THIRD QUARTER 2010
GROUNDWATER MONITORING REPORT

FORMER MOLALLA KWIK GAS
305 WEST MAIN STREET
MOLALLA, OREGON
DEQ FILE NO.: 03-05-461

ECN PROJECT NO. 05-106

ECN

December 9, 2010

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ENVIRONMENTAL COMPLIANCE NORTHWEST
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December 9, 2010
ECN Project No. 05-106

Mr. Jason Powell
Powell Distributing Company
9125 North Burrage
Portland, Oregon 97217

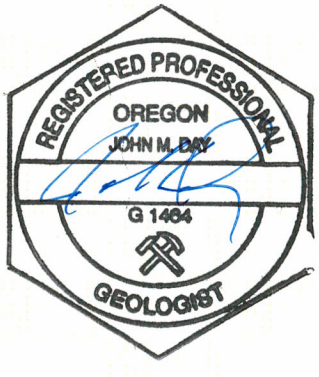
SUBJECT: Third Quarter 2010
Groundwater Monitoring Report
Former Molalla Kwik Gas
305 West Main Street
Molalla, Oregon
DEQ LUST File No.: 03-05-461

Dear Mr. Powell:

Environmental Compliance Northwest, Inc., (ECN) is pleased to submit this Groundwater Monitoring Report for the above referenced facility. We hope this report meets your needs at this time. If you should require additional information, please contact us at 503-372-9760.

Sincerely,

ENVIRONMENTAL COMPLIANCE NORTHWEST, INC.



John M. Day, RG
Principal Geologist
President

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1.0 INTRODUCTION

This report describes results of the third quarter 2010 groundwater monitoring and sampling activities conducted at the former Kwik Gas service station located at 305 West Main Street in Molalla, Oregon (Figure 1).

2.0 SITE DESCRIPTION

The site is located on the north side of West Main Street, approximately 100 feet west of Kennel Avenue near downtown Molalla and was formerly used as a fuel service station. The site is currently occupied by an automobile detail facility. A former service station building is located in the southeastern portion of the site. The UST cavity, formerly containing four 10,000-gallon tanks is located in the northwestern portion of the site and a former fuel dispenser island is located south of the station building. The site and surrounding area are relatively flat generally covered with gravel, with the exception of the former fuel dispenser island area, which is paved with asphalt. The locations of pertinent site features are shown on Figure 2.

3.0 BACKGROUND

The following background information was obtained from DEQ files, verbal discussions with Powell Distributing Company (Powell) personnel, and activities observed and conducted by ECN. The facility operated since at least 1977 until 2005 and consisted of a retail fueling and automotive repair facility. The former UST system consisted of three gasoline USTs and one diesel UST, located in the northwest corner of the site and one fuel dispenser island, located in the southern portion of the site (Figure 2). In April 2005, an apparent leak was detected in the underground product piping. A portion of the piping was uncovered and several small holes were observed in the piping.

In March 2005, ECN conducted initial site assessment activities consisting of drilling two hand auger borings adjacent to the fuel product piping. Subsurface soil sampling indicated the presence of petroleum hydrocarbon impact to soil in to the maximum explored depth of 8.5 feet below ground surface (bgs).

Also in March 2005, ECN conducted site assessment activities, including drilling a total of nine soil borings. Seven borings were completed adjacent and in the vanity of the underground product piping trench. Two of the borings were completed adjacent to the former fuel island. Petroleum hydrocarbons were detected in soil samples collected from each boring, with the exception of the boring completed located near the northwest corner of the former service station

building. Grab groundwater samples were collected from four of the borings. Petroleum hydrocarbons were detected in each grab groundwater sample collected.

Between September and October 2006, the UST system (consisting of four USTs and underground product piping) were decommissioned by removal. Two soil samples were collected from beneath each UST. In addition, one soil sample was collected from the south sidewall of the UST cavity and from beneath each of the three former fuel dispensers.

Petroleum hydrocarbons were not detected the soil samples collected from beneath the former USTs, with the exception of the southeastern portion of the former UST cavity, near the location where the product piping entered the cavity. Gasoline- and diesel-range hydrocarbons were detected in the soil samples collected from the former fuel dispensers (ECN, 2007).

A total of four monitoring wells (MW-1 through MW-4) were installed and two soil borings (B-101 and B-102) were completed in May 2007. The locations of the monitoring wells are shown on Figures 2 and 3. Borings B-101 and B-102 were drilled north and east of the existing building, respectively, to further define soil and groundwater impacts. Laboratory results indicated that the highest petroleum hydrocarbons were detected in the samples collected from MW-4, located adjacent to the former underground product piping. Lower petroleum hydrocarbon concentrations were detected in the other three monitoring wells, as well as in boring B-102 (ECN, 2010a).

Groundwater monitoring has been conducted at the site since the monitoring wells were installed.

4.0 FIELD ACTIVITIES

Field procedures for the third quarter 2010 groundwater monitoring and sampling were performed in accordance with DEQ guidelines. On September 28, 2010, depth to groundwater was measured and groundwater samples were collected monitoring wells MW-1 through MW-4. Prior to purging and sampling, the depth to water in the wells was measured from a permanent mark on top the well casing to the nearest 0.01-foot using an electronic water level indicator. The depth to water and top of casing elevation data were used to calculate the groundwater elevation in each well in reference to mean sea level (MSL). The survey data and historic groundwater elevation measurements collected through the third quarter 2010 monitoring event are presented in Table 1.

Prior to sample collection, monitoring wells were purged of at least three casing volumes. Groundwater samples were collected for laboratory analysis by lowering a bottom-fill, disposable bailer to just below the water level in the well. The collected water sample was then transferred from the bailer into laboratory-supplied containers.

5.0 ANALYTICAL TEST METHODS

Each groundwater sample collected during the third quarter 2010 monitoring event was analyzed for benzene, toluene, ethylbenzene, and total xylenes (BTEX). Groundwater samples collected from wells MW-3 and MW-4 were analyzed for DEQ risk-based decision making (RBDM) volatile organic compounds (VOCs) by EPA Method 8260B. In addition to BTEX, the RBDM VOCs include:; 1,2,4-trimethylbenzene (1,2,4-TMB); ethylene dibromide (EDB); ethylene dichloride (EDC); 1,3,5-trimethylbenzene (1,3,5-TMB); isopropylbenzene (IPB) methyl-tertiary butyl ether (MTBE); n-propylbenzene (NPB); and naphthalene. Each sample was also analyzed for diesel-range hydrocarbons (diesel) and lube oil-range petroleum hydrocarbons (lube oil) by Northwest Method NWTPH-Dx, and gasoline-range hydrocarbons by Northwest Method NWTPH-Gx. Select groundwater samples were analyzed for dissolved lead by EPA Method 6010 and polynuclear aromatic hydrocarbons (PAHs) by DEQ Method 8270SIM.

6.0 FINDINGS

Following are the physical and chemical results for the third quarter 2010 groundwater monitoring and sampling activities at the site. Naphthalene results are reported on both Table 1 and 2. The differing results shown in groundwater samples are a result of separate extraction methods. The concentrations from the VOC analyses are reported on the analytical results map (Figure 3).

Physical Results

The depth to water in the monitoring wells, as measured on September 28, 2010, ranged from 5.71 to 16.38 feet below the top of well casings. The groundwater flow direction was interpreted to be to the west-southwest with an average hydraulic gradient of approximately 0.153 feet per foot. Compared to the second quarter 2010 monitoring data, groundwater elevations in the monitoring wells decreased between 0.63 and 3.55 feet, with the exception of MW-3, that increased 0.60 feet.

The groundwater elevation and flow direction data for the third quarter 2010 monitoring event are shown on Figure 2.

Chemical Results

MW-1 and MW-2: Diesel-, lube oil-, and gasoline-range hydrocarbons; and BTEX constituents were not detected at or above the corresponding laboratory reporting limits.

MW-3: Diesel-range hydrocarbons (257 micrograms per liter [µg/L]), gasoline-range hydrocarbons (338 µg/L), and IPB (1.01 µg/L) were detected.

MW-4: Diesel-range hydrocarbons (1,410 µg/L); lube oil-range hydrocarbons (244 µg/L); gasoline-range hydrocarbons (18,000 µg/L); benzene (470 µg/L); toluene (7.34 µg/L); ethylbenzene (776 µg/L); total xylenes (432.2 µg/L); 1,2,4-TMB (65.0 µg/L); 1,3,5-TMB (665 µg/L); IPB (153 µg/L); MTBE (2.80 µg/L); NPB (554 µg/L); naphthalene (756 µg/L); and dissolved lead (2.4 µg/L) were detected. The following PAHs were also detected: acenaphthene (0.265 µg/L); acenaphthylene (0.128 µg/L); fluorine (0.408 µg/L); naphthalene (244 µg/L); and phenanthrene (0.275 µg/L).

The groundwater sampling results for the third quarter 2010 monitoring event are shown on Figure 3 and summarized in Tables 1 and 2.

7.0 RISK-BASED EVALUATION OVERVIEW

In 1999, the Oregon DEQ issued the *Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites* guidance document (DEQ, 1999). This guidance document listed Risk-Based Concentration (RBC) cleanup levels that are based on current and potential future land and water uses at a site. The RBC cleanup levels are periodically revised, the most recent being September 15, 2009.

A detailed assessment of potential exposure pathways has not yet been conducted for the site. Although a conceptual site model has not been completed, based on our current knowledge of site conditions, the potentially complete exposure pathways for groundwater include: 1) vapor intrusion into buildings (occupational); 2) volatilization to outdoor air (occupational); and 3) groundwater in an excavation for a construction or excavation worker. The potentially applicable RBCs are shown on Tables 1 and 2.

The groundwater sample collected from monitoring well MW-4 during the third quarter 2010 monitoring event exceeded the groundwater in an excavation exposure pathway RBCs for gasoline-range hydrocarbons and naphthalene.

8.0 SUMMARY AND CONCLUSIONS

The site was operated as a retail fueling facility until March 2005. An apparent petroleum hydrocarbon release from the underground product piping was reported to DEQ on March 15, 2005. The site is currently operated as automotive detailing facility and is an area of commercial development.

ECN conducted site assessment activities between March and April 2005, consisting of advancing hand soil borings, limited excavation of apparent impacted soil associated with the product piping release, and drilling a total nine soil borings. Soil and water samples collected during the site assessment activities indicated that both soil and the shallow water-bearing zone in the vicinity of the product piping were impacted by petroleum hydrocarbons.

The four USTs at the site were decommissioned by removal in October 2006. Petroleum hydrocarbon-impacted backfill material was encountered adjacent to the fill port of one the USTs. Analytical results of samples collected from beneath the former fuel dispensers indicated that residual diesel- and gasoline-range hydrocarbons were present in the southern portion of the site.

A total of four groundwater monitoring wells and two soil borings were completed at the site in May 2007. Analytical results from the groundwater samples collected indicated that petroleum hydrocarbons were present in each monitoring well, the highest levels reported were in MW-4

Based on historic groundwater elevation direction data, it appears that the generalized shallow water-bearing zone flow direction varies between west-southwest and southwest at varying gradients.

None of the groundwater collected during the third quarter 2010 groundwater sampling event exceeded the potentially complete exposure pathway RBCs.

9.0 REFERENCES

ECN, 2007. Site Assessment and UST Decommissioning Report, Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. April 17.

ECN, 2010a. Additional Site Assessment and Monitoring Installation Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. October 14.

ECN, 2010b. First Quarter 2008 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. December 1.

ECN, 2010c. Third Quarter 2008 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. December 2.

ECN, 2010d. First Quarter 2009 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. December 3.

ECN, 2010e. Second Quarter 2009 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. December 4.

ECN, 2010f. Third Quarter 2009 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. December 5.

ECN, 2010g. Fourth Quarter 2009 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. December 6.

ECN, 2010h. First Quarter 2010 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. December 7.

ECN, 2010i. Second Quarter 2010 Groundwater Monitoring Report, Former Molalla Kwik Gas, 305 West Main Street, Molalla, Oregon, DEQ File No. 03-05-461. December 8.

Oregon Department of Environmental Quality, 1999 and 2003. Risk-Based Decision Making for the Remediation of Petroleum-Contaminated Sites (OAR 340-122-0205 through 0360). September 29, 1999, updated September 22, 2003.

Oregon Department of Environmental Quality, 2000. UST Cleanup Manual, Cleanup Rules for Leaking Petroleum UST Systems, OAR 340-122-0205 through 340-122-0360, and Associated Documents. Oregon Department of Environmental Quality, Portland, Oregon, December.

Oregon Department of Environmental Quality, 2009. Risk-Based Concentrations for Individual Chemicals. September 15.

10.0 LIMITATIONS

Environmental Compliance Northwest, Inc., has performed the work described in this report in accordance with the generally accepted standard of care existing in the State of Oregon at the time of the assessment. Judgments leading to conclusions and recommendations are generally made with an incomplete knowledge of the subsurface and historical conditions applicable to the study area. More extensive studies may be used to supplement the information presented in this report. Environmental Compliance Northwest, Inc., should be notified for additional consultation if Powell Distributing Company wishes to reduce uncertainties beyond the level associated with this assessment. Our assessment of the property also may change, as new data becomes available during additional site exploration, remediation, or development.

Since site activities and regulations beyond our control could change at any time after the completion of this report, our observations, findings, and opinions can be considered valid only as of the date of the report.

No warranty, express or implied is made.

TABLES

TABLE 1
Groundwater Analytical Results - TPH-Dx, TPH-G, RBDM VOCs, and Dissolved Lead
Former Kwik Gas Station
305 West Main Street
Molalla, Oregon
ECN Project No. 05-106

Well I.D.	Date of Sampling	Casing Elevation (Feet)	Depth to Water (Feet)	Groundwater Elevation (Feet)	Change in Elevation (Feet)	TPH-Dx [1]		TPH-G [2]	B [3]	T [3]	E [3]	X [3]	1,2,4-TMB [3]	EDB [3]	EDC [3]	1,3,5-TMB [3]	IPB [3]	MTBE [3]	NPB [3]	Naph-thalene [3]	Dissolved Lead [4]	LAB
						Diesel	Lube Oil															
MW-1	6/5/2007	94.77	13.82	80.95	---	247	116	624	40.5	7.16	51.2	67.4	9.34	ND<1.00	ND<1.00	5.98	2.95	ND<1.00	5.04	ND<1.00	---	SA
	3/30/2008	94.77	8.06	86.71	5.76	ND<245	ND<491	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	SA
	9/28/2008	94.77	17.41	77.36	-9.35	ND<243	ND<487	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	---	SA
	3/26/2009	94.77	9.54	85.23	7.87	ND<238	ND<476	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	---	SA
	6/30/2009	94.77	14.43	80.34	-4.89	ND<86.3	ND<216	---	0.910	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	SA
	9/29/2009	94.77	20.13	74.64	-5.7	ND<249	ND<498	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	---	SA
	12/26/2009	94.77	10.54	84.23	9.59	ND<243	ND<487	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	---	SA
	3/30/2010	94.77	8.74	86.03	1.8	ND<77.1	ND<193	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	SA
	6/30/2010	94.77	12.83	81.94	-4.09	ND<76.1	ND<190	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	---	SA
	9/28/2010	94.77	16.38	78.39	-3.55	ND<82.6	ND<210	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	---	SA
MW-2	6/5/2007	93.73	9.36	84.37	---	237	ND<100	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	---	SA
	3/30/2008	93.73	3.35	90.38	6.01	ND<248	ND<495	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	SA
	9/28/2008	93.73	11.10	82.63	-7.75	ND<242	ND<483	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	---	SA
	3/26/2009	93.73	3.50	90.23	7.6	ND<236	ND<473	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	---	SA
	6/30/2009	93.73	9.36	84.37	-5.86	ND<82.5	ND<206	---	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	SA
	9/29/2009	93.73	14.09	79.64	-4.73	ND<485	ND<971	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	---	SA
	12/26/2009	93.73	4.03	89.70	10.06	ND<275	ND<552	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	---	SA
	3/30/2010	93.73	3.42	90.31	0.61	ND<77.8	ND<195	ND<100	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	SA
	6/30/2010	93.73	8.12	85.61	-4.7	ND<76.6	ND<192	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	---	SA
	9/28/2010	93.73	9.23	84.50	-1.11	ND<78.7	ND<197	ND<100	ND<0.300	ND<0.500	ND<0.500	ND<1.50	---	---	---	---	---	---	---	---	---	SA
MW-3	6/5/2007	93.44	6.65	86.79	---	ND<49.9	ND<49.9	363	ND<0.300	0.84	2.04	ND<1.50	---	---	---	---	---	---	---	---	---	SA
	3/30/2008	93.44	4.31	89.13	2.34	269	ND<485	589	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	SA
	9/28/2008	93.44	6.46	86.98	-2.15	350	ND<541	787	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.00	ND<1.00	ND<1.00	ND<1.00	0.65	SA
	3/26/2009	93.44	4.62	88.82	1.84	277	ND<478	429	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.1	SA
	6/30/2009	93.44	6.79	86.65	-2.17	194	ND<203	---	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.21	ND<1.00	ND<1.00	ND<1.00	1.1	SA
	9/29/2009	93.44	8.96	84.48	-2.17	275	ND<482	631	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.26	ND<1.00	ND<1.00	ND<1.00	1.8	SA
	12/26/2009	93.44	4.39	89.05	4.57	336	ND<513	245	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.26	ND<1.00	ND<1.00	ND<1.00	0.96	SA
	3/30/2010	93.44	4.09	89.35	0.3	216	235	477	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	2.58	ND<1.00	ND<1.00	1.48	---	SA
	6/30/2010	93.44	6.31	87.13	-2.22	291	215	749	1.26	ND<1.00	1.70	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	---	SA
	9/28/2010	93.44	5.71	87.73	0.6	257	ND<193	338	ND<0.300	ND<1.00	ND<1.00	ND<3.00	ND<1.00	ND<1.00	ND<1.00	ND<1.00	1.01	ND<1.00	ND<1.00	ND<1.00	---	SA
MW-4	6/5/2007	94.10	7.16	86.94	---	2,060	3,500	7,370	326	5.97	216	336.2	239	ND<1.00	ND<1.00	55	34.4	6.92	66.2	55.6	14	SA
	3/30/2008	94.10	4.29	89.81	2.87	2,050	ND<489	**15,900**	985	8.93	397	343.0	386	ND<1.00	ND<1.00	43.4	92.2	11.3	261	150	2.5	SA
	9/28/2008	94.10	7.69	86.41	-3.4	2,070	665	**14,000**	979	9.74	743	167.8	332	ND<1.00	ND<1.00	88.3	125	ND<1.00	460	**766**	0.34	SA
	3/26/2009	94.10	4.54	89.56	3.15	1,700	893	8,010	480	4.49	356	91.4	125	ND<1.00	ND<1.00	23.7	87.6	1.80	185	119	0.82	SA
	6/30/2009	94.10	7.65	86.45	-3.11	1,460	310	---	682	7.28	769	248.2	594	ND<1.00	ND<1.00	76.7	133	2.62	438	347	1.4	SA
	9/29/2009	94.10	12.75	81.35	-5.1	2,760	805	**13,300**	925	7.07	889	30.00	30.4	ND<1.00	ND<1.00	34.3	115	7.16	395	**540**	1.5	SA
	12/26/2009	94.10	4.36	89.74	8.39	2,730	1,020	**21,100**	397	4.84	435	361.2	451	ND<1.00	ND<1.00	25.5	114	1.43	245	**509**	ND<0.10	SA
	3/30/2010	94.10	4.55	89.55	-0.19	1,094	532	12,200	594	5.31	634	330.9	530	ND<1.00	ND<1.00	60.4	128	ND<1.00	515	274	1.8	SA
	6/30/2010	94.10	6.49	87.61	-1.94	2,350	585	11,600	705	5.27	419	396.2	115	ND<1.00	ND<1.00	35.6	117	2.17	368	136	---	SA
	9/28/2010	94.10	7.12	86.98	-0.63	1,410	244	**18,100**	470	7.34	776	432.2	65.0	ND<1.00	ND<1.00	665	153	2.80	554	**756**	2.4	SA
Risk-Based Concentrations [5]																						
- Volatilization to Outdoor Air (Occipational)						>S	NE	>S	14,000	>S	41,000	>S	>S	960	9,500	6,800	>S	1,000,000	NE	16,000	NV	
- Vapor Intrusion Into Buildings (Occupational)						>S	NE	>S	2,800	>S	7,400	>S	>S	690	3,800	41,000	>S	590,000	NE	10,000	NV	
- Groundwater in an Excavation (Construction and Excavation Worker)						>S	NE	13,000	1,700	210,000	4,400	23,000	1,700	28	630	1,400	>S	62,000	NE	500	>S	

ABBREVIATIONS:
B: Benzene
T: Toluene
E: Ethylbenzene
X: Total Xylenes
MTBE: Metyl tertiary-butyl ether
ND: Not detected at or above the indicated laboratory reporting limit
NE: Not established by DEQ
>S: The groundwater RBC exceeds the solubility limit.
NV: This chemical is considered "nonvolatile" for purposes of the exposure calculations

Results are in micrograms per liter (µg/L)
(1) Nortwest Method NWTPH-Dx
(2) Northwest Method NWTPH-Gx
(3) EPA Method 8021B 0r 8260B
(4) EPA Method 6011
(5) Oregon Department of Environmental Quality (DEQ) Generic Risk Based Concentrations (RBCs)
SA Specialty Analytical
BOLD Exceeds the RBC

TABLE 2
Groundwater Analytical Results (PAHs)
Former Molalla Kwik Gas
305 West Main Street
Molalla, Oregon
ECN Project No. 05-106

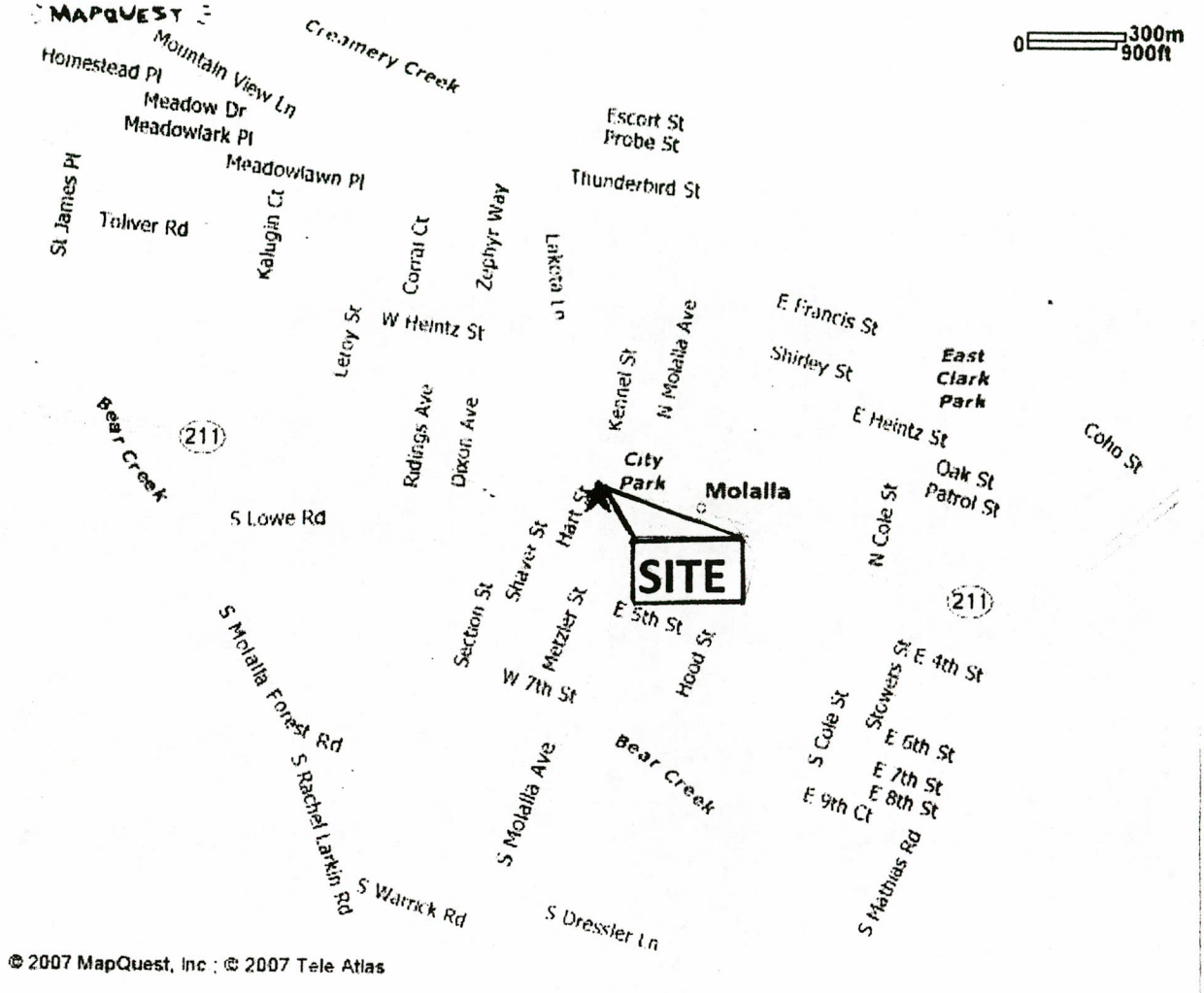
Polynuclear Aromatic Hydrocarbons (µg/L) [1]		Acenaphthene	Acenapthylene	Anthracene	Benz(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene	Chrysene	Dibenz(a,h)anthracene	Fluoroanthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene	LAB
Sample Identification	Sample Date																	
MW-1	6/5/2007	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	ND<0.0503	2.81	ND<0.0503	ND<0.0503	SA
MW-2	6/5/2007	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	ND<0.0498	SA
,MW-3	6/5/2007	ND<0.0495	ND<0.0495	ND<0.0495	ND<0.0495	ND<0.0495	ND<0.0495	ND<0.0495	ND<0.0495	ND<0.0495	ND<0.0495	ND<0.0495	0.0792	ND<0.0495	0.287	ND<0.0495	ND<0.0495	SA
	3/26/2009	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	ND<0.0479	0.211	ND<0.0479	ND<0.0479	SA
	6/30/2009	0.0572	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	0.124	ND<0.0477	0.734	ND<0.0477	ND<0.0477	SA
	6/30/2010	0.0576	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	ND<0.0480	0.182	ND<0.0480	0.480	ND<0.0480	ND<0.0480	SA
MW-4	6/5/2007	0.115	ND<0.0525	ND<0.0525	ND<0.0525	ND<0.0525	ND<0.0525	ND<0.0525	ND<0.0525	ND<0.0525	ND<0.0525	ND<0.0525	0.136	ND<0.0525	83.4	0.0630	ND<0.0525	SA
	3/30/2008	0.231	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	ND<0.0482	0.0868	0.482	ND<0.0482	115	0.415	0.0868	SA
	9/28/2008	0.203	0.0676	ND< 0.0483	ND< 0.0483	ND< 0.0483	ND< 0.0483	ND< 0.0483	ND< 0.0483	ND< 0.0483	ND< 0.0483	0.126	0.261	ND< 0.0483	94.7	0.300	0.126	SA
	3/26/2009	0.138	ND<0.0429	ND<0.0429	ND<0.0429	ND<0.0429	ND<0.0429	ND<0.0429	ND<0.0429	ND<0.0429	ND<0.0429	0.138	ND<0.0429	ND<0.0429	56.9	0.0984	0.0591	SA
	6/30/2009	0.191	0.0765	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	ND<0.0478	0.229	ND<0.0478	179	0.143	0.0478	SA
	9/29/2009	0.172	0.0858	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	ND<0.0477	0.210	ND<0.0477	145	0.0953	ND<0.0477	SA
	12/26/2009	0.282	0.126	ND<0.0523	ND<0.0523	ND<0.0523	ND<0.0523	ND<0.0523	ND<0.0523	ND<0.0523	ND<0.0523	ND<0.0523	0.366	ND<0.0523	200	0.209	ND<0.0523	SA
	3/30/2010	0.209	0.112	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	ND<0.0500	0.316	ND<0.0500	150	0.179	ND<0.0500	SA
	6/30/2010	0.165	0.0778	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	ND<0.0486	0.223	ND<0.0486	30.9	0.0973	ND<0.0486	SA
	9/28/2010	0.265	0.128	ND<0.0491	ND<0.0491	ND<0.0491	ND<0.0491	ND<0.0491	ND<0.0491	ND<0.0491	ND<0.0491	ND<0.0491	0.402	ND<0.0491	244	0.275	ND<0.0491	SA
Risk-Based Concentrations [2]																		
- Occ. Volatilization to Outdoor Air		>S	NE	>S	NV	NV	NV	NE	NV	NV	NV	NV	>S	NV	16,000	NE	NV	
- Occ. Vapor Intrusion Into buidlings		>S	NE	>S	NV	NV	NV	NE	NV	NV	NV	NV	>S	NV	10,000	NE	NV	
- Groundwater in an Excavation Construction and Excavation Worker		>S	NE	>S	9.1	0.53	>S	NE	>S	>S	0.21	>S	>S	>S	500	NE	>S	

ND not detected at or above the indicated laboratory reporting limit
SA Specialty Analytical
µg/L Micrograms per Liter

[1] DEQ Method 8270SIM
[2] Oregon Department of Environmental Quality (DEQ) Generic Risk Based Concentrations (RBCs) (DEQ, 2009).

NE A Risk-Based Concentration has not been determined for this constituent
NV This chemical is considered "nonvolatile" for purposes of the exposure calculation
>S This groundwater RBC exceeds the solubility limit. Groundwater concentrations in excess of S indicate that free product may be present. If solubility is not listed, data was not listed in Appendix D of the DEQ RBDM guidance document (DEQ, 2009).

FIGURES

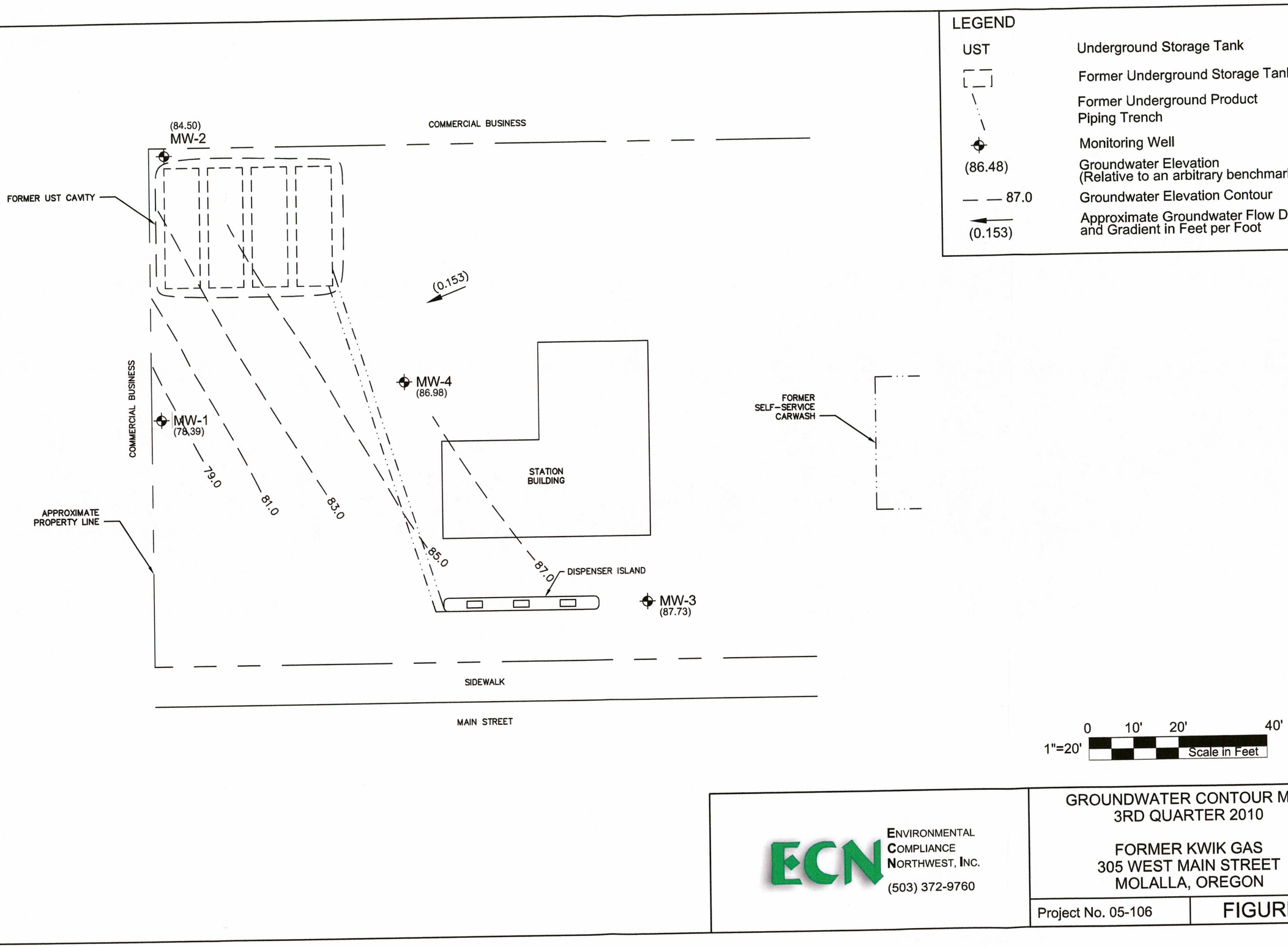


VICINITY MAP

MOLALLA KWIK GAS
305 WEST MAIN STREET
MOLALLA, OREGON

ECNW PROJ. NO. 05-106

FIGURE 1



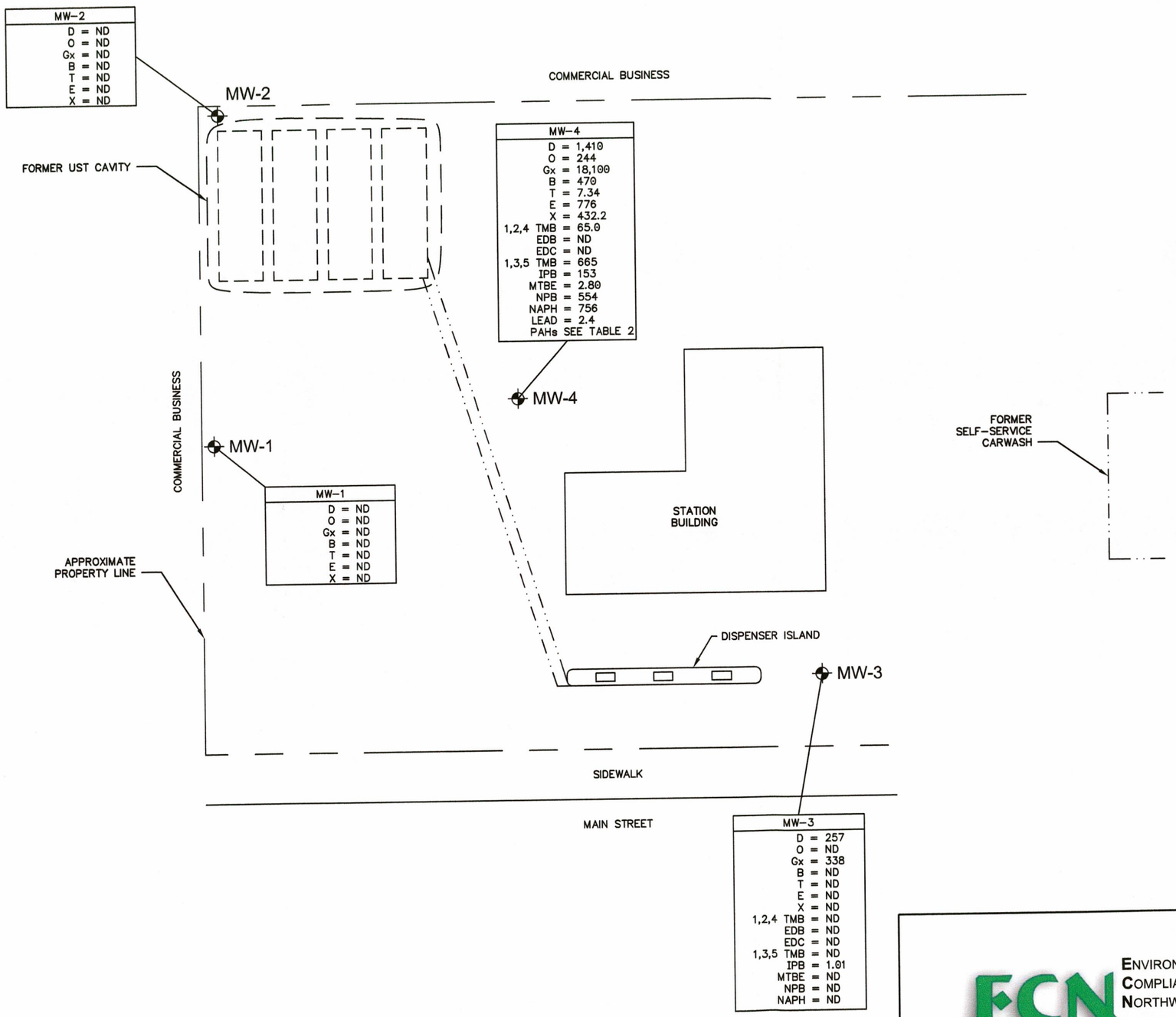
ENVIRONMENTAL COMPLIANCE NORTHWEST, INC.
(503) 372-9760

GROUNDWATER CONTOUR MAP
3RD QUARTER 2010

FORMER KWIK GAS
305 WEST MAIN STREET
MOLALLA, OREGON

Project No. 05-106

FIGURE 2



LEGEND

UST	Underground Storage Tank
	Former Underground Storage Tank
	Former Underground Product Piping Trench
	Monitoring Well
Dx	Diesel-Range Hydrocarbons
D	Diesel
O	Lube Oil
Gx	Gasoline-Range Hydrocarbons
B	Benzene
T	Toulene
E	Ethylbenzene
X	Total Xylenes
TMB	Trimethylbenzene
EDB	Ethylene Dibromide
EDC	Ethylene Dichloride
IPB	Isopropylbenzene
MTBE	Methyl-Tertiary Butyl Ether
NPB	N-Propylbenzene
NAPH	Naphthalene
LEAD	Dissolved Lead
PAHs	Polynuclear Aromatic Hydrocarbons

Results are in micrograms per liter (µg/L)

N

0 10' 20' 40'

1"=20' Scale in Feet

ENVIRONMENTAL COMPLIANCE NORTHWEST, INC.

(503) 372-9760

GROUNDWATER ANALYTICAL RESULTS 3RD QUARTER 2010

FORMER KWIK GAS
305 WEST MAIN STREET
MOLALLA, OREGON

Project No. 05-106

FIGURE 3

APPENDIX A

Specialty Analytical

11711 SE Capps Road
Clackamas, OR 97015
(503) 607-1331
Fax (503) 607-1336

October 06, 2010

John Day
Environmental Compliance Northwest, Inc.
P.O. Box 230163
Portland, OR 97281

TEL: (503) 372-9760
FAX: (503) 213-9980

RE: Powell-Molalla / 05-106

Dear John Day:

Order No.: 1009198

Specialty Analytical received 4 samples on 9/29/2010 for the analyses presented in the following report.

There were no problems with the analysis and all data for associated QC met EPA or laboratory specifications except where noted in the Case Narrative, or as qualified with flags. Results apply only to the samples analyzed. Without approval of the laboratory, the reproduction of this report is only permitted in its entirety.

If you have any questions regarding these tests, please feel free to call.

Sincerely,

Cindy Hillyard for
Project Manager

Technical Review

Specialty Analytical

Date: *06-Oct-10*

CLIENT:	Environmental Compliance Northwest, Inc.	**Client Sample ID:**	MW-1
Lab Order:	1009198	**Collection Date:**	9/28/2010 4:00:00 PM
Project:	Powell-Molalla / 05-106		
Lab ID:	1009198-01	**Matrix:**	GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	ND	0.0826		mg/L	1	10/1/2010
Lube Oil	ND	0.206		mg/L	1	10/1/2010
Surr: o-Terphenyl	78.3	50-150		%REC	1	10/1/2010
BTEX - RBC		**SW8021B**				Analyst: **jrp**
Benzene	ND	0.300		µg/L	1	10/3/2010
Toluene	ND	0.500		µg/L	1	10/3/2010
Ethylbenzene	ND	0.500		µg/L	1	10/3/2010
Xylenes, Total	ND	1.50		µg/L	1	10/3/2010
Surr: 4-Bromofluorobenzene	98.9	74.8-126		%REC	1	10/3/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	ND	100		µg/L	1	10/3/2010
Surr: 4-Bromofluorobenzene	82.3	50-150		%REC	1	10/3/2010

Specialty Analytical

Date: *06-Oct-10*

CLIENT: Environmental Compliance Northwest, Inc.
Lab Order: 1009198
Project: Powell-Molalla / 05-106
Lab ID: 1009198-02

Client Sample ID: MW-2
Collection Date: 9/28/2010 3:30:00 PM
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	ND	0.0787		mg/L	1	10/1/2010
Lube Oil	ND	0.197		mg/L	1	10/1/2010
Surr: o-Terphenyl	43.5	50-150	S,MI	%REC	1	10/1/2010
BTEX - RBC		**SW8021B**				Analyst: **jrp**
Benzene	ND	0.300		µg/L	1	10/3/2010
Toluene	ND	0.500		µg/L	1	10/3/2010
Ethylbenzene	ND	0.500		µg/L	1	10/3/2010
Xylenes, Total	ND	1.50		µg/L	1	10/3/2010
Surr: 4-Bromofluorobenzene	104	74.8-126		%REC	1	10/3/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	ND	100		µg/L	1	10/3/2010
Surr: 4-Bromofluorobenzene	85.5	50-150		%REC	1	10/3/2010

Specialty Analytical

Date: *06-Oct-10*

CLIENT: Environmental Compliance Northwest, Inc.
Lab Order: 1009198
Project: Powell-Molalla / 05-106
Lab ID: 1009198-03

Client Sample ID: MW-3
Collection Date: 9/28/2010 5:00:00 PM
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	0.257	0.0771		mg/L	1	10/1/2010
Lube Oil	ND	0.193		mg/L	1	10/1/2010
Surr: o-Terphenyl	83.2	50-150		%REC	1	10/1/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	338	100		µg/L	1	10/4/2010
Surr: 4-Bromofluorobenzene	116	50-150		%REC	1	10/4/2010
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
1,2,4-Trimethylbenzene	ND	1.00		µg/L	1	9/30/2010 3:48:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	9/30/2010 3:48:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	9/30/2010 3:48:00 PM
1,3,5-Trimethylbenzene	ND	1.00		µg/L	1	9/30/2010 3:48:00 PM
Benzene	ND	0.300		µg/L	1	9/30/2010 3:48:00 PM
Ethylbenzene	ND	1.00		µg/L	1	9/30/2010 3:48:00 PM
Isopropylbenzene	1.01	1.00		µg/L	1	9/30/2010 3:48:00 PM
m,p-Xylene	ND	2.00		µg/L	1	9/30/2010 3:48:00 PM
Methyl tert-butyl ether	ND	1.00		µg/L	1	9/30/2010 3:48:00 PM
n-Propylbenzene	ND	1.00		µg/L	1	9/30/2010 3:48:00 PM
Naphthalene	ND	1.00		µg/L	1	9/30/2010 3:48:00 PM
o-Xylene	ND	1.00		µg/L	1	9/30/2010 3:48:00 PM
Toluene	ND	1.00		µg/L	1	9/30/2010 3:48:00 PM
Surr: 1,2-Dichloroethane-d4	97.5	72.2-129		%REC	1	9/30/2010 3:48:00 PM
Surr: 4-Bromofluorobenzene	94.7	73.5-125		%REC	1	9/30/2010 3:48:00 PM
Surr: Dibromofluoromethane	100	58.8-148		%REC	1	9/30/2010 3:48:00 PM
Surr: Toluene-d8	92.0	79.8-137		%REC	1	9/30/2010 3:48:00 PM

Specialty Analytical

Date: *06-Oct-10*

CLIENT: Environmental Compliance Northwest, Inc.
Lab Order: 1009198
Project: Powell-Molalla / 05-106
Lab ID: 1009198-04

Client Sample ID: MW-4
Collection Date: 9/28/2010 6:00:00 PM
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
NWTPH-DX		**NWTPH-DX**				Analyst: **jrp**
Diesel	1.41	0.0778	L	mg/L	1	10/1/2010
Lube Oil	0.244	0.195		mg/L	1	10/1/2010
Surr: o-Terphenyl	80.0	50-150		%REC	1	10/1/2010
NWTPH-GX		**NWTPH-GX**				Analyst: **jrp**
Gasoline	18100	1000		µg/L	10	10/5/2010
Surr: 4-Bromofluorobenzene	107	50-150		%REC	10	10/5/2010
DISSOLVED METALS BY ICP/MS		**SW6020**				Analyst: **cz**
Lead	2.4	0.10		ug/L	1	10/1/2010 8:56:00 PM
LOW LEVEL PAH BY GC/MS OARSIM (8270C)		**8270SIM**				Analyst: **bda**
Acenaphthene	0.265	0.0491		µg/L	1	10/5/2010 5:12:00 PM
Acenaphthylene	0.128	0.0491		µg/L	1	10/5/2010 5:12:00 PM
Anthracene	ND	0.0491		µg/L	1	10/5/2010 5:12:00 PM
Benz(a)anthracene	ND	0.0491		µg/L	1	10/5/2010 5:12:00 PM
Benzo(a)pyrene	ND	0.0491		µg/L	1	10/5/2010 5:12:00 PM
Benzo(b)fluoranthene	ND	0.0491		µg/L	1	10/5/2010 5:12:00 PM
Benzo(g,h,i)perylene	ND	0.0491		µg/L	1	10/5/2010 5:12:00 PM
Benzo(k)fluoranthene	ND	0.0491		µg/L	1	10/5/2010 5:12:00 PM
Chrysene	ND	0.0491		µg/L	1	10/5/2010 5:12:00 PM
Dibenz(a,h)anthracene	ND	0.0491		µg/L	1	10/5/2010 5:12:00 PM
Fluoranthene	ND	0.0491		µg/L	1	10/5/2010 5:12:00 PM
Fluorene	0.402	0.0491		µg/L	1	10/5/2010 5:12:00 PM
Indeno(1,2,3-cd)pyrene	ND	0.0491		µg/L	1	10/5/2010 5:12:00 PM
Naphthalene	244	0.981		µg/L	20	10/5/2010 4:19:00 PM
Phenanthrene	0.275	0.0491		µg/L	1	10/5/2010 5:12:00 PM
Pyrene	ND	0.0491		µg/L	1	10/5/2010 5:12:00 PM
Surr: 2-Fluorobiphenyl	57.5	18.6-106		%REC	1	10/5/2010 5:12:00 PM
Surr: Nitrobenzene-d5	69.7	17-130		%REC	1	10/5/2010 5:12:00 PM
Surr: p-Terphenyl-d14	71.1	39.6-131		%REC	1	10/5/2010 5:12:00 PM
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
1,2,4-Trimethylbenzene	65.0	1.00		µg/L	1	9/30/2010 4:24:00 PM
1,2-Dibromoethane	ND	1.00		µg/L	1	9/30/2010 4:24:00 PM
1,2-Dichloroethane	ND	1.00		µg/L	1	9/30/2010 4:24:00 PM
1,3,5-Trimethylbenzene	665	5.00		µg/L	5	10/1/2010 2:13:00 PM
Benzene	470	1.50		µg/L	5	10/1/2010 2:13:00 PM
Ethylbenzene	776	5.00		µg/L	5	10/1/2010 2:13:00 PM
Isopropylbenzene	153	1.00		µg/L	1	9/30/2010 4:24:00 PM
m,p-Xylene	357	2.00		µg/L	1	9/30/2010 4:24:00 PM
Methyl tert-butyl ether	2.80	1.00		µg/L	1	9/30/2010 4:24:00 PM
n-Propylbenzene	554	5.00		µg/L	5	10/1/2010 2:13:00 PM

Specialty Analytical

Date: *06-Oct-10*

CLIENT: Environmental Compliance Northwest, Inc.
Lab Order: 1009198
Project: Powell-Molalla / 05-106
Lab ID: 1009198-04

Client Sample ID: MW-4
Collection Date: 9/28/2010 6:00:00 PM
Matrix: GROUNDWATER

Analyses	Result	Limit	Qual	Units	DF	Date Analyzed
VOLATILE ORGANICS BY GC/MS		**SW8260B**				Analyst: **kmn**
Naphthalene	756	5.00		µg/L	5	10/1/2010 2:13:00 PM
o-Xylene	75.2	1.00		µg/L	1	9/30/2010 4:24:00 PM
Toluene	7.34	1.00		µg/L	1	9/30/2010 4:24:00 PM
Surr: 1,2-Dichloroethane-d4	80.5	72.2-129		%REC	1	9/30/2010 4:24:00 PM
Surr: 4-Bromofluorobenzene	88.1	73.5-125		%REC	1	9/30/2010 4:24:00 PM
Surr: Dibromofluoromethane	76.7	58.8-148		%REC	1	9/30/2010 4:24:00 PM
Surr: Toluene-d8	92.6	79.8-137		%REC	1	9/30/2010 4:24:00 PM

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1009198
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_WDISS

Sample ID: 1009199-03CMS	SampType: MS	TestCode: 6020_WDISS	Units: ug/L	Prep Date: 10/1/2010	Run ID: ICPMS_101001A
Client ID: ZZZZZ	Batch ID: 26696	TestNo: SW6020		Analysis Date: 10/1/2010	SeqNo: 701033

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	52.26	0.10	50	0.05965	104	70	130	0	0		

Sample ID: 1009199-03CMSD	SampType: MSD	TestCode: 6020_WDISS	Units: ug/L	Prep Date: 10/1/2010	Run ID: ICPMS_101001A
Client ID: ZZZZZ	Batch ID: 26696	TestNo: SW6020		Analysis Date: 10/1/2010	SeqNo: 701034

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	55.25	0.10	50	0.05965	110	70	130	52.26	5.56	20	

Sample ID: 1009199-03CDUP	SampType: DUP	TestCode: 6020_WDISS	Units: ug/L	Prep Date: 10/1/2010	Run ID: ICPMS_101001A
Client ID: ZZZZZ	Batch ID: 26696	TestNo: SW6020		Analysis Date: 10/1/2010	SeqNo: 701032

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	0.05355	0.10	0	0	0	0	0	0.05965	0	20	J

Sample ID: CCV	SampType: CCV	TestCode: 6020_WDISS	Units: ug/L	Prep Date:	Run ID: ICPMS_101001A
Client ID: ZZZZZ	Batch ID: 26696	TestNo: SW6020		Analysis Date: 10/1/2010	SeqNo: 701020

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	50.37	0.10	50	0	101	90	110	0	0		

Sample ID: CCV	SampType: CCV	TestCode: 6020_WDISS	Units: ug/L	Prep Date:	Run ID: ICPMS_101001A
Client ID: ZZZZZ	Batch ID: 26696	TestNo: SW6020		Analysis Date: 10/1/2010	SeqNo: 701030

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	50.46	0.10	50	0	101	90	110	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1009198
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: 6020_WDISS

Sample ID: CCV	SampType: CCV	TestCode: 6020_WDISS	Units: ug/L	Prep Date:	Run ID: ICPMS_101001A
Client ID: ZZZZZ	Batch ID: 26696	TestNo: SW6020		Analysis Date: 10/1/2010	SeqNo: 701039

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	51.22	0.10	50	0	102	90	110	0	0		

Sample ID: ICB-26696	SampType: ICB	TestCode: 6020_WDISS	Units: ug/L	Prep Date: 10/1/2010	Run ID: ICPMS_101001A
Client ID: ZZZZZ	Batch ID: 26696	TestNo: SW6020		Analysis Date: 10/1/2010	SeqNo: 701021

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	ND	0.10	0	0	0	0	0	0	0		

Sample ID: ICV	SampType: ICV	TestCode: 6020_WDISS	Units: ug/L	Prep Date:	Run ID: ICPMS_101001A
Client ID: ZZZZZ	Batch ID: 26696	TestNo: SW6020		Analysis Date: 10/1/2010	SeqNo: 701019

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lead	49.76	0.10	50	0	99.5	90	110	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1009198
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_W

Sample ID: MB-26676	SampType: MBLK	TestCode: 8260_W	Units: µg/L	Prep Date: 9/29/2010	Run ID: 5973J_100929B
Client ID: ZZZZZ	Batch ID: 26676	TestNo: SW8260B		Analysis Date: 9/29/2010	SeqNo: 701472

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.00									
1,2-Dibromoethane	ND	1.00									
1,2-Dichloroethane	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
Benzene	ND	0.300									
Ethylbenzene	0.11	1.00									J
Isopropylbenzene	ND	1.00									
m,p-Xylene	ND	2.00									
Methyl tert-butyl ether	ND	1.00									
n-Propylbenzene	ND	1.00									
Naphthalene	ND	1.00									
o-Xylene	ND	1.00									
Toluene	ND	1.00									
Surr: 1,2-Dichloroethane-d4	93.56	0	100	0	93.6	72.2	129	0	0		
Surr: 4-Bromofluorobenzene	93.12	0	100	0	93.1	73.5	125	0	0		
Surr: Dibromofluoromethane	95.85	0	100	0	95.8	58.8	148	0	0		
Surr: Toluene-d8	105.6	0	100	0	106	79.8	137	0	0		

Sample ID: MB-26676	SampType: MBLK	TestCode: 8260_W	Units: µg/L	Prep Date: 9/29/2010	Run ID: 5973J_100929B
Client ID: ZZZZZ	Batch ID: 26676	TestNo: SW8260B		Analysis Date: 9/30/2010	SeqNo: 701475

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trimethylbenzene	ND	1.00									
1,2-Dibromoethane	ND	1.00									
1,2-Dichloroethane	ND	1.00									
1,3,5-Trimethylbenzene	ND	1.00									
Benzene	ND	0.300									
Ethylbenzene	ND	1.00									
Isopropylbenzene	ND	1.00									
m,p-Xylene	ND	2.00									
Methyl tert-butyl ether	ND	1.00									

Qualifiers:
ND - Not Detected at the Reporting Limit
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1009198
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_W

Sample ID: **MB-26676** SampType: **MBLK** TestCode: **8260_W** Units: **µg/L** Prep Date: **9/29/2010** Run ID: **5973J_100929B**
Client ID: **ZZZZZ** Batch ID: **26676** TestNo: **SW8260B** Analysis Date: **9/30/2010** SeqNo: **701475**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
n-Propylbenzene	ND	1.00									
Naphthalene	ND	1.00									
o-Xylene	ND	1.00									
Toluene	ND	1.00									
Surr: 1,2-Dichloroethane-d4	93.04	0	100	0	93	72.2	129	0	0		
Surr: 4-Bromofluorobenzene	93.56	0	100	0	93.6	73.5	125	0	0		
Surr: Dibromofluoromethane	94.29	0	100	0	94.3	58.8	148	0	0		
Surr: Toluene-d8	103.7	0	100	0	104	79.8	137	0	0		

Sample ID: **LCS-26676** SampType: **LCS** TestCode: **8260_W** Units: **µg/L** Prep Date: **9/29/2010** Run ID: **5973J_100929B**
Client ID: **ZZZZZ** Batch ID: **26676** TestNo: **SW8260B** Analysis Date: **9/29/2010** SeqNo: **701466**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.35	0.300	40	0	98.4	77.9	125	0	0		
Toluene	45.07	1.00	40	0	113	74.6	119	0	0		

Sample ID: **A1009173-02AMS** SampType: **MS** TestCode: **8260_W** Units: **µg/L** Prep Date: **9/29/2010** Run ID: **5973J_100929B**
Client ID: **ZZZZZ** Batch ID: **26676** TestNo: **SW8260B** Analysis Date: **9/29/2010** SeqNo: **701467**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	37.96	0.300	40	0	94.9	71.5	118	0	0		
Toluene	43.01	1.00	40	0.15	107	79.6	121	0	0		

Sample ID: **A1009173-02AMSD** SampType: **MSD** TestCode: **8260_W** Units: **µg/L** Prep Date: **9/29/2010** Run ID: **5973J_100929B**
Client ID: **ZZZZZ** Batch ID: **26676** TestNo: **SW8260B** Analysis Date: **9/29/2010** SeqNo: **701471**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	35.14	0.300	40	0	87.8	71.5	118	37.96	7.72	20	
Toluene	41.88	1.00	40	0.15	104	79.6	121	43.01	2.66	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1009198
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_W

Sample ID: CCV-26676	SampType: CCV	TestCode: 8260_W	Units: µg/L	Prep Date:	Run ID: 5973J_100929B
Client ID: ZZZZZ	Batch ID: 26676	TestNo: SW8260B		Analysis Date: 9/29/2010	SeqNo: 701465

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	41.83	1.00	40	0	105	80	120	0	0		
Toluene	43.28	1.00	40	0	108	80	120	0	0		

Sample ID: CCV-26676	SampType: CCV	TestCode: 8260_W	Units: µg/L	Prep Date: 9/29/2010	Run ID: 5973J_100929B
Client ID: ZZZZZ	Batch ID: 26676	TestNo: SW8260B		Analysis Date: 9/30/2010	SeqNo: 701474

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	39.63	1.00	40	0	99.1	80	120	0	0		
Toluene	42.06	1.00	40	0	105	80	120	0	0		

Sample ID: CCV-26676	SampType: CCV	TestCode: 8260_W	Units: µg/L	Prep Date:	Run ID: 5973J_100929B
Client ID: ZZZZZ	Batch ID: 26676	TestNo: SW8260B		Analysis Date: 10/1/2010	SeqNo: 701479

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Ethylbenzene	41.14	1.00	40	0	103	80	120	0	0		
Toluene	41.7	1.00	40	0	104	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
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B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1009198
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEXRBC_W

Sample ID: MB-26701	SampType: MBLK	TestCode: BTEXRBC_W	Units: µg/L	Prep Date: 10/3/2010	Run ID: GC-I_101003A
Client ID: ZZZZZ	Batch ID: 26701	TestNo: SW8021B		Analysis Date: 10/3/2010	SeqNo: 700751

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	0.14	0.300									J
Toluene	0.19	0.500									J
Ethylbenzene	0.36	0.500									J
Xylenes, Total	0.83	1.50									J
Surr: 4-Bromofluorobenzene	102.2	0	100	0	102	74.8	126	0	0		

Sample ID: LCS-26701	SampType: LCS	TestCode: BTEXRBC_W	Units: µg/L	Prep Date: 10/3/2010	Run ID: GC-I_101003A
Client ID: ZZZZZ	Batch ID: 26701	TestNo: SW8021B		Analysis Date: 10/3/2010	SeqNo: 700750

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	44.34	0.300	50	0	88.7	75.8	113	0	0		
Toluene	47.95	0.500	50	0	95.9	77	116	0	0		
Ethylbenzene	50.18	0.500	50	0	100	76.6	118	0	0		
Xylenes, Total	153.7	1.50	150	0	102	76.7	118	0	0		

Sample ID: 1009198-01BMS	SampType: MS	TestCode: BTEXRBC_W	Units: µg/L	Prep Date: 10/3/2010	Run ID: GC-I_101003A
Client ID: MW-1	Batch ID: 26701	TestNo: SW8021B		Analysis Date: 10/3/2010	SeqNo: 700753

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.91	0.300	25	0.19	82.9	67.8	118	0	0		
Toluene	22.81	0.500	25	0.2	90.4	74.7	117	0	0		
Ethylbenzene	23.33	0.500	25	0.18	92.6	74.5	115	0	0		
Xylenes, Total	71.82	1.50	75	0.9	94.6	76.8	120	0	0		

Sample ID: 1009198-01BMSD	SampType: MSD	TestCode: BTEXRBC_W	Units: µg/L	Prep Date: 10/3/2010	Run ID: GC-I_101003A
Client ID: MW-1	Batch ID: 26701	TestNo: SW8021B		Analysis Date: 10/3/2010	SeqNo: 700754

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	22.03	0.300	25	0.19	87.4	67.8	118	20.91	5.22	20	
Toluene	24.16	0.500	25	0.2	95.8	74.7	117	22.81	5.75	20	
Ethylbenzene	24.7	0.500	25	0.18	98.1	74.5	115	23.33	5.70	20	

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1009198
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: BTEXRBC_W

Sample ID: **1009198-01BMSD**	SampType: **MSD**	TestCode: **BTEXRBC_W**	Units: **µg/L**	Prep Date: **10/3/2010**	Run ID: **GC-I_101003A**
Client ID: **MW-1**	Batch ID: **26701**	TestNo: **SW8021B**		Analysis Date: **10/3/2010**	SeqNo: **700754**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Xylenes, Total	76.02	1.50	75	0.9	100	76.8	120	71.82	5.68	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **BTEXRBC_W**	Units: **µg/L**	Prep Date:	Run ID: **GC-I_101003A**
Client ID: **ZZZZZ**	Batch ID: **26701**	TestNo: **SW8021B**		Analysis Date: **10/3/2010**	SeqNo: **700749**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	44.34	0.300	50	0	88.7	85	115	0	0		
Toluene	47.95	0.500	50	0	95.9	85	115	0	0		
Ethylbenzene	50.18	0.500	50	0	100	85	115	0	0		
Xylenes, Total	153.7	1.50	150	0	102	85	115	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1009198
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDXLL_W

Sample ID: **MB-26697**	SampType: **MBLK**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **10/1/2010**	Run ID: **GC-M_101001B**
Client ID: **ZZZZZ**	Batch ID: **26697**	TestNo: **NWTPH-Dx**		Analysis Date: **10/1/2010**	SeqNo: **700682**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	ND	0.0800									
Lube Oil	0.06272	0.200									J
Surr: o-Terphenyl	0.1643	0	0.2	0	82.2	50	150	0	0		

Sample ID: **LCS-26697**	SampType: **LCS**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **10/1/2010**	Run ID: **GC-M_101001B**
Client ID: **ZZZZZ**	Batch ID: **26697**	TestNo: **NWTPH-Dx**		Analysis Date: **10/1/2010**	SeqNo: **700683**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	0.9603	0.0800	1	0	96	60.7	121	0	0		
Lube Oil	0.8711	0.200	1	0	87.1	64	126	0	0		

Sample ID: **LCSD-26697**	SampType: **LCSD**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date: **10/1/2010**	Run ID: **GC-M_101001B**
Client ID: **ZZZZZ**	Batch ID: **26697**	TestNo: **NWTPH-Dx**		Analysis Date: **10/1/2010**	SeqNo: **700684**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	0.9211	0.0800	1	0	92.1	60.7	121	0.9603	4.16	20	
Lube Oil	0.9175	0.200	1	0	91.7	64	126	0.8711	5.18	20	

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	Run ID: **GC-M_101001B**
Client ID: **ZZZZZ**	Batch ID: **26697**	TestNo: **NWTPH-Dx**		Analysis Date: **10/1/2010**	SeqNo: **700681**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	8.741	0.0800	8.155	0	107	85	115	0	0		
Lube Oil	3.746	0.200	4.12	0	90.9	85	115	0	0		

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHDXLL**	Units: **mg/L**	Prep Date:	Run ID: **GC-M_101001B**
Client ID: **ZZZZZ**	Batch ID: **26697**	TestNo: **NWTPH-Dx**		Analysis Date: **10/1/2010**	SeqNo: **700694**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	6.581	0.0800	6.116	0	108	85	115	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1009198
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHDXLL_W

Sample ID: CCV	SampType: CCV	TestCode: NWTPHDXLL	Units: mg/L	Prep Date:			Run ID: GC-M_101001B
Client ID: ZZZZZ	Batch ID: 26697	TestNo: NWTPH-Dx		Analysis Date: 10/1/2010			SeqNo: 700694

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Lube Oil	2.864	0.200	3.09	0	92.7	85	115	0	0		

Sample ID: CCV	SampType: CCV	TestCode: NWTPHDXLL	Units: mg/L	Prep Date:			Run ID: GC-M_101001B
Client ID: ZZZZZ	Batch ID: 26697	TestNo: NWTPH-Dx		Analysis Date: 10/3/2010			SeqNo: 700736

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	9.161	0.0800	8.155	0	112	85	115	0	0		
Lube Oil	3.887	0.200	4.12	0	94.3	85	115	0	0		

Sample ID: CCV	SampType: CCV	TestCode: NWTPHDXLL	Units: mg/L	Prep Date:			Run ID: GC-M_101001B
Client ID: ZZZZZ	Batch ID: 26697	TestNo: NWTPH-Dx		Analysis Date: 10/3/2010			SeqNo: 700748

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Diesel	7.019	0.0800	6.116	0	115	85	115	0	0		
Lube Oil	3.065	0.200	3.09	0	99.2	85	115	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1009198
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_W

Sample ID: MB-26704	SampType: MBLK	TestCode: NWTPHGX_	Units: µg/L	Prep Date: 10/3/2010	Run ID: GC-I_101003B
Client ID: ZZZZZ	Batch ID: 26704	TestNo: NWTPH-Gx		Analysis Date: 10/3/2010	SeqNo: 700763

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	54.51	100									J
Surr: 4-Bromofluorobenzene	94.75	0	100	0	94.8	50	150	0	0		

Sample ID: MB-26720	SampType: MBLK	TestCode: NWTPHGX_	Units: µg/L	Prep Date: 10/4/2010	Run ID: GC-S_101004C
Client ID: ZZZZZ	Batch ID: 26720	TestNo: NWTPH-Gx		Analysis Date: 10/4/2010	SeqNo: 700979

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	64.59	100									J
Surr: 4-Bromofluorobenzene	118.1	0	100	0	118	50	150	0	0		

Sample ID: LCS-26704	SampType: LCS	TestCode: NWTPHGX_	Units: µg/L	Prep Date: 10/3/2010	Run ID: GC-I_101003B
Client ID: ZZZZZ	Batch ID: 26704	TestNo: NWTPH-Gx		Analysis Date: 10/3/2010	SeqNo: 700762

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2494	100	2500	0	99.8	74.4	128	0	0		

Sample ID: LCS-26720	SampType: LCS	TestCode: NWTPHGX_	Units: µg/L	Prep Date: 10/4/2010	Run ID: GC-S_101004C
Client ID: ZZZZZ	Batch ID: 26720	TestNo: NWTPH-Gx		Analysis Date: 10/4/2010	SeqNo: 700978

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2009	100	2000	0	100	74.4	128	0	0		

Sample ID: 1009198-01BDUP	SampType: DUP	TestCode: NWTPHGX_	Units: µg/L	Prep Date: 10/3/2010	Run ID: GC-I_101003B
Client ID: MW-1	Batch ID: 26704	TestNo: NWTPH-Gx		Analysis Date: 10/3/2010	SeqNo: 700765

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	19.48	100	0	0	0	0	0	35.43	0	20	J

Qualifiers:
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B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1009198
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_W

Sample ID: 1010008-01CDUP	SampType: DUP	TestCode: NWTPHGX_	Units: µg/L	Prep Date: 10/4/2010	Run ID: GC-S_101004C
Client ID: ZZZZZ	Batch ID: 26720	TestNo: NWTPH-Gx		Analysis Date: 10/4/2010	SeqNo: 700982

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	42.77	100	0	0	0	0	0	36.13	0	20	J

Sample ID: CCV	SampType: CCV	TestCode: NWTPHGX_	Units: µg/L	Prep Date:	Run ID: GC-I_101003B
Client ID: ZZZZZ	Batch ID: 26704	TestNo: NWTPH-Gx		Analysis Date: 10/3/2010	SeqNo: 700772

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2756	100	3000	0	91.9	80	120	0	0		

Sample ID: CCV	SampType: CCV	TestCode: NWTPHGX_	Units: µg/L	Prep Date:	Run ID: GC-S_101004C
Client ID: ZZZZZ	Batch ID: 26720	TestNo: NWTPH-Gx		Analysis Date: 10/4/2010	SeqNo: 700980

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2432	100	2500	0	97.3	80	120	0	0		

Sample ID: CCV	SampType: CCV	TestCode: NWTPHGX_	Units: µg/L	Prep Date:	Run ID: GC-S_101004C
Client ID: ZZZZZ	Batch ID: 26720	TestNo: NWTPH-Gx		Analysis Date: 10/4/2010	SeqNo: 700989

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2849	100	3000	0	95	80	120	0	0		

Sample ID: CCV	SampType: CCV	TestCode: NWTPHGX_	Units: µg/L	Prep Date:	Run ID: GC-S_101004C
Client ID: ZZZZZ	Batch ID: 26720	TestNo: NWTPH-Gx		Analysis Date: 10/5/2010	SeqNo: 701040

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	1938	100	2000	0	96.9	80	120	0	0		

Sample ID: CCV	SampType: CCV	TestCode: NWTPHGX_	Units: µg/L	Prep Date:	Run ID: GC-S_101004C
Client ID: ZZZZZ	Batch ID: 26720	TestNo: NWTPH-Gx		Analysis Date: 10/5/2010	SeqNo: 701046

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1009198
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: NWTPHGX_W

Sample ID: **CCV**	SampType: **CCV**	TestCode: **NWTPHGX_**	Units: **µg/L**	Prep Date:	Run ID: **GC-S_101004C**
Client ID: **ZZZZZ**	Batch ID: **26720**	TestNo: **NWTPH-Gx**		Analysis Date: **10/5/2010**	SeqNo: **701046**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Gasoline	2321	100	2500	0	92.9	80	120	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1009198
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_W

Sample ID: MB-26719	SampType: MBLK	TestCode: PAHLL_W	Units: µg/L	Prep Date: 10/4/2010	Run ID: 5973G_101005A
Client ID: ZZZZZ	Batch ID: 26719	TestNo: 8270SIM		Analysis Date: 10/5/2010	SeqNo: 701100

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	0.01	0.0500									J
Acenaphthylene	ND	0.0500									
Anthracene	ND	0.0500									
Benz(a)anthracene	0.01	0.0500									J
Benzo(a)pyrene	0.02	0.0500									J
Benzo(b)fluoranthene	0.01	0.0500									J
Benzo(g,h,i)perylene	0.03	0.0500									J
Benzo(k)fluoranthene	0.01	0.0500									J
Chrysene	0.01	0.0500									J
Dibenz(a,h)anthracene	0.02	0.0500									J
Fluoranthene	0.01	0.0500									J
Fluorene	ND	0.0500									
Indeno(1,2,3-cd)pyrene	0.03	0.0500									J
Naphthalene	0.03	0.0500									J
Phenanthrene	0.02	0.0500									J
Pyrene	0.01	0.0500									J
Surr: 2-Fluorobiphenyl	38.63	1.00	100	0	38.6	18.6	106	0	0		
Surr: Nitrobenzene-d5	66.85	1.00	100	0	66.8	17	130	0	0		
Surr: p-Terphenyl-d14	71.17	1.00	100	0	71.2	39.6	131	0	0		

Sample ID: LCS-26719	SampType: LCS	TestCode: PAHLL_W	Units: µg/L	Prep Date: 10/4/2010	Run ID: 5973G_101005A
Client ID: ZZZZZ	Batch ID: 26719	TestNo: 8270SIM		Analysis Date: 10/5/2010	SeqNo: 701098

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	3.5	0.0500	5	0	70	35.1	100	0	0		
Benzo(g,h,i)perylene	3.09	0.0500	5	0	61.8	20.8	120	0	0		
Chrysene	3.21	0.0500	5	0	64.2	39.1	119	0	0		
Naphthalene	3.47	0.0500	5	0	69.4	25.6	106	0	0		
Phenanthrene	3.26	0.0500	5	0	65.2	38.1	106	0	0		
Pyrene	3.8	0.0500	5	0	76	41.3	118	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Environmental Compliance Northwest, Inc.
Work Order: 1009198
Project: Powell-Molalla / 05-106

ANALYTICAL QC SUMMARY REPORT

TestCode: PAHLL_W

Sample ID: **LCSD-26719** SampType: **LCSD** TestCode: **PAHLL_W** Units: **µg/L** Prep Date: **10/4/2010** Run ID: **5973G_101005A**
Client ID: **ZZZZZ** Batch ID: **26719** TestNo: **8270SIM** Analysis Date: **10/5/2010** SeqNo: **701099**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	3.23	0.0500	5	0	64.6	35.1	100	3.5	8.02	20	
Benzo(g,h,i)perylene	2.91	0.0500	5	0	58.2	20.8	120	3.09	6.00	20	
Chrysene	3.05	0.0500	5	0	61	39.1	119	3.21	5.11	20	
Naphthalene	2.93	0.0500	5	0	58.6	25.6	106	3.47	16.9	20	
Phenanthrene	3.05	0.0500	5	0	61	38.1	106	3.26	6.66	20	
Pyrene	3.61	0.0500	5	0	72.2	41.3	118	3.8	5.13	20	

Sample ID: **CCV-26719** SampType: **CCV** TestCode: **PAHLL_W** Units: **µg/Kg** Prep Date: Run ID: **5973G_101005A**
Client ID: **ZZZZZ** Batch ID: **26719** TestNo: **8270SIM** Analysis Date: **10/5/2010** SeqNo: **701097**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	2.23	6.67	2	0	112	70	130	0	0		
Acenaphthylene	2.42	6.67	2	0	121	70	130	0	0		
Anthracene	2.07	6.67	2	0	104	70	130	0	0		
Benz(a)anthracene	1.89	6.67	2	0	94.5	70	130	0	0		
Benzo(a)pyrene	1.94	6.67	2	0	97	70	130	0	0		
Benzo(b)fluoranthene	1.96	6.67	2	0	98	70	130	0	0		
Benzo(g,h,i)perylene	1.8	6.67	2	0	90	70	130	0	0		
Benzo(k)fluoranthene	1.8	6.67	2	0	90	70	130	0	0		
Chrysene	1.83	6.67	2	0	91.5	70	130	0	0		
Dibenz(a,h)anthracene	1.93	6.67	2	0	96.5	70	130	0	0		
Fluoranthene	2.04	6.67	2	0	102	70	130	0	0		
Fluorene	2.22	6.67	2	0	111	70	130	0	0		
Indeno(1,2,3-cd)pyrene	1.89	6.67	2	0	94.5	70	130	0	0		
Naphthalene	2.28	6.67	2	0	114	70	130	0	0		
Phenanthrene	2.02	6.67	2	0	101	70	130	0	0		
Pyrene	2.33	6.67	2	0	116	70	130	0	0		

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

KEY TO FLAGS

Rev. May 12, 2010

A	This sample contains a Gasoline Range Organic not identified as a specific hydrocarbon product. The result was quantified against gasoline calibration standards
A1	This sample contains a Diesel Range Organic not identified as a specific hydrocarbon product. The result was quantified against diesel calibration standards.
A2	This sample contains a Lube Oil Range Organic not identified as a specific hydrocarbon product. The result was quantified against a lube oil calibration standard.
A3	The result was determined to be Non-Detect based on hydrocarbon pattern recognition. The product was carry-over from another hydrocarbon type.
A4	The product appears to be aged or degraded diesel.
B	The blank exhibited a positive result great than the reporting limit for this compound.
CN	See Case Narrative.
D	Result is based from a dilution.
E	Result exceeds the calibration range for this compound. The result should be considered as estimate.
F	The positive result for this hydrocarbon is due to single component contamination. The product does not match any hydrocarbon in the fuels library.
G	Result may be biased high due to biogenic interferences. Clean up is recommended.
H	Sample was analyzed outside recommended holding time.
HT	At clients request, samples was analyzed outside of recommended holding time.
J	The result for this analyte is between the MDL and the PQL and should be considered as estimated concentration.
K	Diesel result is biased high due to amount of Oil contained in the sample.
L	Diesel result is biased high due to amount of Gasoline contained in the sample.
M	Oil result is biased high due to amount of Diesel contained in the sample.
MC	Sample concentration is greater than 4x the spiked value, the spiked value is considered insignificant.
MI	Result is outside control limits due to matrix interference.
MSA	Value determined by Method of Standard Addition.
O	Laboratory Control Standard (LCS) exceeded laboratory control limits, but meets CCV criteria. Data meets EPA requirements.
Q	Detection levels elevated due to sample matrix.
R	RPD control limits were exceeded.
RF	Duplicate failed due to result being at or near the method-reporting limit.
RP	Matrix spike values exceed established QC limits; post digestion spike is in control.
S	Recovery is outside control limits.
SC	Closing CCV or LCS exceeded high recovery control limits, but associated samples are non-detect. Data meets EPA requirements.
*	The result for this parameter was greater that the maximum contaminant level of the TCLP regulatory limit.

CHAIN OF COUSTODY RECORD

Page 1 of 1

Specialty Analytical
11711 SE Capps Road
Clackamas, OR 97015
Phone: 503-607-1331
Fax: 503-607-1336

Contact Person/Project Manager: John Day
Company: ECN
Address: PO Box 230163
PTLD, OR 97281
Phone: 372-9760 Fax: 213-9980
Project No.: 05-106 Project Name: powell - Molalla
Project Site Location OR: X WA: Other:
Invoice To: P.O. No.:

Collected By:
Signature: [signature]
Printed: John Day
Signature:
Printed:

Turn Around Time
☒ Normal 5-7 Business Days
☐ Rush ______ Specify

Rush Analyses Must Be Scheduled With The Lab In Advance

For Laboratory Use
Lab Job No.: 1009198
Shipped Via: Client
Air Bill No.: —
Temperature On Receipt: 4 °C
Specialty Analytical Containers? Y / N
Specialty Analytical Trip Blanks? Y / N

Date	Time	Sample I.D.	Matrix	No. of Containers	BTEX/TPH-Gx	8260 VOCs (8260)	TPH-Gx	TPH-Dx	PAHs	Dissolved Pb					Comments	Lab I.D.
9/28/10	1600	mw-1	W	5	X			X								
↓	1530	mw-2	↓	5	X			X								
	1700	mw-3		5		X	X	X	(X) → Not needed						IF Dx > 0.5 ppm Run PAHs	
	1800	mw-4		5		X	X	X	X	X						
		~~[illegible]~~		6												

Relinquished By:	Date	Time	Received By:
[signature] Company: ECN	9/29/10	1705	Company:

Relinquished By:	Date	Time
Company:		
Received For Lab By: Nikki Bippes	9/29/10	1705

Unless Reclaimed, Samples Will Be Disposed of 60 Days After Receipt.
Samples held beyond 60 days subject to storage fee(s)

Copies: White-Original Yellow-Project File Pink-Customer Copy