



STATE OF WASHINGTON  
DEPARTMENT OF ECOLOGY  
PO Box 47775 • Olympia, Washington 98504-7775 • (360) 407-6300

January 21, 2014

Mr. Michael Miller  
Cardno ERI  
801 2<sup>nd</sup> Ave STE 700  
Seattle WA 98104

**Re: Opinion on Proposed Cleanup of the following Site:**

- **Site Name:** Lacey Food Mart
- **Site Address:** 4603 Lacey Blvd SE, Lacey, Washington
- **Facility/Site No.:** 54596735
- **Site Cleanup No.:** 6259
- **VCP Project No.:** SW1336

Dear Mr. Miller:

The Washington State Department of Ecology (Ecology) received your request for an opinion on your proposed independent cleanup of the Lacey Food Mart facility (Site). This letter provides our opinion. We are providing this opinion under the authority of the Model Toxics Control Act (MTCA), Chapter 70.105D RCW.

**Issue Presented and Opinion**

Upon completion of the proposed cleanup, will further remedial action likely be necessary to clean up contamination at the Site?

**YES. Ecology has determined that, upon completion of your proposed cleanup, further remedial action will likely be necessary to clean up contamination at the Site.**

This opinion is based on an analysis of whether the remedial action meets the substantive requirements of MTCA, Chapter 70.105D RCW, and its implementing regulations, Chapter 173-340 WAC (collectively “substantive requirements of MTCA”). The analysis is provided below.

**Description of the Site**

This opinion applies only to the Site described below. The Site is defined by the nature and extent of contamination associated with the following release:

- Petroleum into the soil and groundwater.

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Please note a parcel of real property can be affected by multiple sites. At this time, we have no information that the parcel(s) associated with this Site are affected by other sites.

#### **Basis for the Opinion**

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This opinion is based on the information contained in the following documents:

1. *Excavation and Independent Remedial Action Report*, Stemen Environmental, July 28, 1997.
2. *Monitoring Well Installation and Quarterly Ground Water Monitoring*, Stemen Environmental, February 15, 1998.
3. *Monitoring Well Installation and Quarterly Ground Water Monitoring*, Stemen Environmental, June 5, 2000.
4. *Monitoring Well Installation and Soil Sampling Report*, Environmental Resolutions, Inc. (ERI), December 31, 2002.
5. *Drilling and Well Installation Report, Former Exxon Station 7-2452*, ERI, November 21, 2007.
6. *Soil Sampling and Well Installation Activities*, ERI, May 23, 2008.
7. *Air-sparge Well Installation Report*, ERI, September 5, 2008.
8. *Air Sparge/Soil Vapor Extraction Feasibility Test Technical Memo*, ERI, October 1, 2009.
9. *Air Sparge Well Installation Report*, Cardno ERI, February 16, 2011.
10. *Voluntary Cleanup Program Application and Confirmation Boring Work Plan*, Cardno ERI, October 7, 2013.

These documents are kept in the Central Files of the SWRO Regional Office of Ecology (SWRO) for review by appointment only. You may make an appointment by calling the SWRO resource contact at (360) 407-6365.

This opinion is void if any of the information contained in those documents is materially false or misleading.

## **Analysis of the Cleanup**

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Ecology has concluded that, upon completion of your proposed cleanup, **further remedial action will likely be necessary to clean up contamination at the Site.** That conclusion is based on the following analysis:

### **1. Characterization of the Site.**

Ecology has determined your characterization of the Site is not sufficient to establish cleanup standards and select a cleanup action.

The Site, 0.31 acres, is located on the southeast corner of the intersection of Lacey Boulevard Southeast and College Street in Lacey, Washington (Figure 1). The Site is currently occupied by a Chevron gasoline station. The topography is generally flat. Land use in the surrounding area is commercial and residential.

In December 1973, a release of 1,178 gallons of petroleum was released into the subsurface due to a malfunctioning check valve. Environmental investigations have been conducted at the Site starting in 1986. Ecology does not have copies of reports of work done prior to 1996.

From available information, it appears that five underground storage tanks (USTs) were removed in the late 1980s: Two 8,000-gallon gasoline tanks, one 6,000-gallon gasoline tank, one 300-gallon used oil tank, and one approximately 300- to 500-gallon heating oil tank. During excavation activities, the hoists in the former service bay were also removed. The fuel and vent lines were left in place.

From January 1996 through June 1997, the Site was demolished and more excavation of contaminated soil done. No USTs were found during this phase of work. Refer to Figure 2 for locations of the following activities. Sampling results for this phase of work and subsequent work is presented in Table 1.

The first phase of excavation started in December 1995 to February 1996. Referenced confirmation samples were analyzed for Total Petroleum Hydrocarbons-Gasoline (TPH-G), Total Petroleum Hydrocarbons-Diesel extended (TPH-D), Total Petroleum Hydrocarbons-Heavy Oil (TPH-O), and benzene, toluene, ethylbenzene, and xylenes (BTEX) except where noted.

The excavation in the UST area was extended to approximately 21 feet below ground surface (bgs). The northern portion had contamination left in it due to stability issues concerning the roadway. Confirmation sampling locations are shown in Figure 3. While the excavation was open, groundwater flowed into it. Water seeping in from the southern portion did not have any noticeable petroleum sheen; water from the northern portion did. Water in the excavation was pumped out and stored on Site in a Baker tank.

The area of the former heating oil tank was excavated to native soil at approximately 4.5 feet bgs. Samples collected and analyzed for TPH-D were non detect (Figure 2). Sampling locations were not shown on this figure in the report.

The former waste oil tank area was excavated and found to be contaminated. At approximately 17 feet bgs, contamination above cleanup levels was still present. The excavation was then extended north and east-southeast. The east-southeast excavating activities started encountering contamination from two dry wells. During this work, water seeping into the excavation had a petroleum odor. It was pumped into a Baker tank on Site. As the excavation proceeded toward the dry wells, a solvent odor was noticed along with the petroleum odor. The two dry wells were found to consist of vaults with holes for draining. Piping leading into the dry wells was found to start at the service bays of the building.

Selected confirmation samples in the waste oil/dry wells excavation were also analyzed for intermediary petroleum distillates, specific halogenated hydrocarbons, and three samples were analyzed for metals (Figure 4).

Remediation activities were resumed December 1996 through June 1997. During the hiatus, the walls of the waste oil/dry wells excavation had sloughed and rain water had accumulated. The water was pumped into a Baker tank. Additional excavation was done to a maximum depth of 21 feet bgs, where till was encountered. After removing all noticeably contaminated soil, 27 confirmation samples were collected. All samples results were below cleanup levels for petroleum and halogenated hydrocarbons. Rain water again accumulated before the excavation was backfilled. A sample was collected and analyzed for TPH-G, TPH-D, and TPH-O. The results were below cleanup levels.

The north pump island was excavated to a depth of approximately 7.5 feet bgs until clean limits were achieved as determined by confirmation samples. Excavation at the western pump island found no contamination and was confirmed by sampling. Figure 2 shows the excavation area; however, no sampling locations given.

A total of 2,255 tons of contaminated soil was taken off Site for disposal at TPS Technologies in Tacoma, Washington. The excavation was backfilled with clean soil. A total of 1,700 gallons of contaminated groundwater were removed and taken off Site to Arcos Oil Company in Tacoma, Washington, for treatment. A total of 4,810 gallons of contaminated water was treated on Site by Oil Trap, Inc., of Tumwater, Washington.

In March 1997, a Strata Probe was used to drill around the perimeter of the western and northwestern sides of the excavation to determine the extent of any remaining residual contamination. Locations SP1 and SP5 had TPH-G and BTEX contamination results above Method A cleanup levels. Results for this characterization are shown in Table 1.

Groundwater monitoring wells MW1 through MW4 were installed in January 1998. No soil sampling results are available for review. Groundwater results found that samples from MW2 and MW4 were contaminated. Locations of all groundwater monitoring wells are shown on Figure 5.

In December 2000, five soil borings were advanced on and around the Site. Grab groundwater sample W4-24 at P4 indicated that contamination extended into Lacey Boulevard. This location was the only one with groundwater contamination. No contaminants above cleanup levels were found in soil. A report detailing the work was not available for review.

Monitoring wells MW5, MW6, and MW7 were installed in May 2002. Soil samples collected during installation found no contamination above Method A cleanup levels. Total depth investigated at this time was 30 feet bgs.

In September 2007, monitoring wells MW8 through MW11 were installed. Soil contamination was found in boring B11 (MW8) at 16 feet and B13 (MW11) at 28 feet bgs.

Monitoring wells MW12 and MW13 were installed in April 2008. No contamination was found in the soil samples collected.

In July 2008, two more borings were installed and completed as air sparge (AS) wells AS1 and AS2. Both borings had contamination above Method A cleanup levels. The air sparge well locations are shown on Figure 2.

A pilot air sparge/soil vapor extraction (AS/SVE) feasibility test was conducted in August 2009. The results were inconclusive as to the effectiveness of an AS/SVE system.

In November 2010, soil borings B19 through B23 were advanced. The total depth explored was 35 feet bgs. These borings were completed as AS wells AS3 through AS6. Borings B19 and B22 had soil contamination above cleanup levels at 20 feet bgs and 25 feet bgs, respectively. Sample results from these borings were evaluated using the Method B spreadsheet calculations. The results found that the Method B calculated cleanup values for direct contact were protective of human health and the environment but not protective of the groundwater pathway.

Oxygen injections were done at the Site from January 2011 through September 2012 in various on-Site injection wells.

Groundwater has been monitored since late 1998. Table 2 lists groundwater monitoring results through December 2012.

The current proposed soil borings are located to assess remaining contamination in areas west and north of the UST excavation, the dry wells/waste oil tank excavation, and north of the Site in Lacey Boulevard.

Based on the review of the above-listed reports, Ecology has the following comments on the proposed work plan:

1. Groundwater flow direction – For several years, the groundwater flow direction was not determined. If, as historically calculated, groundwater flows to the northwest, the down gradient edge of the plume has not been determined. Monitoring well MW2 had high levels of contamination before it was abandoned. Again, there does not appear to be a well down gradient of MW2 that would determine the lateral extent of contamination. Contamination was also found in MW3 yet no well was installed to replace it after it was abandoned.
2. Although MW4 has had four quarters of clean results, there is no down gradient well to determine if groundwater is clean or if the plume moved past it.
3. Lead in groundwater is above the cleanup level of 15 µg/l in wells MW6, MW7, MW8, and MW9. Four consecutive quarters of clean results are needed to demonstrate compliance.
4. In the May 29, 2008 report, the detection limits for half of the benzene samples were above the MTCA Method A cleanup level for benzene in soil, and are not sufficient for determining whether benzene is present. These areas may need to be re-sampled to demonstrate compliance if the Method A soil cleanup level is used at the Site.
5. The extent of soil contamination was not determined north of SP5 or west of SP1.
6. In the 2013 work plan, proposed boring B29 is not listed on Figure 1. Since in this location groundwater was found to be contaminated, a grab groundwater sample needs to be collected. Please note that Table 1 did not list the results for boring P4, for which is the boring that B29 is to confirm compliance. The boring P4 was mentioned in the text and noted as having benzene above the Method A cleanup level for groundwater. A copy of the report for which this boring was done was not available for review by Ecology.
7. Although the work plan states what analyses are to be run, it does not indicate which locations will be subject to these analyses. A table listing the proposed locations and associated analyses is needed.
8. In accordance with WAC 173-340-840(5) and Ecology Toxics Cleanup Program Policy 840 (Data Submittal Requirements), data generated for Independent Remedial Actions shall be submitted simultaneously in both a written and electronic format. For additional

information regarding electronic format requirements, see the website <http://www.ecy.wa.gov/eim>. Be advised that according to the policy, any reports containing sampling data that are submitted for Ecology review are considered incomplete until the electronic data has been entered. Please ensure that data generated during on-site activities is submitted pursuant to this policy. **Data must be submitted to Ecology in this format for Ecology to issue a No Further Action determination.** Please be sure to submit the previous data not submitted yet, as well as any future data, in this format. Be advised that Ecology requires up to two weeks to process the data once it is received.

9. In accordance with WAC 173-340-7490, a Terrestrial Ecological Evaluation (TEE) needs to be completed for the Site. Please fill out the TEE form and any supporting information (as appropriate) and submit it to Ecology. The form can be found on our website at <http://www.ecy.wa.gov/biblio/ecy090300.html>.

## 2. Establishment of cleanup standards.

Ecology has determined the cleanup levels and points of compliance you established for the Site do not meet the substantive requirements of MTCA.

Standard points of compliance are being used for the Site. The point of compliance for protection of groundwater shall be established in the soils throughout the Site. For soil cleanup levels based on human exposure via direct contact or other exposure pathways where contact with the soil is required to complete the pathway, the point of compliance shall be established in the soils throughout the Site from the ground surface to 15 feet bgs. In addition, the point of compliance for groundwater shall be established throughout the Site from the uppermost level of the saturated zone extending vertically to the lowest most depth that could potentially be affected by the Site.

Method B cleanup values have been selected for soil compliance. The Ecology worksheet calculated values that are protective of direct contact but not protective of groundwater. As such, with the proposed values, an environmental covenant with long-term monitoring of groundwater would be needed.

If the soils were cleaned up to Method A levels, no additional work would be needed since those values are considered protective of groundwater.

Additional investigation is required to define the extent of impacts on the Site prior to establishing points of compliance.

## 3. Selection of cleanup action.

Ecology has determined the cleanup action you proposed for the Site does not meet the substantive requirements of MTCA.

To date, cleanup actions have consisted of excavation of contaminated soil with off-Site disposal and monitoring of groundwater. These actions may have been sufficient to achieve cleanup standards; however, additional actions are needed to confirm whether residual contamination is present. See Sections 1 for Ecology's comments on the proposed next steps.

### **Limitations of the Opinion**

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**1. Opinion does not settle liability with the state.**

Liable persons are strictly liable, jointly and severally, for all remedial action costs and for all natural resource damages resulting from the release or releases of hazardous substances at the Site. This opinion **does not**:

- Resolve or alter a person's liability to the state.
- Protect liable persons from contribution claims by third parties.

To settle liability with the state and obtain protection from contribution claims, a person must enter into a consent decree with Ecology under RCW 70.105D.040(4).

**2. Opinion does not constitute a determination of substantial equivalence.**

To recover remedial action costs from other liable persons under MTCA, one must demonstrate that the action is the substantial equivalent of an Ecology-conducted or Ecology-supervised action. This opinion does not determine whether the action you proposed will be substantially equivalent. Courts make that determination. *See* RCW 70.105D.080 and WAC 173-340-545.

**3. Opinion is limited to proposed cleanup.**

This letter does not provide an opinion on whether further remedial action will actually be necessary at the Site upon completion of your proposed cleanup. To obtain such an opinion, you must submit a report to Ecology upon completion of your cleanup and request an opinion under the VCP.

**4. State is immune from liability.**

The state, Ecology, and its officers and employees are immune from all liability, and no cause of action of any nature may arise from any act or omission in providing this opinion. *See* RCW 70.105D.030(1)(i).

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### Contact Information

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Thank you for choosing to clean up the Site under the Voluntary Cleanup Program (VCP). As you conduct your cleanup, please do not hesitate to request additional services. We look forward to working with you.

For more information about the VCP and the cleanup process, please visit our web site: [www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm](http://www.ecy.wa.gov/programs/tcp/vcp/vcpmain.htm). If you have any questions about this opinion, please contact me by phone at (360) 407-6263 or e-mail at [cjohn461@ecy.wa.gov](mailto:cjohn461@ecy.wa.gov).

Sincerely,



Carol A. Johnston  
SWRO Toxics Cleanup Program

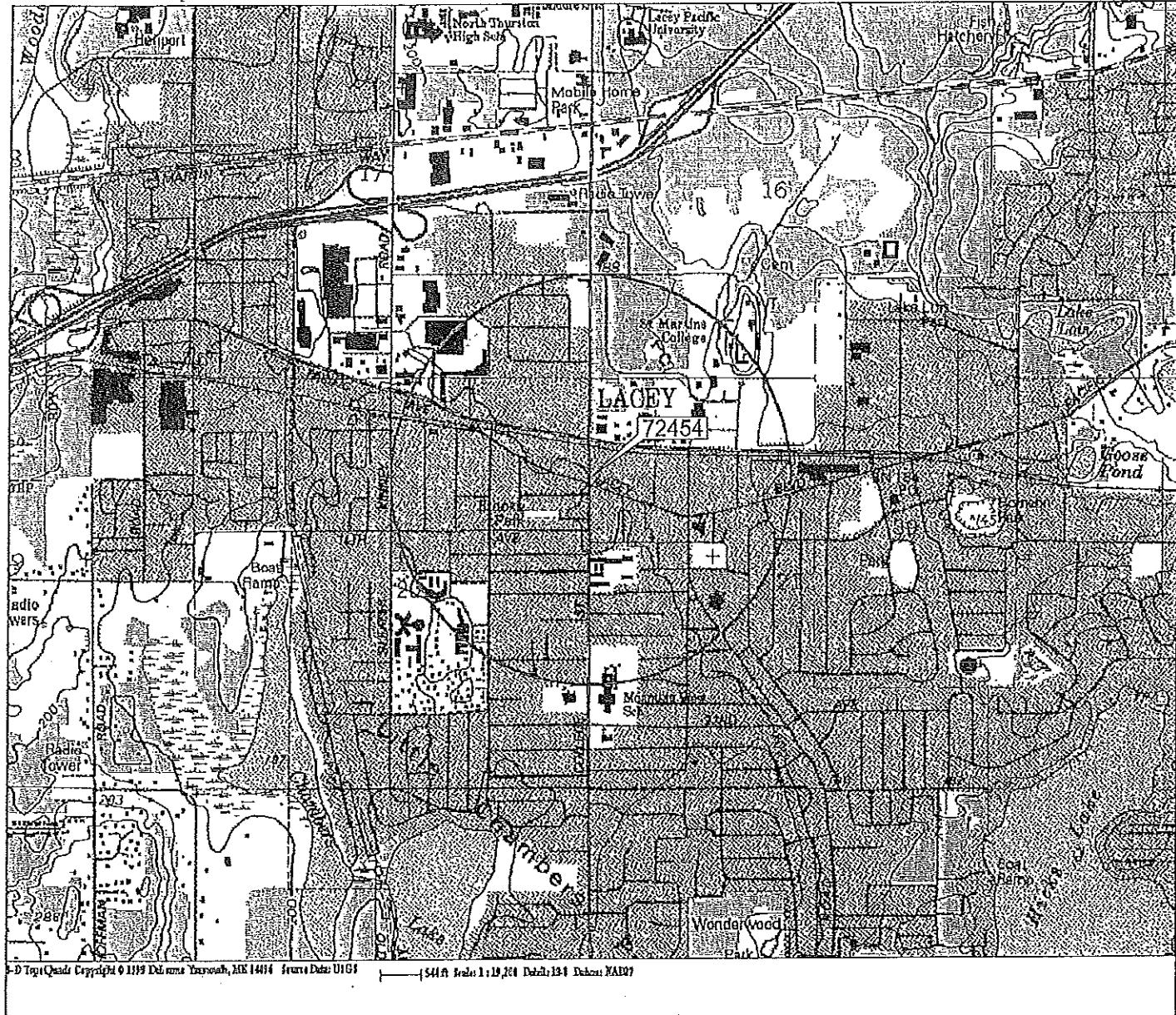
CAJ/ksc:Proposed Site Cleanup Unlikely NFA

Enclosures (5 figures; 2 tables):

By certified mail: (7012 2210 0002 6581 04792)

cc:     Ashok Sharma, Hariom Enterprises, Inc.  
          Gerald Tousley, Thurston County Health  
          Scott Rose, Ecology  
          Dolores Mitchell, Ecology (w/o enclosures)





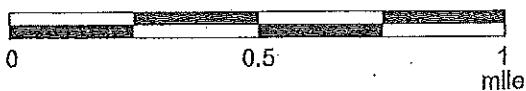
FN 0311040001

### EXPLANATION



1/2-mile radius circle

### APPROXIMATE SCALE



SOURCE:  
Modified from a map  
provided by  
DeLorme 3-D TopoQuads

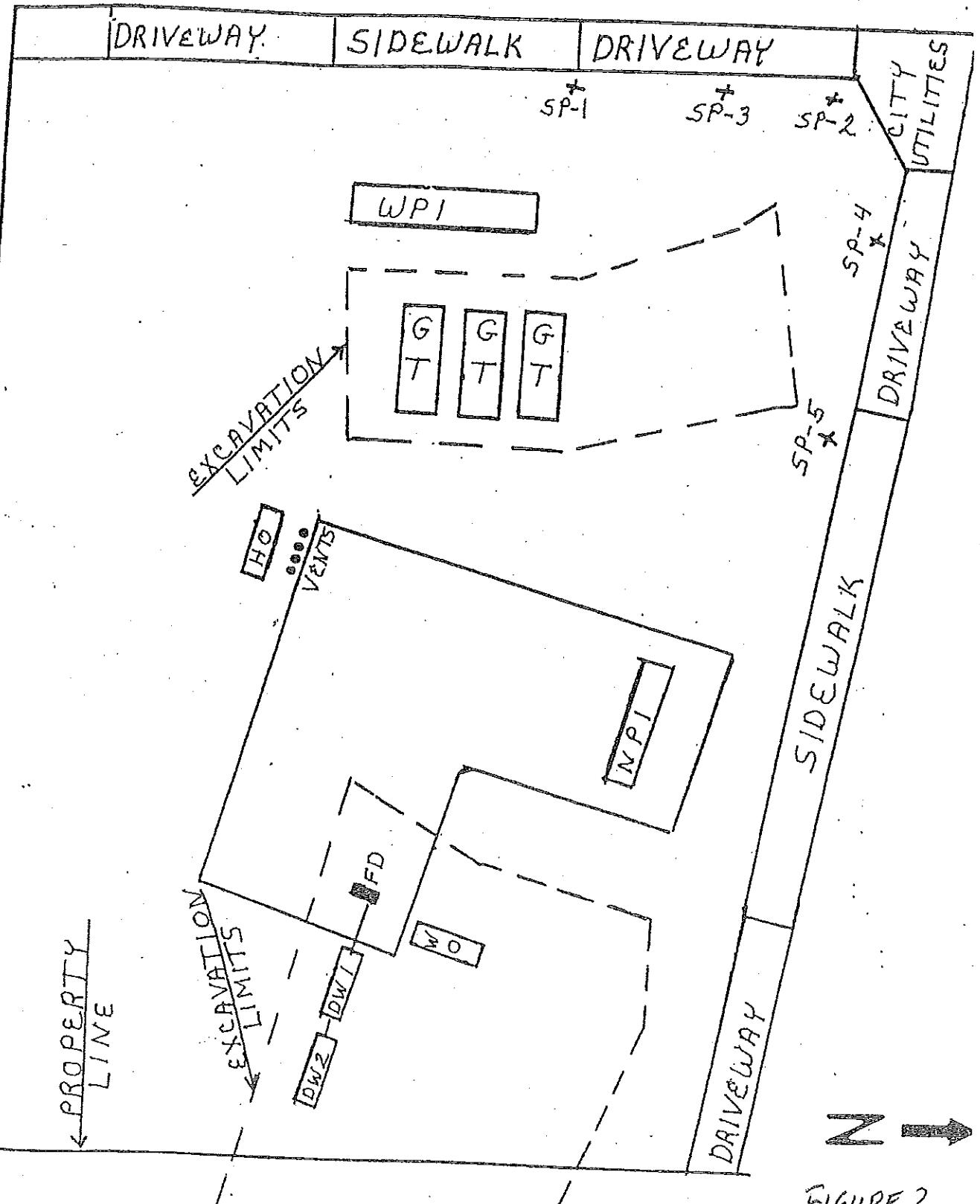
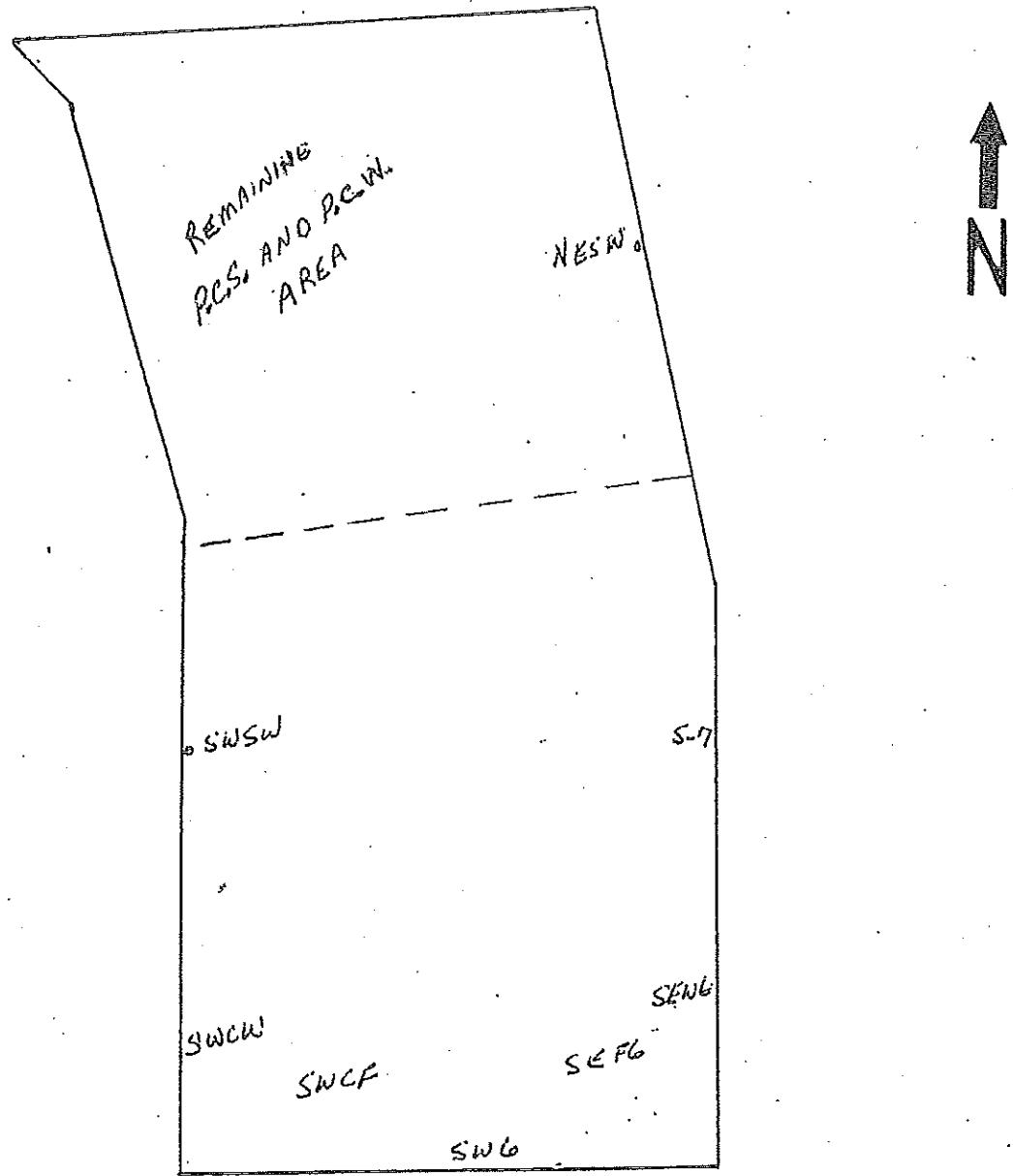


FIGURE 2

## GASOLINE TANK EXCAVATION

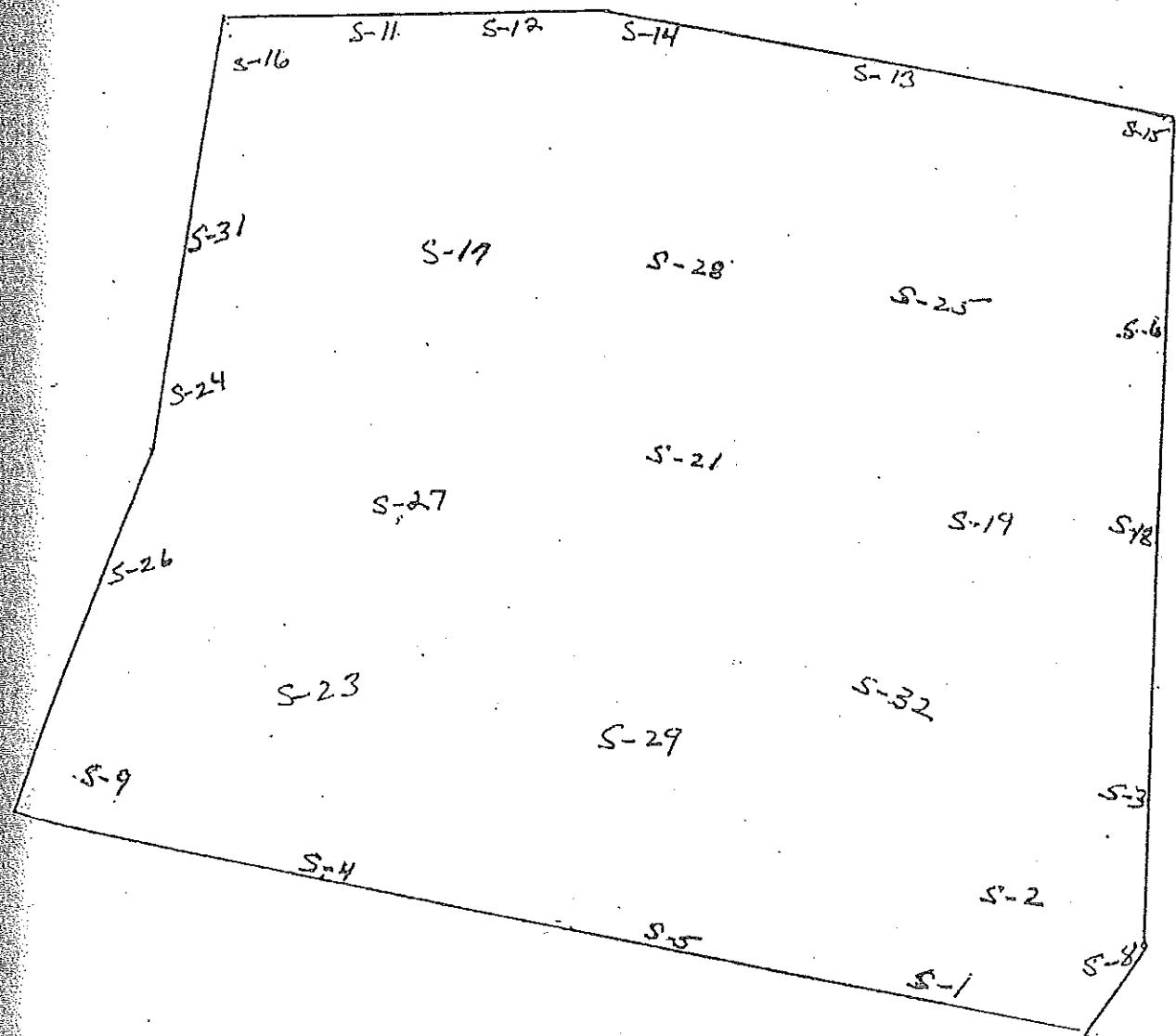


SCALE 1" = 10'

FIGURE 3

# WASTE OIL TANK/DRY WELLS EXCAVATION

N



SCALE 1" = 10'

## FIGURE 4



Shaping the Future

## GENERALIZED SITE PLAN

FORMER EXXON STATION 72454  
4603 Lacey Boulevard Southeast

Lacey, Washington

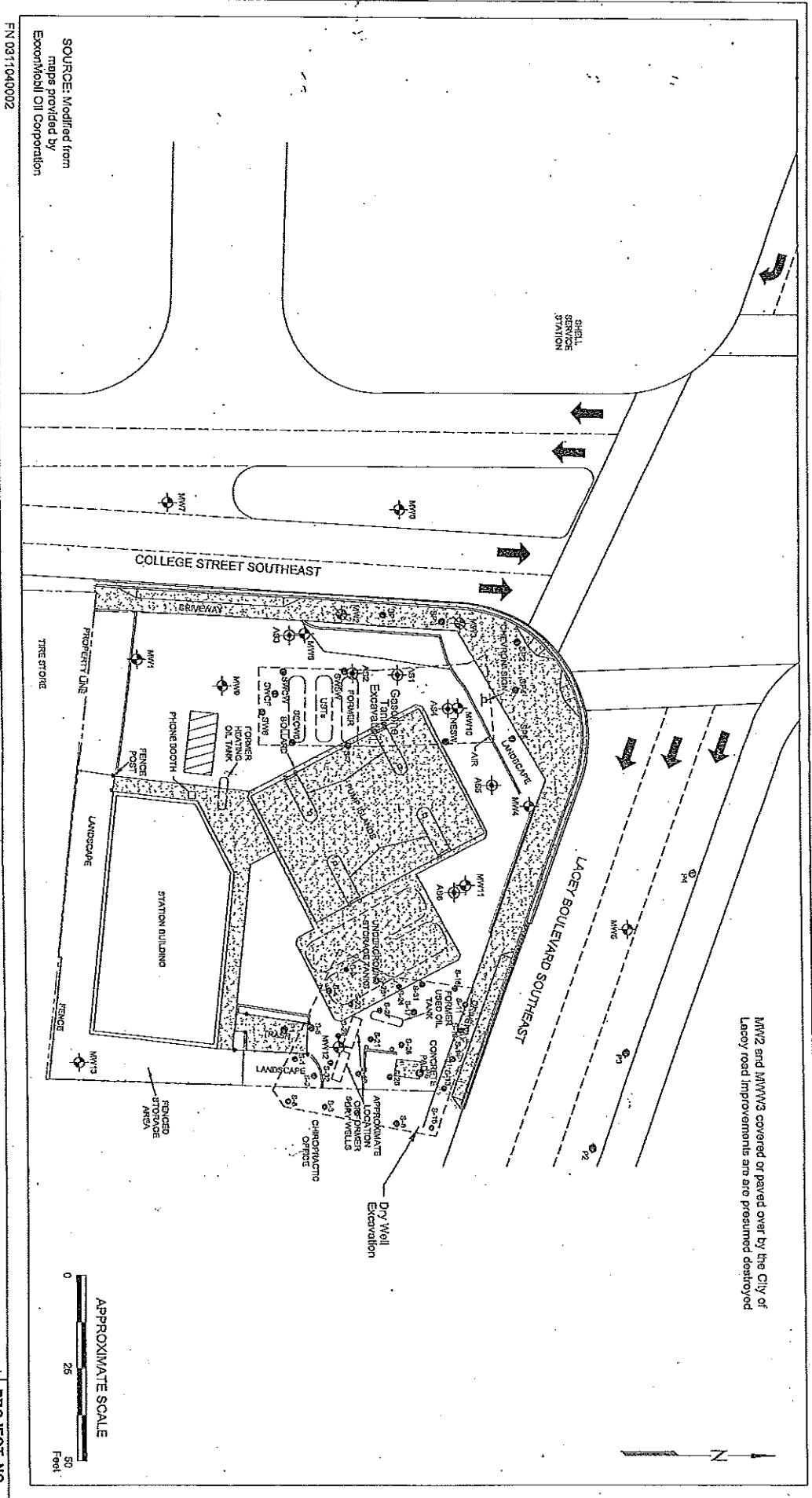


TABLE 1  
CUMULATIVE SOIL ANALYTICAL RESULTS  
Former Exxon Station 72454  
4603 Lacey Boulevard  
Lacey, Washington  
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Sample Name	Sample Date	Depth (ft bgs)	Location	TPHg (mg/kg)	TPHd (mg/kg)	TPHmo (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	Total Pb (mg/kg)
<b>Stemen Environmental, Inc. - Excavation and Independent Remedial Action Report - July 28, 1997:</b>											
S-5	01/25/96	10.6	NA	1190	--	--	--	--	--	--	--
S-6	01/25/96	11	NA	574	--	--	--	--	--	--	--
S-7	01/25/96	5.3	NA	36	ND	ND	ND	ND	ND	0.11	--
S-8	01/25/96	4.7	NA	--	ND	ND	--	--	--	--	--
S-9	01/25/96	7.2	NA	--	ND	ND	--	--	--	--	--
WO-1	02/01/96	17	NA	--	--	--	--	--	--	--	--
WO-2	02/01/96	17	NA	--	--	--	--	--	--	--	--
WO-3	02/01/96	17	NA	--	--	--	--	--	--	--	--
WO-4	02/01/96	17	NA	--	--	--	--	--	--	--	--
WO-5	02/01/96	17	NA	--	--	193	--	--	--	--	--
S-13	02/05/96	17	NA	ND	--	--	ND	ND	ND	ND	--
S-1	12/09/96	15	NA	ND	ND	ND	ND	ND	ND	ND	--
S-2	12/09/96	20	NA	ND	ND	ND	ND	ND	ND	ND	--
S-3	12/09/96	16	NA	ND	ND	ND	ND	ND	ND	ND	--
S-4	12/09/96	16.3	NA	ND	ND	ND	ND	ND	ND	ND	--
S-5	12/09/96	17	NA	ND	ND	ND	ND	ND	ND	ND	--
S-6	12/09/96	NA	NA	ND	ND	ND	ND	ND	ND	ND	--
S-8	12/13/96	8	NA	ND	ND	ND	ND	ND	ND	ND	--
S-9	12/13/96	19.5	NA	ND	ND	ND	ND	ND	ND	ND	--
S-11	12/13/96	20	NA	ND	ND	ND	ND	ND	ND	ND	--
S-12	12/13/96	17	NA	ND	ND	ND	ND	ND	ND	ND	--
S-13	12/13/96	20	NA	ND	ND	ND	ND	ND	ND	ND	--
S-14	12/13/96	6	NA	ND	ND	ND	ND	ND	ND	ND	--
S-15	12/13/96	13	NA	ND	ND	ND	ND	ND	ND	ND	--
S-16	12/13/96	14	NA	ND	ND	ND	ND	ND	ND	ND	--
S-17	12/13/96	20.8	NA	ND	ND	ND	ND	ND	ND	ND	--
S-18	12/17/96	16.3	NA	ND	ND	ND	ND	ND	ND	ND	--
S-19	12/17/96	20.3	NA	ND	ND	ND	ND	ND	ND	ND	--
S-21	12/17/96	20	NA	ND	ND	ND	ND	ND	ND	ND	--
S-23	12/17/96	19.7	NA	ND	ND	ND	ND	ND	ND	ND	--
S-24	12/17/96	17	NA	ND	ND	ND	ND	ND	ND	ND	--
S-25	12/17/96	20.1	NA	ND	ND	ND	ND	ND	ND	ND	--
S-26	12/17/96	11.3	NA	ND	ND	ND	ND	ND	ND	ND	--
S-27	12/17/96	19.8	NA	ND	ND	ND	ND	ND	ND	ND	--
S-28	12/17/96	20.8	NA	ND	ND	ND	ND	ND	ND	ND	--
S-29	12/17/96	20.6	NA	ND	ND	ND	ND	ND	ND	ND	--
S-31	12/19/96	5.8	NA	ND	ND	ND	ND	ND	ND	ND	--
S-32	12/19/96	20.8	NA	ND	ND	ND	ND	ND	ND	ND	--
SPS-1-12	03/07/97	12	SP1	ND	--	--	ND	0.32	ND	ND	--
SPS-1-15	03/07/97	15	SP1	ND	--	--	ND	ND	ND	ND	--
SPS-1-18	03/07/97	18	SP1	180	--	--	0.016	0.15	ND	1.12	--
SPS-1-21	03/07/97	21	SP1	102	--	--	4.09	227.6	9.03	660	--
SPS-1-27	03/07/97	27	SP1	60	--	--	ND	0.12	0.29	1.12	--
SPS-2-13	03/07/97	19	SP2	ND	--	--	ND	ND	ND	ND	--
SPS-2-21	03/07/97	21	SP2	ND	--	--	ND	ND	ND	ND	--
SPS-2-27	03/07/97	27	SP2	ND	--	--	ND	ND	ND	ND	--
SPS-3-18	03/07/97	18	SP3	18	--	--	ND	ND	0.31	0.5	--
SPS-3-26	03/07/97	26	SP3	ND	--	--	ND	ND	ND	ND	--
SPS-4-16	03/07/97	16	SP4	ND	--	--	ND	ND	ND	ND	--

MTCA Method A Cleanup Level

30/100<sup>a</sup> 2,000 2,000 0.03 7 6 9 250

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**TABLE 1**  
**CUMULATIVE SOIL ANALYTICAL RESULTS**  
 Former Exxon Station 72454  
 4603 Lacey Boulevard  
 Lacey, Washington  
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Sample Name	Sample Date	Depth (ft bgs)	Location	TPHg (mg/kg)	TPHd (mg/kg)	TPHmo (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	Total Pb (mg/kg)
<u>Stemen Environmental, Inc. - Excavation and Independent Remedial Action Report - July 28, 1997 (continued):</u>											
SPS-4-22	03/07/97	22	SP4	ND	-	-	ND	ND	ND	ND	--
SPS-4-26	03/07/97	26	SP4	ND	-	-	ND	ND	ND	ND	--
SPS-5-15	03/07/97	15	SP5	ND	-	-	ND	ND	ND	ND	--
SPS-5-20	03/07/97	20	SP5	ND	-	-	ND	ND	ND	ND	--
SPS-5-23	03/07/97	23	SP5	2200	-	-	202	248	275	120	--
SPS-5-26	03/07/97	26	SP5	ND	-	-	024	ND	ND	ND	--
SWSW	04/15/97	5	NA	ND	-	-	ND	ND	ND	ND	--
NESW	04/15/97	.8	NA	ND	-	-	ND	ND	ND	ND	--
SWCW	05/21/97	6	NA	ND	-	-	ND	ND	ND	ND	--
SWCF	05/21/97	16	NA	ND	-	-	ND	ND	ND	ND	--
SW6	05/21/97	14.2	NA	ND	-	-	ND	ND	ND	ND	--
SECW6	05/21/97	7	NA	ND	-	-	ND	ND	ND	ND	--
SECF6	05/21/97	15	NA	ND	-	-	ND	ND	ND	ND	--
NPI-1	05/21/97	7.5	NA	ND	-	-	ND	ND	ND	ND	--
NPI-2	05/21/97	7	NA	ND	-	-	ND	ND	ND	ND	--
NPI-3	05/21/97	5.4	NA	ND	-	-	ND	ND	ND	ND	--
<u>Environmental Resolutions, Inc. (ERI) - Soil Probe Assessment - December 28, 2000:</u>											
P1-15	12/28/00	16	NA	<5.00	<10.0	31.5	<0.0500	<0.0500	<0.0500	<0.100	--
P2-10	12/28/00	10	NA	<5.00	144	1,600	<0.0500	<0.0500	<0.0500	<0.100	--
P3-10	12/28/00	10	NA	<6.00	<10.0	26.8	<0.0500	<0.0500	<0.0500	<0.100	--
P5-10	12/28/00	10	NA	<5.00	<10.0	<25.0	<0.0500	<0.0500	<0.0500	<0.100	--
<u>Environmental Resolutions, Inc. (ERI) - Monitoring Well Installation and Soil Sampling Report - December 31, 2002:</u>											
S-19-B1	05/31/02	19	MW5	<6.70	<13.4	<13.4	<0.013	<0.013	<0.013	<0.013	2.33
S-19-B2	05/31/02	19	MW6	<5.82	<11.6	<11.6	<0.012	<0.012	<0.012	<0.012	1.61
S-15-B3	05/31/02	15	MW7	<6.71	<13.4	<13.4	<0.013	<0.013	<0.013	<0.013	4.35
S-19-B3	05/31/02	19	MW7	<6.24	<12.5	<12.5	<0.012	<0.012	<0.012	<0.012	1.45
<u>Environmental Resolutions, Inc. (ERI) - Drilling and Well Installation Report - November 21, 2007:</u>											
S-16-B11	09/17/07	16	MW8	3000	28.5	<5.05	<0.0335	18431	2016	1732	5.29
S-22-B11	09/17/07	22	MW8	11.3	<5.08	<5.08	<0.0344	0.0900	0.625	0.738	2.88
S-16-B10	09/18/07	16	MW9	6.50	<4.48	<4.48	<0.0309	<0.0618	<0.0618	0.185	1.31
S-21-B10	09/18/07	21	MW9	<6.35	<5.12	<5.12	<0.0317	<0.0635	<0.0635	<0.190	2.79
S-10-B12	09/17/07	10	MW10	5.90	<4.12	<4.12	<0.0282	<0.0564	<0.0564	<0.169	1.41
S-24-B12	09/17/07	24	MW10	7.56	<5.20	<5.20	<0.0292	<0.0583	<0.0583	<0.175	2.61
S-16-B13	09/18/07	16	MW11	<6.17	<5.00	<5.00	<0.0309	<0.0617	<0.0617	<0.185	2.79
S-28-B13	09/18/07	28	MW11	10.2	<4.92	<4.92	0.0975	<0.0697	<0.0597	<0.179	2.94
<u>Environmental Resolutions, Inc. (ERI) - Soil Sampling and Well Installation Activities - May 28, 2008:</u>											
S-10-B15	04/06/08	10	MW12	<3.79	<4.43	18.9	<0.0190	<0.0379	<0.0379	<0.114	--
S-15-B15	04/06/08	15	MW12	<4.04	7.83	58.1	<0.0202	<0.0404	<0.0404	<0.121	--
S-20-B15	04/06/08	20	MW12	<4.88	<4.58	4.65	<0.0244	<0.0488	<0.0488	<0.147	3.06
S-25-B15	04/06/08	25	MW12	<6.44	<5.37	<5.37	<0.0322	<0.0644	<0.0644	<0.193	--
S-10.5-B16	04/10/08	10.5	MW13	<11.2	<4.42	<4.42	<0.0560	<0.112	<0.112	<0.336	--
S-15.5-B15	04/10/08	15.5	MW13	<11.9	<4.78	<4.78	<0.0597	<0.119	<0.119	<0.358	3.00
S-21-B16	04/10/08	21	MW13	<11.3	<4.85	<4.85	<0.0567	<0.113	<0.113	<0.340	--
S-25.5-B16	04/10/08	25.5	MW13	<10.6	<4.82	<4.82	<0.0531	<0.106	<0.106	<0.319	--
<u>MTCA Method A Cleanup Level</u>				30/100*	2,000	2,000	0.03	.7	6	9	250

Continued on page 3

**TABLE 1**  
**CUMULATIVE SOIL ANALYTICAL RESULTS**

Sample Name	Sample Date	Depth (ft bgs)	Location	TPHg (mg/kg)	TPHd (mg/kg)	TPHmo (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	Total Pb (mg/kg)
<b>Environmental Resolutions, Inc. (ERI) - Air-Sparge Well Installation Report - September 5, 2008:</b>											
S-16-B17	07/30/08	16	AS1	<5.26	<4.75	<4.75	<0.00180	0.0158b	0.00502b	0.0533b	6.24
S-21-B17	07/30/08	21	AS1	23.5	<5.25	<5.25	[REDACTED]	5.37	1.47	5.89	--
S-30-B17	07/30/08	30	AS1	<5.66	<4.87	<4.87	0.00412b	0.0332b	0.0214b	0.0678b	--
S-16-B18	07/31/08	16	AS2	<5.30	<4.66	<4.66	<0.00185	0.00856b	0.00285b	0.0247b	9.33
S-21.5-B18	07/31/08	21.5	AS2	[REDACTED]	<5.09	<5.09	[REDACTED]	1.77	8.81	--	
S-26-B18	07/31/08	26	AS2	<5.33	<5.05	<5.05	0.00259b	0.0265b	0.0144b	0.0616b	--
S-27-B18	07/31/08	27	AS2	[REDACTED]	<4.54	<4.54	0.0236	0.674	0.666	3.59	2.75
<b>Cardno ERI - Air Sparge Well Installation Report - February 16, 2011:</b>											
S-5-B19	11/09/10	5	AS3	<6.53	5.62	4.96	<0.00264	0.00280	<0.00284	<0.00659	4.79
S-10-B19	11/11/10	10	AS3	<6.30	<4.31	9.29	<0.00276	<0.00276	<0.00276	<0.00691	6.23
S-15-B19	11/11/10	15	AS3	<7.09	<4.36	<4.36	<0.00265	<0.00265	<0.00265	<0.00663	3.87
S-20-B19	11/11/10	20	AS3	31.4c	637c	5.83c	<0.122	0.326	1.04	3.25	6.17
S-25-B19	11/11/10	25	AS3	<6.57	<4.54	<4.54	0.00488	0.00407	0.00660	<0.00792	3.55
S-5-B20	11/09/10	5	AS4	<7.04	<5.19	115	0.00280	0.0104	0.00380	0.0507	4.37
S-15-B20	11/11/10	15	AS4	<11.7	<4.64	<4.64	<0.00298	0.00298	<0.00298	<0.00744	5.37
S-25-B20	11/11/10	25	AS4	<6.30	<5.19	<5.19	<0.00251	<0.00251	<0.00251	<0.00628	6.41
S-27.5-B20	11/11/10	27.5	AS4	<5.29	<4.15	<4.15	<0.00180	<0.00180	<0.00180	<0.00449	1.99
S-5-B21	11/10/10	5	NA	<4.82	<4.42	47.6	<0.00226	<0.00226	<0.00226	<0.00584	7.45
S-5-B22	11/10/10	5	AS5	<8.93	<5.12	<5.12	<0.00330	<0.00330	<0.00330	<0.00824	4.50
S-15-B22	11/11/10	15	AS5	<6.04	<4.19	<4.19	<0.00236	<0.00236	<0.00236	<0.00590	5.05
S-25-B22	11/11/10	25	AS5	33.7c	4.97Jc	2.11Jc	0.142	0.0322	3.23	5.72	7.39
S-5-B23	11/09/10	5	AS6	<6.97	<4.15	16.7	<0.00242	<0.00242	0.00344	0.0238	4.89
S-10-B23	11/10/10	10	AS6	<5.94	<4.16	<4.15	<0.00228	<0.00228	<0.00228	<0.00569	5.19
S-15-B23	11/10/10	15	AS6	<6.71	<5.18	<5.18	<0.00245	<0.00245	<0.00245	<0.00612	7.07
S-20-B23	11/10/10	20	AS6	<9.08	7.29	180	<0.00253	<0.00253	<0.00253	<0.00633	5.05
S-25-B23	11/10/10	25	AS6	8.28	<5.01	<5.01	0.00905	0.0376	0.782	1.77	5.19
S-32.5-B23	11/11/10	32.5	AS6	<6.93	<4.90	<4.90	<0.00261	<0.00261	<0.00261	<0.00654	4.92

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**EXPLANATION:**

#### Soil sample results in mg/kg

Soil sample results in mg/kg

TPH<sub>G</sub> = Total Petroleum Hydrocarbons as gasoline In accordance with Ecology Method 1WTPH-G or Ecology Method NIWTPH-G.

TPHg = Total Petroleum Hydrocarbons as gasoline in accordance with Ecology Method WWT-HC

TPHd = Total Petrogenic Hydrocarbons as diesel, TPHm = Total Petroleum Hydrocarbons as oil

TPH<sub>0</sub> and TPH<sub>050</sub> analyses in accordance with Ecology Method B = Benzene; T = Toluene; E = Ethylbenzene; X = Total xylenes.

B = Benzene; T = Toluene; E = Ethylbenzene; X = Total xylenes  
 RTECS = Registry of Toxic Effects of Chemical Substances; EPA Mu-8 - 100-01B

BTEX = Aromatic compounds in accordance with EPA Method 8015

Shaded values equal

ND = Not detected

-- ≈ Not analyzed

NA = Not applicable

< = Less than the stated laboratory reporting limit  
a = TPHg soil cleanup level is 30 mg/kg unless benzene is not detected in the sample, or if toluene, ethylbenzene, and total xylenes constitute less than

1% of the TPHg in the samples. If these conditions are met, the cleanup level for TPHg may be elevated to 10

b = Per TestAmerica report NRH1037, results may be elevated due to carryover from previously analyzed sample.  
c = Concentrations exceeded The MTCA Method A Cleanup Levels. Subsequent Method B evaluation indicates that concentrations are protective of human health.

**TABLE 2**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS**  
Former Exxon Station 72454  
4603 Lacey Boulevard Southeast  
Lacey, Washington

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Well ID	Sampling Date	Wellhead Elev (feet)	DTW (feet)	GW Elev (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Total Pb (µg/L)	Diss Pb (µg/L)	Ethanol (µg/L)
Screened Interval 10-30 ft bgs \ Total Depth 30 ft bgs														
MW1	10/30/98	99.63	22.50	77.13	<100	-	-	<1.00	<1.00	<1.00	<1.00	-	-	-
MW1	12/17/99	99.63	16.50	83.13	<100	-	-	<1.00	<1.00	<1.00	<1.00	-	-	-
MW1	04/07/00	99.63	13.85	85.78	<100	-	-	<1.00	<1.00	<1.00	<1.00	-	-	-
MW1	12/28/00	99.63	20.10	79.53	<50.0	<250	<750	<0.500	<0.500	<0.500	<1.00	-	-	-
MW1	03/26/01	99.63	21.17	78.46	<50.0	-	-	<0.500	<0.500	<0.500	<1.00	-	-	-
MW1	06/12/01	99.63	21.60	78.03	105	-	-	<250	<250	8.48	5.01	11.3	-	-
MW1	09/24/01	99.63	23.32	76.31	77.6	-	-	1.38	4.41	2.01	12.7	-	-	-
MW1	03/20/02	99.63	14.37	85.26	<100	-	-	<1.00	4.1	1.5	9.3	<3.00	-	-
MW1	12/18/02	99.63	20.36	79.27	<100	-	-	<1.0	<1.0	<1.0	<1.0	<250	-	-
MW1	10/28/04	99.63	21.19	78.44	<100	<100	<100	<1.00	<1.0	<1.0	<1.0	<5.00	<100	-
MW1	12/13/05	99.63	21.71	77.92	231	<111	<111	<250	<250	24.9	22.5	<5.00	<5.00	<100
MW1	12/19/06	99.63	16.10	83.53	<100	<133	<133	1.17	<1.00	1.17	1.17	-	-	-
MW1	03/27/07	99.63	12.94	86.69	<100	<133	<133	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	-
MW1	06/18/07	99.63	14.57	85.06	<100	<125	<125	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	-
MW1	09/26/07	99.63	17.66	81.97	<250	-	-	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	-
MW1	11/27/07	99.63	18.28	81.35	<250	<105	<105	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	-
MW1	02/27/08	99.63	14.42	85.21	<100	<100	<100	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	-
MW1	06/04/08	99.63	15.46	84.17	<100	<95.2	<95.2	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	-
MW1	09/15/08	99.63	18.62	81.01	<100	<99.0	<99.0	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	-
MW1	11/12/08	99.63	17.94	81.69	<100	<108	<108	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	-
MW1	03/31/09	99.63	17.76	81.87	<100	<105	<105	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	-
MW1	06/30/09	99.63	16.39	83.24	539	<94.3	<94.3	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	-
MW1	09/30/09	99.63	19.68	79.95	-	-	-	-	-	-	-	-	-	-
MW1	12/18/09	99.63	18.54	81.09	<100	<94.3	96.0	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	-
MW1	03/31/10	99.63	17.55	82.07	<100	<98.0	<98.0	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	-
MW1	06/02/10	99.63	17.02	82.61	<100	<95.2	<95.2	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	-
MW1	09/07/10	99.63	17.67	81.96	-	-	-	-	-	-	-	-	-	-
MW1	12/20/10	99.63	16.09	83.54	-	-	-	-	-	-	-	-	-	-
MW1	03/10/11	99.63	13.31	86.32	-	<100	<250	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	-
MW1	06/16/11 d	202.50	13.12	189.38	-	-	-	-	-	-	-	-	-	-
MW1	06/17/11	202.50	NM	-	-	-	-	-	-	-	-	-	-	-
MW1	09/25/11	202.50	16.30	186.20	<100	<97.1	<243	<1.00	<1.00	<1.00	<1.00	<5.00	<5.00	-
MW1	12/30/11	202.50	16.95	185.55	-	-	-	-	-	-	-	-	-	-
MW1	06/25/12	202.50	NM	-	-	-	-	-	-	-	-	-	-	-
MW1	12/03/12	202.50	17.02	185.48	-	-	-	-	-	-	-	-	-	-
MW1	12/04/12	202.50	15.75	186.75	-	-	-	-	-	-	-	-	-	-
MW1	03/26/13	202.50	NM	-	-	-	-	-	-	-	-	-	-	-
NTCA Method A Cleanup Levels														
					800/1,000 <sup>a</sup>	500	500	5	1,000	700	1,000	15	15	N/A

**TABLE 2**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS**  
 Former Exxon Station 72454  
 4603 Lacey Boulevard Southeast  
 Lacey, Washington

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Table 9

TABLE 2  
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS  
Former Exxon Station 72454  
4603 Lacey Boulevard Southeast  
Lacey, Washington

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Well ID	Sampling Date	Wellhead Elev (feet)	DTW (feet)	GW Elev (feet)	TPHg (µg/L)	TPHmo (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Total Pb (µg/L)	Diss Pb (µg/L)	Ethanol (µg/L)
MW4	12/19/06	98.77	15.45	83.32	5950	<125	26.2	26.2	3.53	109	<5.00	<5.00	-
MW4	03/27/07	98.77	12.17	86.60	5950	362	<133	26.2	8.27	178	<5.00	<5.00	-
MW4	06/18/07	98.77	13.64	85.13	5950	496	<93.9	26.2	5.55	156	<5.00	<5.00	-
MW4	09/26/07	98.77	16.58	82.19	5950	-	-	26.2	105	6.34	303	<5.00	-
MW4	11/27/07	98.77	17.72	81.05	5950	-	-	26.2	100	8.10	177	313	<5.00
MW4	02/27/08	98.77	13.55	85.22	5950	-	-	26.2	131	1.47	47.5	90.8	<5.00
MW4	06/04/08	98.77	14.56	84.21	346	-	-	26.2	102	4.50	167	310	<5.00
MW4	09/15/08	98.77	17.52	81.25	346	-	-	26.2	105	4.50	167	310	<5.00
MW4	11/12/08	98.77	17.56	81.21	346	-	-	26.2	95.2	46.0	431	346	<5.00
MW4	03/31/09	98.77	17.37	81.40	346	-	-	26.2	111	4.64	166	39.4	<5.00
MW4	06/30/09	98.77	16.18	82.59	346	-	-	26.2	94.3	7.23	200	274	<5.00
MW4	09/30/09	98.77	18.61	80.16	346	-	-	26.2	105	10.5	338	707	<5.00
MW4	12/18/09	98.77	18.01	80.76	346	-	-	26.2	131	67.6	668	346	<5.00
MW4	03/31/10	98.77	17.07	81.70	544	-	-	26.2	97.1	1.04	6.74	19.6	10.6
MW4	06/02/10	98.77	16.55	82.22	544	-	-	26.2	105	3.83	164	337	5.40
MW4	09/07/10	98.77	16.81	81.96	544	-	-	26.2	279	2.09	112	105	-c
MW4	12/20/10	98.77	15.63	83.14	544	-	-	26.2	105	5.75	98.4	204	346
MW4	03/10/11	98.77	13.24	85.53	<100	-	-	26.2	<96.2	<1.00	<1.00	<3.00	5.00
MW4	06/16/11 d	201.75	12.73	189.02	-	-	-	26.2	<96.2	<1.00	<1.00	<3.00	5.00
MW4	06/17/11	201.75	12.73	189.02	-	-	-	26.2	<99.0	<24.8	<1.00	<3.00	10.1
MW4	09/25/11	201.75	15.47	186.28	<100	-	-	26.2	<102	<255	<1.00	<3.00	<5.00
MW4	12/30/11	201.75	16.32	185.43	-	-	-	26.2	<96.2	<96.2	<1.00	<3.00	<5.00
MW4	06/25/12	201.75	14.36	187.39	<100	-	-	26.2	<100	<1.00	<1.00	<3.00	<5.00
MW4	12/03/12	201.75	18.23	183.52	-	-	-	26.2	<100	<1.00	<1.00	<3.00	-
MW4	12/04/12	201.75	NM	-	-	-	-	26.2	<1.00	<1.00	<1.00	<3.00	-
MW4	03/26/13	201.75	NM	-	-	-	-	26.2	<1.00	<1.00	<1.00	<3.00	-
MW4	04/02/13	201.75	13.93	187.82	<100	-	-	26.2	<1.00	<1.00	<1.00	<3.00	-
MW4	04/29/13	201.75	NM	-	-	-	-	26.2	<1.00	<1.00	<1.00	<3.00	-
Screened Interval 10-30 ft bgs \ Total Depth 30 ft bgs													
MW5	12/18/02	98.55	19.17	79.39	<100	<100	<1.0	26.2	3.53	109	<1.0	1.5	-
MW5	10/28/04	98.55	NM	-	-	-	-	26.2	8.27	178	<1.0	1.5	-
MW5	12/13/05	98.55	20.48	78.08	<100	-	-	26.2	<103	1.62	<1.00	<3.00	<5.00
MW5	12/19/06	98.55	Inaccessible	-	-	-	-	26.2	-	-	-	-	-
MW5	03/27/07	98.55	Inaccessible	-	-	-	-	26.2	-	-	-	-	-
MW5	06/16/07	98.55	Inaccessible	-	-	-	-	26.2	-	-	-	-	-
MW5	09/26/07	98.55	Inaccessible	-	-	-	-	26.2	-	-	-	-	-
MW5	11/27/07	98.55	Inaccessible	-	-	-	-	26.2	-	-	-	-	-
MTCA Method A Cleanup Levels													
					800/1,000a	500	500	5	1,000	700	1,000	15	N/A

TABLE 2  
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS  
Former Exxon Station 72454  
4603 Lacey Boulevard Southeast  
Lacey, Washington

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Well ID	Sampling Date	Wellhead Elev (feet)	DTW (feet)	GW Elev (feet)	TPHg (µg/L)	TPHmo (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Total Pb (µg/L)	Diss Pb (µg/L)	Ethanol (µg/L)
MW5	02/27/08	98.56	Inaccessible	-	-	<95.2	<1.00	<1.00	<3.00	7.60	<5.00	-	-
MW5	06/04/08	98.56	14.34	84.22	<100	<103	<1.00	<1.00	<3.00	11.0	<5.00	-	-
MW5	09/15/08	98.56	17.31	81.25	<100	<97.1	<1.00	<1.00	<3.00	11.0	<5.00	-	-
MW5	11/12/08	98.56	18.42	80.14	<100	-	-	-	-	-	-	-	-
MW5	03/31/09	98.56	NM	-	-	-	-	-	-	-	-	-	-
MW5	06/30/09	98.56	NM	-	-	-	-	-	-	-	-	-	-
MW5	09/30/09	98.56	18.30	80.26	<100	<99.0	<1.00	<1.00	<3.00	10.6	<5.00	-	-
MW5	12/18/09	98.56	17.72	80.84	<100	<96.2	<1.00	<1.00	<3.00	11.2	<5.00	-	-
MW5	03/31/10	98.56	14.93	83.63	<100	<95.2	<1.00	<1.00	<3.00	13.6	<5.00	-	-
MW5	06/02/10	98.56	14.34	84.22	<100	<96.2	<1.00	<1.00	<3.00	13.5	<5.00	-	-
MW5	09/07/10	98.56	NM	-	-	-	-	-	-	-	-	-	-
MW5	12/20/10	98.56	15.22	83.34	<100	<95.2	<1.00	<1.00	<3.00	12.5	<5.00	-	-
MW5	03/10/11	98.56	12.50	86.06	<100	<102	<1.00	<1.00	<3.00	13.0	<5.00	-	-
MW5	06/16/11 d	201.38	12.28	189.10	<100	<97.1	<243	<1.00	<1.00	<3.00	12.8	<5.00	-
MW5	06/17/11	201.38	NM	-	-	-	-	-	-	-	-	-	-
MW5	09/25/11	201.38	NM	-	-	-	-	-	-	-	-	-	-
MW5	12/30/11	201.38	NM	-	-	-	-	-	-	-	-	-	-
MW5	06/25/12	201.38	NM	-	-	-	-	-	-	-	-	-	-
MW5	12/03/12	201.38	17.76	183.62	<100	<94.3	132	<1.00	<1.00	<3.00	9.70	<5.00	-
MW5	03/26/13	210.38	13.48	196.90	<100	<94.3	<1.00	<1.00	<1.00	<3.00	7.70	5.20	-
MW5	04/02/13	210.38	NM	-	-	-	-	-	-	-	-	-	-
MW5	04/29/13	210.38	NM	-	-	-	-	-	-	-	-	-	-
Screened Interval 10-30 ft bgs \ Total Depth 30 ft bgs													
MW5	12/18/02	99.94	20.55	79.39	<100	<100	<1.0	1	<1.0	1.5	1.5	-	-
MW5	10/28/04	99.94	NM	-	-	-	-	-	-	-	-	-	-
MW5	12/13/05	99.94	NM	-	-	-	-	-	-	-	-	-	-
MW5	12/19/06	99.94	Inaccessible	-	-	-	-	-	-	-	-	-	-
MW5	03/27/07	99.94	Inaccessible	-	-	-	-	-	-	-	-	-	-
MW5	06/18/07	99.94	Inaccessible	-	-	-	-	-	-	-	-	-	-
MW5	09/26/07	99.94	Inaccessible	-	-	-	-	-	-	-	-	-	-
MW5	11/27/07	99.94	Inaccessible	-	-	-	-	-	-	-	-	-	-
MW5	02/27/08	99.94	Inaccessible	-	-	-	-	-	-	-	-	-	-
MW5	06/04/08	99.94	16.82	83.12	<100	<96.2	<1.00	<1.00	<1.00	<3.00	14.6	<5.00	-
MW5	09/15/08	99.94	19.95	79.99	<100	<104	<1.00	<1.00	<1.00	<3.00	13.0	<5.00	-
MW5	11/12/08	99.94	21.01	78.93	<100	<111	<1.00	<1.00	<1.00	<3.00	12.5	<5.00	-
MW5	03/31/09	99.94	20.89	79.05	<100	<105	<1.00	<1.00	<1.00	<3.00	<5.00	<5.00	-
MW5	06/30/09	99.94	18.89	81.05	<100	<95.2	<1.00	<1.00	<1.00	<3.00	12.5	<5.00	-
MTCA Method A Cleanup Levels													
				800/1,000a	500	5	1,000	700	1,000	15	15	N/A	

TABLE 2  
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS  
Former Exxon Station 72454  
4603 Lacey Boulevard Southeast  
Lacey, Washington

Well ID	Sampling Date	Wellhead Elev (feet)	DTW (feet)	GW Elev (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Total Pb (µg/L)	Diss Pb (µg/L)	Ethanol (µg/L)
MW6	09/30/09	99.94	NM	—	—	<105	<105	<1.00	<1.00	<1.00	<1.00	—	—	—
MW6	12/18/09	99.94	18.38	81.56	<100	<100	<95.2	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW6	03/31/10	99.94	17.54	82.40	<100	<100	<100	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW6	06/02/10	99.94	17.12	82.82	<100	<100	<100	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW6	09/07/10	99.94	17.13	82.81	—	—	—	—	—	—	—	—	—	—
MW6	12/20/10	99.94	18.03	81.91	<100	<95.2	<95.2	<1.00	<1.00	<1.00	<1.00	—	—	—
MW6	03/10/11	99.94	15.09	84.85	<100	<100	<100	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW6	06/16/11 d	204.01	14.71	189.30	<100	<99.0	<99.0	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW6	06/17/11	204.01	NM	—	—	<248	<248	<1.00	<1.00	<1.00	<1.00	—	—	—
MW6	09/25/11	204.01	NM	—	—	—	—	—	—	—	—	—	—	—
MW6	12/30/11	204.01	NM	—	—	—	—	—	—	—	—	—	—	—
MW6	06/25/12	204.01	NM	—	—	—	—	—	—	—	—	—	—	—
MW6	12/03/12	204.01	18.21	185.80	<100	<96.2	<96.2	<1.00	<1.00	<1.00	<1.00	—	—	—
MW6	12/04/12	204.01	18.21	185.80	<100	<96.2	<96.2	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW6	03/26/13	204.01	NM	—	—	—	—	—	—	—	—	—	—	—
MW6	04/02/13	204.01	16.15	187.86	<100	<95.2	<95.2	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW6	04/29/13	204.01	NM	—	—	—	—	—	—	—	—	—	—	—
Screened Interval 10-30 ft bgs \ Total Depth 30 ft bgs														
MW7	12/18/02	99.84	20.56	79.28	<100	<100	<100	<1.0	<1.0	<1.0	<1.0	2.0	2.0	—
MW7	10/28/04	99.84	—	—	—	—	—	—	—	—	—	—	—	—
MW7	12/13/05	99.84	21.85	77.99	<100	134	<105	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW7	12/19/06	99.84	16.35	83.49	<100	<111	<111	<1.00	<1.00	<1.00	<1.00	—	—	<100
MW7	03/27/07	99.84	13.11	86.73	<100	<125	<125	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW7	06/18/07	99.84	14.71	85.13	<100	<98.0	<98.0	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW7	09/26/07	99.84	17.81	82.03	<250	—	—	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW7	11/27/07	99.84	18.93	80.91	<250	<105	<105	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW7	02/27/08	99.84	14.55	85.31	<100	<100	<100	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW7	06/04/08	99.84	16.83	83.21	<100	<95.2	<95.2	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW7	09/15/08	99.84	18.74	81.10	<100	<100	<100	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW7	11/12/08	99.84	19.67	80.17	<100	<97.1	<97.1	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW7	03/31/09	99.84	19.74	80.10	<100	<118	<118	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW7	06/30/09	99.84	17.24	82.60	<100	<94.3	<94.3	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW7	09/30/09	99.84	NM	—	—	—	—	—	—	—	—	—	—	—
MW7	12/18/09	99.84	18.94	80.90	<100	<94.3	<94.3	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW7	03/31/10	99.84	16.02	83.82	<100	<95.2	<95.2	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW7	06/02/10	99.84	15.49	84.35	<100	<100	<100	<1.00	<1.00	<1.00	<1.00	—	—	<5.00
MW7	09/07/10	99.84	16.32	83.52	—	—	—	—	—	—	—	—	—	—
MTCGA Method A Clean-up Levels														
				800/1,000/a	500	500	5	1,000	700	1,000	15	15	NA	

TABLE 2  
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS  
Former Exxon Station 72454  
4603 Lacey Boulevard Southeast  
Lacey, Washington

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Well ID	Sampling Date	Wellhead Elev (feet)	DTW (feet)	GW Elev (feet)	TPHg (µg/L)	TPHMo (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Total Pb (µg/L)	Diss Pb (µg/L)	Ethanol (µg/L)
MW7	12/20/10	99.84	16.38	83.46	<100	<95.2	<1.00	<1.00	<1.00	<3.00	<26.9	<5.00	-
MW7	03/10/11	99.84	13.66	86.18	<100	<99.0	<1.00	<1.00	<1.00	<3.00	<5.00	<5.00	-
MW7	06/16/11 d	202.63	13.32	189.31	<100	<99.0	<248	<1.00	<1.00	<3.00	<35.1	<5.00	-
MW7	06/17/11	202.63	NM	-	-	-	-	-	-	-	-	-	-
MW7	09/25/11	202.63	NM	-	-	-	-	-	-	-	-	-	-
MW7	12/30/11	202.63	NM	-	-	-	-	-	-	-	-	-	-
MW7	06/25/12	202.63	NM	-	-	-	-	-	-	-	-	-	-
MW7	12/03/12	202.63	17.96	184.67	-	-	-	-	-	-	-	-	-
MW7	12/04/12	202.63	17.96	184.67	<100	<100	<1.00	<1.00	<1.00	<3.00	<5.00	<5.00	-
MW7	03/26/13	202.63	NM	-	-	-	-	-	-	-	-	-	-
MW7	04/02/13	202.63	NM	-	-	-	-	-	-	-	-	-	-
MW7	04/29/13	202.63	NM	-	-	-	-	-	-	-	-	-	-
Screened Interval 7-22 ft bgs \ Total Depth 22 ft bgs													
MW8	09/26/07	99.35	17.09	82.27	-	-	-	-	-	-	-	-	-
MW8	11/27/07	99.36	18.18	81.18	<250	<111	<1.00	<1.00	<1.00	<3.00	-	-	-
MW8	02/27/08	99.36	14.55	84.81	840	229	<100	<1.00	4.72	29.0	172	<5.00	-
MW8	06/04/08	99.36	15.52	83.84	[REDACTED]	391	<95.2	<1.00	1.03	54.2	222	8.50	<5.00
MW8	09/15/08	99.36	18.52	80.84	[REDACTED]	453	<98.0	<1.00	16.9	97.6	401	<5.00	<100
MW8	11/12/08	99.36	19.14	80.22	[REDACTED]	[REDACTED]	<541	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	<5.00
MW8	03/31/09	99.35	19.03	80.33	288	<95.2	<1.00	1.76	7.97	38.5	10.4	<5.00	-
MW8	06/30/09	99.35	17.22	82.14	235	<95.2	<1.00	1.81	9.39	41.6	9.00	<5.00	-
MW8	09/30/09	99.35	19.55	79.81	[REDACTED]	[REDACTED]	<100	1.43	170	479	[REDACTED]	<5.00	<5.00
MW8	12/18/09	99.35	18.43	80.93	[REDACTED]	[REDACTED]	<100	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	<5.00
MW8	03/31/10	99.36	18.02	81.34	<100	<111	<1.00	<1.00	<1.00	<3.00	9.40	<5.00	-
MW8	06/02/10	99.36	15.60	83.76	<100	<97.1	<1.00	<1.00	<1.00	<3.00	5.60	<5.00	-
MW8	09/07/10	99.36	17.67	81.69	<100	<103	<1.00	1.56	11.5	26.9	14.5	<5.00	-
MW8	12/20/10	99.36	16.53	82.83	[REDACTED]	[REDACTED]	<96.2	1.86	129	[REDACTED]	[REDACTED]	<5.00	<5.00
MW8	03/10/11	99.36	13.47	85.89	<100	<98.0	<1.00	<1.00	2.73	8.13	7.00	<5.00	-
MW8	06/16/11 d	202.72	13.12	189.60	-	-	-	-	-	-	-	-	-
MW8	06/17/11	202.72	13.12	189.60	<100	<98.0	<245	<1.00	<1.00	<3.00	[REDACTED]	<5.00	-
MW8	09/25/11	202.72	16.33	186.39	<100	<94.3	<236	<1.00	<1.00	2.46	<3.00	<5.00	-
MW8	12/30/11	202.72	16.90	185.82	193	<94.8	<237	<1.00	12.0	79.9	127	<5.00	<5.00
MW8	06/25/12	202.72	14.79	187.93	<100	<95.2	<1.00	<1.00	<1.00	<3.00	<5.00	<5.00	-
MW8	12/03/12	202.72	16.98	185.74	899	153	<100	<1.00	7.28	71.7	168	[REDACTED]	<5.00
MW8	12/04/12	202.72	NM	-	-	-	-	-	-	-	-	-	-
MW8	03/26/13	202.72	14.85	187.87	<100	<95.2	<1.00	<1.00	<1.00	<3.00	11.7	<5.00	-
MW8	04/02/13	202.72	NM	-	-	-	-	-	-	-	-	-	-
MTCA Method A Cleanup Levels													
				800/1,000a	500	5	1,000	700	1,000	15	15	N/A	

**TABLE 2**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS**  
Former Exxon Station 72454  
4603 Lacey Boulevard Southeast  
Lacey, Washington

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Well ID	Sampling Date	Wellhead Elev (feet)	DTW (feet)	GW Elev (feet)	TPHg (µg/L)	TPHmo (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Total Pb (µg/L)	Diss Pb (µg/L)	Ethanol (µg/L)
MW9	04/29/13	202.72	NM	—	—	—	—	—	—	—	—	—	—
<b>Screened Interval 9-19 ft bgs \ Total Depth 19 ft bgs</b>													
MW9	09/26/07	99.85	10.62	89.23	286.6	283.0	95.2	<1.00	1.15	102	189	225	—
MW9	11/27/07	99.85	18.72	81.13	283.0	283.5	<100	<100	<1.00	71.9	139	886	12.1
MW9	02/27/08	99.85	14.06	85.79	<100	<100	<95.2	<1.00	<1.00	<3.00	5.70	<5.00	<100
MW9	06/04/08	99.85	14.94	84.91	<100	<100	<95.2	<1.00	<1.00	<3.00	5.70	<5.00	—
MW9	09/15/08	99.85	18.07	81.78	<100	<100	<100	<1.00	<1.00	<3.00	5.70	<5.00	—
MW9	11/12/08	99.86	16.01	83.85	<100	<94.3	<94.3	<1.00	<1.00	<3.00	5.70	<5.00	—
MW9	03/31/09	99.86	15.94	83.92	<100	<118	<118	<1.00	<1.00	<3.00	5.70	<5.00	—
MW9	06/30/09	99.86	15.23	84.63	<100	<94.3	<94.3	<1.00	<1.00	<3.00	5.70	<5.00	—
MW9	09/30/09	99.86	DRY	—	—	—	—	—	—	—	—	—	—
MW9	12/18/09	99.86	15.63	84.23	<100	<111	<111	<1.00	<1.00	<3.00	5.70	<5.00	—
MW9	03/31/10	99.86	17.79	82.07	<100	<99.0	<99.0	<1.00	<1.00	<3.00	5.70	<5.00	—
MW9	06/02/10	99.86	17.23	82.63	<100	<103	<103	<1.00	<1.00	<3.00	5.70	<5.00	—
MW9	09/07/10	99.86	17.14	82.72	<100	<109	<109	<1.00	<1.00	<3.00	5.70	<5.00	—
MW9	12/20/10	99.86	15.76	84.10	<100	<105	<105	<1.00	<1.00	<3.00	6.40	<5.00	—
MW9	03/10/11	99.86	12.29	87.57	<100	<99.0	<99.0	<1.00	<1.00	<3.00	5.20	<5.00	—
MW9	06/16/11 d	202.20	12.08	190.12	<100	<97.1	<243	<1.00	<1.00	<3.00	5.70	<5.00	—
MW9	08/17/11	202.20	NM	—	—	—	—	—	—	—	—	—	—
MW9	09/25/11	202.20	15.86	186.34	<100	<94.3	<236	<1.00	<1.00	<3.00	5.70	<5.00	—
MW9	12/30/11	202.20	15.61	186.59	—	—	—	—	—	—	—	—	—
MW9	06/25/12	202.20	13.85	188.35	<100	<95.2	<1.00	<1.00	<1.00	<3.00	<5.00	<5.00	—
MW9	12/03/12	202.20	15.74	186.46	<100	<94.3	<94.3	<1.00	<1.00	<3.00	<5.00	<5.00	—
MW9	12/04/12	202.20	NM	—	—	—	—	—	—	—	—	—	—
MW9	03/26/13	202.20	14.35	187.85	<100	<95.2	<95.2	<1.00	<1.00	<3.00	14.3	<5.00	—
MW9	04/02/13	202.20	NM	—	—	—	—	—	—	—	—	—	—
MW9	04/29/13	202.20	NM	—	—	—	—	—	—	—	—	—	—
<b>Screened Interval 10-23 ft bgs \ Total Depth 23 ft bgs</b>													
MW10	09/26/07	98.47	16.26	82.21	—	—	—	—	—	—	—	—	—
MW10	11/27/07	98.47	17.40	81.07	280	280	125	10.2	131	653	<5.00	<5.00	<100
MW10	02/27/08	98.47	13.21	85.26	280	280	154	19.8	155	397	5.50	<5.00	—
MW10	06/04/08	98.47	14.20	84.27	596	460	<100	4.65	1.19	45.6	59.2	5.40	<100
MW10	09/15/08	98.47	17.17	81.30	220	2090	193	12.7	191	752	7.21	<5.00	—
MW10	11/12/08	98.47	17.58	80.89	210	210	121	50.0	510	2260	2000	<5.00	<100
MW10	03/31/09	98.47	17.87	80.60	210	210	<189	<1.00	91.5	<3.00	5.12	<5.00	<100
MW10	06/30/09	98.47	15.87	82.60	223	150	<95.2	<1.00	8.15	<3.00	<5.00	<5.00	<100
<b>MTCa Method A Cleanup Levels</b>													
				800/1,000a	500	5	1,000	700	1,000	15	15	N/A	

**TABLE 2**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS**  
Former Exxon Station 72454  
4603 Lacey Boulevard Southeast  
Lacey, Washington

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Well ID	Sampling Date	Wellhead Elev (feet)	DTW (feet)	GW Elev (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Total Pb (µg/L)	Diss Pb (µg/L)	Ethanol (µg/L)
MW10	09/30/09	98.47	18.12	80.35	<211	<105	<96.2	46.2	521	<1.00	<5.00	<5.00	<5.00	-
MW10	12/18/09	98.47	17.64	80.83	<211	<105	<96.2	73.3	652	<1.00	<5.00	<5.00	<5.00	<100
MW10	03/31/10	98.47	15.08	83.39	<211	<105	<96.2	3.51	20.7	90.2	6.80	5.00	5.00	<100
MW10	06/02/10	98.47	14.27	84.20	<100	<100	<100	<1.00	<1.00	<3.00	11.8	<5.00	<5.00	<100
MW10	09/07/10	98.47	16.31	82.16	<211	<101	<96.2	2.93	36.0	11.7	<2.00	<5.00	<5.00	<100
MW10	12/20/10	98.47	15.31	83.16	<211	<100	<96.2	6.05	51.7	156	<5.00	<5.00	<5.00	<100
MW10	03/10/11	98.47	12.43	86.04	<100	<97.1	<97.1	<1.00	<1.00	<3.00	6.70	<5.00	<5.00	<100
MW10	06/16/11 d	201.33	12.22	189.11	-	-	-	-	-	-	-	-	-	-
MW10	06/17/11	201.33	12.22	189.11	<100	<100	<250	<1.00	<1.00	<1.00	<3.00	<2.50	<5.00	<100
MW10	09/25/11	201.33	15.02	186.31	728	515	272	2.72	40.2	72.4	<5.00	<5.00	<5.00	<100
MW10	12/30/11	201.33	15.87	185.46	356	188	240	1.85	<1.00	16.7	34.3	<5.00	<5.00	-
MW10	06/25/12	201.33	13.11	188.22	<100	<99.0	<99.0	<1.00	<1.00	<3.00	<5.00	<5.00	<5.00	-
MW10	12/03/12	201.33	15.87	185.46	239	215	<94.3	<1.00	<1.00	8.16	17.2	<5.00	<5.00	-
MW10	12/04/12	201.33	NM	-	-	-	-	-	-	-	-	-	-	-
MW10	03/26/13	201.33	NM	-	-	-	-	-	-	-	-	-	-	-
MW10	04/02/13	201.33	13.51	187.82	<100	658	<100	<1.00	<1.00	4.05	6.01	<5.00	<5.00	-
MW10	04/29/13	201.33	13.24	188.09	<100	<97.1	<97.1	<1.00	<1.00	<3.00	<5.00	<5.00	<5.00	-
Screened Interval 12-227 ft bgs \ Total Depth 27 ft bgs														
MW11	09/26/07	98.54	16.37	82.17	-	-	-	-	-	-	-	-	-	-
MW11	11/27/07	98.54	17.50	81.04	402	105	2.65	32.3	4.26	139	582	<5.00	<5.00	<100
MW11	02/27/08	98.54	13.32	85.22	152	279	136	<1.00	<1.00	<3.00	<5.00	<5.00	<5.00	<100
MW11	06/04/08	98.54	14.34	84.20	153	<97.1	<97.1	<1.00	<1.00	3.66	23.2	218	<5.00	-
MW11	09/15/08	98.54	17.31	81.23	170	130	103	25.2	202	949	217	<5.00	<5.00	-
MW11	11/12/08	98.54	18.40	80.14	82	103	64.5	40.5	106	406	380	<5.00	<5.00	<100
MW11	03/31/09	98.54	18.25	80.29	<100	<105	<105	<1.00	<1.00	<1.00	<3.00	<5.00	<5.00	<100
MW11	06/30/09	98.54	15.96	82.58	<100	<94.3	<94.3	<1.00	<1.00	5.04	22.0	20.0	<5.00	<100
MW11	09/30/09	98.54	18.31	80.23	168	120	<100	1.83	9.16	73.8	253	<5.00	<5.00	-
MW11	12/18/09	98.54	17.69	80.85	549	124	118	4.60	24.7	284	170	162	<5.00	<100
MW11	03/31/10	98.54	14.87	83.67	<100	<95.2	<95.2	<1.00	<1.00	<1.00	<3.00	11.8	<5.00	<100
MW11	06/02/10	98.54	14.34	84.20	<100	<95.2	<95.2	<1.00	<1.00	<1.00	<3.00	8.90	<5.00	<100
MW11	09/07/10	98.54	16.42	82.12	229	127	<94.3	<1.00	10.3	120	471	275	<5.00	<100
MW11	12/20/10	98.54	15.21	83.33	238	124	<94.3	2.09	9.77	291	823	7.00	<5.00	<100
MW11	03/10/11	98.54	12.58	85.96	419	<99.0	<1.00	12.3	181	868	<5.00	<5.00	<5.00	<100
MW11	06/16/11 d	201.39	12.25	189.14	-	-	-	-	-	-	-	-	-	-
MW11	06/17/11	201.39	12.25	189.14	<100	<102	<255	<1.00	<1.00	<1.00	<3.00	9.70	<5.00	<100
MW11	09/25/11	201.39	15.11	186.28	178	<102	<255	<1.00	6.84	83.8	234	<5.00	<5.00	<100
MW11	12/30/11	201.39	15.89	185.50	312	<118	<294	<1.00	2.47	9.38	99.9	<5.00	<5.00	<100
MWCA Method A Cleanup Levels				800/1,000 <sup>a</sup>	500	500	5	1,000	700	1,000	15	15	N/A	

**TABLE 2**  
**CUMULATIVE GROUNDWATER ANALYTICAL RESULTS**  
 Former Exxon Station 72454  
 4603 Lacey Boulevard Southeast  
 Lacey, Washington

Well ID	Sampling Date	Wellhead Elev (feet)	DTW (feet)	GW Elev (feet)	TPHg (µg/L)	TPHmo (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Total Pb (µg/L)	Diss Pb (µg/L)	Ethanol (µg/L)
MWV11	06/25/12	201.39	13.35	188.04	<100	<100	<1.00	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV11	12/03/12	201.39	15.75	185.64	—	—	—	—	—	—	—	—	—
MWV11	12/04/12	201.39	NM	—	<100	<100	<1.00	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV11	03/26/13	201.39	NM	—	—	—	—	—	—	—	—	—	—
MWV11	04/02/13	201.39	13.63	187.76	<100	<95.2	<1.00	<1.00	<1.00	11.0	27.5	<5.00	<10.0
MWV11	04/29/13	201.39	NM	—	—	—	—	—	—	—	—	—	—
Screened Interval 10-25 ft bgs \ Total Depth 25 ft bgs													
MWV12	06/04/08	98.82	NM	—	—	—	—	—	—	—	—	—	—
MWV12	09/05/08	98.82	NM	—	—	—	—	—	—	—	—	—	—
MWV12	11/12/08	98.82	NM	—	—	—	—	—	—	—	—	—	—
MWV12	03/31/09	98.82	16.33	82.49	<100	<94.3	<94.3	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV12	06/30/09	98.82	15.97	82.85	<100	<98.0	<98.0	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV12	09/30/09	98.82	18.65	80.17	<100	<97.1	<97.1	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV12	12/18/09	98.82	18.03	80.79	<100	<94.3	<94.3	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV12	03/31/10	98.82	17.04	81.78	<100	<102	<102	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV12	06/02/10	98.82	16.64	82.18	<100	<102	<102	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV12	09/07/10	98.82	16.76	82.06	<100	<95.2	<95.2	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV12	12/20/10	98.82	15.35	83.47	<100	<97.1	<97.1	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV12	03/10/11	98.82	12.72	86.10	<100	<99.0	<99.0	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV12	06/16/11 d	201.66	12.31	189.35	<100	<94.3	<236	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV12	06/17/11	201.66	NM	—	—	—	—	—	—	—	—	—	—
MWV12	09/25/11	201.66	15.48	186.18	<100	<110	<275	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV12	12/30/11	201.66	NM	—	—	—	—	—	—	—	—	—	—
MWV12	06/25/12	201.66	NM	—	—	—	—	—	—	—	—	—	—
MWV12	12/03/12	201.66	15.84	185.82	—	—	—	—	—	—	—	—	—
MWV12	12/04/12	201.66	15.84	185.82	<100	<95.2	<95.2	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV12	03/26/13	201.66	NM	—	—	—	—	—	—	—	—	—	—
MWV12	04/02/13	201.66	13.90	187.76	<100	<95.2	<95.2	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV12	04/29/13	201.66	NM	—	—	—	—	—	—	—	—	—	—
Screened Interval 10-25 ft bgs \ Total Depth 25 ft bgs													
MWV13	05/04/08	100.00	NM	—	—	—	—	—	—	—	—	—	—
MWV13	09/05/08	100.00	NM	—	—	—	—	—	—	—	—	—	—
MWV13	11/12/08	100.00	19.61	80.39	<100	<100	<100	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV13	03/31/09	100.00	19.47	80.53	<100	<94.3	<94.3	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV13	06/30/09	100.00	17.62	82.38	<100	<97.1	<97.1	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
MWV13	09/30/09	100.00	19.79	80.21	<100	<96.2	<96.2	<1.00	<1.00	<3.00	<5.00	<5.00	<10.0
Screened Interval 10-25 ft bgs \ Total Depth 25 ft bgs													
MWV13	05/04/08	500	500	5	1,000	700	1,000	15	15	N/A	N/A	N/A	N/A

Table 9

TABLE 2  
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS  
Former Exxon Station 72454  
4603 Lacey Boulevard Southeast  
Lacey, Washington

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Well ID	Sampling Date	Wellhead Elev (feet)	DTW (feet)	GW Elev (feet)	TPHg (µg/L)	TPHd (µg/L)	TPHmo (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	Total Pb (µg/L)	Diss Pb (µg/L)	Ethanol (µg/L)
MW13	12/18/09	100.00	18.94	81.06	<100	<95.2	<95.2	<1.00	<1.00	<1.00	<1.00	<3.00	<3.00	<5.00
MW13	03/31/10	100.00	16.11	83.89	<100	<97.1	<97.1	<1.00	<1.00	<1.00	<1.00	<3.00	<3.00	<5.00
MW13	06/02/10	100.00	15.68	84.32	<100	<96.2	<96.2	<1.00	<1.00	<1.00	<1.00	<3.00	<3.00	<5.00
MW13	09/07/10	100.00	17.85	82.15	<100	<114	<114	<1.00	<1.00	<1.00	<1.00	<3.00	<3.00	<5.00
MW13	12/20/10	100.00	16.27	83.73	<100	<100	<100	<1.00	<1.00	<1.00	<1.00	<3.00	<3.00	<5.00
MW13	03/10/11	100.00	13.89	86.11	<100	<95.2	<95.2	<1.00	<1.00	<1.00	<1.00	<3.00	<3.00	<5.00
MW13	06/16/11 d	202.84	13.56	189.28	-	-	-	-	-	-	-	-	-	-
MW13	06/17/11	202.84	13.56	189.28	<100	<99.0	<248	<1.00	<1.00	<1.00	<1.00	<3.00	<3.00	<5.00
MW13	09/25/11	202.84	16.57	186.27	<100	<95.2	<238	<1.00	<1.00	<1.00	<1.00	<3.00	<3.00	<5.00
MW13	12/30/11	202.84	17.18	185.66	-	-	-	-	-	-	-	-	-	-
MW13	06/25/12	202.84	NM	-	-	-	-	-	-	-	-	-	-	-
MW13	12/03/12	202.84	NM	-	-	-	-	-	-	-	-	-	-	-
MW13	12/04/12	202.84	NM	-	-	-	-	-	-	-	-	-	-	-
MW13	03/26/13	202.84	NM	-	-	-	-	-	-	-	-	-	-	-
MW13	04/02/13	202.84	14.98	187.86	<100	<95.2	<95.2	<1.00	<1.00	<1.00	<1.00	<3.00	<3.00	<5.00
MW13	04/29/13	202.84	NM	-	-	-	-	-	-	-	-	-	-	-

MTCA Method A Cleanup Levels

800/1,000a 500 500 5 1,000 700 1,000 15 15 N/A

031104.GW  
Table 9

TABLE 2  
CUMULATIVE GROUNDWATER ANALYTICAL RESULTS  
Former Exxon Station 72454  
4603 Lacey Boulevard Southeast  
Lacey, Washington  
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EXPLANATION:

Wellhead Elev = Wellhead elevation

$\mu\text{g/L}$  = Micrograms per Liter

ft bgs = Feet below ground surface

DTW = Depth to water in feet below top of casing

GW Elev = Groundwater elevation relative to top of casing elevations

TPHd and TPHmo = Total Petroleum Hydrocarbons as Gasoline in accordance with Ecology Method NWTPH-Gx

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

BTEX = Aromatic compounds in accordance with EPA Method 8021-B or volatile organic compounds in accordance with EPA Method 8260B. Refer to laboratory reports.

Total and Diss Pb = Total and Dissolved Lead in accordance with EPA Method 6010B

Ethanol in accordance with EPA Method 8260B

- = Not Analyzed or Sampled

< = Less than the stated laboratory reporting limit

Shaded values equal or exceed the MTCA Method A, Cleanup Levels

a = TPHg cleanup level for groundwater is 800  $\mu\text{g/L}$  if benzene is present, or 1,000  $\mu\text{g/L}$  if benzene is not present

b = MW2 and MW3 covered or paved over by the City of Lacey during road improvements and are presumed destroyed

c = Total and dissolved lead analyses could not be performed due to low sample volume recovery

d = Wellhead elevations resurveyed by Cardno WRG on 03/17/11 using NAVD 88

