 g	5.0 ml	100 ul

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	1020	440	220	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	88%	202%	50-150%
460-00-4	4-Bromofluorobenzene	529%	588%	50-150%

(a) Confirmation run for surrogate recoveries.

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:	MTF-312-7-8		
Lab Sample ID:	C36651-6	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
Method:	NWTPH-DX SW846 3550B	**Percent Solids:**	56.6
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318290.D	200	10/27/14	AG	10/24/14	OP11032	GHH1389
Run #2							

	Initial Weight	Final Volume
Run #1	30.0 g	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	5390	1200	590	mg/kg	
	TPH (Motor Oil)	ND	2400	1200	mg/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	0% [a]		50-150%

(a) Outside control limits due to dilution.

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:	MTF-312-7-8		
Lab Sample ID:	C36651-6	**Date Sampled:**	10/21/14
Matrix:	SO - Soil	**Date Received:**	10/23/14
		Percent Solids:	56.6
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Moisture, Percent	43.4		%	1	10/24/14 11:15	TN	SM2540MOD G-97

RL = Reporting Limit

Northern California ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Shell Oil Products Chain Of Custody Record

URS

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

Please Check Appropriate Box:
☐ ENV. SERVICES ☐ MOTIVA RETAIL ☑ SHELL RETAIL
☐ MOTIVA SD&CM ☐ 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: 10/22/14
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

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: C36651

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 EDD DISK

REQUESTED ANALYSIS: UNIT COST / NON-UNIT COST

FIELD NOTES:
TEMPERATURE ON RECEIPT C°: 3.5-0.1=3.4
Container PID Readings or Laboratory Notes

LAB USE ONLY	Field Sample Identification	SAMPLING DATE	SAMPLING TIME	MATRIX	HCL	HNO3	H2SO4	NONE	OTHER	NO. OF CONT.	NWTPH-Gx	NWTPH-Dx (Diesel and Oil range)	BTEX (8260B)	PAHs (8270 SIM)
1	MTF-1-3-4	10/21/14	0935	Soil						9	X	X	X	X
2	MTF-1-6-6.5	10/21/14	1000	Soil						9	X	X	X	X
3	MW-311-3-3.5	10/21/14	1045	Soil						9	X	X	X	X
4	MW-311-9-10	10/21/14	1310	Soil						9	X	X	X	X
5	MW-312-3-3.5	10/21/14	1200	Soil						9	X	X	X	X
6	MW-312-7-8	10/21/14	1435	Soil						9	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
[signature]	FEDEX	10/22/14	1330
FedEx	[signature]	10/23/14	9:45

05/2/06 Revision

C36651: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C36651 **Client:** SHELL OIL **Project:** 2555 13TH AVE.

Date / Time Received: 10/23/2014 9:45:00 AM **Delivery Method:** FedEx **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (3.5/3.4);

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:	IR2;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

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

C36651: Chain of Custody
Page 2 of 2

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: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1521-MB	M50200.D	1	10/27/14	XB	n/a	n/a	VM1521

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

C36651-1, C36651-2, C36651-3, C36651-4, C36651-5

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	5.0	0.50	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	0.50	ug/kg	
108-88-3	Toluene	ND	5.0	0.50	ug/kg	
1330-20-7	Xylene (total)	ND	10	1.0	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	70-130%
2037-26-5	Toluene-D8	105%	70-130%
460-00-4	4-Bromofluorobenzene	106%	70-130%

Method Blank Summary

Job Number: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1523-MB	M50261.D	1	10/29/14	XB	n/a	n/a	VM1523

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

C36651-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	5.0	0.50	ug/kg	
100-41-4	Ethylbenzene	ND	5.0	0.50	ug/kg	
108-88-3	Toluene	ND	5.0	0.50	ug/kg	
1330-20-7	Xylene (total)	ND	10	1.0	ug/kg	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	70-130%
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	105%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1521-BS	M50198.D	1	10/27/14	XB	n/a	n/a	VM1521
VM1521-BSD	M50199.D	1	10/27/14	XB	n/a	n/a	VM1521

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

C36651-1, C36651-2, C36651-3, C36651-4, C36651-5

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	40	39.6	99	38.9	97	2	81-119/20
100-41-4	Ethylbenzene	40	39.6	99	39.3	98	1	80-119/21
108-88-3	Toluene	40	39.0	98	38.5	96	1	80-117/21
1330-20-7	Xylene (total)	120	118	98	118	98	0	81-122/22

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	105%	105%	70-130%
2037-26-5	Toluene-D8	101%	102%	70-130%
460-00-4	4-Bromofluorobenzene	104%	105%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1523-BS	M50258.D	1	10/29/14	XB	n/a	n/a	VM1523
VM1523-BSD	M50259.D	1	10/29/14	XB	n/a	n/a	VM1523

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

C36651-6

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	40	41.4	104	41.2	103	0	81-119/20
100-41-4	Ethylbenzene	40	40.6	102	41.3	103	2	80-119/21
108-88-3	Toluene	40	40.6	102	40.6	102	0	80-117/21
1330-20-7	Xylene (total)	120	126	105	126	105	0	81-122/22

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	104%	102%	70-130%
2037-26-5	Toluene-D8	101%	102%	70-130%
460-00-4	4-Bromofluorobenzene	103%	105%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VM1523-LCS	M50260.D	1	10/29/14	XB	n/a	n/a	VM1523

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

C36651-6

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

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	104%	70-130%
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	106%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36684-1MS	M50209.D	1	10/27/14	XB	n/a	n/a	VM1521
C36684-1MSD	M50210.D	1	10/27/14	XB	n/a	n/a	VM1521
C36684-1	M50201.D	1	10/27/14	XB	n/a	n/a	VM1521

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

C36651-1, C36651-2, C36651-3, C36651-4, C36651-5

CAS No.	Compound	C36684-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		40	40.5	101	39.4	38.8	98	4	81-119/20
100-41-4	Ethylbenzene	ND		40	40.6	102	39.4	39.0	99	4	80-119/21
108-88-3	Toluene	ND		40	39.4	99	39.4	38.1	97	3	80-117/21
1330-20-7	Xylene (total)	ND		120	123	103	118	117	99	5	81-122/22

CAS No.	Surrogate Recoveries	MS	MSD	C36684-1	Limits
1868-53-7	Dibromofluoromethane	95%	94%	74%	70-130%
2037-26-5	Toluene-D8	103%	104%	105%	70-130%
460-00-4	4-Bromofluorobenzene	108%	108%	105%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36752-1MS	M50278.D	1	10/29/14	XB	n/a	n/a	VM1523
C36752-1MSD	M50279.D	1	10/29/14	XB	n/a	n/a	VM1523
C36752-1	M50276.D	1	10/29/14	XB	n/a	n/a	VM1523

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

C36651-6

CAS No.	Compound	C36752-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	4.9	U	39.3	35.9	91	40	36.3	91	1	81-119/20
100-41-4	Ethylbenzene	4.9	U	39.3	34.2	87	40	33.7	84	1	80-119/21
108-88-3	Toluene	4.9	U	39.3	34.6	88	40	34.9	87	1	80-117/21
1330-20-7	Xylene (total)	9.9	U	118	104	88	120	102	85	2	81-122/22

CAS No.	Surrogate Recoveries	MS	MSD	C36752-1	Limits
1868-53-7	Dibromofluoromethane	104%	105%	108%	70-130%
2037-26-5	Toluene-D8	102%	104%	105%	70-130%
460-00-4	4-Bromofluorobenzene	105%	101%	101%	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: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11031-MB	X40197.D	1	10/24/14	BJ	10/23/14	OP11031	EX1719

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

C36651-1, C36651-2, C36651-3, C36651-4, C36651-5, C36651-6

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	ND	17	1.7	ug/kg	
208-96-8	Acenaphthylene	ND	17	1.7	ug/kg	
120-12-7	Anthracene	ND	17	1.7	ug/kg	
56-55-3	Benzo(a)anthracene	ND	3.3	0.83	ug/kg	
50-32-8	Benzo(a)pyrene	ND	3.3	0.57	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	3.3	0.67	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	3.3	0.73	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	3.3	0.77	ug/kg	
218-01-9	Chrysene	ND	3.3	0.67	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	3.3	0.93	ug/kg	
206-44-0	Fluoranthene	ND	17	1.7	ug/kg	
86-73-7	Fluorene	ND	17	1.7	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	3.3	0.83	ug/kg	
90-12-0	1-Methylnaphthalene	ND	17	3.3	ug/kg	
91-57-6	2-Methylnaphthalene	ND	17	3.3	ug/kg	
91-20-3	Naphthalene	ND	17	3.3	ug/kg	
85-01-8	Phenanthrene	ND	17	1.7	ug/kg	
129-00-0	Pyrene	ND	17	1.7	ug/kg	

CAS No.	Surrogate Recoveries		Limits
4165-60-0	Nitrobenzene-d5	75%	32-128%
321-60-8	2-Fluorobiphenyl	76%	48-122%
1718-51-0	Terphenyl-d14	91%	48-148%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11031-BS	X40198.D	1	10/24/14	BJ	10/23/14	OP11031	EX1719
OP11031-BSD	X40199.D	1	10/24/14	BJ	10/23/14	OP11031	EX1719

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

C36651-1, C36651-2, C36651-3, C36651-4, C36651-5, C36651-6

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	167	124	74	122	73	2	67-106/9
208-96-8	Acenaphthylene	167	123	74	120	72	2	67-104/9
120-12-7	Anthracene	167	128	77	122	73	5	66-107/11
56-55-3	Benzo(a)anthracene	167	130	78	130	78	0	72-115/9
50-32-8	Benzo(a)pyrene	167	126	76	120	72	5	64-107/10
205-99-2	Benzo(b)fluoranthene	167	140	84	136	82	3	69-127/15
191-24-2	Benzo(g,h,i)perylene	167	126	76	144	86	13	63-125/14
207-08-9	Benzo(k)fluoranthene	167	149	89	139	83	7	73-127/14
218-01-9	Chrysene	167	138	83	135	81	2	72-119/8
53-70-3	Dibenzo(a,h)anthracene	167	124	74	144	86	15	65-128/16
206-44-0	Fluoranthene	167	140	84	138	83	1	74-119/11
86-73-7	Fluorene	167	130	78	128	77	2	71-111/10
193-39-5	Indeno(1,2,3-cd)pyrene	167	129	77	149	89	14	59-128/18
90-12-0	1-Methylnaphthalene	167	115	69	112	67	3	63-103/12
91-57-6	2-Methylnaphthalene	167	120	72	117	70	3	64-106/12
91-20-3	Naphthalene	167	114	68	111	67	3	62-99/10
85-01-8	Phenanthrene	167	127	76	124	74	2	68-111/14
129-00-0	Pyrene	167	125	75	122	73	2	62-122/15

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	79%	77%	32-128%
321-60-8	2-Fluorobiphenyl	82%	79%	48-122%
1718-51-0	Terphenyl-d14	88%	86%	48-148%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11031-MS	X40215.D	1	10/24/14	BJ	10/23/14	OP11031	EX1720
OP11031-MSD	X40216.D	1	10/24/14	BJ	10/23/14	OP11031	EX1720
C36662-1	X40206.D	1	10/24/14	BJ	10/23/14	OP11031	EX1720

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

C36651-1, C36651-2, C36651-3, C36651-4, C36651-5, C36651-6

CAS No.	Compound	C36662-1 ug/kg	Q	Spike ug/kg	MS ug/kg	MS %	Spike ug/kg	MSD ug/kg	MSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	18	U	183	132	72	183	121	66* [a]	9	67-106/9
208-96-8	Acenaphthylene	18	U	183	132	72	183	119	65* [a]	10* [b]	67-104/9
120-12-7	Anthracene	18	U	183	136	74	183	121	66	12* [b]	66-107/11
56-55-3	Benzo(a)anthracene	3.7	U	183	139	76	183	127	69* [a]	9	72-115/9
50-32-8	Benzo(a)pyrene	3.7	U	183	129	71	183	116	63* [a]	11* [b]	64-107/10
205-99-2	Benzo(b)fluoranthene	3.7	U	183	153	84	183	133	73	14	69-127/15
191-24-2	Benzo(g,h,i)perylene	3.7	U	183	131	72	183	130	71	1	63-125/14
207-08-9	Benzo(k)fluoranthene	3.7	U	183	145	79	183	135	74	7	73-127/14
218-01-9	Chrysene	3.7	U	183	142	78	183	130	71* [a]	9* [b]	72-119/8
53-70-3	Dibenzo(a,h)anthracene	3.7	U	183	131	72	183	131	72	0	65-128/16
206-44-0	Fluoranthene	18	U	183	148	81	183	132	72* [a]	11	74-119/11
86-73-7	Fluorene	18	U	183	139	76	183	127	69* [a]	9	71-111/10
193-39-5	Indeno(1,2,3-cd)pyrene	3.7	U	183	136	74	183	133	73	2	59-128/18
90-12-0	1-Methylnaphthalene	18	U	183	121	66	183	118	65	3	63-103/12
91-57-6	2-Methylnaphthalene	18	U	183	127	69	183	127	69	0	64-106/12
91-20-3	Naphthalene	18	U	183	120	66	183	111	61* [a]	8	62-99/10
85-01-8	Phenanthrene	18	U	183	135	74	183	123	67* [a]	9	68-111/14
129-00-0	Pyrene	18	U	183	141	77	183	135	74	4	62-122/15

CAS No.	Surrogate Recoveries	MS	MSD	C36662-1	Limits
4165-60-0	Nitrobenzene-d5	78%	70%	76%	32-128%
321-60-8	2-Fluorobiphenyl	78%	72%	78%	48-122%
1718-51-0	Terphenyl-d14	90%	88%	89%	48-148%

(a) Outside laboratory control limits. AZ:M2
(b) Outside laboratory control limits. AZ:R9

* = 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: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2033-MB	JK48757.D	1	10/28/14	EA	n/a	n/a	GJK2033

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

C36651-1, C36651-2, C36651-3, C36651-4, C36651-5

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	ND	5.0	2.5	mg/kg	

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

Method Blank Summary

Job Number: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2048-MB [a]	JK48946.D	1	11/04/14	EA	n/a	n/a	GJK2048

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

C36651-6

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	ND	5.0	2.5	mg/kg	

CAS No.	Surrogate Recoveries		Limits
98-08-8	aaa-Trifluorotoluene	101%	50-150%
460-00-4	4-Bromofluorobenzene	98%	50-150%

(a) Insufficient sample for MS/MSD.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2033-BS	JK48758.D	1	10/28/14	EA	n/a	n/a	GJK2033
GJK2033-BSD	JK48759.D	1	10/28/14	EA	n/a	n/a	GJK2033

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

C36651-1, C36651-2, C36651-3, C36651-4, C36651-5

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	BSD mg/kg	BSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	20	16.4	82	15.3	77	7	64-129/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
98-08-8	aaa-Trifluorotoluene	102%	93%	50-150%
460-00-4	4-Bromofluorobenzene	92%	90%	50-150%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2048-BS	JK48947.D	1	11/04/14	EA	n/a	n/a	GJK2048
GJK2048-BSD	JK48948.D	1	11/04/14	EA	n/a	n/a	GJK2048

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

C36651-6

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	BSD mg/kg	BSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	20	17.0	85	16.7	84	2	64-129/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
98-08-8	aaa-Trifluorotoluene	105%	101%	50-150%
460-00-4	4-Bromofluorobenzene	100%	98%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36652-1MS	JK48762.D	1	10/28/14	EA	n/a	n/a	GJK2033
C36652-1MSD	JK48763.D	1	10/28/14	EA	n/a	n/a	GJK2033
C36652-1	JK48760.D	1	10/28/14	EA	n/a	n/a	GJK2033

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

C36651-1, C36651-2, C36651-3, C36651-4, C36651-5

CAS No.	Compound	C36652-1 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	9.81		21.8	21.2	52* [a]	21.8	20.8	50* [a]	2	64-129/16

CAS No.	Surrogate Recoveries	MS	MSD	C36652-1	Limits
98-08-8	aaa-Trifluorotoluene	109%	108%	107%	50-150%
460-00-4	4-Bromofluorobenzene	105%	107%	101%	50-150%

(a) Outside control limits due to matrix interference.

* = Outside of Control Limits.

Duplicate Summary

Job Number: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36652-1DUP	JK48761.D	1	10/28/14	EA	n/a	n/a	GJK2033
C36652-1	JK48760.D	1	10/28/14	EA	n/a	n/a	GJK2033

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

C36651-1, C36651-2, C36651-3, C36651-4, C36651-5

CAS No.	Compound	C36652-1 mg/kg	Q	DUP mg/kg	Q	RPD	Limits
	TPH (Gasoline)	9.81		10.9		11	16

CAS No.	Surrogate Recoveries	DUP	C36652-1	Limits
98-08-8	aaa-Trifluorotoluene	102%	107%	50-150%
460-00-4	4-Bromofluorobenzene	102%	101%	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: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11032-MB	HH318293.D	1	10/27/14	AG	10/24/14	OP11032	GHH1389

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

C36651-1, C36651-2, C36651-3, C36651-4, C36651-5, C36651-6

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	ND	3.3	1.7	mg/kg	
	TPH (Motor Oil)	ND	6.7	3.3	mg/kg	

CAS No.	Surrogate Recoveries		Limits
630-01-3	Hexacosane	72%	50-150%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11032-BS	HH318217.D	1	10/24/14	AG	10/24/14	OP11032	GHH1387
OP11032-BSD	HH318218.D	1	10/24/14	AG	10/24/14	OP11032	GHH1387

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

C36651-1, C36651-2, C36651-3, C36651-4, C36651-5, C36651-6

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	BSD mg/kg	BSD %	RPD	Limits Rec/RPD
	TPH (Diesel)	33.3	23.2	70	21.5	65	8	49-105/30
	TPH (Motor Oil)	33.3	29.0	87	26.9	81	8	66-112/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	94%	91%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11032-MS	HH318291.D	200	10/27/14	AG	10/24/14	OP11032	GHH1389
OP11032-MSD	HH318292.D	200	10/27/14	AG	10/24/14	OP11032	GHH1389
C36651-6	HH318290.D	200	10/27/14	AG	10/24/14	OP11032	GHH1389

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

C36651-1, C36651-2, C36651-3, C36651-4, C36651-5, C36651-6

CAS No.	Compound	C36651-6 mg/kg	Q	Spike mg/kg	MS mg/kg	MS %	Spike mg/kg	MSD mg/kg	MSD %	RPD	Limits Rec/RPD
	TPH (Diesel)	5390		58.9	6460	1817* [a]	58.9	5780	662* [a]	11	49-105/28
	TPH (Motor Oil)	ND		58.9	ND	0*	58.9	ND	0*	nc	66-112/32

CAS No.	Surrogate Recoveries	MS	MSD	C36651-6	Limits
630-01-3	Hexacosane	0%* [b]	0%* [b]	0%* [b]	50-150%

(a) Outside control limits due to high level in sample relative to spike amount.
(b) Outside control limits due to dilution.

* = Outside of Control Limits.

Duplicate Summary

Job Number: C36651
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11032-DUP	HH318213.D	20	10/24/14	AG	10/24/14	OP11032	GHH1387
C36652-1	HH318212.D	20	10/24/14	AG	10/24/14	OP11032	GHH1387

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

C36651-1, C36651-2, C36651-3, C36651-4, C36651-5, C36651-6

CAS No.	Compound	C36652-1 mg/kg	Q	DUP mg/kg	Q	RPD	Limits
	TPH (Diesel)	57.9	J	61.1	J	5	28
	TPH (Motor Oil)	957		813		16	32

CAS No.	Surrogate Recoveries	DUP	C36652-1	Limits
630-01-3	Hexacosane	83%	72%	50-150%

* = Outside of Control Limits.

Northern California ACCUTEST LABORATORIES

11/06/14

Technical Report for

Shell Oil Company

URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

49241036

Accutest Job Number: C36653

Sampling Date: 10/21/14

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: **28**

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: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925) DoD ELAP (L-A-B L2242)

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Sample Summary

Shell Oil Company

Job No: C36653

URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Project No: 49241036

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
C36653-1	10/21/14	11:50	BW	10/23/14	AQ	Ground Water	MTF-1

Summary of Hits

Job Number: C36653
Account: Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 10/21/14

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C36653-1	**MTF-1**					
Acenaphthene		0.36 J	0.48	0.048	ug/l	SW846 8270C BY SIM
Fluorene		0.068 J	0.48	0.048	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		0.496	0.10	0.050	mg/l	NWTPH-GX

Northern California ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MTF-1		
Lab Sample ID:	C36653-1	**Date Sampled:**	10/21/14
Matrix:	AQ - Ground Water	**Date Received:**	10/23/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V21631.D	1	10/28/14	BQ	n/a	n/a	VV855
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	98%		70-130%
2037-26-5	Toluene-D8	105%		70-130%
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: MTF-1
Lab Sample ID: C36653-1 **Date Sampled:** 10/21/14
Matrix: AQ - Ground Water **Date Received:** 10/23/14
Method: SW846 8270C BY SIM SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	X40231.D	1	10/25/14	BJ	10/23/14	OP11030	EX1720
Run #2							

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

BN PAH List

CAS No.	Compound	Result	RL	MDL	Units	Q
83-32-9	Acenaphthene	0.36	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	0.068	0.48	0.048	ug/l	J
193-39-5	Indeno(1,2,3-cd)pyrene	ND	0.095	0.033	ug/l	
90-12-0	1-Methylnaphthalene	ND	0.48	0.095	ug/l	
91-57-6	2-Methylnaphthalene	ND	0.48	0.095	ug/l	
91-20-3	Naphthalene	ND	0.48	0.095	ug/l	
85-01-8	Phenanthrene	ND	0.48	0.048	ug/l	
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	81%		42-116%
321-60-8	2-Fluorobiphenyl	79%		44-115%
1718-51-0	Terphenyl-d14	96%		45-141%

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

Report of Analysis

Client Sample ID:	MTF-1		
Lab Sample ID:	C36653-1	**Date Sampled:**	10/21/14
Matrix:	AQ - Ground Water	**Date Received:**	10/23/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK48885.D	1	11/01/14	EA	n/a	n/a	GJK2043
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	0.496	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	111%		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:	MTF-1		
Lab Sample ID:	C36653-1	**Date Sampled:**	10/21/14
Matrix:	AQ - Ground Water	**Date Received:**	10/23/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318286.D	1	10/27/14	AG	10/27/14	OP11048	GHH1389
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)	ND	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	60%		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

Shell Oil Products Chain Of Custody Record

URS

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

Please Check Appropriate Box:
☐ ENV. SERVICES ☐ MOTIVA RETAIL ☑ SHELL RETAIL
☐ MOTIVA SD&CH ☐ 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: 10/22/14
PAGE: 1 of 1

PO #
SAP # 1 2 1 4 1 5

SAMPLING COMPANY: URS Corporation
LOG CODE:
SITE ADDRESS: Street and City: 2555 13th Avenue SW, Seattle
State: WA
GLOBAL ID NO.:
ADDRESS: 111 Southwest Columbia Street, Suite 1500, Portland, Oregon 97201
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
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
SAMPLER NAME(S) (Print): Bret Waldron
LAB USE ONLY: C36653

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 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-Dx	NWTPH-Dx (Diesel and Oil range)	BTEX	PAHs (8270 SIM)	NON-UNIT COST	FIELD NOTES: Container PID Readings or Laboratory Notes
1	MTF-1	10/21/14	1150	W	X					10	X	X	X	X		

TEMPERATURE ON RECEIPT C°: 3.5-0.1=3.4

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
Mar Jordan	FED EX	10/22	1330
FedEx	Mike Mansfield	10/23/14	9:45

05/2/06 Revision

Temp 3.0-0.1=2.9

C36653: Chain of Custody
Page 1 of 2

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C36653 **Client:** SHELL OIL **Project:** 2555 13TH AVE.

Date / Time Received: 10/23/2014 9:45:00 AM **Delivery Method:** FedEx **Airbill #'s:**

Cooler Temps (Initial/Adjusted): #1: (3.5/3.4);

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:	IR2;		
3. Cooler media:	Ice (Bag)		
4. No. Coolers:	1		

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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C36653: Chain of Custody
Page 2 of 2

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: C36653
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV855-MB	V21614.D	1	10/28/14	BQ	n/a	n/a	VV855

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

C36653-1

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	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	96%	70-130%
2037-26-5	Toluene-D8	105%	70-130%
460-00-4	4-Bromofluorobenzene	105%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36653
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV855-BS	V21611.D	1	10/28/14	BQ	n/a	n/a	VV855
VV855-BSD	V21612.D	1	10/28/14	BQ	n/a	n/a	VV855

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

C36653-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	17.5	88	17.1	86	2	77-122/25
100-41-4	Ethylbenzene	20	19.1	96	18.7	94	2	76-126/17
108-88-3	Toluene	20	18.8	94	18.4	92	2	75-122/17
1330-20-7	Xylene (total)	60	59.8	100	58.4	97	2	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	97%	98%	70-130%
2037-26-5	Toluene-D8	104%	104%	70-130%
460-00-4	4-Bromofluorobenzene	103%	105%	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: C36653
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11030-MB	X40200.D	1	10/24/14	BJ	10/23/14	OP11030	EX1719

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

C36653-1

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	77%	42-116%
321-60-8	2-Fluorobiphenyl	75%	44-115%
1718-51-0	Terphenyl-d14	91%	45-141%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36653
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11030-BS	X40201.D	1	10/24/14	BJ	10/23/14	OP11030	EX1719
OP11030-BSD	X40202.D	1	10/24/14	BJ	10/23/14	OP11030	EX1719

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

C36653-1

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	5	3.4	68	3.3	66	3	54-108/21
208-96-8	Acenaphthylene	5	3.4	68	3.3	66	3	53-108/22
120-12-7	Anthracene	5	3.7	74	3.7	74	0	58-111/19
56-55-3	Benzo(a)anthracene	5	3.8	76	3.7	74	3	59-120/14
50-32-8	Benzo(a)pyrene	5	3.7	74	3.6	72	3	53-113/18
205-99-2	Benzo(b)fluoranthene	5	4.1	82	3.9	78	5	57-127/18
191-24-2	Benzo(g,h,i)perylene	5	4.1	82	3.7	74	10	52-126/21
207-08-9	Benzo(k)fluoranthene	5	3.9	78	3.9	78	0	60-125/16
218-01-9	Chrysene	5	3.9	78	3.9	78	0	63-120/14
53-70-3	Dibenzo(a,h)anthracene	5	4.0	80	3.7	74	8	53-127/22
206-44-0	Fluoranthene	5	4.0	80	3.9	78	3	59-123/17
86-73-7	Fluorene	5	3.6	72	3.5	70	3	57-113/21
193-39-5	Indeno(1,2,3-cd)pyrene	5	4.1	82	3.8	76	8	48-130/22
90-12-0	1-Methylnaphthalene	5	3.1	62	3.1	62	0	51-104/24
91-57-6	2-Methylnaphthalene	5	3.3	66	3.2	64	3	52-108/25
91-20-3	Naphthalene	5	3.1	62	3.1	62	0	51-102/23
85-01-8	Phenanthrene	5	3.6	72	3.5	70	3	58-112/18
129-00-0	Pyrene	5	3.7	74	3.6	72	3	52-124/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	74%	76%	42-116%
321-60-8	2-Fluorobiphenyl	76%	74%	44-115%
1718-51-0	Terphenyl-d14	88%	84%	45-141%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36653
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11030-MS	X40267.D	1	10/27/14	BJ	10/23/14	OP11030	EX1722
OP11030-MSD	X40268.D	1	10/27/14	BJ	10/23/14	OP11030	EX1722
C36664-8	X40263.D	1	10/27/14	BJ	10/23/14	OP11030	EX1722

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

C36653-1

CAS No.	Compound	C36664-8 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	0.48	U	9.62	6.2	64	9.62	6.1	63	2	54-108/21
208-96-8	Acenaphthylene	0.48	U	9.62	6.4	67	9.62	6.2	64	3	53-108/22
120-12-7	Anthracene	0.48	U	9.62	6.7	70	9.62	6.6	69	2	58-111/19
56-55-3	Benzo(a)anthracene	0.095	U	9.62	6.9	72	9.62	6.9	72	0	59-120/14
50-32-8	Benzo(a)pyrene	0.095	U	9.62	6.7	70	9.62	6.8	71	1	53-113/18
205-99-2	Benzo(b)fluoranthene	0.095	U	9.62	6.4	67	9.62	6.6	69	3	57-127/18
191-24-2	Benzo(g,h,i)perylene	0.095	U	9.62	6.3	66	9.62	6.4	67	2	52-126/21
207-08-9	Benzo(k)fluoranthene	0.095	U	9.62	7.0	73	9.62	7.0	73	0	60-125/16
218-01-9	Chrysene	0.095	U	9.62	6.8	71	9.62	6.8	71	0	63-120/14
53-70-3	Dibenzo(a,h)anthracene	0.095	U	9.62	7.3	76	9.62	7.5	78	3	53-127/22
206-44-0	Fluoranthene	0.48	U	9.62	6.7	70	9.62	6.7	70	0	59-123/17
86-73-7	Fluorene	0.48	U	9.62	6.6	69	9.62	6.5	68	2	57-113/21
193-39-5	Indeno(1,2,3-cd)pyrene	0.095	U	9.62	7.0	73	9.62	7.0	73	0	48-130/22
90-12-0	1-Methylnaphthalene	0.48	U	9.62	5.9	61	9.62	6.0	62	2	51-104/24
91-57-6	2-Methylnaphthalene	0.48	U	9.62	6.1	63	9.62	6.1	63	0	52-108/25
91-20-3	Naphthalene	0.48	U	9.62	5.8	60	9.62	5.8	60	0	51-102/23
85-01-8	Phenanthrene	0.48	U	9.62	6.4	67	9.62	6.3	66	2	58-112/18
129-00-0	Pyrene	0.48	U	9.62	7.0	73	9.62	7.1	74	1	52-124/20

CAS No.	Surrogate Recoveries	MS	MSD	C36664-8	Limits
4165-60-0	Nitrobenzene-d5	82%	79%	80%	42-116%
321-60-8	2-Fluorobiphenyl	78%	74%	72%	44-115%
1718-51-0	Terphenyl-d14	88%	87%	82%	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: C36653
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2043-MB	JK48881.D	1	11/01/14	EA	n/a	n/a	GJK2043

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

C36653-1

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	108%	50-150%
460-00-4	4-Bromofluorobenzene	109%	50-150%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36653
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2043-BS	JK48882.D	1	11/01/14	EA	n/a	n/a	GJK2043
GJK2043-BSD	JK48883.D	1	11/01/14	EA	n/a	n/a	GJK2043

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

C36653-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	0.4	0.369	92	0.368	92	0	69-127/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
98-08-8	aaa-Trifluorotoluene	91%	91%	50-150%
460-00-4	4-Bromofluorobenzene	104%	103%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36653
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36653-1MS	JK48887.D	1	11/01/14	EA	n/a	n/a	GJK2043
C36653-1MSD	JK48888.D	1	11/01/14	EA	n/a	n/a	GJK2043
C36653-1	JK48885.D	1	11/01/14	EA	n/a	n/a	GJK2043

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

C36653-1

CAS No.	Compound	C36653-1 mg/l	Q	Spike mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	0.496		0.4	0.934	110	0.4	0.938	111	0	69-127/13

CAS No.	Surrogate Recoveries	MS	MSD	C36653-1	Limits
98-08-8	aaa-Trifluorotoluene	106%	108%	111%	50-150%
460-00-4	4-Bromofluorobenzene	111%	112%	113%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C36653
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36653-1DUP	JK48886.D	1	11/01/14	EA	n/a	n/a	GJK2043
C36653-1	JK48885.D	1	11/01/14	EA	n/a	n/a	GJK2043

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

C36653-1

CAS No.	Compound	C36653-1 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Gasoline)	0.496		0.523		5	13

CAS No.	Surrogate Recoveries	DUP	C36653-1	Limits
98-08-8	aaa-Trifluorotoluene	109%	111%	50-150%
460-00-4	4-Bromofluorobenzene	112%	113%	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: C36653
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11048-MB	HH318294.D	1	10/27/14	AG	10/27/14	OP11048	GHH1389

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

C36653-1

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	74%	50-150%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36653
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11048-BS	HH318288.D	1	10/27/14	AG	10/27/14	OP11048	GHH1389
OP11048-BSD	HH318289.D	1	10/27/14	AG	10/27/14	OP11048	GHH1389

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

C36653-1

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Diesel)	1	0.505	51	0.450	45	12	37-112/30
	TPH (Motor Oil)	1	0.562	56	0.524	52	7	49-120/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	66%	66%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C36653
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11048-DUP	HH318287.D	1	10/27/14	AG	10/27/14	OP11048	GHH1389
C36653-1	HH318286.D	1	10/27/14	AG	10/27/14	OP11048	GHH1389

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

C36653-1

CAS No.	Compound	C36653-1 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Diesel)	ND		ND		nc	31
	TPH (Motor Oil)	ND		ND		nc	33

CAS No.	Surrogate Recoveries	DUP	C36653-1	Limits
630-01-3	Hexacosane	60%	60%	50-150%

* = Outside of Control Limits.

8.3.1

8

Northern California ACCUTEST LABORATORIES

11/19/14

Technical Report for

Shell Oil Company

URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

49241036

Accutest Job Number: C36939

Sampling Dates: 11/03/14 - 11/04/14

Report to:

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ATTN: Brian Pletcher

Total number of pages in report: **107**

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: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925) DoD ELAP (L-A-B L2242)

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Sample Summary

Shell Oil Company

Job No: C36939

URSORP:INC#97995801 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
C36939-1	11/03/14	14:05	BW	11/05/14	AQ	Ground Water	MW-309
C36939-2	11/03/14	14:10	BW	11/05/14	AQ	Ground Water	MW-304
C36939-2F	11/03/14	14:10	BW	11/05/14	AQ	Groundwater Filtered	MW-304
C36939-3	11/03/14	15:30	BW	11/05/14	AQ	Ground Water	MW-301
C36939-4	11/03/14	15:38	BW	11/05/14	AQ	Ground Water	MW-302
C36939-4F	11/03/14	15:38	BW	11/05/14	AQ	Groundwater Filtered	MW-302
C36939-5	11/04/14	09:10	BW	11/05/14	AQ	Ground Water	TES-MW-1
C36939-6	11/04/14	10:40	BW	11/05/14	AQ	Ground Water	MW-308
C36939-7	11/04/14	11:50	BW	11/05/14	AQ	Ground Water	MW-102
C36939-8	11/04/14	12:05	BW	11/05/14	AQ	Ground Water	MW-307
C36939-8F	11/04/14	12:05	BW	11/05/14	AQ	Groundwater Filtered	MW-307
C36939-9	11/04/14	13:40	BW	11/05/14	AQ	Ground Water	MW-101
C36939-10	11/04/14	13:42	BW	11/05/14	AQ	Ground Water	TX-03A

Sample Summary
(continued)

Shell Oil Company

Job No: C36939

URSORP:INC#97995801 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
C36939-10F	11/04/14	13:42	BW	11/05/14	AQ	Groundwater Filtered	TX-03A
C36939-11	11/04/14	15:08	BW	11/05/14	AQ	Ground Water	MW-303
C36939-12	11/04/14	15:25	BW	11/05/14	AQ	Ground Water	MW-310
C36939-12F	11/04/14	15:25	BW	11/05/14	AQ	Groundwater Filtered	MW-310
C36939-13	11/04/14	00:00	BW	11/05/14	AQ	Trip Blank Water	TRIP BLANK

Summary of Hits

Job Number: C36939
Account: Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 11/03/14 thru 11/04/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C36939-1	**MW-309**					
No hits reported in this sample.						
C36939-2	**MW-304**					
Benzene		1110	25	5.0	ug/l	SW846 8260B
Toluene		42.1	25	5.0	ug/l	SW846 8260B
Ethylbenzene		480	25	5.0	ug/l	SW846 8260B
Xylene (total)		214	50	12	ug/l	SW846 8260B
TPH (Gasoline)		3.32	1.0	0.50	mg/l	NWTPH-GX
TPH (Diesel)		0.366	0.094	0.047	mg/l	NWTPH-DX
Calcium		16800	5000		ug/l	SW846 6010B
Iron		35900	200		ug/l	SW846 6010B
Magnesium		11200	5000		ug/l	SW846 6010B
Alkalinity, Total as CaCO3		125	5.0		mg/l	SM2320 B-97
Hardness, Total as CaCO3 [a]		88.1	33		mg/l	SW846 6010B/SM 2340B
Sulfate		0.51	0.50		mg/l	EPA 300/SW846 9056A
C36939-2F	**MW-304**					
Iron		3600	200		ug/l	SW846 6010B
Manganese		297	15		ug/l	SW846 6010B
C36939-3	**MW-301**					
Benzene		108	5.0	1.0	ug/l	SW846 8260B
Toluene		4.3 J	5.0	1.0	ug/l	SW846 8260B
Ethylbenzene		4.6 J	5.0	1.0	ug/l	SW846 8260B
Xylene (total)		5.1 J	10	2.3	ug/l	SW846 8260B
TPH (Gasoline)		1.76	1.0	0.50	mg/l	NWTPH-GX
C36939-4	**MW-302**					
Benzene		506	10	2.0	ug/l	SW846 8260B
Toluene		15.9	10	2.0	ug/l	SW846 8260B
Ethylbenzene		221	10	2.0	ug/l	SW846 8260B
Xylene (total)		176	20	4.6	ug/l	SW846 8260B
TPH (Gasoline)		4.06	0.50	0.25	mg/l	NWTPH-GX
TPH (Diesel)		0.361	0.094	0.047	mg/l	NWTPH-DX
Calcium		23400	5000		ug/l	SW846 6010B
Iron		26900	200		ug/l	SW846 6010B
Magnesium		10900	5000		ug/l	SW846 6010B
Alkalinity, Total as CaCO3		148	5.0		mg/l	SM2320 B-97
Hardness, Total as CaCO3 [a]		103	33		mg/l	SW846 6010B/SM 2340B

Summary of Hits

Job Number: C36939
Account: Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 11/03/14 thru 11/04/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C36939-4F	**MW-302**					
Iron		765	200		ug/l	SW846 6010B
Manganese		493	15		ug/l	SW846 6010B
C36939-5	**TES-MW-1**					
No hits reported in this sample.						
C36939-6	**MW-308**					
Benzene		132	2.0	0.40	ug/l	SW846 8260B
Toluene		1.2	1.0	0.20	ug/l	SW846 8260B
Ethylbenzene		4.4	1.0	0.20	ug/l	SW846 8260B
Xylene (total)		0.58 J	2.0	0.46	ug/l	SW846 8260B
TPH (Gasoline)		0.782	0.20	0.10	mg/l	NWTPH-GX
C36939-7	**MW-102**					
TPH (Diesel)		0.0568 J	0.094	0.047	mg/l	NWTPH-DX
C36939-8	**MW-307**					
Benzene		596	10	2.0	ug/l	SW846 8260B
Toluene		39.0	10	2.0	ug/l	SW846 8260B
Ethylbenzene		176	10	2.0	ug/l	SW846 8260B
Xylene (total)		95.0	20	4.6	ug/l	SW846 8260B
TPH (Gasoline)		5.16	2.5	1.3	mg/l	NWTPH-GX
TPH (Diesel)		0.632	0.095	0.048	mg/l	NWTPH-DX
Calcium		19100	5000		ug/l	SW846 6010B
Iron		44100	200		ug/l	SW846 6010B
Magnesium		7410	5000		ug/l	SW846 6010B
Alkalinity, Total as CaCO3		104	5.0		mg/l	SM2320 B-97
Hardness, Total as CaCO3 [a]		78.2	33		mg/l	SW846 6010B/SM 2340B
C36939-8F	**MW-307**					
Iron		18200	200		ug/l	SW846 6010B
Manganese		513	15		ug/l	SW846 6010B
C36939-9	**MW-101**					
No hits reported in this sample.						

Summary of Hits

Job Number: C36939
Account: Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 11/03/14 thru 11/04/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C36939-10	**TX-03A**					
Benzene		941	25	5.0	ug/l	SW846 8260B
Toluene		13.7 J	25	5.0	ug/l	SW846 8260B
Ethylbenzene		36.6	25	5.0	ug/l	SW846 8260B
Xylene (total)		26.9 J	50	12	ug/l	SW846 8260B
TPH (Gasoline)		5.76	2.0	1.0	mg/l	NWTPH-GX
TPH (Diesel)		0.448	0.094	0.047	mg/l	NWTPH-DX
Calcium		25300	5000		ug/l	SW846 6010B
Iron		39400	200		ug/l	SW846 6010B
Magnesium		16600	5000		ug/l	SW846 6010B
Alkalinity, Total as CaCO3		170	5.0		mg/l	SM2320 B-97
Hardness, Total as CaCO3 [a]		132	33		mg/l	SW846 6010B/SM 2340B
C36939-10F	**TX-03A**					
Iron		6180	200		ug/l	SW846 6010B
Manganese		523	15		ug/l	SW846 6010B
C36939-11	**MW-303**					
Benzene		1420	20	4.0	ug/l	SW846 8260B
Toluene		61.8	20	4.0	ug/l	SW846 8260B
Ethylbenzene		924	20	4.0	ug/l	SW846 8260B
Xylene (total)		180	40	9.2	ug/l	SW846 8260B
TPH (Gasoline)		11.5	2.0	1.0	mg/l	NWTPH-GX
TPH (Diesel)		1.00	0.094	0.047	mg/l	NWTPH-DX
TPH (Motor Oil)		1.15	0.19	0.094	mg/l	NWTPH-DX
C36939-12	**MW-310**					
Benzene		739	10	2.0	ug/l	SW846 8260B
Toluene		38.7	10	2.0	ug/l	SW846 8260B
Ethylbenzene		132	10	2.0	ug/l	SW846 8260B
Xylene (total)		53.8	20	4.6	ug/l	SW846 8260B
TPH (Gasoline)		5.15	2.0	1.0	mg/l	NWTPH-GX
TPH (Diesel)		0.613	0.094	0.047	mg/l	NWTPH-DX
Calcium		26000	5000		ug/l	SW846 6010B
Iron		41400	200		ug/l	SW846 6010B
Magnesium		8890	5000		ug/l	SW846 6010B
Alkalinity, Total as CaCO3		122	5.0		mg/l	SM2320 B-97
Hardness, Total as CaCO3 [a]		102	33		mg/l	SW846 6010B/SM 2340B

Summary of Hits

Job Number: C36939
Account: Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 11/03/14 thru 11/04/14

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C36939-12F	**MW-310**					
Iron		11500	200		ug/l	SW846 6010B
Manganese		615	15		ug/l	SW846 6010B
C36939-13	**TRIP BLANK**					

No hits reported in this sample.

(a) Calculated as: (Calcium * 2.497) + (Magnesium * 4.118)

Northern California ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-309		
Lab Sample ID:	C36939-1	**Date Sampled:**	11/03/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q24938.D	1	11/08/14	BQ	n/a	n/a	VQ1055
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	104%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
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-309		
Lab Sample ID:	C36939-1	**Date Sampled:**	11/03/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49200.D	1	11/12/14	EA	n/a	n/a	GJK2063
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	105%		50-150%
460-00-4	4-Bromofluorobenzene	114%		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:	C36939-1	**Date Sampled:**	11/03/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318758.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398
Run #2							

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

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	ND	0.095	0.048	mg/l	
	TPH (Motor Oil)	ND	0.19	0.095	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	81%		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: C36939-2 **Date Sampled:** 11/03/14
Matrix: AQ - Ground Water **Date Received:** 11/05/14
Method: SW846 8260B **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q24939.D	25	11/08/14	BQ	n/a	n/a	VQ1055
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1110	25	5.0	ug/l	
108-88-3	Toluene	42.1	25	5.0	ug/l	
100-41-4	Ethylbenzene	480	25	5.0	ug/l	
1330-20-7	Xylene (total)	214	50	12	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		70-130%
2037-26-5	Toluene-D8	99%		70-130%
460-00-4	4-Bromofluorobenzene	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-304		
Lab Sample ID:	C36939-2	**Date Sampled:**	11/03/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49203.D	10	11/12/14	EA	n/a	n/a	GJK2063
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	3.32	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	120%		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:	C36939-2	**Date Sampled:**	11/03/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318759.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398
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)	0.366	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	81%		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: C36939-2
Matrix: AQ - Ground Water
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Date Sampled: 11/03/14
Date Received: 11/05/14
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	16800	5000	ug/l	1	11/13/14	11/13/14	RS	SW846 6010B [1]	SW846 3010A [2]
Iron	35900	200	ug/l	1	11/13/14	11/13/14	RS	SW846 6010B [1]	SW846 3010A [2]
Magnesium	11200	5000	ug/l	1	11/13/14	11/13/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4394
(2) Prep QC Batch: MP8663

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-304		
Lab Sample ID:	C36939-2	**Date Sampled:**	11/03/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	125	5.0	mg/l	1	11/15/14 09:30	DQ	SM2320 B-97
Hardness, Total as CaCO3 [a]	88.1	33	mg/l	1	11/13/14 20:12	RS	SW846 6010B/SM 2340B
Nitrogen, Nitrate [b]	< 0.10	0.10	mg/l	1	11/05/14 20:15	RL	EPA 300/SW846 9056A
Nitrogen, Nitrite [b]	< 0.10	0.10	mg/l	1	11/05/14 20:15	RL	EPA 300/SW846 9056A
Sulfate	0.51	0.50	mg/l	1	11/05/14 20:15	RL	EPA 300/SW846 9056A

(a) Calculated as: (Calcium * 2.497) + (Magnesium * 4.118)
(b) Sample exceeded holding time due to required reanalysis. Initial analysis was within holding time.

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-304
Lab Sample ID: C36939-2F
Matrix: AQ - Groundwater Filtered
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Date Sampled: 11/03/14
Date Received: 11/05/14
Percent Solids: n/a

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	3600	200	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]
Manganese	297	15	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4396
(2) Prep QC Batch: MP8667

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-301		
Lab Sample ID:	C36939-3	**Date Sampled:**	11/03/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q24940.D	5	11/08/14	BQ	n/a	n/a	VQ1055
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	108	5.0	1.0	ug/l	
108-88-3	Toluene	4.3	5.0	1.0	ug/l	J
100-41-4	Ethylbenzene	4.6	5.0	1.0	ug/l	J
1330-20-7	Xylene (total)	5.1	10	2.3	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
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-301		
Lab Sample ID:	C36939-3	**Date Sampled:**	11/03/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49204.D	10	11/12/14	EA	n/a	n/a	GJK2063
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	1.76	1.0	0.50	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	92%		50-150%
460-00-4	4-Bromofluorobenzene	110%		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:	C36939-4	**Date Sampled:**	11/03/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q24941.D	10	11/08/14	BQ	n/a	n/a	VQ1055
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	506	10	2.0	ug/l	
108-88-3	Toluene	15.9	10	2.0	ug/l	
100-41-4	Ethylbenzene	221	10	2.0	ug/l	
1330-20-7	Xylene (total)	176	20	4.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		70-130%
2037-26-5	Toluene-D8	102%		70-130%
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-302		
Lab Sample ID:	C36939-4	**Date Sampled:**	11/03/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49205.D	5	11/12/14	EA	n/a	n/a	GJK2063
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	4.06	0.50	0.25	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	103%		50-150%
460-00-4	4-Bromofluorobenzene	125%		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:	C36939-4	**Date Sampled:**	11/03/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318760.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398
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	81%		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: C36939-4
Matrix: AQ - Ground Water
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Date Sampled: 11/03/14
Date Received: 11/05/14
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	23400	5000	ug/l	1	11/13/14	11/13/14	RS	SW846 6010B [1]	SW846 3010A [2]
Iron	26900	200	ug/l	1	11/13/14	11/13/14	RS	SW846 6010B [1]	SW846 3010A [2]
Magnesium	10900	5000	ug/l	1	11/13/14	11/13/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4394
(2) Prep QC Batch: MP8663

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-302		
Lab Sample ID:	C36939-4	**Date Sampled:**	11/03/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	148	5.0	mg/l	1	11/15/14 09:30	DQ	SM2320 B-97
Hardness, Total as CaCO3 [a]	103	33	mg/l	1	11/13/14 20:18	RS	SW846 6010B/SM 2340B
Nitrogen, Nitrate [b]	< 0.10	0.10	mg/l	1	11/05/14 21:07	RL	EPA 300/SW846 9056A
Nitrogen, Nitrite [b]	< 0.10	0.10	mg/l	1	11/05/14 21:07	RL	EPA 300/SW846 9056A
Sulfate	< 0.50	0.50	mg/l	1	11/05/14 21:07	RL	EPA 300/SW846 9056A

(a) Calculated as: (Calcium * 2.497) + (Magnesium * 4.118)
(b) Received out of hold.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-302		
Lab Sample ID:	C36939-4F	**Date Sampled:**	11/03/14
Matrix:	AQ - Groundwater Filtered	**Date Received:**	11/05/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	765	200	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]
Manganese	493	15	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4396
(2) Prep QC Batch: MP8667

RL = Reporting Limit

Report of Analysis

Client Sample ID:	TES-MW-1		
Lab Sample ID:	C36939-5	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q24947.D	1	11/08/14	BQ	n/a	n/a	VQ1055
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	104%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	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:	TES-MW-1		
Lab Sample ID:	C36939-5	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49207.D	1	11/13/14	EA	n/a	n/a	GJK2063
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	103%		50-150%
460-00-4	4-Bromofluorobenzene	116%		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:	TES-MW-1
Lab Sample ID:	C36939-5
Matrix:	AQ - Ground Water
Method:	NWTPH-DX SW846 3510C
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Date Sampled:	11/04/14
Date Received:	11/05/14
Percent Solids:	n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318761.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398
Run #2							

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

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	ND	0.095	0.048	mg/l	
	TPH (Motor Oil)	ND	0.19	0.095	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	76%		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-308		
Lab Sample ID:	C36939-6	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q24942.D	1	11/08/14	BQ	n/a	n/a	VQ1055
Run #2	Q24961.D	2	11/09/14	BQ	n/a	n/a	VQ1056

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	132 [a]	2.0	0.40	ug/l	
108-88-3	Toluene	1.2	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	4.4	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	0.58	2.0	0.46	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%	99%	70-130%
2037-26-5	Toluene-D8	99%	101%	70-130%
460-00-4	4-Bromofluorobenzene	100%	106%	70-130%

(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-308		
Lab Sample ID:	C36939-6	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49212.D	2	11/13/14	EA	n/a	n/a	GJK2063
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	0.782	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	98%		50-150%
460-00-4	4-Bromofluorobenzene	110%		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-308		
Lab Sample ID:	C36939-6	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318763.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398
Run #2							

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

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	ND	0.095	0.048	mg/l	
	TPH (Motor Oil)	ND	0.19	0.095	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	80%		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-102		
Lab Sample ID:	C36939-7	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q24948.D	1	11/08/14	BQ	n/a	n/a	VQ1055
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	106%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
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-102		
Lab Sample ID:	C36939-7	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49209.D	1	11/13/14	EA	n/a	n/a	GJK2063
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	108%		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-102		
Lab Sample ID:	C36939-7	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318764.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398
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)	0.0568	0.094	0.047	mg/l	J
	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

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-307		
Lab Sample ID:	C36939-8	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q24943.D	10	11/08/14	BQ	n/a	n/a	VQ1055
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	596	10	2.0	ug/l	
108-88-3	Toluene	39.0	10	2.0	ug/l	
100-41-4	Ethylbenzene	176	10	2.0	ug/l	
1330-20-7	Xylene (total)	95.0	20	4.6	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%		70-130%
2037-26-5	Toluene-D8	102%		70-130%
460-00-4	4-Bromofluorobenzene	108%		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-307		
Lab Sample ID:	C36939-8	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49288.D	25	11/15/14	EA	n/a	n/a	GJK2068
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	5.16	2.5	1.3	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	90%		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: MW-307
Lab Sample ID: C36939-8 **Date Sampled:** 11/04/14
Matrix: AQ - Ground Water **Date Received:** 11/05/14
Method: NWTPH-DX SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318765.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398
Run #2							

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

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.632	0.095	0.048	mg/l	
	TPH (Motor Oil)	ND	0.19	0.095	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	79%		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

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-307		
Lab Sample ID:	C36939-8	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	19100	5000	ug/l	1	11/13/14	11/13/14	RS	SW846 6010B [1]	SW846 3010A [2]
Iron	44100	200	ug/l	1	11/13/14	11/13/14	RS	SW846 6010B [1]	SW846 3010A [2]
Magnesium	7410	5000	ug/l	1	11/13/14	11/13/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4394
(2) Prep QC Batch: MP8663

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-307		
Lab Sample ID:	C36939-8	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	104	5.0	mg/l	1	11/15/14 09:30	DQ	SM2320 B-97
Hardness, Total as CaCO3 [a]	78.2	33	mg/l	1	11/13/14 20:23	RS	SW846 6010B/SM 2340B
Nitrogen, Nitrate	< 0.10	0.10	mg/l	1	11/05/14 21:24	RL	EPA 300/SW846 9056A
Nitrogen, Nitrite	< 0.10	0.10	mg/l	1	11/05/14 21:24	RL	EPA 300/SW846 9056A
Sulfate	< 0.50	0.50	mg/l	1	11/05/14 21:24	RL	EPA 300/SW846 9056A

(a) Calculated as: (Calcium * 2.497) + (Magnesium * 4.118)

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-307		
Lab Sample ID:	C36939-8F	**Date Sampled:**	11/04/14
Matrix:	AQ - Groundwater Filtered	**Date Received:**	11/05/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	18200	200	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]
Manganese	513	15	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4396
(2) Prep QC Batch: MP8667

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-101		
Lab Sample ID:	C36939-9	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q24949.D	1	11/08/14	BQ	n/a	n/a	VQ1055
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	103%		70-130%
2037-26-5	Toluene-D8	90%		70-130%
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-101		
Lab Sample ID:	C36939-9	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49214.D	1	11/13/14	EA	n/a	n/a	GJK2063
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	103%		50-150%
460-00-4	4-Bromofluorobenzene	117%		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

Accutest Laboratories

Report of Analysis

Client Sample ID: MW-101
Lab Sample ID: C36939-9 **Date Sampled:** 11/04/14
Matrix: AQ - Ground Water **Date Received:** 11/05/14
Method: NWTPH-DX SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318767.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398
Run #2							

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

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	ND	0.095	0.048	mg/l	
	TPH (Motor Oil)	ND	0.19	0.095	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	80%		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: C36939-10 **Date Sampled:** 11/04/14
Matrix: AQ - Ground Water **Date Received:** 11/05/14
Method: SW846 8260B **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q24944.D	25	11/08/14	BQ	n/a	n/a	VQ1055
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	941	25	5.0	ug/l	
108-88-3	Toluene	13.7	25	5.0	ug/l	J
100-41-4	Ethylbenzene	36.6	25	5.0	ug/l	
1330-20-7	Xylene (total)	26.9	50	12	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	101%		70-130%

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

Report of Analysis

Client Sample ID:	TX-03A		
Lab Sample ID:	C36939-10	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49215.D	20	11/13/14	EA	n/a	n/a	GJK2063
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	5.76	2.0	1.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	100%		50-150%
460-00-4	4-Bromofluorobenzene	119%		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

Accutest Laboratories

Report of Analysis

Client Sample ID: TX-03A
Lab Sample ID: C36939-10 **Date Sampled:** 11/04/14
Matrix: AQ - Ground Water **Date Received:** 11/05/14
Method: NWTPH-DX SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318768.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398
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)	0.448	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	79%		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

Accutest Laboratories

Report of Analysis

Client Sample ID:	TX-03A		
Lab Sample ID:	C36939-10	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	25300	5000	ug/l	1	11/13/14	11/13/14	RS	SW846 6010B [1]	SW846 3010A [2]
Iron	39400	200	ug/l	1	11/13/14	11/13/14	RS	SW846 6010B [1]	SW846 3010A [2]
Magnesium	16600	5000	ug/l	1	11/13/14	11/13/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4394
(2) Prep QC Batch: MP8663

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	TX-03A		
Lab Sample ID:	C36939-10	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	170	5.0	mg/l	1	11/15/14 09:30	DQ	SM2320 B-97
Hardness, Total as CaCO3 [a]	132	33	mg/l	1	11/13/14 20:29	RS	SW846 6010B/SM 2340B
Nitrogen, Nitrate	< 0.10	0.10	mg/l	1	11/05/14 21:42	RL	EPA 300/SW846 9056A
Nitrogen, Nitrite	< 0.10	0.10	mg/l	1	11/05/14 21:42	RL	EPA 300/SW846 9056A
Sulfate	< 0.50	0.50	mg/l	1	11/05/14 21:42	RL	EPA 300/SW846 9056A

(a) Calculated as: (Calcium * 2.497) + (Magnesium * 4.118)

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	TX-03A		
Lab Sample ID:	C36939-10F	**Date Sampled:**	11/04/14
Matrix:	AQ - Groundwater Filtered	**Date Received:**	11/05/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	6180	200	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]
Manganese	523	15	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4396
(2) Prep QC Batch: MP8667

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-303		
Lab Sample ID:	C36939-11	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q24945.D	20	11/08/14	BQ	n/a	n/a	VQ1055
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1420	20	4.0	ug/l	
108-88-3	Toluene	61.8	20	4.0	ug/l	
100-41-4	Ethylbenzene	924	20	4.0	ug/l	
1330-20-7	Xylene (total)	180	40	9.2	ug/l	

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

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-303		
Lab Sample ID:	C36939-11	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49216.D	20	11/13/14	EA	n/a	n/a	GJK2063
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	11.5	2.0	1.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	100%		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

Accutest Laboratories

Report of Analysis

Client Sample ID: MW-303
Lab Sample ID: C36939-11 **Date Sampled:** 11/04/14
Matrix: AQ - Ground Water **Date Received:** 11/05/14
Method: NWTPH-DX SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318769.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398
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)	1.00	0.094	0.047	mg/l	
	TPH (Motor Oil)	1.15	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	99%		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:	C36939-12	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q24946.D	10	11/08/14	BQ	n/a	n/a	VQ1055
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	739	10	2.0	ug/l	
108-88-3	Toluene	38.7	10	2.0	ug/l	
100-41-4	Ethylbenzene	132	10	2.0	ug/l	
1330-20-7	Xylene (total)	53.8	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	98%		70-130%
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:	C36939-12	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49218.D	20	11/13/14	EA	n/a	n/a	GJK2063
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	5.15	2.0	1.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	100%		50-150%
460-00-4	4-Bromofluorobenzene	119%		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: C36939-12 **Date Sampled:** 11/04/14
Matrix: AQ - Ground Water **Date Received:** 11/05/14
Method: NWTPH-DX SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318770.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398
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)	0.613	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	71%		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

Accutest Laboratories

Report of Analysis

Client Sample ID: MW-310
Lab Sample ID: C36939-12
Matrix: AQ - Ground Water
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Date Sampled: 11/04/14
Date Received: 11/05/14
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	26000	5000	ug/l	1	11/13/14	11/13/14	RS	SW846 6010B [1]	SW846 3010A [2]
Iron	41400	200	ug/l	1	11/13/14	11/13/14	RS	SW846 6010B [1]	SW846 3010A [2]
Magnesium	8890	5000	ug/l	1	11/13/14	11/13/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4394
(2) Prep QC Batch: MP8663

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-310		
Lab Sample ID:	C36939-12	**Date Sampled:**	11/04/14
Matrix:	AQ - Ground Water	**Date Received:**	11/05/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	122	5.0	mg/l	1	11/15/14 09:30	DQ	SM2320 B-97
Hardness, Total as CaCO3 [a]	102	33	mg/l	1	11/13/14 20:34	RS	SW846 6010B/SM 2340B
Nitrogen, Nitrate	< 0.10	0.10	mg/l	1	11/05/14 21:59	RL	EPA 300/SW846 9056A
Nitrogen, Nitrite	< 0.10	0.10	mg/l	1	11/05/14 21:59	RL	EPA 300/SW846 9056A
Sulfate	< 0.50	0.50	mg/l	1	11/05/14 21:59	RL	EPA 300/SW846 9056A

(a) Calculated as: (Calcium * 2.497) + (Magnesium * 4.118)

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-310		
Lab Sample ID:	C36939-12F	**Date Sampled:**	11/04/14
Matrix:	AQ - Groundwater Filtered	**Date Received:**	11/05/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	11500	200	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]
Manganese	615	15	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4396
(2) Prep QC Batch: MP8667

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	C36939-13	**Date Sampled:**	11/04/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	11/05/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q24937.D	1	11/08/14	BQ	n/a	n/a	VQ1055
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	100%		70-130%
2037-26-5	Toluene-D8	100%		70-130%
460-00-4	4-Bromofluorobenzene	98%		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

Northern California ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

FEDEX# 875344672231

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:

INCIDENT # (ENV. SERVICES): 9 7 9 9 5 8 0 1 ☐ CHECK IF NO INCIDENT # APPLIES
DATE: 11/4/14
PAGE: 1 of 2

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): Brian Fletcher
TELEPHONE: 503-222-7200
FAX: 503-222-4292
Bill To Contact E-MAIL: Brian.Fletcher@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: C36939

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 :
Please filter samples in Lab as needed

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE LEVEL IV EDK

REQUESTED ANALYSIS

UNIT COST: NWTPH-Dx; NWTPH-Dx (Diesel and Oil range); BTEX; cPAHs (8270 SIM); Total Lead
NON-UNIT COST: Total Alkalinity; Total Iron; Sulfate EPA 300.0; Dissolved Iron EPA 6010 SW6020A; Dissolved Manganese EPA 6010 SW6020A; Nitrate/Nitrite EPA 353.2; Hardness

FIELD NOTES:
TEMPERATURE ON RECEIPT C°
3.3 / 3.5
2.9 / 2.9
4.2 / 4.2
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-Dx	NWTPH-Dx (Diesel and Oil range)	BTEX	cPAHs (8270 SIM)	Total Lead	Total Alkalinity	Total Iron	Sulfate EPA 300.0	Dissolved Iron EPA 6010 SW6020A	Dissolved Manganese EPA 6010 SW6020A	Nitrate/Nitrite EPA 353.2	Hardness
1	MW-309	11/3/14	1405	W	6			2		8	X	X	X									
2	MW-304	11/3/14	1410	W	6	1		4	9	11	X	X	X			X	X	X	X	X	X	X
3	MW-301	11/3/14	1530	W	6					6	X		X									
4	MW-302	11/3/14	1538	W	6	1		4	3	11	X	X	X			X	X	X	X	X	X	X
5	TES-MW-1	11/4/14	0910	W	6			2		8	X	X	X									
6	MW-308	11/4/14	1040	W	6			2		8	X	X	X									
7	MW-102	11/4/14	1150	W	6			2		8	X	X	X									
8	MW-307	11/4/14	1205	W	6	1		4		11	X	X	X			X	X	X	X	X	X	X
9	MW-101	11/4/14	1340	W	6			2		8	X	X	X									
10	TX-03A	11/4/14	1342	W	6	1		4		11	X	X	X			X	X	X	X	X	X	X

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
	FEDEX	11/4/14	1730
FEDEX		11/5/14	0920

05/2/06 Revision

C36939: Chain of Custody
Page 1 of 3

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 SO&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: 11/4/14
PAGE: 1 of 2

PO #:
SAP #: 1 2 1 4 1 5

SAMPLING COMPANY: URS Corporation
LOG CODE:
SITE ADDRESS: Street and City: 2555 13th Avenue SW, Seattle
State: WA
GLOBAL ID NO.:
ADDRESS: 111 Southwest Columbia Street, Suite 1500, Portland, Oregon 97201
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
PROJECT CONTACT (Hardcopy or PDF Report to): Brian Pletcher
TELEPHONE: 503-222-7200
FAX: 503-222-4292
Bill To Contact E-MAIL: Brian.Pletcher@URS.com
SAMPLER NAME(S) (Print): Bret Waldron & Mark Tauscher
LAB USE ONLY: C36939

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 :
Please filter samples in Lab as needed

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE EDD2 DISK

REQUESTED ANALYSIS

UNIT COST: NWTPH-Gx; NWTPH-Dx (Diesel and Oil range); BTEX; cPAHs (8270 SIM); Total Lead
NON-UNIT COST: Total Alkalinity; Total Iron; Sulfate EPA 300.0; Dissolved Iron EPA 6010 SW6020A; Dissolved Manganese EPA 6010 SW6020A; Nitrate/Nitrite EPA 353.2; Hardness

FIELD NOTES:
TEMPERATURE ON RECEIPT C°
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	BTEX	cPAHs	Total Lead	Total Alkalinity	Total Iron	Sulfate	Dissolved Iron	Dissolved Manganese	Nitrate/Nitrite	Hardness
11	MW-303	11/4/14	1508		6			2		8	X	X	X									
12	MW-310	11/4/14	1525		6	1		4		11	X	X	X			X	X	X	X	X	X	X
13	Trip Blank	—	—		3					3			X									

11/4/2014

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
	FEDEX	11/4/14	1730
FEDEX	Lee Bauter	11/5/14	0920

05/2006 Revision

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C36939 **Client:** SHELL OIL **Project:** 2555 13TH AVE. SW SEATTLE

Date / Time Received: 11/5/2014 9:20:00 AM **Delivery Method:** FedEx **Airbill #'s:** 875344672231

Cooler Temps (Initial/Adjusted): #1: (3.3/3.3); #2: (2.9/2.9); #3: (4.2/4.2);

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

C36939: Chain of Custody
Page 3 of 3

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: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1055-MB	Q24936.D	1	11/07/14	BQ	n/a	n/a	VQ1055

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

C36939-1, C36939-2, C36939-3, C36939-4, C36939-5, C36939-6, C36939-7, C36939-8, C36939-9, C36939-10, C36939-11, C36939-12, C36939-13

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	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	102%	70-130%
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	97%	70-130%

Method Blank Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1056-MB	Q24959.D	1	11/08/14	BQ	n/a	n/a	VQ1056

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

C36939-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	98%	70-130%
2037-26-5	Toluene-D8	102%	70-130%
460-00-4	4-Bromofluorobenzene	104%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1055-BS	Q24933.D	1	11/07/14	BQ	n/a	n/a	VQ1055
VQ1055-BSD	Q24934.D	1	11/07/14	BQ	n/a	n/a	VQ1055

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

C36939-1, C36939-2, C36939-3, C36939-4, C36939-5, C36939-6, C36939-7, C36939-8, C36939-9, C36939-10, C36939-11, C36939-12, C36939-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	18.2	91	18.4	92	1	77-122/25
100-41-4	Ethylbenzene	20	19.3	97	19.1	96	1	76-126/17
108-88-3	Toluene	20	18.9	95	20.0	100	6	75-122/17
1330-20-7	Xylene (total)	60	60.5	101	58.2	97	4	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	105%	103%	70-130%
2037-26-5	Toluene-D8	101%	104%	70-130%
460-00-4	4-Bromofluorobenzene	106%	103%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1056-BS	Q24956.D	1	11/08/14	BQ	n/a	n/a	VQ1056
VQ1056-BSD	Q24957.D	1	11/08/14	BQ	n/a	n/a	VQ1056

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

C36939-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	19.3	97	17.8	89	8	77-122/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	102%	103%	70-130%
2037-26-5	Toluene-D8	101%	101%	70-130%
460-00-4	4-Bromofluorobenzene	106%	108%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1056-LCS	Q24958.D	1	11/08/14	BQ	n/a	n/a	VQ1056

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

C36939-6

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

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	70-130%
2037-26-5	Toluene-D8	95%	70-130%
460-00-4	4-Bromofluorobenzene	99%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36939-10MS	Q24950.D	25	11/08/14	BQ	n/a	n/a	VQ1055
C36939-10MSD	Q24951.D	25	11/08/14	BQ	n/a	n/a	VQ1055
C36939-10	Q24944.D	25	11/08/14	BQ	n/a	n/a	VQ1055

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

C36939-1, C36939-2, C36939-3, C36939-4, C36939-5, C36939-6, C36939-7, C36939-8, C36939-9, C36939-10, C36939-11, C36939-12, C36939-13

CAS No.	Compound	C36939-10 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	941		500	1540	120	500	1510	114	2	77-122/16
100-41-4	Ethylbenzene	36.6		500	533	99	500	524	97	2	76-126/17
108-88-3	Toluene	13.7	J	500	469	91	500	514	100	9	75-122/17
1330-20-7	Xylene (total)	26.9	J	1500	1520	100	1500	1470	96	3	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C36939-10	Limits
1868-53-7	Dibromofluoromethane	113%	114%	104%	70-130%
2037-26-5	Toluene-D8	97%	104%	103%	70-130%
460-00-4	4-Bromofluorobenzene	105%	108%	101%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36929-10MS	Q24972.D	10	11/09/14	BQ	n/a	n/a	VQ1056
C36929-10MSD	Q24973.D	10	11/09/14	BQ	n/a	n/a	VQ1056
C36929-10	Q24967.D	10	11/09/14	BQ	n/a	n/a	VQ1056

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

C36939-6

CAS No.	Compound	C36929-10 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	400		200	679	140* [a]	200	680	140* [a]	0	77-122/16

CAS No.	Surrogate Recoveries	MS	MSD	C36929-10	Limits
1868-53-7	Dibromofluoromethane	106%	106%	99%	70-130%
2037-26-5	Toluene-D8	101%	101%	101%	70-130%
460-00-4	4-Bromofluorobenzene	103%	103%	105%	70-130%

(a) Outside control limits due to high level in sample relative to spike amount.

* = 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: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2063-MB	JK49196.D	1	11/12/14	EA	n/a	n/a	GJK2063

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

C36939-1, C36939-2, C36939-3, C36939-4, C36939-5, C36939-7

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	102%	50-150%
460-00-4	4-Bromofluorobenzene	112%	50-150%

Method Blank Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2063-MB1	JK49211.D	1	11/13/14	EA	n/a	n/a	GJK2063

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

C36939-6, C36939-9, C36939-10, C36939-11, C36939-12

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	104%	50-150%
460-00-4	4-Bromofluorobenzene	114%	50-150%

Method Blank Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2068-MB	JK49285.D	1	11/15/14	EA	n/a	n/a	GJK2068

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

C36939-8

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	95%	50-150%
460-00-4	4-Bromofluorobenzene	108%	50-150%

Method Blank Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2068-MB1	JK49296.D	1	11/15/14	EA	n/a	n/a	GJK2068

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

C37022-13DUP, C37022-11MS, C37022-11MSD

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	85%	50-150%
460-00-4	4-Bromofluorobenzene	105%	50-150%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2063-BS	JK49197.D	1	11/12/14	EA	n/a	n/a	GJK2063
GJK2063-BSD	JK49198.D	1	11/12/14	EA	n/a	n/a	GJK2063

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

C36939-1, C36939-2, C36939-3, C36939-4, C36939-5, C36939-6, C36939-7, C36939-9, C36939-10, C36939-11, C36939-12

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	0.4	0.405	101	0.408	102	1	69-127/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
98-08-8	aaa-Trifluorotoluene	92%	97%	50-150%
460-00-4	4-Bromofluorobenzene	109%	113%	50-150%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2068-BS	JK49286.D	1	11/15/14	EA	n/a	n/a	GJK2068
GJK2068-BSD	JK49287.D	1	11/15/14	EA	n/a	n/a	GJK2068

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

C36939-8

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	0.4	0.358	90	0.358	90	0	69-127/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
98-08-8	aaa-Trifluorotoluene	87%	85%	50-150%
460-00-4	4-Bromofluorobenzene	109%	107%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36939-1MS	JK49201.D	1	11/12/14	EA	n/a	n/a	GJK2063
C36939-1MSD	JK49202.D	1	11/12/14	EA	n/a	n/a	GJK2063
C36939-1	JK49200.D	1	11/12/14	EA	n/a	n/a	GJK2063

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

C36939-1, C36939-2, C36939-3, C36939-4, C36939-5, C36939-6, C36939-7, C36939-9, C36939-10, C36939-11, C36939-12

CAS No.	Compound	C36939-1 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	0.402	101	0.4	0.395	99	2	69-127/13

CAS No.	Surrogate Recoveries	MS	MSD	C36939-1	Limits
98-08-8	aaa-Trifluorotoluene	99%	98%	105%	50-150%
460-00-4	4-Bromofluorobenzene	114%	112%	114%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C37022-11MS	JK49299.D	1	11/15/14	EA	n/a	n/a	GJK2068
C37022-11MSD	JK49300.D	1	11/15/14	EA	n/a	n/a	GJK2068
C37022-11	JK49298.D	1	11/15/14	EA	n/a	n/a	GJK2068

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

C36939-8

CAS No.	Compound	C37022-11 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	0.359	90	0.4	0.357	89	1	69-127/13

CAS No.	Surrogate Recoveries	MS	MSD	C37022-11	Limits
98-08-8	aaa-Trifluorotoluene	85%	82%	84%	50-150%
460-00-4	4-Bromofluorobenzene	113%	110%	108%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36939-5DUP	JK49208.D	1	11/13/14	EA	n/a	n/a	GJK2063
C36939-5	JK49207.D	1	11/13/14	EA	n/a	n/a	GJK2063

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

C36939-1, C36939-2, C36939-3, C36939-4, C36939-5, C36939-6, C36939-9, C36939-10, C36939-11, C36939-12

CAS No.	Compound	C36939-5 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Gasoline)	ND		ND		nc	13

CAS No.	Surrogate Recoveries	DUP	C36939-5	Limits
98-08-8	aaa-Trifluorotoluene	103%	103%	50-150%
460-00-4	4-Bromofluorobenzene	115%	116%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36939-7DUP	JK49210.D	1	11/13/14	EA	n/a	n/a	GJK2063
C36939-7	JK49209.D	1	11/13/14	EA	n/a	n/a	GJK2063

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

C36939-7

CAS No.	Compound	C36939-7 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Gasoline)	ND		ND		nc	13

CAS No.	Surrogate Recoveries	DUP	C36939-7	Limits
98-08-8	aaa-Trifluorotoluene	98%	93%	50-150%
460-00-4	4-Bromofluorobenzene	111%	108%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C37022-13DUP	JK49303.D	1	11/15/14	EA	n/a	n/a	GJK2068
C37022-13	JK49302.D	1	11/15/14	EA	n/a	n/a	GJK2068

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

C36939-8

CAS No.	Compound	C37022-13 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Gasoline)	0.102		0.0990	J	3	13

CAS No.	Surrogate Recoveries	DUP	C37022-13	Limits
98-08-8	aaa-Trifluorotoluene	83%	85%	50-150%
460-00-4	4-Bromofluorobenzene	109%	111%	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: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11143-MB	HH318773.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398

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

C36939-1, C36939-2, C36939-4, C36939-5, C36939-6, C36939-7, C36939-8, C36939-9, C36939-10, C36939-11, C36939-12

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	81%	50-150%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11143-BS	HH318771.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398
OP11143-BSD	HH318772.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398

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

C36939-1, C36939-2, C36939-4, C36939-5, C36939-6, C36939-7, C36939-8, C36939-9, C36939-10, C36939-11, C36939-12

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Diesel)	1	0.532	53	0.458	46	15	37-112/30
	TPH (Motor Oil)	1	0.620	62	0.581	58	6	49-120/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	84%	82%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11143-MS	HH318756.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398
OP11143-MSD	HH318757.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398
C36939-6	HH318763.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398

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

C36939-1, C36939-2, C36939-4, C36939-5, C36939-6, C36939-7, C36939-8, C36939-9, C36939-10, C36939-11, C36939-12

CAS No.	Compound	C36939-6 mg/l	Q	Spike mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (Diesel)	ND		2	1.20	60	2	1.14	57	5	37-112/31
	TPH (Motor Oil)	ND		2	1.36	68	2	1.37	69	1	49-120/33

CAS No.	Surrogate Recoveries	MS	MSD	C36939-6	Limits
630-01-3	Hexacosane	86%	87%	80%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C36939
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11143-DUP	HH318762.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398
C36939-5	HH318761.D	1	11/07/14	AG	11/06/14	OP11143	GHH1398

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

C36939-1, C36939-2, C36939-4, C36939-5, C36939-6, C36939-7, C36939-8, C36939-9, C36939-10, C36939-11, C36939-12

CAS No.	Compound	C36939-5 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Diesel)	ND		ND		nc	31
	TPH (Motor Oil)	ND		ND		nc	33

CAS No.	Surrogate Recoveries	DUP	C36939-5	Limits
630-01-3	Hexacosane	80%	76%	50-150%

* = Outside of Control Limits.

Northern California ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C36939
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8663
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/13/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	13	8.5		
Antimony	6.0	.7	.51		
Arsenic	10	.7	.65		
Barium	200	.4	.35		
Beryllium	5.0	.2	.4		
Boron	100	.9	.64		
Cadmium	2.0	.2	.15		
Calcium	5000	7.1	12	32.1	<5000
Chromium	10	.3	.41		
Cobalt	5.0	.2	.3		
Copper	10	1.2	3		
Iron	200	6.4	12	2.4	<200
Lead	10	.7	.85		
Lithium	50		2		
Magnesium	5000	27	36	14.2	<5000
Manganese	15	.1	1.3		
Molybdenum	20	.2	.22		
Nickel	5.0	.2	.12		
Potassium	10000	18	44		
Selenium	10	1.8	2.2		
Silicon	100	1.2	6.9		
Silver	5.0	.3	.47		
Sodium	10000	15	13		
Strontium	10	.2	.24		
Thallium	10	.5	.54		
Tin	50	.2	.7		
Titanium	10	.4	.34		
Vanadium	10	.3	.3		
Zinc	20	.3	4.2		

Associated samples MP8663: C36939-2, C36939-4, C36939-8, C36939-10, C36939-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C36939
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8663
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/13/14

Metal	C36865-2 Original	MS	Spikelot MPIR5	% Rec	QC Limits
Aluminum					
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Boron					
Cadmium	anr				
Calcium	17800	29700	12500	95.2	75-125
Chromium	anr				
Cobalt	anr				
Copper	anr				
Iron	228	13300	12500	104.6	75-125
Lead	anr				
Lithium					
Magnesium	992	13600	12500	100.9	75-125
Manganese					
Molybdenum	anr				
Nickel	anr				
Potassium					
Selenium	anr				
Silicon					
Silver	anr				
Sodium					
Strontium					
Thallium	anr				
Tin					
Titanium					
Vanadium	anr				
Zinc	anr				

Associated samples MP8663: C36939-2, C36939-4, C36939-8, C36939-10, C36939-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C36939
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8663 Methods: SW846 6010B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 11/13/14

Metal	C36865-2 Original	MSD	Spikelot MPIR5	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium	17800	29700	12500	95.2	0.0	20
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	228	13200	12500	103.8	0.8	20
Lead	anr					
Lithium						
Magnesium	992	13600	12500	100.9	0.0	20
Manganese						
Molybdenum	anr					
Nickel	anr					
Potassium						
Selenium	anr					
Silicon						
Silver	anr					
Sodium						
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP8663: C36939-2, C36939-4, C36939-8, C36939-10, C36939-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C36939
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8663 Methods: SW846 6010B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 11/13/14

Metal	BSP Result	Spikelot MPIR5	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	12700	12500	101.6	80-120
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	13100	12500	104.8	80-120
Lead	anr			
Lithium				
Magnesium	12700	12500	101.6	80-120
Manganese				
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silicon				
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP8663: C36939-2, C36939-4, C36939-8, C36939-10, C36939-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C36939
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8663 Methods: SW846 6010B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 11/13/14

Metal	C36865-2 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	17800	18300	3.0	0-10
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	228	241	5.4	0-10
Lead	anr			
Lithium				
Magnesium	992	1130	13.6 (a)	0-10
Manganese				
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silicon				
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP8663: C36939-2, C36939-4, C36939-8, C36939-10, C36939-12

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C36939
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8667
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/14/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	13	8.5		
Antimony	6.0	.7	.51		
Arsenic	10	.7	.65		
Barium	200	.4	.35		
Beryllium	5.0	.2	.4		
Boron	100	.9	.64		
Cadmium	2.0	.2	.15		
Calcium	5000	7.1	12		
Chromium	10	.3	.41		
Cobalt	5.0	.2	.3		
Copper	10	1.2	3		
Iron	200	6.4	12	0.50	<200
Lead	10	.7	.85		
Lithium	50		2		
Magnesium	5000	27	36		
Manganese	15	.1	1.3	0.10	<15
Molybdenum	20	.2	.22		
Nickel	5.0	.2	.12		
Potassium	10000	18	44		
Selenium	10	1.8	2.2		
Silicon	100	1.2	6.9		
Silver	5.0	.3	.47		
Sodium	10000	15	13		
Strontium	10	.2	.24		
Thallium	10	.5	.54		
Tin	50	.2	.7		
Titanium	10	.4	.34		
Vanadium	10	.3	.3		
Zinc	20	.3	4.2		

Associated samples MP8667: C36939-2F, C36939-4F, C36939-8F, C36939-10F, C36939-12F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C36939
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8667
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/14/14

Metal	C36939-2F Original	MS	Spikelot MPIR5	% Rec	QC Limits
Aluminum					
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Boron					
Cadmium	anr				
Calcium					
Chromium	anr				
Cobalt	anr				
Copper	anr				
Iron	3600	16800	12500	105.6	75-125
Lead	anr				
Lithium					
Magnesium					
Manganese	297	824	500	105.4	75-125
Molybdenum	anr				
Nickel	anr				
Potassium					
Selenium	anr				
Silicon					
Silver	anr				
Sodium					
Strontium					
Thallium	anr				
Tin					
Titanium					
Vanadium	anr				
Zinc	anr				

Associated samples MP8667: C36939-2F, C36939-4F, C36939-8F, C36939-10F, C36939-12F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C36939
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8667 Methods: SW846 6010B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 11/14/14

Metal	C36939-2F Original	MSD	Spikelot MPIR5	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	3600	16700	12500	104.8	0.6	20
Lead	anr					
Lithium						
Magnesium						
Manganese	297	819	500	104.4	0.6	20
Molybdenum	anr					
Nickel	anr					
Potassium						
Selenium	anr					
Silicon						
Silver	anr					
Sodium						
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP8667: C36939-2F, C36939-4F, C36939-8F, C36939-10F, C36939-12F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C36939
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8667
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/14/14

Metal	BSP Result	Spikelot MPIR5	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	13200	12500	105.6	80-120
Lead	anr			
Lithium				
Magnesium				
Manganese	534	500	106.8	80-120
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silicon				
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP8667: C36939-2F, C36939-4F, C36939-8F, C36939-10F, C36939-12F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C36939
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8667 Methods: SW846 6010B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 11/14/14

Metal	C36939-2F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	3600	4070	13.1*(a)	0-10
Lead	anr			
Lithium				
Magnesium				
Manganese	297	336	12.9*(a)	0-10
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silicon				
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP8667: C36939-2F, C36939-4F, C36939-8F, C36939-10F, C36939-12F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.

Northern California ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

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

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C36939
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN14975	5.0	0.0	mg/l	250	248	99.2	75-125%
Chloride	GP7020/GN14897	0.50	0.0	mg/l	5	4.62	92.4	90-110%
Fluoride	GP7020/GN14897	0.10	0.0	mg/l	5	4.74	94.8	90-110%
Nitrogen, Nitrate	GP7020/GN14897	0.10	0.0	mg/l	5	4.92	98.4	90-110%
Nitrogen, Nitrite	GP7020/GN14897	0.10	0.0	mg/l	5	4.69	93.8	90-110%
Sulfate	GP7020/GN14897	0.50	0.0	mg/l	5	5.08	101.6	90-110%

Associated Samples:
Batch GP7020: C36939-2, C36939-4, C36939-8, C36939-10, C36939-12
Batch GN14975: C36939-2, C36939-4, C36939-8, C36939-10, C36939-12
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C36939
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Alkalinity, Total as CaCO3	GN14975	mg/l	250	250	0.8	
Chloride	GP7020/GN14897	mg/l	5	4.61	0.2	25%
Fluoride	GP7020/GN14897	mg/l	5	4.74	0.0	25%
Nitrogen, Nitrate	GP7020/GN14897	mg/l	5	4.92	0.0	25%
Nitrogen, Nitrite	GP7020/GN14897	mg/l	5	4.72	0.6	25%
Sulfate	GP7020/GN14897	mg/l	5	5.16	1.6	25%

Associated Samples:
Batch GP7020: C36939-2, C36939-4, C36939-8, C36939-10, C36939-12
Batch GN14975: C36939-2, C36939-4, C36939-8, C36939-10, C36939-12
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C36939
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN14975	C36939-2	mg/l	125	127	1.6	0-25%

Associated Samples:
Batch GN14975: C36939-2, C36939-4, C36939-8, C36939-10, C36939-12
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C36939
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Fluoride	GP7020/GN14897	C36939-2	mg/l	0.22	5	4.4	83.6	80-120%
Fluoride	GP7020/GN14897	C36939-2	mg/l	0.15	5	4.4	83.6	80-120%
Nitrogen, Nitrate	GP7020/GN14897	C36939-2	mg/l	0.0	5	4.6	92.0	80-120%
Nitrogen, Nitrite	GP7020/GN14897	C36939-2	mg/l	0.080	5	4.7	93.2	80-120%
Sulfate	GP7020/GN14897	C36939-2	mg/l	0.51	5	5.0	92.4	80-120%

Associated Samples:
Batch GP7020: C36939-2, C36939-4, C36939-8, C36939-10, C36939-12
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C36939
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Fluoride	GP7020/GN14897	C36939-2	mg/l	0.22	5	4.4	0.0	
Fluoride	GP7020/GN14897	C36939-2	mg/l	0.15	5	4.4	0.0	
Nitrogen, Nitrate	GP7020/GN14897	C36939-2	mg/l	0.0	5	4.6	0.0	
Nitrogen, Nitrite	GP7020/GN14897	C36939-2	mg/l	0.080	5	4.7	0.0	
Sulfate	GP7020/GN14897	C36939-2	mg/l	0.51	5	5.0	0.0	

Associated Samples:
Batch GP7020: C36939-2, C36939-4, C36939-8, C36939-10, C36939-12
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

Northern California ACCUTEST LABORATORIES

11/25/14

Technical Report for

Shell Oil Company

URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA 49241036

Accutest Job Number: C37022

Sampling Dates: 11/05/14 - 11/06/14

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: **154**

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: CA (ELAP 2910) AK (UST-092) AZ (AZ0762) NV (CA00150) OR (CA300006) WA (C925) DoD ELAP (L-A-B L2242)

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Sample Summary

Shell Oil Company

Job No: C37022

URSORP:INC#97995801 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
C37022-1	11/05/14	09:10	BW	11/08/14	AQ	Ground Water	MW-213
C37022-2	11/05/14	09:18	BW	11/08/14	AQ	Ground Water	MW-223
C37022-3	11/05/14	09:30	BW	11/08/14	AQ	Ground Water	MW-214
C37022-4	11/05/14	11:24	BW	11/08/14	AQ	Ground Water	MW-312
C37022-4F	11/05/14	11:24	BW	11/08/14	AQ	Groundwater Filtered	MW-312
C37022-5	11/05/14	11:45	BW	11/08/14	AQ	Ground Water	MW-311
C37022-5F	11/05/14	11:45	BW	11/08/14	AQ	Groundwater Filtered	MW-311
C37022-6	11/05/14	11:50	BW	11/08/14	AQ	Ground Water	MW-411
C37022-7	11/05/14	11:40	BW	11/08/14	AQ	Ground Water	MW-104
C37022-8	11/05/14	13:45	BW	11/08/14	AQ	Ground Water	MW-105
C37022-9	11/05/14	15:30	BW	11/08/14	AQ	Ground Water	MW-111
C37022-10	11/06/14	08:20	BW	11/08/14	AQ	Ground Water	MW-201
C37022-11	11/06/14	08:26	BW	11/08/14	AQ	Ground Water	MW-204

Sample Summary
(continued)

Shell Oil Company

Job No: C37022

URSORP:INC#97995801 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
C37022-11D	11/06/14	08:26	BW	11/08/14	AQ	Water Dup/MSD	MW-204
C37022-11S	11/06/14	08:26	BW	11/08/14	AQ	Water Matrix Spike	MW-204
C37022-12	11/06/14	09:55	BW	11/08/14	AQ	Ground Water	MW-202
C37022-12F	11/06/14	09:55	BW	11/08/14	AQ	Groundwater Filtered	MW-202
C37022-13	11/06/14	10:42	BW	11/08/14	AQ	Ground Water	MW-203
C37022-13F	11/06/14	10:42	BW	11/08/14	AQ	Groundwater Filtered	MW-203
C37022-14	11/06/14	11:45	BW	11/08/14	AQ	Ground Water	MW-206A
C37022-15	11/06/14	12:40	BW	11/08/14	AQ	Ground Water	TX-06A
C37022-16	11/06/14	13:20	BW	11/08/14	AQ	Ground Water	MW-112A
C37022-17	11/06/14	14:20	BW	11/08/14	AQ	Ground Water	TX-04
C37022-18	11/06/14	14:55	BW	11/08/14	AQ	Ground Water	SH-04
C37022-19	11/06/14	15:50	BW	11/08/14	AQ	Ground Water	MW-306
C37022-19D	11/06/14	15:50	BW	11/08/14	AQ	Water Dup/MSD	MW-306

Sample Summary
(continued)

Shell Oil Company

Job No: C37022

URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Project No: 49241036

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
C37022-19S	11/06/14	15:50	BW	11/08/14	AQ	Water Matrix Spike	MW-306
C37022-20	11/06/14	15:55	BW	11/08/14	AQ	Ground Water	MW-305
C37022-21	11/06/14	16:10	BW	11/08/14	AQ	Ground Water	MW-05
C37022-22	11/05/14	00:00	BW	11/08/14	AQ	Trip Blank Water	TRIP BLANK

Summary of Hits

Job Number: C37022
Account: Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 11/05/14 thru 11/06/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C37022-1	**MW-213**					
TPH (Diesel)		0.0782 J	0.094	0.047	mg/l	NWTPH-DX
C37022-2	**MW-223**					
No hits reported in this sample.						
C37022-3	**MW-214**					
TPH (Diesel)		0.168	0.095	0.048	mg/l	NWTPH-DX
TPH (Motor Oil)		0.103 J	0.19	0.095	mg/l	NWTPH-DX
C37022-4	**MW-312**					
Benzene		239	10	2.0	ug/l	SW846 8260B
Toluene		5.8	1.0	0.20	ug/l	SW846 8260B
Ethylbenzene		6.5	1.0	0.20	ug/l	SW846 8260B
Xylene (total)		10.2	2.0	0.46	ug/l	SW846 8260B
Acenaphthene		0.22 J	0.47	0.047	ug/l	SW846 8270C BY SIM
Fluorene		0.57	0.47	0.047	ug/l	SW846 8270C BY SIM
1-Methylnaphthalene		30.6	2.4	0.47	ug/l	SW846 8270C BY SIM
2-Methylnaphthalene		17.4	0.47	0.094	ug/l	SW846 8270C BY SIM
Naphthalene		0.71	0.47	0.094	ug/l	SW846 8270C BY SIM
Phenanthrene		0.088 J	0.47	0.047	ug/l	SW846 8270C BY SIM
TPH (Gasoline)		1.64	1.0	0.50	mg/l	NWTPH-GX
TPH (Diesel)		1.13	0.094	0.047	mg/l	NWTPH-DX
TPH (Motor Oil)		0.132 J	0.19	0.094	mg/l	NWTPH-DX
Calcium		58800	5000		ug/l	SW846 6010B
Iron		25600	200		ug/l	SW846 6010B
Magnesium		11600	5000		ug/l	SW846 6010B
Alkalinity, Total as CaCO3		202	5.0		mg/l	SM2320 B-97
Hardness, Total as CaCO3 [a]		195	33		mg/l	SW846 6010B/SM 2340B
C37022-4F	**MW-312**					
Manganese		787	15		ug/l	SW846 6010B
C37022-5	**MW-311**					
Calcium		75200	5000		ug/l	SW846 6010B
Iron		32600	200		ug/l	SW846 6010B
Magnesium		8270	5000		ug/l	SW846 6010B
Alkalinity, Total as CaCO3		188	5.0		mg/l	SM2320 B-97
Hardness, Total as CaCO3 [a]		222	33		mg/l	SW846 6010B/SM 2340B

Summary of Hits

Job Number: C37022
Account: Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 11/05/14 thru 11/06/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Sulfate		42.3	1.3		mg/l	EPA 300/SW846 9056A
C37022-5F	**MW-311**					
Manganese		1570	15		ug/l	SW846 6010B
C37022-6	**MW-411**					
No hits reported in this sample.						
C37022-7	**MW-104**					
TPH (Gasoline)		0.441	0.20	0.10	mg/l	NWTPH-GX
TPH (Diesel)		0.527	0.095	0.048	mg/l	NWTPH-DX
TPH (Motor Oil)		0.221	0.19	0.095	mg/l	NWTPH-DX
C37022-8	**MW-105**					
TPH (Diesel)		0.377	0.094	0.047	mg/l	NWTPH-DX
TPH (Motor Oil)		0.192	0.19	0.094	mg/l	NWTPH-DX
C37022-9	**MW-111**					
Benzene		57.4	1.0	0.20	ug/l	SW846 8260B
Toluene		1.2	1.0	0.20	ug/l	SW846 8260B
Ethylbenzene		0.83 J	1.0	0.20	ug/l	SW846 8260B
Xylene (total)		0.47 J	2.0	0.46	ug/l	SW846 8260B
TPH (Gasoline)		0.232	0.10	0.050	mg/l	NWTPH-GX
TPH (Diesel)		0.167	0.094	0.047	mg/l	NWTPH-DX
TPH (Motor Oil)		0.118 J	0.19	0.094	mg/l	NWTPH-DX
C37022-10	**MW-201**					
TPH (Diesel)		0.173	0.095	0.048	mg/l	NWTPH-DX
TPH (Motor Oil)		0.195	0.19	0.095	mg/l	NWTPH-DX
C37022-11	**MW-204**					
TPH (Diesel)		0.505	0.094	0.047	mg/l	NWTPH-DX
TPH (Motor Oil)		0.321	0.19	0.094	mg/l	NWTPH-DX
C37022-12	**MW-202**					
Benzene		8.3	1.0	0.20	ug/l	SW846 8260B
Toluene		2.6	1.0	0.20	ug/l	SW846 8260B

Summary of Hits

Job Number: C37022
Account: Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 11/05/14 thru 11/06/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
Ethylbenzene		15.4	1.0	0.20	ug/l	SW846 8260B
Xylene (total)		1.1 J	2.0	0.46	ug/l	SW846 8260B
TPH (Gasoline)		5.10	2.0	1.0	mg/l	NWTPH-GX
TPH (Diesel)		2.45	0.28	0.14	mg/l	NWTPH-DX
TPH (Motor Oil)		0.282 J	0.57	0.28	mg/l	NWTPH-DX
Calcium		14200	5000		ug/l	SW846 6010B
Iron		34900	200		ug/l	SW846 6010B
Magnesium		13800	5000		ug/l	SW846 6010B
Alkalinity, Total as CaCO3		92.0	5.0		mg/l	SM2320 B-97
Hardness, Total as CaCO3 [a]		92.3	33		mg/l	SW846 6010B/SM 2340B
Sulfate		7.0	1.3		mg/l	EPA 300/SW846 9056A
C37022-12F	**MW-202**					
Iron		288	200		ug/l	SW846 6010B
Manganese		631	15		ug/l	SW846 6010B
C37022-13	**MW-203**					
TPH (Gasoline)		0.102	0.10	0.050	mg/l	NWTPH-GX
TPH (Diesel)		0.0933 J	0.094	0.047	mg/l	NWTPH-DX
TPH (Motor Oil)		0.168 J	0.19	0.094	mg/l	NWTPH-DX
Calcium		50900	5000		ug/l	SW846 6010B
Iron		15000	200		ug/l	SW846 6010B
Magnesium		5490	5000		ug/l	SW846 6010B
Alkalinity, Total as CaCO3		134	5.0		mg/l	SM2320 B-97
Hardness, Total as CaCO3 [a]		150	33		mg/l	SW846 6010B/SM 2340B
Nitrogen, Nitrate [b]		0.42	0.25		mg/l	EPA 300/SW846 9056A
Sulfate		14.5	1.3		mg/l	EPA 300/SW846 9056A
C37022-13F	**MW-203**					
Manganese		127	15		ug/l	SW846 6010B
C37022-14	**MW-206A**					
TPH (Diesel)		0.236	0.094	0.047	mg/l	NWTPH-DX
TPH (Motor Oil)		0.392	0.19	0.094	mg/l	NWTPH-DX
C37022-15	**TX-06A**					
TPH (Diesel)		0.758	0.094	0.047	mg/l	NWTPH-DX
TPH (Motor Oil)		0.184 J	0.19	0.094	mg/l	NWTPH-DX

Summary of Hits

Job Number: C37022
Account: Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 11/05/14 thru 11/06/14

Lab Sample ID / Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C37022-16	**MW-112A**					
Benzene		15.6	1.0	0.20	ug/l	SW846 8260B
Toluene		1.4	1.0	0.20	ug/l	SW846 8260B
Ethylbenzene		28.0	1.0	0.20	ug/l	SW846 8260B
Xylene (total)		1.6 J	2.0	0.46	ug/l	SW846 8260B
TPH (Gasoline)		0.760	0.20	0.10	mg/l	NWTPH-GX
TPH (Diesel)		1.43	0.095	0.048	mg/l	NWTPH-DX
TPH (Motor Oil)		0.295	0.19	0.095	mg/l	NWTPH-DX
C37022-17	**TX-04**					
No hits reported in this sample.						
C37022-18	**SH-04**					
Benzene		24.9	1.0	0.20	ug/l	SW846 8260B
Toluene		2.3	1.0	0.20	ug/l	SW846 8260B
Ethylbenzene		17.3	1.0	0.20	ug/l	SW846 8260B
Xylene (total)		7.2	2.0	0.46	ug/l	SW846 8260B
TPH (Gasoline)		0.984	0.20	0.10	mg/l	NWTPH-GX
TPH (Diesel)		0.608	0.094	0.047	mg/l	NWTPH-DX
C37022-19	**MW-306**					
Benzene		119	20	4.0	ug/l	SW846 8260B
Toluene		22.6	20	4.0	ug/l	SW846 8260B
Ethylbenzene		302	20	4.0	ug/l	SW846 8260B
Xylene (total)		939	40	9.2	ug/l	SW846 8260B
TPH (Gasoline)		5.59	2.0	1.0	mg/l	NWTPH-GX
C37022-20	**MW-305**					
Benzene		41.9	2.0	0.40	ug/l	SW846 8260B
Toluene		5.2	2.0	0.40	ug/l	SW846 8260B
Ethylbenzene		2.0	2.0	0.40	ug/l	SW846 8260B
Xylene (total)		30.6	4.0	0.92	ug/l	SW846 8260B
TPH (Gasoline)		1.16	1.0	0.50	mg/l	NWTPH-GX
C37022-21	**MW-05**					
TPH (Gasoline)		0.0507 J	0.10	0.050	mg/l	NWTPH-GX
TPH (Diesel)		0.137	0.094	0.047	mg/l	NWTPH-DX

Summary of Hits

Job Number: C37022
Account: Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA
Collected: 11/05/14 thru 11/06/14

Lab Sample ID Analyte	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
C37022-22	**TRIP BLANK**					

No hits reported in this sample.

(a) Calculated as: (Calcium * 2.497) + (Magnesium * 4.118)
(b) Sample received and analyzed past holding time as per client request.

Northern California ACCUTEST LABORATORIES

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID:	MW-213		
Lab Sample ID:	C37022-1	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q25058.D	1	11/12/14	BQ	n/a	n/a	VQ1060
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	111%		70-130%
2037-26-5	Toluene-D8	105%		70-130%
460-00-4	4-Bromofluorobenzene	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-213		
Lab Sample ID:	C37022-1	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T16741.D	1	11/10/14	BJ	11/10/14	OP11165	ET732
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	85%		42-116%
321-60-8	2-Fluorobiphenyl	81%		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:	MW-213		
Lab Sample ID:	C37022-1	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49219.D	1	11/13/14	EA	n/a	n/a	GJK2063
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	99%		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-213		
Lab Sample ID:	C37022-1	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318925.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
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)	0.0782	0.094	0.047	mg/l	J
	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:	MW-223		
Lab Sample ID:	C37022-2	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V21988.D	1	11/13/14	TN	n/a	n/a	VV868
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	105%		70-130%
2037-26-5	Toluene-D8	94%		70-130%
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-214		
Lab Sample ID:	C37022-3	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q25059.D	1	11/12/14	BQ	n/a	n/a	VQ1060
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	113%		70-130%
2037-26-5	Toluene-D8	106%		70-130%
460-00-4	4-Bromofluorobenzene	98%		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-214
Lab Sample ID: C37022-3 **Date Sampled:** 11/05/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: SW846 8270C BY SIM SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T16742.D	1	11/10/14	BJ	11/10/14	OP11165	ET732
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	73%		42-116%
321-60-8	2-Fluorobiphenyl	70%		44-115%
1718-51-0	Terphenyl-d14	75%		45-141%

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

Report of Analysis

Client Sample ID:	MW-214		
Lab Sample ID:	C37022-3	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49220.D	1	11/13/14	EA	n/a	n/a	GJK2063
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	99%		50-150%
460-00-4	4-Bromofluorobenzene	116%		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-214		
Lab Sample ID:	C37022-3	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318926.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
Run #2							

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

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.168	0.095	0.048	mg/l	
	TPH (Motor Oil)	0.103	0.19	0.095	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	80%		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-312		
Lab Sample ID:	C37022-4	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V21992.D	1	11/13/14	TN	n/a	n/a	VV868
Run #2	W49371.D	10	11/14/14	TN	n/a	n/a	VW1785

	Purge Volume
Run #1	10.0 ml
Run #2	10.0 ml

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	239 [a]	10	2.0	ug/l	
108-88-3	Toluene	5.8	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	6.5	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	10.2	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%	109%	70-130%
2037-26-5	Toluene-D8	94%	102%	70-130%
460-00-4	4-Bromofluorobenzene	111%	104%	70-130%

(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-312		
Lab Sample ID:	C37022-4	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8270C BY SIM SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T16743.D	1	11/10/14	BJ	11/10/14	OP11165	ET732
Run #2	T16751.D	5	11/11/14	BJ	11/10/14	OP11165	ET733

	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	0.22	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	0.57	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	30.6 [a]	2.4	0.47	ug/l	
91-57-6	2-Methylnaphthalene	17.4	0.47	0.094	ug/l	
91-20-3	Naphthalene	0.71	0.47	0.094	ug/l	
85-01-8	Phenanthrene	0.088	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	83%	78%	42-116%
321-60-8	2-Fluorobiphenyl	95%	85%	44-115%
1718-51-0	Terphenyl-d14	96%	91%	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-312		
Lab Sample ID:	C37022-4	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49289.D	10	11/15/14	EA	n/a	n/a	GJK2068
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	1.64	1.0	0.50	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	90%		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-312		
Lab Sample ID:	C37022-4	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318927.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
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)	1.13	0.094	0.047	mg/l	
	TPH (Motor Oil)	0.132	0.19	0.094	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	82%		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-312
Lab Sample ID: C37022-4
Matrix: AQ - Ground Water
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Date Sampled: 11/05/14
Date Received: 11/08/14
Percent Solids: n/a

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	58800	5000	ug/l	1	11/17/14	11/18/14	RS	SW846 6010B [1]	SW846 3010A [3]
Iron	25600	200	ug/l	1	11/17/14	11/18/14	RS	SW846 6010B [2]	SW846 3010A [3]
Lead	< 10	10	ug/l	1	11/17/14	11/18/14	RS	SW846 6010B [1]	SW846 3010A [3]
Magnesium	11600	5000	ug/l	1	11/17/14	11/18/14	RS	SW846 6010B [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA4400
(2) Instrument QC Batch: MA4406
(3) Prep QC Batch: MP8679

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-312		
Lab Sample ID:	C37022-4	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	202	5.0	mg/l	1	11/15/14 14:00	DQ	SM2320 B-97
Hardness, Total as CaCO3 [a]	195	33	mg/l	1	11/18/14 04:34	RS	SW846 6010B/SM 2340B
Nitrogen, Nitrate [b]	< 0.25	0.25	mg/l	2.5	11/17/14 14:21	RL	EPA 300/SW846 9056A
Nitrogen, Nitrite [b]	< 0.25	0.25	mg/l	2.5	11/17/14 14:21	RL	EPA 300/SW846 9056A
Sulfate	< 1.3	1.3	mg/l	2.5	11/17/14 14:21	RL	EPA 300/SW846 9056A

(a) Calculated as: (Calcium * 2.497) + (Magnesium * 4.118)
(b) Sample received and analyzed past holding time as per client request.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-312		
Lab Sample ID:	C37022-4F	**Date Sampled:**	11/05/14
Matrix:	AQ - Groundwater Filtered	**Date Received:**	11/08/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	< 200	200	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]
Manganese	787	15	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4396
(2) Prep QC Batch: MP8667

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-311		
Lab Sample ID:	C37022-5	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V21989.D	1	11/13/14	TN	n/a	n/a	VV868
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	102%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
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-311
Lab Sample ID: C37022-5 **Date Sampled:** 11/05/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: SW846 8270C BY SIM SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	T16744.D	1	11/10/14	BJ	11/10/14	OP11165	ET732
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	95%		42-116%
321-60-8	2-Fluorobiphenyl	98%		44-115%
1718-51-0	Terphenyl-d14	92%		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-311		
Lab Sample ID:	C37022-5	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49290.D	1	11/15/14	EA	n/a	n/a	GJK2068
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	92%		50-150%
460-00-4	4-Bromofluorobenzene	110%		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-311		
Lab Sample ID:	C37022-5	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318905.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
Run #2							

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

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	ND	0.095	0.048	mg/l	
	TPH (Motor Oil)	ND	0.19	0.095	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-311		
Lab Sample ID:	C37022-5	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	75200	5000	ug/l	1	11/17/14	11/18/14	RS	SW846 6010B [1]	SW846 3010A [3]
Iron	32600	200	ug/l	1	11/17/14	11/18/14	RS	SW846 6010B [2]	SW846 3010A [3]
Lead	< 10	10	ug/l	1	11/17/14	11/18/14	RS	SW846 6010B [1]	SW846 3010A [3]
Magnesium	8270	5000	ug/l	1	11/17/14	11/18/14	RS	SW846 6010B [1]	SW846 3010A [3]

(1) Instrument QC Batch: MA4400
(2) Instrument QC Batch: MA4406
(3) Prep QC Batch: MP8679

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-311		
Lab Sample ID:	C37022-5	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	188	5.0	mg/l	1	11/15/14 14:00	DQ	SM2320 B-97
Hardness, Total as CaCO3 [a]	222	33	mg/l	1	11/18/14 04:39	RS	SW846 6010B/SM 2340B
Nitrogen, Nitrate [b]	< 0.25	0.25	mg/l	2.5	11/17/14 14:38	RL	EPA 300/SW846 9056A
Nitrogen, Nitrite [b]	< 0.25	0.25	mg/l	2.5	11/17/14 14:38	RL	EPA 300/SW846 9056A
Sulfate	42.3	1.3	mg/l	2.5	11/17/14 14:38	RL	EPA 300/SW846 9056A

(a) Calculated as: (Calcium * 2.497) + (Magnesium * 4.118)
(b) Sample received and analyzed past holding time as per client request.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-311		
Lab Sample ID:	C37022-5F	**Date Sampled:**	11/05/14
Matrix:	AQ - Groundwater Filtered	**Date Received:**	11/08/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	< 200	200	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]
Manganese	1570	15	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4396
(2) Prep QC Batch: MP8667

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-411		
Lab Sample ID:	C37022-6	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V21990.D	1	11/13/14	TN	n/a	n/a	VV868
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	103%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
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-104		
Lab Sample ID:	C37022-7	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49291.D	2	11/15/14	EA	n/a	n/a	GJK2068
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	0.441	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	93%		50-150%
460-00-4	4-Bromofluorobenzene	123%		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-104		
Lab Sample ID:	C37022-7	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318906.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
Run #2							

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

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.527	0.095	0.048	mg/l	
	TPH (Motor Oil)	0.221	0.19	0.095	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	81%		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-104		
Lab Sample ID:	C37022-7	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Lead	< 10	10	ug/l	1	11/17/14	11/18/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4400
(2) Prep QC Batch: MP8679

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-105		
Lab Sample ID:	C37022-8	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	V21991.D	1	11/13/14	TN	n/a	n/a	VV868
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	105%		70-130%
2037-26-5	Toluene-D8	97%		70-130%
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-105		
Lab Sample ID:	C37022-8	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49292.D	1	11/15/14	EA	n/a	n/a	GJK2068
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	89%		50-150%
460-00-4	4-Bromofluorobenzene	110%		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

Accutest Laboratories

Report of Analysis

Client Sample ID: MW-105
Lab Sample ID: C37022-8 **Date Sampled:** 11/05/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: NWTPH-DX SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318907.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
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)	0.377	0.094	0.047	mg/l	
	TPH (Motor Oil)	0.192	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-105		
Lab Sample ID:	C37022-8	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Lead	< 10	10	ug/l	1	11/17/14	11/18/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4400
(2) Prep QC Batch: MP8679

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-111		
Lab Sample ID:	C37022-9	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q25098.D	1	11/14/14	BQ	n/a	n/a	VQ1062
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	57.4	1.0	0.20	ug/l	
108-88-3	Toluene	1.2	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	0.83	1.0	0.20	ug/l	J
1330-20-7	Xylene (total)	0.47	2.0	0.46	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	90%		70-130%
460-00-4	4-Bromofluorobenzene	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-111		
Lab Sample ID:	C37022-9	**Date Sampled:**	11/05/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49293.D	1	11/15/14	EA	n/a	n/a	GJK2068
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	0.232	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	92%		50-150%
460-00-4	4-Bromofluorobenzene	122%		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

Accutest Laboratories

Report of Analysis

Client Sample ID: MW-111
Lab Sample ID: C37022-9 **Date Sampled:** 11/05/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: NWTPH-DX SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318908.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
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)	0.167	0.094	0.047	mg/l	
	TPH (Motor Oil)	0.118	0.19	0.094	mg/l	J

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-201		
Lab Sample ID:	C37022-10	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q25099.D	1	11/14/14	BQ	n/a	n/a	VQ1062
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	101%		70-130%
2037-26-5	Toluene-D8	105%		70-130%
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-201		
Lab Sample ID:	C37022-10	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49297.D	1	11/15/14	EA	n/a	n/a	GJK2068
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	89%		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

Accutest Laboratories

Report of Analysis

Client Sample ID: MW-201
Lab Sample ID: C37022-10 **Date Sampled:** 11/06/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: NWTPH-DX SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318909.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
Run #2							

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

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	0.173	0.095	0.048	mg/l	
	TPH (Motor Oil)	0.195	0.19	0.095	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-204		
Lab Sample ID:	C37022-11	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q25097.D	1	11/14/14	BQ	n/a	n/a	VQ1062
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	99%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
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-204
Lab Sample ID: C37022-11 **Date Sampled:** 11/06/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: NWTPH-GX **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49298.D	1	11/15/14	EA	n/a	n/a	GJK2068
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	84%		50-150%
460-00-4	4-Bromofluorobenzene	108%		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

Accutest Laboratories

Report of Analysis

Client Sample ID: MW-204
Lab Sample ID: C37022-11 **Date Sampled:** 11/06/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: NWTPH-DX SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318910.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
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)	0.505	0.094	0.047	mg/l	
	TPH (Motor Oil)	0.321	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	86%		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

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-202		
Lab Sample ID:	C37022-12	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q25100.D	1	11/14/14	BQ	n/a	n/a	VQ1062
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	8.3	1.0	0.20	ug/l	
108-88-3	Toluene	2.6	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	15.4	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	1.1	2.0	0.46	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	105%		70-130%
460-00-4	4-Bromofluorobenzene	117%		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

Accutest Laboratories

Report of Analysis

Client Sample ID: MW-202
Lab Sample ID: C37022-12 **Date Sampled:** 11/06/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: NWTPH-GX **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49301.D	20	11/15/14	EA	n/a	n/a	GJK2068
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	5.10	2.0	1.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	85%		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

Accutest Laboratories

Report of Analysis

Client Sample ID: MW-202
Lab Sample ID: C37022-12 **Date Sampled:** 11/06/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: NWTPH-DX SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318966.D	3	11/12/14	AG	11/10/14	OP11166	GHH1402
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)	2.45	0.28	0.14	mg/l	
	TPH (Motor Oil)	0.282	0.57	0.28	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	73%		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

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-202		
Lab Sample ID:	C37022-12	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	14200	5000	ug/l	1	11/17/14	11/18/14	RS	SW846 6010B [1]	SW846 3010A [2]
Iron	34900	200	ug/l	1	11/17/14	11/18/14	RS	SW846 6010B [1]	SW846 3010A [2]
Magnesium	13800	5000	ug/l	1	11/17/14	11/18/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4400
(2) Prep QC Batch: MP8679

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-202		
Lab Sample ID:	C37022-12	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	92.0	5.0	mg/l	1	11/15/14 14:00	DQ	SM2320 B-97
Hardness, Total as CaCO3 [a]	92.3	33	mg/l	1	11/18/14 02:25	RS	SW846 6010B/SM 2340B
Nitrogen, Nitrate [b]	< 0.25	0.25	mg/l	2.5	11/17/14 14:55	RL	EPA 300/SW846 9056A
Nitrogen, Nitrite [b]	< 0.25	0.25	mg/l	2.5	11/17/14 14:55	RL	EPA 300/SW846 9056A
Sulfate	7.0	1.3	mg/l	2.5	11/17/14 14:55	RL	EPA 300/SW846 9056A

(a) Calculated as: (Calcium * 2.497) + (Magnesium * 4.118)
(b) Sample received and analyzed past holding time as per client request.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-202		
Lab Sample ID:	C37022-12F	**Date Sampled:**	11/06/14
Matrix:	AQ - Groundwater Filtered	**Date Received:**	11/08/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	288	200	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]
Manganese	631	15	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4396
(2) Prep QC Batch: MP8667

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-203
Lab Sample ID: C37022-13 **Date Sampled:** 11/06/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: NWTPH-GX **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49302.D	1	11/15/14	EA	n/a	n/a	GJK2068
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	0.102	0.10	0.050	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	85%		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-203		
Lab Sample ID:	C37022-13	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-DX SW846 3510C	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318913.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
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)	0.0933	0.094	0.047	mg/l	J
	TPH (Motor Oil)	0.168	0.19	0.094	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	86%		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-203		
Lab Sample ID:	C37022-13	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Calcium	50900	5000	ug/l	1	11/17/14	11/18/14	RS	SW846 6010B [1]	SW846 3010A [2]
Iron	15000	200	ug/l	1	11/17/14	11/18/14	RS	SW846 6010B [1]	SW846 3010A [2]
Magnesium	5490	5000	ug/l	1	11/17/14	11/18/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4400
(2) Prep QC Batch: MP8679

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-203		
Lab Sample ID:	C37022-13	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Alkalinity, Total as CaCO3	134	5.0	mg/l	1	11/15/14 14:00	DQ	SM2320 B-97
Hardness, Total as CaCO3 [a]	150	33	mg/l	1	11/18/14 02:31	RS	SW846 6010B/SM 2340B
Nitrogen, Nitrate [b]	0.42	0.25	mg/l	2.5	11/17/14 15:13	RL	EPA 300/SW846 9056A
Nitrogen, Nitrite [b]	< 0.25	0.25	mg/l	2.5	11/17/14 15:13	RL	EPA 300/SW846 9056A
Sulfate	14.5	1.3	mg/l	2.5	11/17/14 15:13	RL	EPA 300/SW846 9056A

(a) Calculated as: (Calcium * 2.497) + (Magnesium * 4.118)
(b) Sample received and analyzed past holding time as per client request.

RL = Reporting Limit

Report of Analysis

Client Sample ID:	MW-203		
Lab Sample ID:	C37022-13F	**Date Sampled:**	11/06/14
Matrix:	AQ - Groundwater Filtered	**Date Received:**	11/08/14
		Percent Solids:	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed	By	Method	Prep Method
Iron	< 200	200	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]
Manganese	127	15	ug/l	1	11/14/14	11/14/14	RS	SW846 6010B [1]	SW846 3010A [2]

(1) Instrument QC Batch: MA4396
(2) Prep QC Batch: MP8667

RL = Reporting Limit

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-206A		
Lab Sample ID:	C37022-14	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q25101.D	1	11/14/14	BQ	n/a	n/a	VQ1062
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	99%		70-130%
2037-26-5	Toluene-D8	96%		70-130%
460-00-4	4-Bromofluorobenzene	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-206A		
Lab Sample ID:	C37022-14	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49304.D	1	11/15/14	EA	n/a	n/a	GJK2068
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	84%		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

Accutest Laboratories

Report of Analysis

Client Sample ID: MW-206A
Lab Sample ID: C37022-14 **Date Sampled:** 11/06/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: NWTPH-DX SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318914.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
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)	0.236	0.094	0.047	mg/l	
	TPH (Motor Oil)	0.392	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

Accutest Laboratories

Report of Analysis

Client Sample ID:	TX-06A		
Lab Sample ID:	C37022-15	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q25102.D	1	11/14/14	BQ	n/a	n/a	VQ1062
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	99%		70-130%
2037-26-5	Toluene-D8	92%		70-130%
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:	TX-06A		
Lab Sample ID:	C37022-15	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49305.D	1	11/15/14	EA	n/a	n/a	GJK2068
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	83%		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

Accutest Laboratories

Report of Analysis

Client Sample ID: TX-06A
Lab Sample ID: C37022-15 **Date Sampled:** 11/06/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: NWTPH-DX SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318915.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
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)	0.758	0.094	0.047	mg/l	
	TPH (Motor Oil)	0.184	0.19	0.094	mg/l	J

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

Accutest Laboratories

Report of Analysis

Client Sample ID: MW-112A
Lab Sample ID: C37022-16 **Date Sampled:** 11/06/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: SW846 8260B **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q25103.D	1	11/14/14	BQ	n/a	n/a	VQ1062
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	15.6	1.0	0.20	ug/l	
108-88-3	Toluene	1.4	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	28.0	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	1.6	2.0	0.46	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		70-130%
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	110%		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

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-112A		
Lab Sample ID:	C37022-16	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49369.D	2	11/18/14	EA	n/a	n/a	GJK2071
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	0.760	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	87%		50-150%
460-00-4	4-Bromofluorobenzene	98%		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-112A
Lab Sample ID: C37022-16 **Date Sampled:** 11/06/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: NWTPH-DX SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318916.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
Run #2							

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

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	1.43	0.095	0.048	mg/l	
	TPH (Motor Oil)	0.295	0.19	0.095	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

Accutest Laboratories

Report of Analysis

Client Sample ID:	TX-04		
Lab Sample ID:	C37022-17	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q25104.D	1	11/14/14	BQ	n/a	n/a	VQ1062
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	99%		70-130%
2037-26-5	Toluene-D8	82%		70-130%
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: TX-04
Lab Sample ID: C37022-17 **Date Sampled:** 11/06/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: NWTPH-GX **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49423.D	1	11/20/14	AN	n/a	n/a	GJK2074
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	84%		50-150%
460-00-4	4-Bromofluorobenzene	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: TX-04
Lab Sample ID: C37022-17 **Date Sampled:** 11/06/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: NWTPH-DX SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318917.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
Run #2							

	Initial Volume	Final Volume
Run #1	1040 ml	1.0 ml
Run #2		

Northwest TPH-Dx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Diesel)	ND	0.096	0.048	mg/l	
	TPH (Motor Oil)	ND	0.19	0.096	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	93%		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:	SH-04		
Lab Sample ID:	C37022-18	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q25060.D	1	11/12/14	BQ	n/a	n/a	VQ1060
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	24.9	1.0	0.20	ug/l	
108-88-3	Toluene	2.3	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	17.3	1.0	0.20	ug/l	
1330-20-7	Xylene (total)	7.2	2.0	0.46	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	107%		70-130%
2037-26-5	Toluene-D8	95%		70-130%
460-00-4	4-Bromofluorobenzene	108%		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:	SH-04		
Lab Sample ID:	C37022-18	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49371.D	2	11/18/14	EA	n/a	n/a	GJK2071
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	0.984	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	86%		50-150%
460-00-4	4-Bromofluorobenzene	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: SH-04
Lab Sample ID: C37022-18 **Date Sampled:** 11/06/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: NWTPH-DX SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318918.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
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)	0.608	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:	MW-306		
Lab Sample ID:	C37022-19	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q25061.D	20	11/12/14	BQ	n/a	n/a	VQ1060
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	119	20	4.0	ug/l	
108-88-3	Toluene	22.6	20	4.0	ug/l	
100-41-4	Ethylbenzene	302	20	4.0	ug/l	
1330-20-7	Xylene (total)	939	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	99%		70-130%
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-306		
Lab Sample ID:	C37022-19	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49380.D	20	11/19/14	EA	n/a	n/a	GJK2071
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	5.59	2.0	1.0	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	86%		50-150%
460-00-4	4-Bromofluorobenzene	95%		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-305		
Lab Sample ID:	C37022-20	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q25062.D	2	11/12/14	BQ	n/a	n/a	VQ1060
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	41.9	2.0	0.40	ug/l	
108-88-3	Toluene	5.2	2.0	0.40	ug/l	
100-41-4	Ethylbenzene	2.0	2.0	0.40	ug/l	
1330-20-7	Xylene (total)	30.6	4.0	0.92	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	106%		70-130%
2037-26-5	Toluene-D8	86%		70-130%
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

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-305		
Lab Sample ID:	C37022-20	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	NWTPH-GX	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49383.D	10	11/19/14	EA	n/a	n/a	GJK2071
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	1.16	1.0	0.50	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	86%		50-150%
460-00-4	4-Bromofluorobenzene	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

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW-05		
Lab Sample ID:	C37022-21	**Date Sampled:**	11/06/14
Matrix:	AQ - Ground Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q25105.D	1	11/14/14	BQ	n/a	n/a	VQ1062
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	99%		70-130%
2037-26-5	Toluene-D8	88%		70-130%
460-00-4	4-Bromofluorobenzene	98%		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-05
Lab Sample ID: C37022-21 **Date Sampled:** 11/06/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: NWTPH-GX **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	JK49367.D	1	11/18/14	EA	n/a	n/a	GJK2071
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Northwest TPH-Gx

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (Gasoline)	0.0507	0.10	0.050	mg/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
98-08-8	aaa-Trifluorotoluene	87%		50-150%
460-00-4	4-Bromofluorobenzene	93%		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

Accutest Laboratories

Report of Analysis

Client Sample ID: MW-05
Lab Sample ID: C37022-21 **Date Sampled:** 11/06/14
Matrix: AQ - Ground Water **Date Received:** 11/08/14
Method: NWTPH-DX SW846 3510C **Percent Solids:** n/a
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	HH318919.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
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)	0.137	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	93%		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

Accutest Laboratories

Report of Analysis

Client Sample ID:	TRIP BLANK		
Lab Sample ID:	C37022-22	**Date Sampled:**	11/05/14
Matrix:	AQ - Trip Blank Water	**Date Received:**	11/08/14
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Q25050.D	1	11/12/14	BQ	n/a	n/a	VQ1060
Run #2							

	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	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	104%		70-130%
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	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

Northern California ACCUTEST LABORATORIES

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

FEDEX 6753 4467 2220

Shell Oil Products Chain Of Custody Record

URS

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

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: 11/7/14

PO #

SAP # 1 2 1 4 1 5

PAGE: 1 of 3

SAMPLING COMPANY: URS Corporation
LOG CODE:
SITE ADDRESS: Street and City: 2555 13th Avenue SW, Seattle
State: WA
GLOBAL ID NO.:
ADDRESS: 111 Southwest Columbia Street, Suite 1500, Portland, Oregon 97201
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
PROJECT CONTACT (Hardcopy or PDF Report to): Brian Pletcher
SAMPLER NAME(S) (Print): Bret Waldron ; Mark Tauscher
LAB USE ONLY: C37022
TELEPHONE: 503-222-7200
FAX: 503-222-4292
Bill To Contact E-MAIL: Brian.Pletcher@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

SPECIAL INSTRUCTIONS OR NOTES :
Please filter samples in Lab as needed

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE EDD DISK

REQUESTED ANALYSIS

UNIT COST: NWTPH-Gx | NWTPH-Dx (Diesel and Oil range) | BTEX | cPAHs (8270 SIM) | Total Lead
NON-UNIT COST: Total Alkalinity | Total Iron | Sulfate EPA 300.0 | Dissolved Iron EPA 6010 SW6020A | Dissolved Manganese EPA 6010 SW6020A | Nitrate/Nitrite EPA 353.2 | Hardness | Total Lead Bru

FIELD NOTES:
TEMPERATURE ON RECEIPT C°
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.																
																										X
1	MW-213	11/5/14	0910	W	X			X		10	X	X	X	X												
2	MW-223	11/5/14	0918	W	X					3			X													X
3	MW-214	11/5/14	0930	W	X			X		10	X	X	X	X												
4	MW-312	11/5/14	1124	W	X	X		X		13	X	X	X	X	X			X	X	X	X	X	X	X	X	LF / PRESERVE
5	MW-311	11/5/14	1145	W	X	X		X		13	X	X	X	X	X			X	X	X	X	X	X	X		LF / PRESERVE
6	MW-411	11/5/14	1150	W	X					3			X													X
7	MW-104	11/5/14	1340	W	X	X		X		6	X	X			X											X
8	MW-105	11/5/14	1345	W	X	X		X		9	X	X	X		X											
9	MW-111	11/5/14	1530	W	X			X		8	X	X	X													
10	MW-201	11/4/14	0820	W	X			X		8	X	X	X													

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
	FEDEX		
FEDEX			
		11/8/14	0915

TEMPS = (3.0/3.0) (3.5/3.5) (4.1/4.1) (5.1/5.1) (4.9/4.9) (4.0/4.0)

05/2/06 Revision

C37022: Chain of Custody
Page 1 of 4

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: 11/7/14
PO #
SAP # 1 2 1 4 1 5
PAGE: 2 of 3

SAMPLING COMPANY: URS Corporation
LOG CODE:
SITE ADDRESS: Street and City: 2555 13th Avenue SW, Seattle
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Bill To Contact E-MAIL: Brian.Pletcher@URS.com
SAMPLER NAME(S) (Print): Bret Waldron ; Mark Tauscher
LAB USE ONLY: C37022

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 :
Please filter samples in Lab as needed
☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ MOTIVE 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)	BTEX	EPA 8270 SIM	Total Lead	NON-UNIT COST: Total Alkalinity	Total Iron	Sulfate EPA 300.0	Dissolved Iron EPA 6010 BM62GA	Dissolved Manganese EPA 6010 BM62GA	Nitrate/Nitrite EPA 353.2	Hardness	FIELD NOTES: Container PID Readings or Laboratory Notes
11	MW-204	11/6/14	0826	W	X			X		24	X	X	X										MS/MSD K
12	MW-202	11/6/14	0955	W	X	X		X		11	X	X	X			X	X	X	X	X	X	X	LF/PRESERVE
13	MW-203	11/6/14	1042	W	X	X		X		8	X	X				X	X	X	X	X	X	X	1. 17
14	MW-206A	11/6/14	1145	W	X			X		8	X	X	X										
15	TX-06A	11/6/14	1240	W	X			X		8	X	X	X										
16	MW-112A	11/6/14	1320	W	X			X		8	X	X	X										
17	TX-04	11/6/14	1420	W	X			X		8	X	X	X										
18	SH-04	11/6/14	1455	W	X			X		8	X	X	X										
19	MW-306	11/6/14	1550	W	X					18	X		X										MS/MSD
20	MW-305	11/6/14	1555	W	X					6	X		X										

Relinquished by: (Signature)	Received by: (Signature)	Date	Time
	FEDEX		
FEDEX			
		11/8/14	0915

05/2/06 Revision

C37022: Chain of Custody
Page 2 of 4

Shell Oil Products Chain Of Custody Record

URS

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

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

PO #

SAP # 1 2 1 4 1 5

DATE: 11/7/14

PAGE: 3 of 3

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PROJECT CONTACT (Hardcopy or PDF Report to): Brian Pletcher

SAMPLER NAME(S) (Print): Bret Waldron ; Mark Tauscher

LAB USE ONLY: C37022

TELEPHONE: 503-222-7200

FAX: 503-222-4292

Bill To Contact E-MAIL: Brian.Pletcher@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

SPECIAL INSTRUCTIONS OR NOTES :
Please filter samples in Lab as needed

☑ SHELL CONTRACT RATE APPLIES
☐ STATE REIMBURSEMENT RATE APPLIES
☐ EDD NOT NEEDED
☑ RECEIPT VERIFICATION REQUESTED
☐ PROVIDE EDD/ DISK

REQUESTED ANALYSIS

UNIT COST / NON-UNIT COST

FIELD NOTES:

TEMPERATURE ON RECEIPT C°

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)	BTEX	ePAHs (8270 SIM)	Total Lead	Total Alkalinity	Total Iron	Sulfate EPA 300.0	Dissolved Iron EPA 6010 B/6020A	Dissolved Manganese EPA 6010 B/6020A	Nitrate/Nitrite EPA 353.2	Hardness	Container PID Readings or Laboratory Notes
21	MW-05	11/6/14	1610	W	X			X		8	X	X	X										
22	Trip Blank	—	—	W	X					3			X										K

11/7/14

	Relinquished by: (Signature)	Received by: (Signature)	Date	Time
		FEDEX		
	FEDEX			
			11/8/14	0915

05/2/06 Revision

C37022: Chain of Custody
Page 3 of 4

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: C37022 **Client:** SHELL OIL **Project:** 2555 13TH AVE SW, SEATTLE

Date / Time Received: 11/8/2014 9:15:00 AM **Delivery Method:** FedEx **Airbill #'s:** 875344672220

Cooler Temps (Initial/Adjusted): #1: (3/3); #2: (3.5/3.5); #3: (4.1/4.1); #4: (5.1/5.1); #5: (4.9/4.9); #6: (4/4);

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:	6		

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

C37022: Chain of Custody
Page 4 of 4

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: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1060-MB	Q25049.D	1	11/12/14	BQ	n/a	n/a	VQ1060

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

C37022-1, C37022-3, C37022-18, C37022-19, C37022-20, C37022-22

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	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	102%	70-130%
2037-26-5	Toluene-D8	103%	70-130%
460-00-4	4-Bromofluorobenzene	95%	70-130%

Method Blank Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV868-MB	V21978.D	1	11/13/14	TN	n/a	n/a	VV868

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

C37022-2, C37022-4, C37022-5, C37022-6, C37022-8

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	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	103%	70-130%
2037-26-5	Toluene-D8	78%	70-130%
460-00-4	4-Bromofluorobenzene	84%	70-130%

Method Blank Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1062-MB	Q25096.D	1	11/14/14	BQ	n/a	n/a	VQ1062

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

C37022-9, C37022-10, C37022-11, C37022-12, C37022-14, C37022-15, C37022-16, C37022-17, C37022-21

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.20	ug/l	
108-88-3	Toluene	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	100%	70-130%
2037-26-5	Toluene-D8	106%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

Method Blank Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1785-MB	W49363.D	1	11/14/14	TN	n/a	n/a	VW1785

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

C37022-4

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.20	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	103%	70-130%
2037-26-5	Toluene-D8	102%	70-130%
460-00-4	4-Bromofluorobenzene	102%	70-130%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1060-BS	Q25046.D	1	11/12/14	BQ	n/a	n/a	VQ1060
VQ1060-BSD	Q25047.D	1	11/12/14	BQ	n/a	n/a	VQ1060

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

C37022-1, C37022-3, C37022-18, C37022-19, C37022-20, C37022-22

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	19.0	95	19.1	96	1	77-122/25
100-41-4	Ethylbenzene	20	19.1	96	19.1	96	0	76-126/17
108-88-3	Toluene	20	18.9	95	18.9	95	0	75-122/17
1330-20-7	Xylene (total)	60	58.1	97	58.0	97	0	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	103%	103%	70-130%
2037-26-5	Toluene-D8	100%	100%	70-130%
460-00-4	4-Bromofluorobenzene	102%	101%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV868-BS	V21973.D	1	11/13/14	TN	n/a	n/a	VV868
VV868-BSD	V21976.D	1	11/13/14	TN	n/a	n/a	VV868

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

C37022-2, C37022-4, C37022-5, C37022-6, C37022-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	20.6	103	23.6	118	14	77-122/25
100-41-4	Ethylbenzene	20	19.1	96	20.2	101	6	76-126/17
108-88-3	Toluene	20	18.2	91	19.8	99	8	75-122/17
1330-20-7	Xylene (total)	60	58.0	97	61.3	102	6	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	104%	118%	70-130%
2037-26-5	Toluene-D8	92%	96%	70-130%
460-00-4	4-Bromofluorobenzene	101%	109%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1062-BS	Q25092.D	1	11/14/14	BQ	n/a	n/a	VQ1062
VQ1062-BSD	Q25094.D	1	11/14/14	BQ	n/a	n/a	VQ1062

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

C37022-9, C37022-10, C37022-11, C37022-12, C37022-14, C37022-15, C37022-16, C37022-17, C37022-21

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	16.5	83	16.5	83	0	77-122/25
100-41-4	Ethylbenzene	20	17.3	87	17.2	86	1	76-126/17
108-88-3	Toluene	20	17.2	86	17.1	86	1	75-122/17
1330-20-7	Xylene (total)	60	53.1	89	52.8	88	1	77-125/17

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	104%	104%	70-130%
2037-26-5	Toluene-D8	103%	103%	70-130%
460-00-4	4-Bromofluorobenzene	103%	103%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VW1785-BS	W49360.D	1	11/14/14	TN	n/a	n/a	VW1785
VW1785-BSD	W49361.D	1	11/14/14	TN	n/a	n/a	VW1785

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

C37022-4

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	20	20.3	102	20.4	102	0	77-122/25

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	104%	104%	70-130%
2037-26-5	Toluene-D8	102%	101%	70-130%
460-00-4	4-Bromofluorobenzene	103%	100%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VQ1060-LCS	Q25048.D	1	11/12/14	BQ	n/a	n/a	VQ1060

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

C37022-1, C37022-3, C37022-18, C37022-19, C37022-20, C37022-22

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

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	70-130%
2037-26-5	Toluene-D8	104%	70-130%
460-00-4	4-Bromofluorobenzene	98%	70-130%

* = Outside of Control Limits.

Laboratory Control Sample Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VV868-LCS	V21975.D	1	11/13/14	TN	n/a	n/a	VV868

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

C37022-2, C37022-4, C37022-5, C37022-6, C37022-8

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

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	105%	70-130%
2037-26-5	Toluene-D8	96%	70-130%
460-00-4	4-Bromofluorobenzene	103%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C37022-19MS	Q25063.D	20	11/12/14	BQ	n/a	n/a	VQ1060
C37022-19MSD	Q25064.D	20	11/12/14	BQ	n/a	n/a	VQ1060
C37022-19	Q25061.D	20	11/12/14	BQ	n/a	n/a	VQ1060

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

C37022-1, C37022-3, C37022-18, C37022-19, C37022-20, C37022-22

CAS No.	Compound	C37022-19 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	119		400	590	118	400	591	118	0	77-122/16
100-41-4	Ethylbenzene	302		400	819	129* [a]	400	818	129* [a]	0	76-126/17
108-88-3	Toluene	22.6		400	492	117	400	493	118	0	75-122/17
1330-20-7	Xylene (total)	939		1200	2500	130* [a]	1200	2490	129* [a]	0	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C37022-19	Limits
1868-53-7	Dibromofluoromethane	108%	106%	107%	70-130%
2037-26-5	Toluene-D8	101%	102%	99%	70-130%
460-00-4	4-Bromofluorobenzene	100%	101%	105%	70-130%

(a) Outside laboratory control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D64333-5MS	V21993.D	10	11/13/14	TN	n/a	n/a	VV868
D64333-5MSD	V21994.D	10	11/13/14	TN	n/a	n/a	VV868
D64333-5	V21981.D	10	11/13/14	TN	n/a	n/a	VV868

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

C37022-2, C37022-4, C37022-5, C37022-6, C37022-8

CAS No.	Compound	D64333-5 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	154		200	333	90	200	345	96	4	77-122/16
100-41-4	Ethylbenzene	9.7	J	200	189	90	200	197	94	4	76-126/17
108-88-3	Toluene	ND		200	196	98	200	181	91	8	75-122/17
1330-20-7	Xylene (total)	ND		600	525	88	600	569	95	8	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	D64333-5	Limits
1868-53-7	Dibromofluoromethane	108%	108%	106%	70-130%
2037-26-5	Toluene-D8	106%	95%	97%	70-130%
460-00-4	4-Bromofluorobenzene	92%	103%	85%	70-130%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C37022-11MS	Q25106.D	1	11/14/14	BQ	n/a	n/a	VQ1062
C37022-11MSD	Q25107.D	1	11/14/14	BQ	n/a	n/a	VQ1062
C37022-11	Q25097.D	1	11/14/14	BQ	n/a	n/a	VQ1062

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

C37022-9, C37022-10, C37022-11, C37022-12, C37022-14, C37022-15, C37022-16, C37022-17, C37022-21

CAS No.	Compound	C37022-11 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		20	17.9	90	20	17.3	87	3	77-122/16
100-41-4	Ethylbenzene	ND		20	15.1	76	20	15.3	77	1	76-126/17
108-88-3	Toluene	ND		20	15.5	78	20	15.5	78	0	75-122/17
1330-20-7	Xylene (total)	ND		60	32.5	54* [a]	60	35.0	58* [a]	7	77-125/17

CAS No.	Surrogate Recoveries	MS	MSD	C37022-11	Limits
1868-53-7	Dibromofluoromethane	101%	101%	99%	70-130%
2037-26-5	Toluene-D8	94%	96%	103%	70-130%
460-00-4	4-Bromofluorobenzene	102%	102%	100%	70-130%

(a) Outside laboratory control limits.

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C37069-1MS	W49381.D	20	11/14/14	TN	n/a	n/a	VW1785
C37069-1MSD	W49382.D	20	11/14/14	TN	n/a	n/a	VW1785
C37069-1	W49367.D	20	11/14/14	TN	n/a	n/a	VW1785

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

C37022-4

CAS No.	Compound	C37069-1 ug/l	Q	Spike ug/l	MS ug/l	MS %	Spike ug/l	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		400	402	101	400	415	104	3	77-122/16

CAS No.	Surrogate Recoveries	MS	MSD	C37069-1	Limits
1868-53-7	Dibromofluoromethane	114%	109%	106%	70-130%
2037-26-5	Toluene-D8	104%	101%	102%	70-130%
460-00-4	4-Bromofluorobenzene	108%	105%	105%	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: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11165-MB	T16733.D	1	11/10/14	BJ	11/10/14	OP11165	ET732

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

C37022-1, C37022-3, C37022-4, C37022-5

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	98%	42-116%
321-60-8	2-Fluorobiphenyl	96%	44-115%
1718-51-0	Terphenyl-d14	105%	45-141%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11165-BS	T16734.D	1	11/10/14	BJ	11/10/14	OP11165	ET732
OP11165-BSD	T16735.D	1	11/10/14	BJ	11/10/14	OP11165	ET732

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

C37022-1, C37022-3, C37022-4, C37022-5

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	BSD ug/l	BSD %	RPD	Limits Rec/RPD
83-32-9	Acenaphthene	5	4.0	80	4.0	80	0	54-108/21
208-96-8	Acenaphthylene	5	3.9	78	4.0	80	3	53-108/22
120-12-7	Anthracene	5	4.0	80	4.1	82	2	58-111/19
56-55-3	Benzo(a)anthracene	5	4.5	90	4.5	90	0	59-120/14
50-32-8	Benzo(a)pyrene	5	4.5	90	4.3	86	5	53-113/18
205-99-2	Benzo(b)fluoranthene	5	4.5	90	4.6	92	2	57-127/18
191-24-2	Benzo(g,h,i)perylene	5	4.6	92	4.3	86	7	52-126/21
207-08-9	Benzo(k)fluoranthene	5	4.6	92	4.7	94	2	60-125/16
218-01-9	Chrysene	5	4.5	90	4.4	88	2	63-120/14
53-70-3	Dibenzo(a,h)anthracene	5	4.7	94	4.4	88	7	53-127/22
206-44-0	Fluoranthene	5	4.4	88	4.1	82	7	59-123/17
86-73-7	Fluorene	5	3.8	76	3.9	78	3	57-113/21
193-39-5	Indeno(1,2,3-cd)pyrene	5	5.0	100	4.5	90	11	48-130/22
90-12-0	1-Methylnaphthalene	5	3.6	72	3.5	70	3	51-104/24
91-57-6	2-Methylnaphthalene	5	3.6	72	3.8	76	5	52-108/25
91-20-3	Naphthalene	5	3.6	72	3.7	74	3	51-102/23
85-01-8	Phenanthrene	5	4.1	82	4.3	86	5	58-112/18
129-00-0	Pyrene	5	4.2	84	4.6	92	9	52-124/20

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
4165-60-0	Nitrobenzene-d5	91%	90%	42-116%
321-60-8	2-Fluorobiphenyl	96%	91%	44-115%
1718-51-0	Terphenyl-d14	96%	107%	45-141%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11165-MS	T16736.D	1	11/10/14	BJ	11/10/14	OP11165	ET732
OP11165-MSD	T16737.D	1	11/10/14	BJ	11/10/14	OP11165	ET732
C37019-1	T16738.D	1	11/10/14	BJ	11/10/14	OP11165	ET732

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

C37022-1, C37022-3, C37022-4, C37022-5

CAS No.	Compound	C37019-1 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	0.50	U	9.62	5.6	58	9.62	6.8	71	19	54-108/21
208-96-8	Acenaphthylene	0.50	U	9.62	5.9	61	9.62	6.9	72	16	53-108/22
120-12-7	Anthracene	0.50	U	9.62	5.5	57* [a]	9.62	7.1	74	25* [b]	58-111/19
56-55-3	Benzo(a)anthracene	0.10	U	9.62	5.1	53* [a]	9.62	6.3	66	21* [b]	59-120/14
50-32-8	Benzo(a)pyrene	0.10	U	9.62	4.5	47* [a]	9.62	5.7	59	24* [b]	53-113/18
205-99-2	Benzo(b)fluoranthene	0.10	U	9.62	5.0	52* [a]	9.62	5.5	57	10	57-127/18
191-24-2	Benzo(g,h,i)perylene	0.10	U	9.62	4.8	50* [a]	9.62	5.8	60	19	52-126/21
207-08-9	Benzo(k)fluoranthene	0.10	U	9.62	5.0	52* [a]	9.62	5.9	61	17* [b]	60-125/16
218-01-9	Chrysene	0.10	U	9.62	5.3	55* [a]	9.62	6.2	64	16* [b]	63-120/14
53-70-3	Dibenzo(a,h)anthracene	0.10	U	9.62	4.9	51* [a]	9.62	5.8	60	17	53-127/22
206-44-0	Fluoranthene	0.50	U	9.62	5.3	55* [a]	9.62	7.0	73	28* [b]	59-123/17
86-73-7	Fluorene	0.50	U	9.62	5.3	55* [a]	9.62	6.4	67	19	57-113/21
193-39-5	Indeno(1,2,3-cd)pyrene	0.10	U	9.62	5.0	52	9.62	6.0	62	18	48-130/22
90-12-0	1-Methylnaphthalene	0.50	U	9.62	5.6	58	9.62	6.6	69	16	51-104/24
91-57-6	2-Methylnaphthalene	0.50	U	9.62	5.5	57	9.62	6.6	69	18	52-108/25
91-20-3	Naphthalene	0.50	U	9.62	5.9	61	9.62	6.7	70	13	51-102/23
85-01-8	Phenanthrene	0.50	U	9.62	5.4	56* [a]	9.62	7.0	73	26* [b]	58-112/18
129-00-0	Pyrene	0.50	U	9.62	5.6	58	9.62	6.9	72	21* [b]	52-124/20

CAS No.	Surrogate Recoveries	MS	MSD	C37019-1	Limits
4165-60-0	Nitrobenzene-d5	69%	87%	85%	42-116%
321-60-8	2-Fluorobiphenyl	68%	95%	98%	44-115%
1718-51-0	Terphenyl-d14	60%	98%	96%	45-141%

(a) Outside control limits due to matrix interference. Emulsion formed during extraction process.
(b) Outside laboratory control limits.

* = 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: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2063-MB1	JK49211.D	1	11/13/14	EA	n/a	n/a	GJK2063

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

C37022-1, C37022-3

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	104%	50-150%
460-00-4	4-Bromofluorobenzene	114%	50-150%

Method Blank Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2068-MB	JK49285.D	1	11/15/14	EA	n/a	n/a	GJK2068

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

C37022-4, C37022-5, C37022-7, C37022-8, C37022-9

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	95%	50-150%
460-00-4	4-Bromofluorobenzene	108%	50-150%

Method Blank Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2068-MB1	JK49296.D	1	11/15/14	EA	n/a	n/a	GJK2068

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

C37022-10, C37022-11, C37022-12, C37022-13, C37022-14, C37022-15

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	85%	50-150%
460-00-4	4-Bromofluorobenzene	105%	50-150%

Method Blank Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2071-MB	JK49364.D	1	11/18/14	EA	n/a	n/a	GJK2071

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

C37022-16, C37022-18, C37022-21

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	85%	50-150%
460-00-4	4-Bromofluorobenzene	91%	50-150%

Method Blank Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2071-MB1	JK49375.D	1	11/18/14	EA	n/a	n/a	GJK2071

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

C37022-19, C37022-20

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	82%	50-150%
460-00-4	4-Bromofluorobenzene	86%	50-150%

Method Blank Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2074-MB	JK49420.D	1	11/20/14	AN	n/a	n/a	GJK2074

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

C37022-17

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	86%	50-150%
460-00-4	4-Bromofluorobenzene	90%	50-150%

Method Blank Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2063-MB	JK49196.D	1	11/12/14	EA	n/a	n/a	GJK2063

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

GJK2063-BSD, GJK2063-BS, C36939-5DUP, C36939-1MS, C36939-1MSD

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	102%	50-150%
460-00-4	4-Bromofluorobenzene	112%	50-150%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2063-BS	JK49197.D	1	11/12/14	EA	n/a	n/a	GJK2063
GJK2063-BSD	JK49198.D	1	11/12/14	EA	n/a	n/a	GJK2063

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

C37022-1, C37022-3

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	0.4	0.405	101	0.408	102	1	69-127/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
98-08-8	aaa-Trifluorotoluene	92%	97%	50-150%
460-00-4	4-Bromofluorobenzene	109%	113%	50-150%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2068-BS	JK49286.D	1	11/15/14	EA	n/a	n/a	GJK2068
GJK2068-BSD	JK49287.D	1	11/15/14	EA	n/a	n/a	GJK2068

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

C37022-4, C37022-5, C37022-7, C37022-8, C37022-9, C37022-10, C37022-11, C37022-12, C37022-13, C37022-14, C37022-15

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	0.4	0.358	90	0.358	90	0	69-127/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
98-08-8	aaa-Trifluorotoluene	87%	85%	50-150%
460-00-4	4-Bromofluorobenzene	109%	107%	50-150%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2071-BS	JK49365.D	1	11/18/14	EA	n/a	n/a	GJK2071
GJK2071-BSD	JK49366.D	1	11/18/14	EA	n/a	n/a	GJK2071

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

C37022-16, C37022-18, C37022-19, C37022-20, C37022-21

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	0.4	0.316	79	0.314	79	1	69-127/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
98-08-8	aaa-Trifluorotoluene	84%	78%	50-150%
460-00-4	4-Bromofluorobenzene	90%	86%	50-150%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GJK2074-BS	JK49421.D	1	11/20/14	AN	n/a	n/a	GJK2074
GJK2074-BSD	JK49422.D	1	11/20/14	AN	n/a	n/a	GJK2074

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

C37022-17

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	0.4	0.371	93	0.371	93	0	69-127/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
98-08-8	aaa-Trifluorotoluene	83%	83%	50-150%
460-00-4	4-Bromofluorobenzene	91%	90%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36939-1MS	JK49201.D	1	11/12/14	EA	n/a	n/a	GJK2063
C36939-1MSD	JK49202.D	1	11/12/14	EA	n/a	n/a	GJK2063
C36939-1	JK49200.D	1	11/12/14	EA	n/a	n/a	GJK2063

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

C37022-1, C37022-3

CAS No.	Compound	C36939-1 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	0.402	101	0.4	0.395	99	2	69-127/13

CAS No.	Surrogate Recoveries	MS	MSD	C36939-1	Limits
98-08-8	aaa-Trifluorotoluene	99%	98%	105%	50-150%
460-00-4	4-Bromofluorobenzene	114%	112%	114%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C37022-11MS	JK49299.D	1	11/15/14	EA	n/a	n/a	GJK2068
C37022-11MSD	JK49300.D	1	11/15/14	EA	n/a	n/a	GJK2068
C37022-11	JK49298.D	1	11/15/14	EA	n/a	n/a	GJK2068

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

C37022-4, C37022-5, C37022-7, C37022-8, C37022-9, C37022-10, C37022-11, C37022-12, C37022-13, C37022-14, C37022-15

CAS No.	Compound	C37022-11 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	0.359	90	0.4	0.357	89	1	69-127/13

CAS No.	Surrogate Recoveries	MS	MSD	C37022-11	Limits
98-08-8	aaa-Trifluorotoluene	85%	82%	84%	50-150%
460-00-4	4-Bromofluorobenzene	113%	110%	108%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C37022-19MS	JK49381.D	20	11/19/14	EA	n/a	n/a	GJK2071
C37022-19MSD	JK49382.D	20	11/19/14	EA	n/a	n/a	GJK2071
C37022-19	JK49380.D	20	11/19/14	EA	n/a	n/a	GJK2071

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

C37022-16, C37022-18, C37022-19, C37022-20, C37022-21

CAS No.	Compound	C37022-19 mg/l	Q	Spike mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	5.59		8	11.7	76	8	11.8	78	1	69-127/13

CAS No.	Surrogate Recoveries	MS	MSD	C37022-19	Limits
98-08-8	aaa-Trifluorotoluene	86%	83%	86%	50-150%
460-00-4	4-Bromofluorobenzene	97%	95%	95%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C37049-1MS	JK49426.D	5	11/20/14	AN	n/a	n/a	GJK2074
C37049-1MSD	JK49427.D	5	11/20/14	AN	n/a	n/a	GJK2074
C37049-1	JK49425.D	5	11/20/14	AN	n/a	n/a	GJK2074

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

C37022-17

CAS No.	Compound	C37049-1 mg/l	Q	Spike mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (Gasoline)	2.41		2	4.15	87	2	3.65	62* [a]	13	69-127/13

CAS No.	Surrogate Recoveries	MS	MSD	C37049-1	Limits
98-08-8	aaa-Trifluorotoluene	80%	76%	84%	50-150%
460-00-4	4-Bromofluorobenzene	95%	93%	95%	50-150%

(a) Outside of in-house control limits; but within method acceptance limits.

* = Outside of Control Limits.

Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C36939-5DUP	JK49208.D	1	11/13/14	EA	n/a	n/a	GJK2063
C36939-5	JK49207.D	1	11/13/14	EA	n/a	n/a	GJK2063

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

C37022-1, C37022-3

CAS No.	Compound	C36939-5 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Gasoline)	ND		ND		nc	13

CAS No.	Surrogate Recoveries	DUP	C36939-5	Limits
98-08-8	aaa-Trifluorotoluene	103%	103%	50-150%
460-00-4	4-Bromofluorobenzene	115%	116%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C37022-9DUP	JK49294.D	1	11/15/14	EA	n/a	n/a	GJK2068
C37022-9	JK49293.D	1	11/15/14	EA	n/a	n/a	GJK2068

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

C37022-9

CAS No.	Compound	C37022-9 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Gasoline)	0.232		0.241		4	13

CAS No.	Surrogate Recoveries	DUP	C37022-9	Limits
98-08-8	aaa-Trifluorotoluene	91%	92%	50-150%
460-00-4	4-Bromofluorobenzene	121%	122%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C37022-13DUP	JK49303.D	1	11/15/14	EA	n/a	n/a	GJK2068
C37022-13	JK49302.D	1	11/15/14	EA	n/a	n/a	GJK2068

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

C37022-4, C37022-5, C37022-7, C37022-8, C37022-10, C37022-11, C37022-12, C37022-13, C37022-14, C37022-15

CAS No.	Compound	C37022-13 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Gasoline)	0.102		0.0990	J	3	13

CAS No.	Surrogate Recoveries	DUP	C37022-13	Limits
98-08-8	aaa-Trifluorotoluene	83%	85%	50-150%
460-00-4	4-Bromofluorobenzene	109%	111%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C37022-21DUP	JK49368.D	1	11/18/14	EA	n/a	n/a	GJK2071
C37022-21	JK49367.D	1	11/18/14	EA	n/a	n/a	GJK2071

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

C37022-16, C37022-18, C37022-19, C37022-20, C37022-21

CAS No.	Compound	C37022-21 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Gasoline)	0.0507	J	0.0527	J	4	13

CAS No.	Surrogate Recoveries	DUP	C37022-21	Limits
98-08-8	aaa-Trifluorotoluene	87%	87%	50-150%
460-00-4	4-Bromofluorobenzene	93%	93%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C37022-17DUP	JK49424.D	1	11/20/14	AN	n/a	n/a	GJK2074
C37022-17	JK49423.D	1	11/20/14	AN	n/a	n/a	GJK2074

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

C37022-17

CAS No.	Compound	C37022-17 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Gasoline)	ND		ND		nc	13

CAS No.	Surrogate Recoveries	DUP	C37022-17	Limits
98-08-8	aaa-Trifluorotoluene	88%	84%	50-150%
460-00-4	4-Bromofluorobenzene	92%	90%	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: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11166-MB	HH318904.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401

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

C37022-1, C37022-3, C37022-4, C37022-5, C37022-7, C37022-8, C37022-9, C37022-10, C37022-11, C37022-12, C37022-13, C37022-14, C37022-15, C37022-16, C37022-17, C37022-18, C37022-21

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	92%	50-150%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11166-BS	HH318902.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
OP11166-BSD	HH318903.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401

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

C37022-1, C37022-3, C37022-4, C37022-5, C37022-7, C37022-8, C37022-9, C37022-10, C37022-11, C37022-12, C37022-13, C37022-14, C37022-15, C37022-16, C37022-17, C37022-18, C37022-21

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (Diesel)	1	0.525	53	0.565	57	7	37-112/30
	TPH (Motor Oil)	1	0.628	63	0.656	66	4	49-120/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	89%	88%	50-150%

* = Outside of Control Limits.

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11166-MS	HH318920.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
OP11166-MSD	HH318921.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
C37022-11	HH318910.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401

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

C37022-1, C37022-3, C37022-4, C37022-5, C37022-7, C37022-8, C37022-9, C37022-10, C37022-11, C37022-12, C37022-13, C37022-14, C37022-15, C37022-16, C37022-17, C37022-18, C37022-21

CAS No.	Compound	C37022-11 mg/l	Q	Spike mg/l	MS mg/l	MS %	Spike mg/l	MSD mg/l	MSD %	RPD	Limits Rec/RPD
	TPH (Diesel)	0.505		0.943	0.936	46	0.943	1.02	55	9	37-112/31
	TPH (Motor Oil)	0.321		0.943	0.823	53	0.943	1.04	76	23	49-120/33

CAS No.	Surrogate Recoveries	MS	MSD	C37022-11	Limits
630-01-3	Hexacosane	83%	90%	86%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11166-DUP1	HH318922.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
C37022-10	HH318909.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401

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

C37022-1, C37022-3, C37022-4, C37022-5, C37022-7, C37022-8, C37022-9, C37022-10, C37022-11, C37022-12, C37022-13, C37022-14, C37022-15, C37022-16, C37022-17, C37022-18

CAS No.	Compound	C37022-10 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Diesel)	0.173		0.187		8	31
	TPH (Motor Oil)	0.195		0.237		19	33

CAS No.	Surrogate Recoveries	DUP	C37022-10	Limits
630-01-3	Hexacosane	90%	84%	50-150%

* = Outside of Control Limits.

Duplicate Summary

Job Number: C37022
Account: SHELLWIC Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP11166-DUP2	HH318924.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401
C37022-21	HH318919.D	1	11/11/14	AG	11/10/14	OP11166	GHH1401

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

C37022-21

CAS No.	Compound	C37022-21 mg/l	Q	DUP mg/l	Q	RPD	Limits
	TPH (Diesel)	0.137		0.123		11	31
	TPH (Motor Oil)	ND		ND		nc	33

CAS No.	Surrogate Recoveries	DUP	C37022-21	Limits
630-01-3	Hexacosane	91%	93%	50-150%

* = Outside of Control Limits.

Northern California ACCUTEST LABORATORIES

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C37022
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8667
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/14/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	13	8.5		
Antimony	6.0	.7	.51		
Arsenic	10	.7	.65		
Barium	200	.4	.35		
Beryllium	5.0	.2	.4		
Boron	100	.9	.64		
Cadmium	2.0	.2	.15		
Calcium	5000	7.1	12		
Chromium	10	.3	.41		
Cobalt	5.0	.2	.3		
Copper	10	1.2	3		
Iron	200	6.4	12	0.50	<200
Lead	10	.7	.85		
Lithium	50		2		
Magnesium	5000	27	36		
Manganese	15	.1	1.3	0.10	<15
Molybdenum	20	.2	.22		
Nickel	5.0	.2	.12		
Potassium	10000	18	44		
Selenium	10	1.8	2.2		
Silicon	100	1.2	6.9		
Silver	5.0	.3	.47		
Sodium	10000	15	13		
Strontium	10	.2	.24		
Thallium	10	.5	.54		
Tin	50	.2	.7		
Titanium	10	.4	.34		
Vanadium	10	.3	.3		
Zinc	20	.3	4.2		

Associated samples MP8667: C37022-4F, C37022-5F, C37022-12F, C37022-13F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C37022
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8667
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/14/14

Metal	C36939-2F Original MS		Spikelot MPIR5	% Rec	QC Limits
Aluminum					
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Boron					
Cadmium	anr				
Calcium					
Chromium	anr				
Cobalt	anr				
Copper	anr				
Iron	3600	16800	12500	105.6	75-125
Lead	anr				
Lithium					
Magnesium					
Manganese	297	824	500	105.4	75-125
Molybdenum	anr				
Nickel	anr				
Potassium					
Selenium	anr				
Silicon					
Silver	anr				
Sodium					
Strontium					
Thallium	anr				
Tin					
Titanium					
Vanadium	anr				
Zinc	anr				

Associated samples MP8667: C37022-4F, C37022-5F, C37022-12F, C37022-13F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C37022
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8667
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/14/14

Metal	C36939-2F Original	MSD	Spikelot MPIR5	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium						
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	3600	16700	12500	104.8	0.6	20
Lead	anr					
Lithium						
Magnesium						
Manganese	297	819	500	104.4	0.6	20
Molybdenum	anr					
Nickel	anr					
Potassium						
Selenium	anr					
Silicon						
Silver	anr					
Sodium						
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP8667: C37022-4F, C37022-5F, C37022-12F, C37022-13F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C37022
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8667
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/14/14

Metal	BSP Result	Spikelot MPIR5	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	13200	12500	105.6	80-120
Lead	anr			
Lithium				
Magnesium				
Manganese	534	500	106.8	80-120
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silicon				
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP8667: C37022-4F, C37022-5F, C37022-12F, C37022-13F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C37022
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8667 Methods: SW846 6010B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 11/14/14

Metal	C36939-2F Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium				
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	3600	4070	13.1*(a)	0-10
Lead	anr			
Lithium				
Magnesium				
Manganese	297	336	12.9*(a)	0-10
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silicon				
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP8667: C37022-4F, C37022-5F, C37022-12F, C37022-13F

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Serial dilution indicates possible matrix interference.

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: C37022
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8679
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/17/14

Metal	RL	IDL	MDL	MB raw	final
Aluminum	200	13	8.5		
Antimony	6.0	.7	.51		
Arsenic	10	.7	.65		
Barium	200	.4	.35		
Beryllium	5.0	.2	.4		
Boron	100	.9	.64		
Cadmium	2.0	.2	.15		
Calcium	5000	7.1	12	-3.1	<5000
Chromium	10	.3	.41		
Cobalt	5.0	.2	.3		
Copper	10	1.2	3		
Iron	200	6.4	12	2.6	<200
Lead	10	.7	.85	0.30	<10
Lithium	50		2		
Magnesium	5000	27	36	6.7	<5000
Manganese	15	.1	1.3		
Molybdenum	20	.2	.22		
Nickel	5.0	.2	.12		
Potassium	10000	18	44		
Selenium	10	1.8	2.2		
Silicon	100	1.2	6.9		
Silver	5.0	.3	.47		
Sodium	10000	15	13		
Strontium	10	.2	.24		
Thallium	10	.5	.54		
Tin	50	.2	.7		
Titanium	10	.4	.34		
Vanadium	10	.3	.3		
Zinc	20	.3	4.2		

Associated samples MP8679: C37022-4, C37022-5, C37022-7, C37022-8, C37022-12, C37022-13

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C37022
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8679
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/17/14

Metal	C37091-1 Original	MS	Spikelot MPIR5	% Rec	QC Limits
Aluminum					
Antimony	anr				
Arsenic	anr				
Barium	anr				
Beryllium	anr				
Boron					
Cadmium	anr				
Calcium	128000	140000	12500	96.0	75-125
Chromium	anr				
Cobalt	anr				
Copper	anr				
Iron	361	14400	12500	112.3	75-125
Lead	0.90	521	500	104.0	75-125
Lithium					
Magnesium	39300	52200	12500	103.2	75-125
Manganese					
Molybdenum	anr				
Nickel	anr				
Potassium					
Selenium	anr				
Silicon					
Silver	anr				
Sodium					
Strontium					
Thallium	anr				
Tin					
Titanium					
Vanadium	anr				
Zinc	anr				

Associated samples MP8679: C37022-4, C37022-5, C37022-7, C37022-8, C37022-12, C37022-13

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: C37022
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8679
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/17/14

Metal	C37091-1 Original	MSD	Spikelot MPIR5	% Rec	MSD RPD	QC Limit
Aluminum						
Antimony	anr					
Arsenic	anr					
Barium	anr					
Beryllium	anr					
Boron						
Cadmium	anr					
Calcium	128000	143000	12500	120.0	2.1	20
Chromium	anr					
Cobalt	anr					
Copper	anr					
Iron	361	14700	12500	114.7	2.1	20
Lead	0.90	536	500	107.0	2.8	20
Lithium						
Magnesium	39300	53400	12500	112.8	2.3	20
Manganese						
Molybdenum	anr					
Nickel	anr					
Potassium						
Selenium	anr					
Silicon						
Silver	anr					
Sodium						
Strontium						
Thallium	anr					
Tin						
Titanium						
Vanadium	anr					
Zinc	anr					

Associated samples MP8679: C37022-4, C37022-5, C37022-7, C37022-8, C37022-12, C37022-13

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: C37022
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8679
Matrix Type: AQUEOUS

Methods: SW846 6010B
Units: ug/l

Prep Date: 11/17/14

Metal	BSP Result	Spikelot MPIR5	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	13700	12500	109.6	80-120
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	14100	12500	112.8	80-120
Lead	519	500	103.8	80-120
Lithium				
Magnesium	13300	12500	106.4	80-120
Manganese				
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silicon				
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP8679: C37022-4, C37022-5, C37022-7, C37022-8, C37022-12, C37022-13

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: C37022
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

QC Batch ID: MP8679 Methods: SW846 6010B
Matrix Type: AQUEOUS Units: ug/l

Prep Date: 11/17/14

Metal	C37091-1 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	anr			
Barium	anr			
Beryllium	anr			
Boron				
Cadmium	anr			
Calcium	128000	127000	0.4	0-10
Chromium	anr			
Cobalt	anr			
Copper	anr			
Iron	361	355	1.7	0-10
Lead	0.900	0.00	100.0(a)	0-10
Lithium				
Magnesium	39300	39200	0.2	0-10
Manganese				
Molybdenum	anr			
Nickel	anr			
Potassium				
Selenium	anr			
Silicon				
Silver	anr			
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium				
Vanadium	anr			
Zinc	anr			

Associated samples MP8679: C37022-4, C37022-5, C37022-7, C37022-8, C37022-12, C37022-13

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested
(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

Northern California ACCUTEST LABORATORIES

General Chemistry

QC Data Summaries

Includes the following where applicable:

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

METHOD BLANK AND SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C37022
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Alkalinity, Total as CaCO3	GN14987	5.0	0.0	mg/l	250	242	96.8	75-125%
Fluoride	GP7087/GN15016	0.10	0.010	mg/l	5	4.99	99.8	90-110%
Nitrogen, Nitrate	GP7087/GN15016	0.10	0.0	mg/l	5	4.78	95.6	90-110%
Nitrogen, Nitrite	GP7087/GN15016	0.10	0.0	mg/l	5	4.81	96.2	90-110%
Sulfate	GP7087/GN15016	0.50	0.0	mg/l	5	4.91	98.2	90-110%

Associated Samples:
Batch GP7087: C37022-4, C37022-5, C37022-12, C37022-13
Batch GN14987: C37022-4, C37022-5, C37022-12, C37022-13
(*) Outside of QC limits

BLANK SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C37022
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Analyte	Batch ID	Units	Spike Amount	BSD Result	RPD	QC Limit
Alkalinity, Total as CaCO3	GN14987	mg/l	250	248	2.4	
Fluoride	GP7087/GN15016	mg/l	5	4.93	1.2	25%
Nitrogen, Nitrate	GP7087/GN15016	mg/l	5	4.77	0.2	25%
Nitrogen, Nitrite	GP7087/GN15016	mg/l	5	4.85	0.8	25%
Sulfate	GP7087/GN15016	mg/l	5	4.83	1.6	25%

Associated Samples:
Batch GP7087: C37022-4, C37022-5, C37022-12, C37022-13
Batch GN14987: C37022-4, C37022-5, C37022-12, C37022-13
(*) Outside of QC limits

DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C37022
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Analyte	Batch ID	QC Sample	Units	Original Result	DUP Result	RPD	QC Limits
Alkalinity, Total as CaCO3	GN14987	C36992-1	mg/l	162	164	1.2	0-25%

Associated Samples:
Batch GN14987: C37022-4, C37022-5, C37022-12, C37022-13
(*) Outside of QC limits

MATRIX SPIKE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C37022
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Fluoride	GP7087/GN15016	C37022-4	mg/l	0.15	12.5	10.7	84.4	80-120%
Nitrogen, Nitrate	GP7087/GN15016	C37022-4	mg/l	0.0	12.5	11.7	93.6	80-120%
Nitrogen, Nitrite	GP7087/GN15016	C37022-4	mg/l	0.0	12.5	12.1	96.8	80-120%
Sulfate	GP7087/GN15016	C37022-4	mg/l	0.35	12.5	12.1	94.0	80-120%

Associated Samples:
Batch GP7087: C37022-4, C37022-5, C37022-12, C37022-13
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

MATRIX SPIKE DUPLICATE RESULTS SUMMARY
GENERAL CHEMISTRY

Login Number: C37022
Account: SHELLWIC - Shell Oil Company
Project: URSORP:INC#97995801 Shell/Harbor Island - 2555 13th Ave SW., Seattle, WA

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Fluoride	GP7087/GN15016	C37022-4	mg/l	0.15	12.5	10.8	0.9	
Nitrogen, Nitrate	GP7087/GN15016	C37022-4	mg/l	0.0	12.5	12.1	3.4	
Nitrogen, Nitrite	GP7087/GN15016	C37022-4	mg/l	0.0	12.5	12.2	0.8	
Sulfate	GP7087/GN15016	C37022-4	mg/l	0.35	12.5	12.0	0.8	

Associated Samples:
Batch GP7087: C37022-4, C37022-5, C37022-12, C37022-13
(*) Outside of QC limits
(N) Matrix Spike Rec. outside of QC limits

About AECOM

AECOM (NYSE: ACM) is a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental, energy, water and government. With approximately 45,000 employees around the world, AECOM is a leader in all of the key markets that it serves. AECOM provides a blend of global reach, local knowledge, innovation, and collaborative technical excellence in delivering solutions that enhance and sustain the world's built, natural, and social environments. A Fortune 500 company, AECOM serves clients in more than 100 countries and has annual revenue in excess of $6 billion.

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