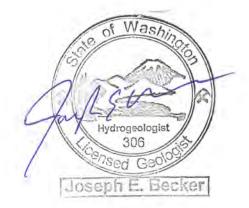


CONFEDERATED TRIBES OF
THE CHEHALIS RESERVATION
2729 93<sup>RD</sup> AVENUE SOUTHWEST
CHEHALIS, WASHINGTON
PHASE I AND II
ENVIRONMENTAL SITE ASSESSMENT
NOVEMBER 13, 2013

by

John F. Hildenbrand Associate Environmental Scientist Environmental Services Manager



#### Phase I Environmental Site Assessment 2729 93<sup>rd</sup> Avenue Southwest Chehalis, Washington

November 13, 2013

Prepared for:

Confederated Tribes of the Chehalis Reservation PO Box 536 Oakville, WA 98586

Attention: Glen Connelly

Prepared by:

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#### **DECLARATIONS**

- "I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional\* as defined in "312.21 of 40 CFR part 312."
- "I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I performed and/or developed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR part 312."
- \*A person who does not qualify as an Environmental Professional may assist in the conduct of all appropriate inquiries in accordance with ASTM E1527-05 if such person is under the supervision or responsible charge of a person meeting the definition of an environmental professional when conducting such activities.

John F. Hildenbrand

Associate Environmental Scientist Environmental Services Manager

# Confederated Tribes of the Chehalis Reservation 2729 93rd Avenue Southwest, Olympia, Washington Phase I and II Environmental Site Assessment November 13, 2013

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#### **Executive Summary**

Robinson Noble, Inc. has prepared a Phase I and limited Phase II Environmental Site Assessment of tax parcel 12721210200 located in Thurston County, Washington. The address assigned to the property is 2729 93rd Avenue Southwest, Olympia, Washington.

This Phase I Environmental Site Assessment (ESA) was prepared in general accordance with ASTM Standard E1527-05. It was prepared using generally accepted professional practices, and observations and findings generated for this project are based on information limited to "reason-ably ascertainable sources." This ESA was not intended to be an exhaustive search for all possible environmental issues. It was designed to utilize reasonably ascertainable information in order to determine whether recognized environmental conditions (as defined by ASTM) warranting additional investigation are present. The Phase I ESA is intended as a step to qualify the report's user for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability. The scope of services for the ESA included reviewing the physical setting of the property, reviewing government databases for potential environmental risks to the property, conducting historical research concerning the property, and conducting interviews with people knowledgeable about the property. The work was completed by, or under, the direction of an environmental professional as defined in ASTM E1527-05.

The current land use of the subject property is commercial and is currently occupied by the Restover Truckstop. The site is comprised of commercial vehicle fueling, retail gasoline sales, a convenience store, a restaurant, and a motel. Neighboring and adjoining parcels include vacant unimproved land and an Interstate 5 interchange. Our observations of previous environmental remediation and of spillage and pavement staining, which indicate that operational practices may be contributing to releases in to the environment are existing or potential recognized environmental conditions. No recognized environmental conditions were found on adjoining properties during the inspection.

Historical sources indicate the subject property was originally developed with a truck stop including a convenience store, a restaurant, a motel, and a fueling station in 1969. The subject remains in essentially this configuration.

A database search was conducted to identify known sites within a radius of up to one mile from the subject property that may have the potential to impact the subject with contamination. The subject property is listed on the databases searched indicating that it has been impacted by petroleum products and related compounds. These issues have not yet achieved no-furtheraction (NFA) status.

Robinson Noble performed this Phase I Environmental Site Assessment in conformance with the scope and limitations of ASTM Practice E1527-05. Any exceptions to, or deletions from, this practice are described in Section 1.2 of this document. This assessment has not revealed evidence of recognized environmental conditions except for:

 A large historical release of gasoline and diesel-range petroleum hydrocarbons has occurred at the site. It has been the subject of ongoing investigation and remediation since approximately 1985. Although interim remedial actions have been completed, the release has not yet received NFA status. • The presence of an environmental covenant containing activity and use limitations that must be complied with unless further assessment and cleanup is completed to the extent allowing their removal.

A limited subsurface investigation was completed concurrently with the Phase I ESA portion of this report. The investigation was designed to assess the extent of contamination remaining at the site from thee known historical release. The analytical findings indicate that significant soil and groundwater impacts remain that will require remediation.

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# Confederated Tribes of the Chehalis Reservation 2729 93rd Avenue Southwest, Olympia, Washington Phase I and II Environmental Site Assessment November 13, 2013

#### 1.0 Introduction

#### 1.1 Scope of Services and Purpose of Report

This Phase I Environmental Site Assessment (ESA) was prepared in general accordance with ASTM Standard E1527-05 and authorized by the Confederated Tribes of the Chehalis Reservation on October 30, 2013. A copy of a detailed scope of services is attached as Appendix G of this report. The noted scope of services was developed based on standard industry practices and ASTM Standard E1527-05. Unless an item is specifically addressed in the noted scope of services and discussed herein, it should be assumed that it was not included in the scope of work for this project. In addition to the ASTM standard, we have incorporated a limited subsurface investigation (one non-standard ASTM E1527-05 consideration) into this report as outlined in the scope of services.

This Phase I ESA was prepared for the subject site located at 2729 93rd Avenue Southwest, Olympia, Washington. It was prepared as part of pre-acquisition due-diligence and will be used to meet environmental assessment requirements for approval of a Fee-to-Trust application to the U.S. Department of the Interior, Bureau of Indian Affairs (BIA).

#### 1.2 Conditions and Limitations

This project was generally completed within the standard scope defined by ASTM. The contractual agreement between the client and Robinson Noble did not contain any special conditions or limitations except that we were not permitted to access in the interior of the structures or interview personnel on site. As outlined in ASTM E1527-05, the observations and findings generated for this project were based on information limited to "reasonably ascertainable sources."

This report was prepared using generally accepted professional practices. The nature of the ESA process requires that information generated, managed, and/or controlled by third parties is utilized. We believe that the sources utilized are accurate; however, we cannot guarantee that the third-party information is free of error. While we warrant that the opinions and conclusions drawn from information gathered during this study are based on sound professional judgment, we reserve the right to modify any opinion, conclusion, and/or recommendation in the event new, revised or different information becomes available. Unless specifically stated herein, no other warranty, expressed or implied, is made.

This ESA is not intended to be an exhaustive search for all possible environmental issues. It was designed to utilize reasonably ascertainable information in order to determine whether recognized environmental conditions (as defined by ASTM) warranting additional investigation are present. However, according to ASTM 1527-05 "no environmental site assessment can wholly eliminate uncertainty regarding the potential for recognized environmental conditions in connection with a property." This ESA is intended to reduce uncertainty regarding recognized environmental conditions for the subject property, but it cannot eliminate all uncertainty.

The Phase I ESA is intended as a step to qualify the report's user for the innocent landowner, contiguous property owner, or bona fide prospective purchaser limitations on CERCLA liability. It constitutes a portion of the "all appropriate inquiry into the previous ownership and uses of the property consistent with good commercial or customary practice" as defined by 42 U.S.C. §9601. The scope of services noted in Section 1.1 was completed by, or under the direction of, an environmental professional as defined in ASTM E1527-05.

#### 1.3 Client and Right of Reliance

As outlined in the PSA governing this project, the client is the Confederated Tribes of the Chehalis Reservation. An additional right of reliance is granted to the Department of Interior, Bureau of Indian Affairs. This report was prepared for the use of the client for the purposes outlined herein and in contract documents under which the project was completed.

Reliance by any party other than the Confederated Tribes of the Chehalis Reservation or the Bureau of Indian Affairs is strictly at their own risk. Additional entities may be granted the right to rely on this report, subject to the approval of the client and agreement by the relying party regarding the scope of services under which this report was prepared. Such additional rights-of-reliance may only be granted in writing either by specific mention in this section or in a letter of reliance prepared and signed by Robinson Noble.

#### 2.0 Previous Reports

We reviewed a Remedial Action Soil Excavation Groundwater Monitoring Well Installation and Sampling Report dated August 22, 2013 prepared by Associated Environmental Group, LLC. This report documents the decommissioning of an active groundwater monitoring well followed by limited excavation of impacted soils, the application of oxygen release compound (ORC®) compound, and replacement of the monitoring well followed by sampling of the new well. The work documented in the report is the latest in a series of interim actions that have occurred at the site since 1985. Additional detail is provided in Section 4.0. The report implies the monitoring of the new well represents the last stage of confirmational monitoring that will be needed for site closure. Our review of documents discussed in Section 4.0, along with the results of our subsurface investigation, indicates that this conclusion is unlikely.

### 3.0 Physical Setting

#### 3.1 Site Description

#### 3.1.1 Legal and Location

The subject site is comprised of one parcel identified by Thurston County records as parcel number 12721210200. The address assigned to the property is 2729 93rd Avenue Southwest, Olympia, Washington. A general location map is provided as Figure 1 in Appendix A. A site diagram, indicating approximate parcel boundaries, is included in Appendix A as Figure 2. The subject consists of approximately 5.5 acres.

#### 3.1.2 Current Property Use

The land use of the subject currently is commercial.

#### 3.1.3 Structures and Improvements

The property is currently occupied by the Restover Truckstop, which is comprised of vehicle fueling, retail gasoline sales, a convenience store, a restaurant, and a motel. Also present is a gravel-surfaced truck-parking area.

#### 3.2 Regional Characteristics

#### 3.2.1 Current Adjoining Land Uses

The subject is situated in an area that is generally developed with commercial and light industrial land uses. The directly adjoining parcels are occupied by the following:

North: vacant and residential land

• Northeast: Interstate 5

• East: Interstate 5

• Southeast: Interstate 5

South: vacant land and an unnamed pond

• Southwest: vacant land

West: vacant land

Northwest: residential followed by commercial, multi-tenant light industrial

#### 3.2.2 Topography, Geology, and Soils

The subject property is at an elevation of approximately 200 feet above sea level. The topography of the area surrounding the subject is relatively flat with a general slope to the northwest.

Drost, Ely and Lum, W.E. (2009) map the surface geology of the subject and surrounding area as Vashon recessional outwash (Qvr). These sediments are generally composed of course-grained materials comprised of sands and gravels. This unit is generally very permeable.

Soils in the area of the subject have been classified as Cagey loamy sand by the USDA web soil survey. These soils are generally associated with sandy glacial drift. This soil is typically moderately well drained.

#### 3.2.3 Surface Water and Groundwater

There is no surface water on the subject. The nearest surface water body is an unnamed pond located directly south of the subject.

Based upon well logs obtained from the Department of Ecology for monitoring wells completed on the subject, the depth to groundwater is generally ten feet. Based on potentiometric surface maps for the aforementioned monitoring wells, the shallow groundwater flow direction on the subject is generally to the north-northwest.

#### 3.3 Site and Surrounding Area Reconnaissance

John F. Hildenbrand, a Robinson Noble environmental scientist, completed a site reconnaissance (inspection) on November 1. The purpose of the reconnaissance was to obtain readily apparent indications of potential recognized environmental conditions as defined by ASTM Standard E1527-05. Selected photographs from the reconnaissance are attached in Appendix C. The inspection included a walkthrough of the site and a review of the surrounding properties. Also included was an inspection for possible contamination sources, including those noted below, on the site and from adjoining properties.

- storage tanks (underground and above ground)
- wells (water wells, dry wells, irrigation wells, monitor wells, etc.)
- drums or chemical storage areas
- hazardous substances, petroleum products, and unidentified containers
- pools of liquid, ponds, and surface impoundments
- maintenance or shop areas
- waste water systems

- sumps or storm drains
- interior stains or corrosion
- stained soil or pavement
- potentially PCB-containing equipment
- piles of waste or trash; solid waste
- dead or dying vegetation
- unusual odors
- other observations that in the opinion of the field investigator indicate the possible presence of conditions of concern

The site is currently occupied by three buildings consisting of a convenience store, a restaurant, and a motel. Two canopied fueling areas, one configured for standard retail fueling and one for commercial (truck) vehicles, are present.

#### 3.3.1 Interior Observations

Due to confidentiality issues, we were unable to completely inspect the buildings. However, observations from publicly accessible areas of the convenience store and restaurant did not reveal concerns with respect to environmental conditions. No access to the motel was available.

#### 3.3.2 Exterior Observations

As stated above, the subject includes two fueling areas along with associated access ways and parking areas, a restaurant, and a motel. Access and parking for the convenience store are asphalt paved. The fueling pads are concrete paved with covered drains that appear to be routed to oil-water separators. The standard fueling area was observed to be relatively free from staining and other evidence of spillage. However, the concrete pad was severely cracked, and it is unlikely to provide adequate protection of underlying soils should spills occur. The commercial fueling area also exhibited signs of concrete disrepair as well as areas of staining on the islands, concrete surfaces, and fuel dispensers. Parking areas, including the gravel truck parking area, did not exhibit significant staining. The concrete pad over the underground storage tanks was observed to be free from staining. It appears to be in fair condition, though cracks are evident.

We also observed the monitoring well discussed in Section 2.0 along with the area of excavation and ORC® application. The observation of these features indicates the presence of a recognized environmental condition on the property. The staining in the commercial fueling area, along with concrete disrepair, represents a potential for impact to the subject from fueling-related spills. No other conditions of concern were noted.

#### 3.3.3 Roads

The subject is surfaced by asphalt, concrete, and gravel drive and parking surfaces. It is adjacent to asphalt-paved public roads.

#### 3.3.4 Utilities

The site is served by an on-site water system that is regulated as a Group A Public Water system by virtue of the commercial nature of the subject. According to the Washington State Department of Health's Sentry database, the water system is categorized as a blue, which

means that it is in compliance with requirements for its current configuration and it is not approved for expansion.

The subject is also served by two on-site sewage systems, one serving the restaurant and motel and the other serving the convenience store.

#### 3.3.5 Adjoining Properties

Adjoining properties were inspected from the adjoining right-of-ways during the site visit. These adjacent properties are unremarkable with respect to conditions of concern or recognized environmental conditions. The interiors of buildings on the adjoining properties were not inspected.

#### 3.3.6 Data Gaps

The complete interior of the structures on the subject property was not inspected. However, based on our observations and the use of the property, we believe this data gap is not significant. The interiors of neighboring buildings were not inspected. However, based on the observed uses of these properties, we interpret this data gap is not significant. There are no other data gaps to the site and area reconnaissance.

#### 3.3.7 Site and Surrounding Area Summary

The visible staining of concrete pads and dispensers in the commercial fueling area, combined with the disrepair of the concrete, represents a recognized environmental condition. This holds true as well for the retail-fueling island concrete, which is susceptible to allowing spills or leaks to migrate to the underlying soils. The presence of environmental remediation on the property also indicates the presence of a recognized environmental condition.

The visual inspection of the adjoining properties did not reveal any concerns defined by ASTM as a recognized environmental condition.

#### 4.0 Government Agency Information

#### 4.1 EDR Database Search

A database search was conducted through a private, third-party firm, Environmental Data Resources, Inc. (EDR), to identify sites of known or potential contamination within varying radii as defined by ASTM. These radii range from the target property only to up to one mile from the subject property. The database search results, including the search radii, are included in the EDR report, which is attached as Appendix D. A complete list and descriptions of the databases searched may be found in the Government Records Search/Data Currency Section of the EDR report. The absence of records should not be used as conclusive evidence that conditions do not exist. Sites may not have been reported or registered and/or may pre-exist the requirement to report.

The subject site is located at 2729 93rd Avenue Southwest, Olympia, Washington. The EDR report lists the subject site on the CSCSL, HSL, LUST, UST SPILLS, and EDR Historical Auto Station databases. These listings are a result of current (UST) and historical fueling activities and documented release(s) of petroleum products that have not yet been addressed to the point of achieving regulatory closure.

In order to further assess the nature of the listings for the subject, records maintained by the Washington Department of Ecology (Ecology) were reviewed at Ecology's headquarters office on November 5. We have requested copies of pertinent documents, but at the time of writing

this report, they have not been received. Upon receipt, they will be forwarded to the client to be appended to this report.

Based on our review of currently available documentation, it is believed that approximately 65,000 gallons of fuel was released from the site between 1975 and 1982. From 1987 to 2005, Ecology completed a series of investigative, remediation, and monitoring activities. To remediate soil and groundwater contamination, an interim action, consisting of an air-sparging/vapor extraction system (VES), was initiated in the summer of 1993. Operation of the VES was terminated in the fall of 1997 since BTEX concentrations had substantially decreased and continued operation of the system was no longer cost efficient. In late 1998 and early 1999, the VES and most of the remaining monitoring wells were decommissioned. Currently, the only well being monitored is WDOE-6AR (discussed in Section 2.0). Ecology documents reference cost-recovery efforts and payments which suggest the property may be subject to an environmental lien.

Although the interim action appears to have substantially reduced the amount of contamination, the work done to date is likely not sufficient to warrant the issuing of a no-further-action determination, and it is highly probable that additional remediation will be needed. Therefore, this represents a recognized environmental condition.

Additionally, Ecology records contain an environmental covenant establishing activity and use limitations (AULs) that must be maintained as long as the contamination remains at the site.

In addition to the subject property, the EDR report lists 13 properties/businesses with a total of 22 listed conditions falling within the ASTM standard search radii. In addition, the EDR report lists 11 unmappable (orphan) sites with listed conditions. As part of this study, where reasonably ascertainable, we determined the locations of the unmapped listed sites.

We assessed the risk to the subject property from both the mapped and unmapped listed sites. We were able to determine without further research that the listed sites pose little risk to the subject. We made this determination by reviewing site locations in relation to the estimated groundwater flow direction, reviewing the types of listings, and reviewing the reported status of the listed sites to report or register.

#### 4.2 Local Government Records

#### 4.2.1 County Assessor Records

According to Thurston County Assessor records, the owner of tax parcel 12721210200 is Kismet Ka Sitara LLC. These records indicate previous owners include Timothy Cosden.

#### 4.2.2 County Auditor Records

We reviewed Thurston County Auditor records for the subject property. An environmental covenant between the current property owner and the Washington Department of Ecology was recorded in 2001. This document is discussed in Section 4.1 above.

#### 4.2.3 Title Records and Environmental Liens or Activity and Use Limitations

Our client, the Confederated Tribes of the Chehalis Reservation, did not provide a copy of title records for the property. Title records can provide information on past owners and can potentially contain environmental liens or activity and use limitations not revealed by other sources. Without provided records, we did not review title records for the property. Based on information discussed in Section 4.1 it is possible that an environmental lien with the Washington

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Department of Ecology as beneficiary exists within the title records. Thus, the absence of title review is a significant data gap.

#### 4.3 Tribal Records

This property is not located within the historical boundary of an Indian reservation. Therefore, Tribal records most likely do not exist. However, the inability to review Tribal records is a data gap.

#### 4.4 Data Gaps

Neither title nor Tribal records were reviewed for this assessment. However, the owner has indicated that they have reviewed title documents and found no liens or encumbrances related to environmental conditions existing on the subject. Our review of County records indicated the presence of an environmental covenant which is also discussed in Section 4.1. Also, the subject is not within the historic boundary of an Indian reservation, so Tribal records likely do not exist. Therefore, we interpret both of these data gaps to be insignificant.

#### 5.0 Historical Research

A critical part of the ESA process is the consultation of historical sources to develop a history of the previous uses of the subject property and surrounding area. The purpose is to identify the likelihood of past uses causing recognized environmental conditions that could potentially impact the subject property. According to ASTM, the goal of historical research is to develop an assessment of chronological site and area land use from the first development. The historical information reviewed includes available sources that are reasonably ascertainable and relevant (as defined in ASTM E1527-05). Aerial photographs, USGS 7.5-minute topographic maps, local street directories, County records, Polk's directories, and historical atlases were reviewed for this project. Relevant historical findings are given below.

#### 5.1 Aerial Photographs

Aerial photographs (aerials) were searched through a third-party firm, EDR. A copy of the EDR Aerial Photo Decade Package is attached in Appendix D. Aerials dated from 1975, 1981, 1991, 1992, 2005, 2006, 2009, and 2011 were reviewed.

The subject is present in all of the aerial photographs reviewed. The surrounding area appears to be vacant or perhaps residential in images dated 1992 and earlier. Images from 2005 to 2011 show what appears to be commercial development south and northwest of the subject. Additionally, commercial development east of Interstate 5 is observed to increase dramatically.

Although the aerial photographs do not specifically identify the presence of recognized environmental conditions, they do help establish the length of time the subject has been used as a truck stop.

#### 5.2 USGS Topographic Maps

A topographic (topo) map search was completed through a third-party firm, EDR. A copy of the EDR Historical Topographic Map Report is attached in Appendix D. Coverage was available for years 1916, 1944, 1949, 1959, 1968, 1973, 1975, 1990, and 2011.

Topographic maps prior to 1973 show the subject to be vacant. Thus it appears the first of use of the subject occurred between 1968 and 1973. Additionally, the maps substantiate the find-

ings of our review of aerial photographs concerning the pattern of development of the surrounding area.

No specific historical recognized environmental conditions were revealed through the topographic map search.

#### 5.3 Sanborn Fire Insurance Maps

A Sanborn map search was completed through a third-party firm, EDR. A copy of the EDR Sanborn Map Report is attached in Appendix D. Sanborn fire-insurance map coverage was not available for the subject and surrounding area.

#### 5.4 City, County, and Suburban Directories

A directory search was completed through a third party, EDR. Their report, EDR City Directory Abstract, is attached in Appendix D. This source shows available directory coverage for the area surrounding the subject property. Pertinent results of the directory research are detailed below.

Directory listings were available for the years 1999, 2003, 2008 and 2013. The subject is listed as its current use which, based on the nature of truck-stop operations, suggests the presence of a recognized environmental condition.

#### 5.5 Other Historical Sources

We reviewed Thurston County permit records available online for the subject. Several instances of violations were noted dealing with on-site septic system issues and food-handling issues associated with the restaurant along with compliance issues related to the on-site water system serving the subject. No specific historical recognized environmental conditions were revealed through the research of these other historical sources.

#### 5.6 Summary of Historical Findings

The historical research indicates the subject property was first developed after 1968 into its current use. The surrounding area was largely undeveloped until 1992 and remains today as a low-density mixture of commercial and residential land uses.

Other than the use of the subject as a truck stop, no specific historical recognized environmental conditions were revealed through historical research.

#### 5.7 Historical Data Failure Summary

Based on the information gathered for this study, the first use of the subject appears to be after 1968, and therefore, no historical data failure has occurred.

#### 6.0 Client and Owner Provided Information and Interviews

#### 6.1 Reason for Conducting the Phase I ESA

The Confederated Tribes of the Chehalis Reservation stated the purpose of this Phase I ESA is pre-acquisition due diligence.

#### 6.2 Valuation Reduction for Environmental Issues

We have no information concerning whether the value of the subject property has been reduced for environmental reasons since we were not able to interview the owner and they did not return our questionnaire.

#### 6.3 Interviews

Interviews, both actual and attempted, for this Phase I ESA were conducted by John F. Hildenbrand, a Robinson Noble environmental scientist.

#### 6.3.1 Agencies

We conducted an interview with Michael Kunz, site manager with the Washington Department of Ecology (Ecology). Mr. Kunz provided background on the history of the contamination at the site, a description of the interim actions conducted by Ecology, and a synopsis of the current status of cleanup activities.

Mr. Kunz stated that the issues at the site came to light in the early 1980s when neighboring residences began complaining of gasoline odors in drinking water supplied by residential wells. Ecology conducted several investigations over the years, and in 1993, they installed an airsparging vapor-extraction system as an interim remedial action. Mr. Kunz noted this was done in lieu of a final remedial option likely involving removal of the fueling systems and possibly adversely impacting the financial health of the owner of the property.

Mr. Kunz also stated that, although most of the wells have been abandoned at the site and that monitoring and remedial actions have essentially stopped, the site is not ready for no-furtheraction status. He notes there is likely remnant contamination that will require action prior to such a determination.

#### 6.3.2 Owner/Site Manager

At the request of our client, we were not able to interview the owner. However, through our client, we submitted a detailed questionnaire to Kismet Ka Sitara LLC. The questionnaire includes questions concerning the subject property's current use and history; whether the person answering the questionnaire has any specialized knowledge or experience, or are aware of any "commonly known information," in connection with potential environmental conditions; whether they have any actual knowledge of environmental liens or activity use limitations (AULs) for the subject; whether the value of the property has been affected by environmental issues; and concerning the reason why the Phase I ESA is needed. As of the date of this report, we have not received the completed questionnaire. If it is received after publication, we will review it, and if needed, prepare an addendum letter updating the findings of this report as needed. The lack of owner interview is a data gap.

#### 6.3.3 Previous Owners

Through our research on this project, we were able to identify at least one previous owner of the subject property. The most recent prior owner was Timothy J. Cosden. A telephone message left for Mr. Cosden on November 1 was not returned.

#### 6.3.4 Others

No other interviews were conducted for this report.

#### 6.4 Data Gaps

Our inability to interview the current owner and previous owners, plus the failure of the owner to return our questionnaire, represents data gaps. However, based on the volume of information reviewed for this study, as well as the concurrent subsurface investigation documented on Section 7.0 below, we opine that they are not significant.

#### 7.0 Subsurface Investigation

In order to provide a baseline assessment of historical and new contamination, we completed a limited subsurface investigation of the subject. Field activities were completed November 7 and 8.

Our activities included collecting soil and groundwater samples at 18 on-site locations and one off-site location using direct-push drilling methods. The locations were selected to evaluate the current status of areas remediated, other areas assessed by previous investigations, and other areas that could be impacted from historical activities at the site but not previously investigated to our knowledge. Drilling services were provided by Holocene Drilling, Inc. Our field staff logged each boring and directed the collection of samples. During drilling and sampling, we conducted field screening using visual and olfactory cues and a hand-held photo ionization detector (PID) to detect potential organic vapors. Based on field screening, selected samples were submitted to an on-site mobile laboratory provided by Libby Environmental, Inc. (Libby). Libby is a Washington State accredited laboratory for the specific analysis performed for this project (Section 7.3). Each sample submitted to the laboratory was analyzed for gasoline, diesel-, and oil-range petroleum hydrocarbons as well as gasoline-related volatile organic compounds.

#### 7.1 Field Observations

During the field investigation, a total of 18 borings (designated B1 through B18) were installed at the site to evaluate subsurface conditions. One additional boring (B19) was installed on the adjacent property located northwest of the site across 93<sup>rd</sup> Avenue Southwest. All 19 of the borings were installed using direct-push drilling methods. The upper five feet of all the borings (except B17 and B18) were air-knifed with a Vactor truck to avoid damaging unidentified utilities and product lines associated with the fueling islands. The locations of the borings are shown on Figures 3, 4 and 5. B1 through B4 were installed in the area of the automobile fuel islands on the eastern portion of the site, B5 through B7 in the area of the USTs, and B8 through B16 in the area of, or north of, the commercial truck fuel islands on the western portion of the site. Borings B17 and B18 were installed on the southern portion of the site (up gradient of the fueling areas). B19 was installed north of the site across 93<sup>rd</sup> Avenue (down gradient of the fueling areas).

Each of the 19 borings was completed to a depth of 20 feet. Figures 6A through 6D present a log of the materials encountered in each boring. As shown, similar materials were penetrated by each boring and consisted of a layered sequence of silty sands with variable amounts of silt, sand, and occasional gravels. Minor wood debris encountered in the upper portion of B13 and B15 (at respective depths of three and eight feet) indicates the materials are either imported or reworked native material (fill). Similar material encountered in the upper portion of the other 16 on-site borings (minus the anthropogenic wood debris) suggests the upper two to eight feet of the site has likely been modified. The silts, sands, and occasional gravels encountered in the lower portion of each boring (including B19 off site to the north) appear to be native and are consistent with the Ovr described above in Section 3.2.2. Groundwater was encountered in each of the on-site borings at a depth of approximately 17 feet. Groundwater was encountered in B19 at a depth of 15 feet, but this is likely because the elevation of the area where the boring was placed is slightly lower than that of the subject.

Soil from each boring was field screened for signs of impact, as described above, using visual and olfactory cues and a hand-held PID. Each of the boring logs presented are annotated with significant field-screening observations. Representative soil samples from each boring were

submitted to the on-site mobile laboratory for analyses based primarily on field-screening results. In cases were field screening results did not indicate obvious signs of impact, soil samples nearest to the groundwater interface were generally selected for chemical analysis (petroleum generally tends to accumulate near the surface of the water table).

Occasionally, shallower samples (generally from the midpoint of the vadose zone) were submitted for analysis to try to generate representative analytical data. Groundwater samples were also collected from each boring via temporary PVC wells. Each temporary well was installed with five feet of screen placed between 15 and 20 feet so as to bracket the surface of the water table. Samples were collected using a peristaltic pump and low-sampling techniques. Each well was purged for 10 to 15 minutes prior to sampling to try to clear the water column and insure representative groundwater was being collected. A new PVC screen and riser and new pump tubing was used at each boring location.

The borings in the area of the automobile-fueling islands (B1 through B4), minor PID readings were observed in B1 and significant PID readings were observed in B4. A very strong petroleum odor was also noted throughout the entire depth of B4. As described below in Section 7.4, the field screening results for B1 and B4 corresponded with analytical detections of high levels of gasoline-range hydrocarbons in both the soil and/or groundwater samples collected from these two borings. A strong petroleum odor was also noted in the upper portion of B14 (located in the central area of the trucking fuel islands), but corresponding PID readings were not observed. This is often indicative of older (degraded) gasoline contamination. Analytical results described below in Section 7.4, did not indicate substantial levels of gasoline-range hydrocarbons in the soils from this boring but did show slightly elevated levels of benzene. The analytical results for the groundwater sample from B14, however, did show extremely high levels of gasoline and related volatile-organic compounds. Field screening did not indicate significant impact in any of the other borings.

#### 7.2 Sample Submittal, Storage, and Handling

Samples were collected using methodologies appropriate for gasoline- and diesel-range petroleum hydrocarbons and volatile organic compounds using on-site mobile laboratories. Stainless-steel spoons were used to place soil into laboratory-supplied four-ounce glass jars, except for volatile organic samples, which were collected using EPA 5035 techniques. The properly labeled samples were submitted directly to the on-site mobile laboratory for analysis.

The chain-of-custody form (attached) displays the details of the on-site sample submittal to Libby. Each sample was tracked on the form with the details of the sample's identity, identity of handlers responsible for the samples, and analyses to be performed.

#### 7.3 Sample Analysis

Analysis of samples was completed using NWTPH-GX, NWTPH-DX/DX Extended, and EPA 8260C by Libby Environmental, Inc.

#### 7.4 Analytical Results

The complete laboratory report for the subsurface investigation is included as Appendix B. Table 1, below, presents the analytical results for gasoline-range hydrocarbons and volatile organics for the soil samples. Table 2, below, presents similar results for the groundwater samples. Bolded values in each of the tables identify sample results exceeding the Model Toxic Control Act (MTCA) Method A cleanup limits for soil (unrestricted land use) and groundwater,

respectively. For analytes that do not have an established Method A value, we used the most stringent Method B formula value.

We compared our results to unrestricted land-use cleanup levels based on the eventual need to place the property into trust status. This was done because the Bureau of Indian Affairs requires that land use be unrestricted prior to issuing environmental approval for fee-to-trust transfers.

Table 1: Analytical results for gasoline and volatile organic compounds in soil

Sample no.	Depth (feet)	Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl benzene (mg/kg)	Xylenes (mg/kg)	Naptha- lenes (mg/kg)	1,3,5-tri methylbe nzene
B1-7	7	29	nd	nd	0.068	0.52	0.053	0.25
B1-16	16	135	nd	nd	nd	0.20	0.13	0.13
B2-12	12	nd	nd	nd	nd	nd	nd	nd
B3-16	16	nd	nd	nd	nd	nd	nd	nd
B4-10	10	42,500	16.2	237	468	2,730	187	378
B5-16	16	nd	nd	nd	nd	nd	nd	nd
B6-16	16	nd	nd	nd	nd	nd	0.17	nd
B7-16	16	nd	nd	nd	nd	nd	nd	nd
B8-15	15	nd	nd	nd	nd	nd	nd	nd
B9-8	8	nd	nd	nd	nd	nd	nd	nd
B10-16	16	nd	nd	nd	nd	nd	nd	nd
B11-8	8	nd	nd	nd	nd	nd	nd	nd
B12-16	16	nd	nd	nd	nd	nd	nd	nd
B13-8	8	nd	nd	nd	nd	nd	nd	nd
B14-8	8	nd	0.19	0.06	nd	0.14	nd	nd
B15-8	8	nd	nd	nd	nd	nd	nd	nd
B16-7	7	nd	nd	nd	nd	nd	0.082	nd
B17-8	8	nd	nd	nd	nd	nd	nd	nd
B18-8	8	nd	nd	nd	nd	nd	nd	nd
B19-8	8	nd	nd	nd	nd	nd	nd	nd
MTCA Me	ethod A	30	0.03	7.0	6.0	9.0	160	NE

**Bolded** values indicate the result exceeds the MTCA Method A cleanup level; "NE" denotes standard Method A or B cleanup level not established.

Table 2: Analytical results for gasoline and volatile organic compounds in groundwater

Sample no.	Gasoline (μg/L)	Benzene (μg/L)	Toluene (μg/L)	Ethylben zene (μg/L)	Xylenes (μg/L)	Naptha- lenes µg/L	1,3,5 Tri- methylben zene (µg/L
B1-W	3,230	4.7	2.1	91	127	15	18
B2-W	nd	nd	nd	nd	nd	nd	nd
B3-W	nd	nd	nd	nd	nd	nd	nd
B4-W	538	18	nd	4.7	14	1.7	1.0
B5-W	nd	nd	nd	nd	3.3	nd	nd
B6-W	1,023	1.1	nd	nd	nd	nd	nd

<sup>&</sup>quot;nd" indicates the analyte was not detected above the applicable laboratory detection limit

Sample no.	Gasoline (μg/L)	Benzene (μg/L)	Toluene (μg/L)	Ethylben zene (μg/L)	Xylenes (μg/L)	Naptha- lenes µg/L	1,3,5 Tri- methylben zene (µg/L
B7-W	nd	nd	nd	nd	0.15	nd	nd
B8-W	1,280	nd	1.4	12.6	3.1	nd	2.8
B9-W	358	nd	1.0	2.4	15.7	1.2	2.8
B10-W	nd	nd	nd	nd	nd	nd	nd
B11-W	nd	nd	nd	nd	nd	nd	nd
B12-W	nd	nd	nd	nd	nd	nd	nd
B13-W	1,350	nd	nd	8.8	42	2.7	20
B14-W	18,000	11	496	891	2,710	236	171
B15-W	105	nd	nd	nd	nd	nd	nd
B16-W	842	5.3	1.6	55	66	10	nd
B17-W	nd	nd	nd	nd	nd	nd	nd
B18-W	nd	nd	nd	nd	nd	nd	nd
B19-W	nd	nd	nd	nd	nd	nd	nd
MTCA Method A	800	5	1,000	700	1,000	160	80*

Bolded values indicate the result exceeds the MTCA Method A or Method B cleanup level

#### 7.5 Laboratory QA/QC

With the exception of matrix interferences caused by high analyte concentrations, the laboratory analyses were within the guidelines and control limits established by the laboratory and the analytical method. Therefore, the analyses were within acceptable QA/QC boundaries.

#### 7.6 Data Reduction, Validation, and Reporting

#### 7.6.1 Reduction

The raw data from the investigation are digitally stored on file. Reviews of the data show no inconsistencies or concerns.

#### 7.6.2 Validation

Quality assurance and control results reported the laboratory confirmed the data is consistent and repeatable. The laboratory indicates that all samples analyzed and recorded fall within acceptable QA/QC limitations.

According to our review, quality control data for the chain-of-custody, sample holding times, laboratory blanks, blind field duplicates, laboratory surrogate recoveries, and field documentation are acceptable.

#### 7.6.3 Reporting

The laboratory results (attached in Appendix B) include a cover letter report from Libby explaining the details regarding the analysis, the chain-of-custody forms, the sample summary results, and the summary of the laboratory QA/QC.

<sup>\*</sup> denotes MTCA Method B non-carcinogenic standard formula value

<sup>&</sup>quot;nd" indicates the analyte was not detected above the applicable laboratory detection limit

#### 8.0 Findings, Conclusions, and Recommendations

#### 8.1 Phase I Environmental Site Assessment

#### 8.1.1 Phase I Findings

The subject site is comprised of one parcel identified by Thurston County records as parcel number 12721210200. The address assigned to the property is 2729 93rd Avenue Southwest, Olympia, Washington. This parcel is currently used primarily for commercial uses and is occupied by the Restover Truckstop, which is comprised of commercial vehicle fueling, retail gasoline sales, a convenience store, a restaurant, and a motel. The surrounding properties are a mixture of commercial, light industrial, residential, and vacant land.

The historical research indicates the subject property was first developed in 1969 as the current truck stop. The surrounding area was mostly undeveloped until after 1992, and it remains lightly developed today.

We reviewed standard environmental databases and found the subject property on the CSCSL, HSL, LUST, UST SPILLS, and EDR Historical Auto Station databases. These listings are related to the subject's use as a truck stop with associated fueling systems as well as the presence of unresolved contamination from site activities. The database search did indicate a number of nearby properties listed. However, none of these appear to be of concern.

We submitted a questionnaire to the subject property owner but it was not returned. We interviewed people knowledgeable about the property. This information provided evidence of recognized environmental conditions, which are included on the list below.

#### 8.1.2 Data Gap Summary

Significant data gaps affect an environmental professional's ability to identify recognized environmental conditions. Our inability to review Tribal records and interview the current owner and previous owners represent data gaps. However, based on the volume of information reviewed for this study as well as the concurrent subsurface investigation documented on Section 7.0 below, we opine that they are not significant. We also identified a significant data gap with respect to the lack of our review of a title report. Given the discussions noted in Section 4.0, the unknown status of potential environmental liens should be considered a significant data gap.

#### 8.1.3 Conclusions

We have performed a Phase I Environmental Site Assessment in general conformance with the scope and limitations of ASTM Practice E1527-05 of 2729 93rd Avenue Southwest, Olympia, Washington. Any exceptions to, or deletions from, this practice are described in Section 1.2 of this document. This assessment has not revealed evidence of recognized environmental conditions except for:

- The subject has documented soil and groundwater contamination as a result of releases from the fuel storage and dispensing systems. Although an interim remedial action was completed at the site and monitoring data showed a significant reduction in groundwater contamination, the site has not yet achieved no-further-action status.
- The presence of an environmental covenant containing activity and use limitations that must be complied with unless further assessment and cleanup is completed to the extent allowing their removal.

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#### 8.2 Phase II Conclusions

The data collected during the subsurface investigation portion of this project indicates that a significant area of groundwater beneath the site is impacted by gasoline-range petroleum hydrocarbons and related volatile-organic compounds. Figure 5 depicts the estimated extent of the groundwater plume based on the available data.

The current location of the contaminants is consistent with historical remedial investigation data that suggested a source area in the general vicinity of the contaminants. Further, while our data shows the interim remedial action appears to have substantially reduced the level of groundwater contaminants, it did not reduce levels to within the applicable cleanup standards.

Also, soils in the area of the retail fueling island and possibly under the store are also impacted by gasoline-related contamination. Figure 4 shows the estimated boundary of impacted soils.

The amount of remaining contamination suggests that substantial remedial action will be needed prior to the site being issued a no-further-action determination from the Washington Department of Ecology.

#### 8.3 Recommendations

Considering the areal extent of soil and groundwater contamination at the site, additional investigation and remediation will be needed to achieve NFA status. Based on the currently available data, it is likely that final remediation efforts will involve excavation of impacted soils and treatment of impacted groundwater. Since it appears that the area of impacted soils extends below the convenience store and truck-fueling islands, the excavation will require demolition of these structures.

There are several available options for resolving groundwater impacts. These include additions of microbial degradation adjuvants (ORC), air sparging/vapor extraction, air stripping or multitechnology treatment (ART in-well). Selection of the most appropriate technology is likely to depend not only on cost but treatment time.

Assuming that the acquisition proceeds, we recommend that Chehalis Tribal Enterprises accomplish the following:

- Submit the results of this study to the Department of Ecology with a request to determine the procedural process by which Ecology will ultimately issue a NFA determination.
- 2. Conduct consultations with BIA environmental staff to determine whether or not there is any mechanism by which a property can be put into trust with less than an unrestricted NFA.
- 3. Develop a final remedial investigation and remedial feasibility study (RI/FS) work plan for submittal to Ecology for their review and comment. Once Ecology is in concurrence with the proposed tasks, the investigation should be conducted. We recommend that part of this investigation include removal of current UST systems, structure demolition, and excavation of impacted soils. Additionally, this work will require the reimplementation of a groundwater monitoring network to allow for the design of an appropriate groundwater monitoring system.

- 4. Based on the results of the RI/FS, a cleanup action plan (CAP) should be prepared and submitted to Ecology for review and comment. Upon incorporation of Ecology's comments, the plan should be implemented.
- 5. Upon the completion of cleanup, final confirmational groundwater monitoring should be completed to the extent it is required by Ecology.

#### 9.0 References

Federal, State, and Local Agency Records

Thurston County Assessor's Office

Thurston County Health Department

U.S. Geological Survey - 7.5 - Minute Series - Maytown quadrangle

U. S. Department of Agriculture - WebSoil Survey, Accessed 11/7/2013 Thurston County, Washington

Washington State Department of Ecology, Southwest Region

#### Library Research Tools

Metsker's Historical Atlas

Polk's City Directory

Sanborn Fire Insurance Maps

#### Other Sources

Environmental Data Resources Inc., 2013:

EDR Radius Map™ Report with GeoCheck®, November 4

EDR Historical Topographic Map Report, October 31

EDR Aerial Photo Decade Package, November 7

EDR City Directory Image Report, November 1

EDR Certified Sanborn® Map Report, October 31

Google Maps: http://maps.google.com/

Google Earth: http://www.google.com/earth/

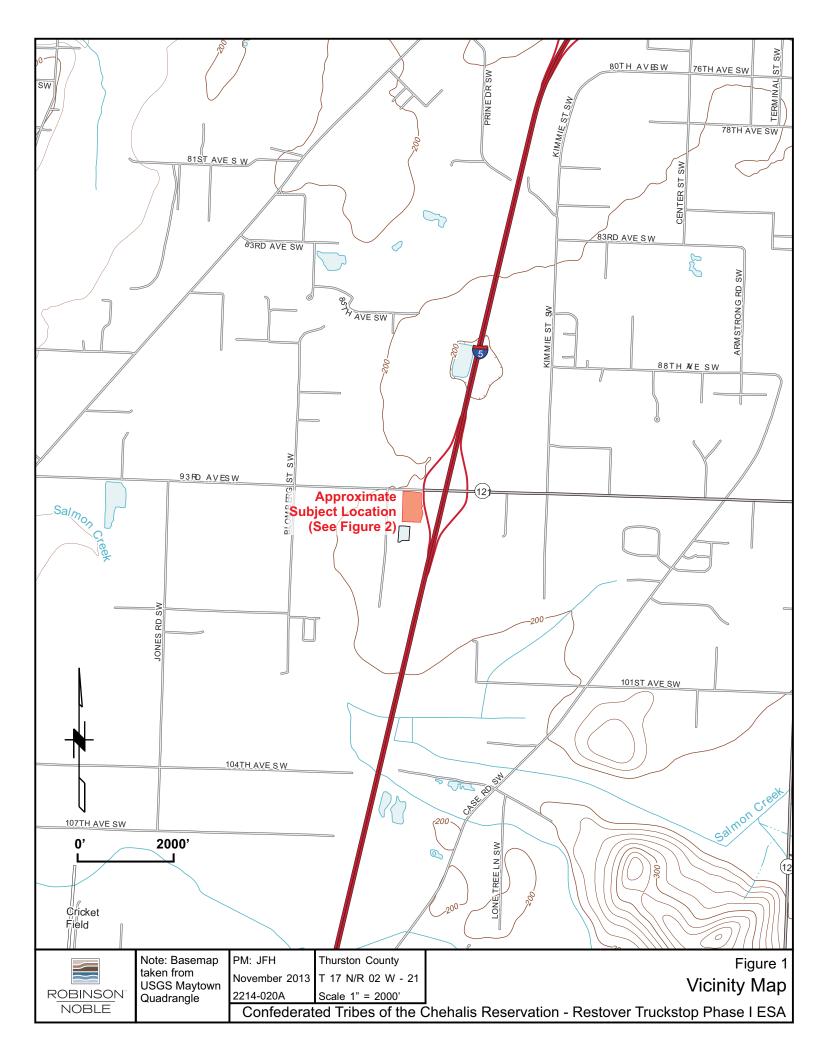
USGS, Drost, B.W, Ely, D.M, and Lum W.E, Conceptual model and numerical simulation of the ground-water-flow-system in the unconsolidated sediments of Thurston County, Washington, water-resources investigations report 99-4165, 254p.

#### 10.0 Closing

Questions regarding the contents of this report should be addressed to the project manager. The professional qualifications of the preparers of the report are listed in Appendix E to this document. If you have questions regarding this report or require further discussion of any portion of this project, please contact Robinson Noble.

The statements, conclusions, and recommendations provided in this report are to be exclusively used within the context of this document. They are based upon generally accepted environmental and hydrogeologic practices and are the result of analysis by Robinson Noble, Inc. staff. This report, and any attachments to it, is for the exclusive use of Confederated Tribes of the Chehalis Reservation and the Bureau of Indian Affairs. Unless specifically stated in the document, no warranty, expressed or implied, is made.

# APPENDIX A





ROBINSON\* NOBLE

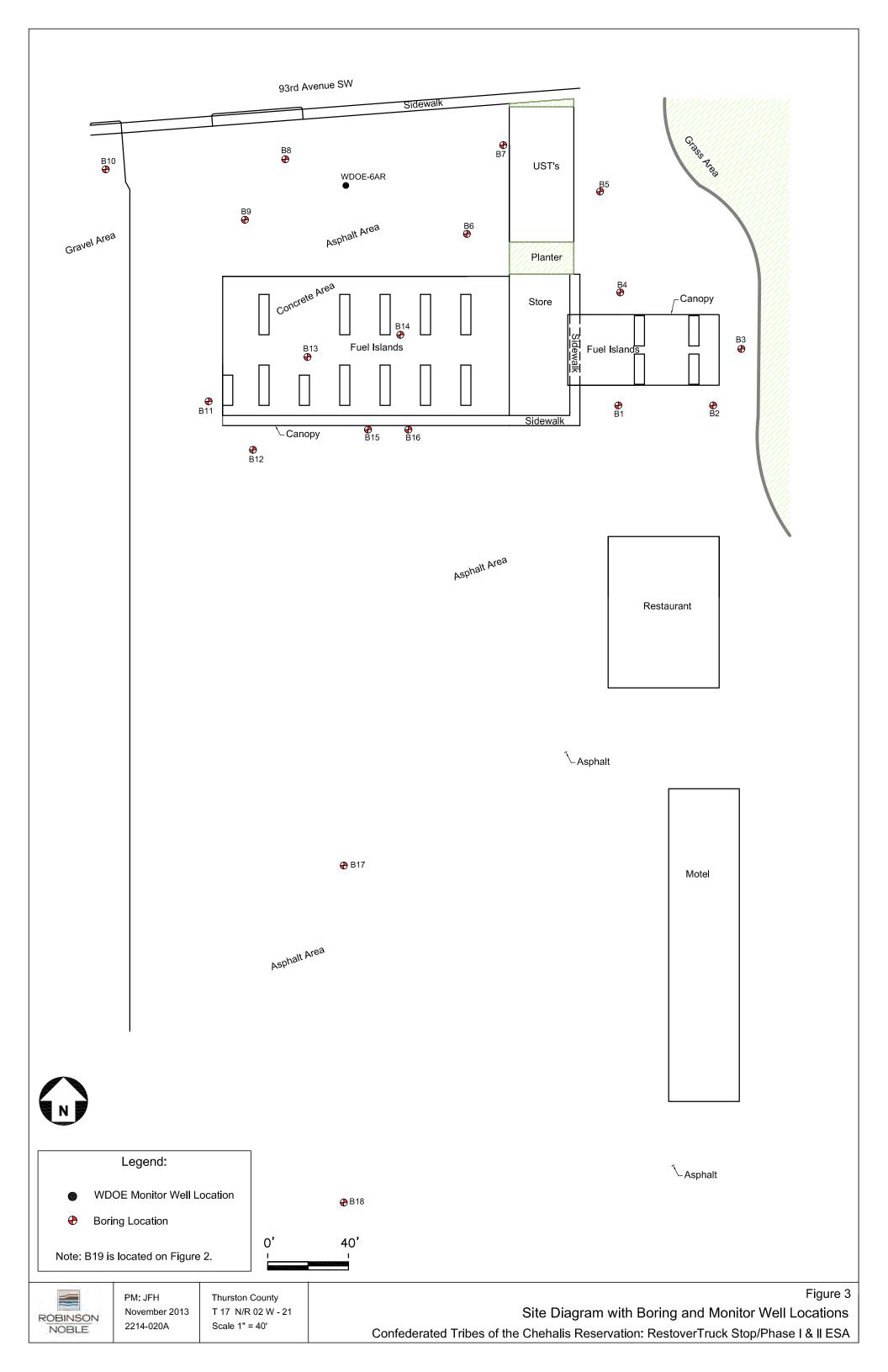
Image from ESRI ArcGIS

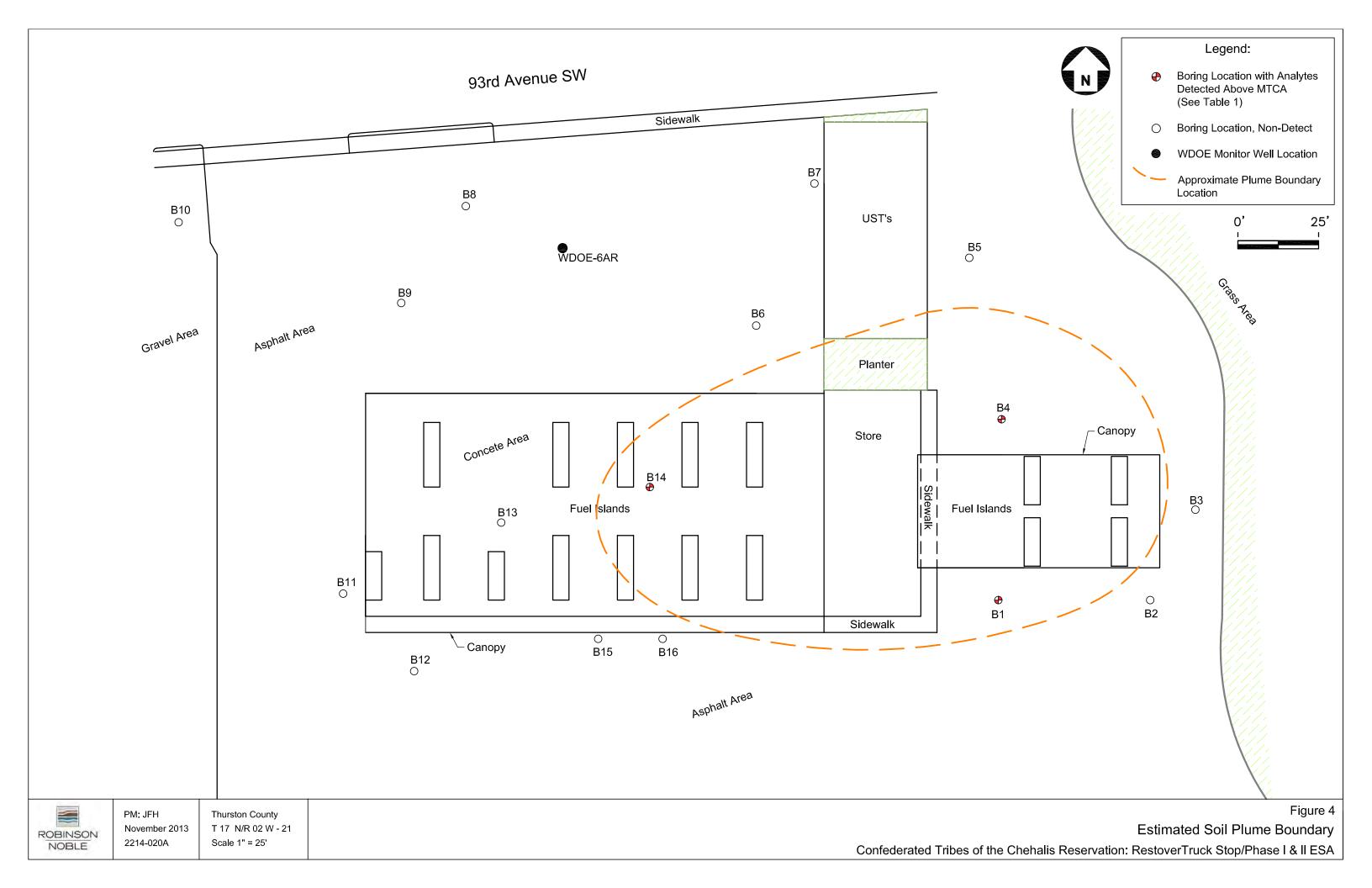
2214-020A

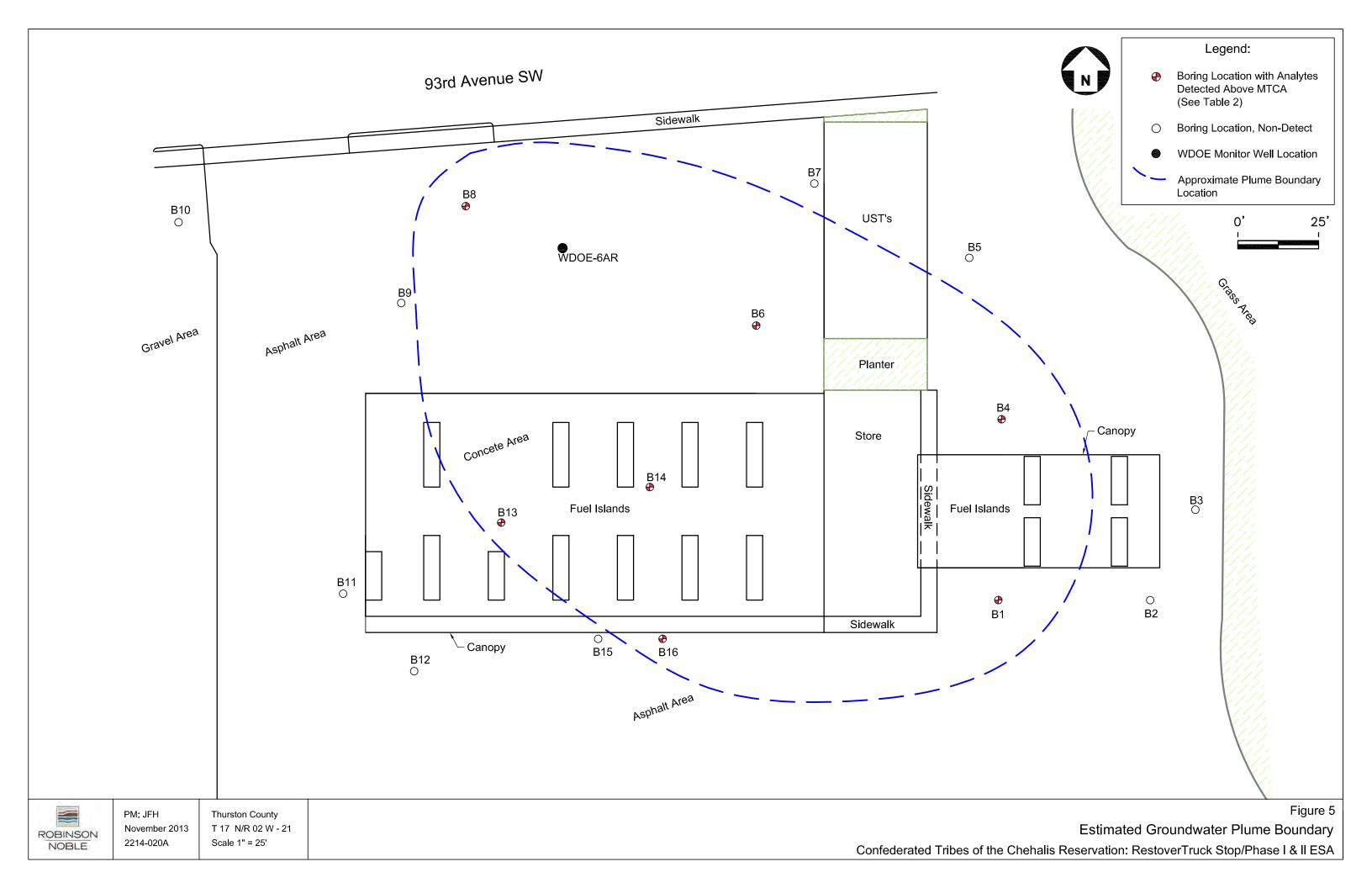
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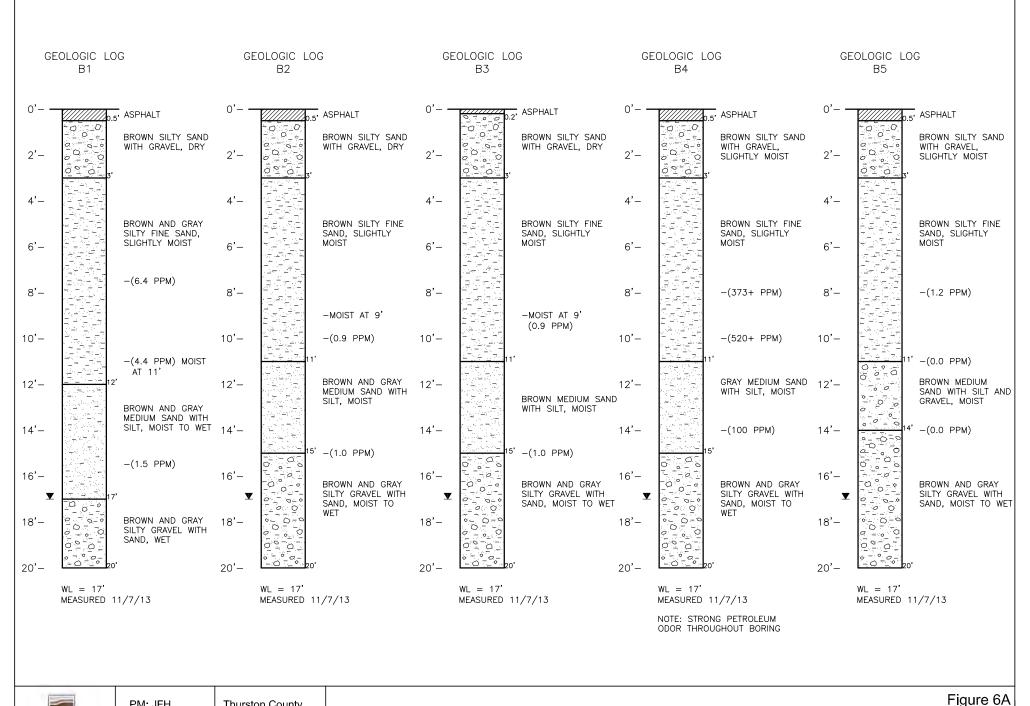
Aerial Map of Site

Confederated Tribes of the Chehalis Reservation - Restover Truckstop Phase I ESA





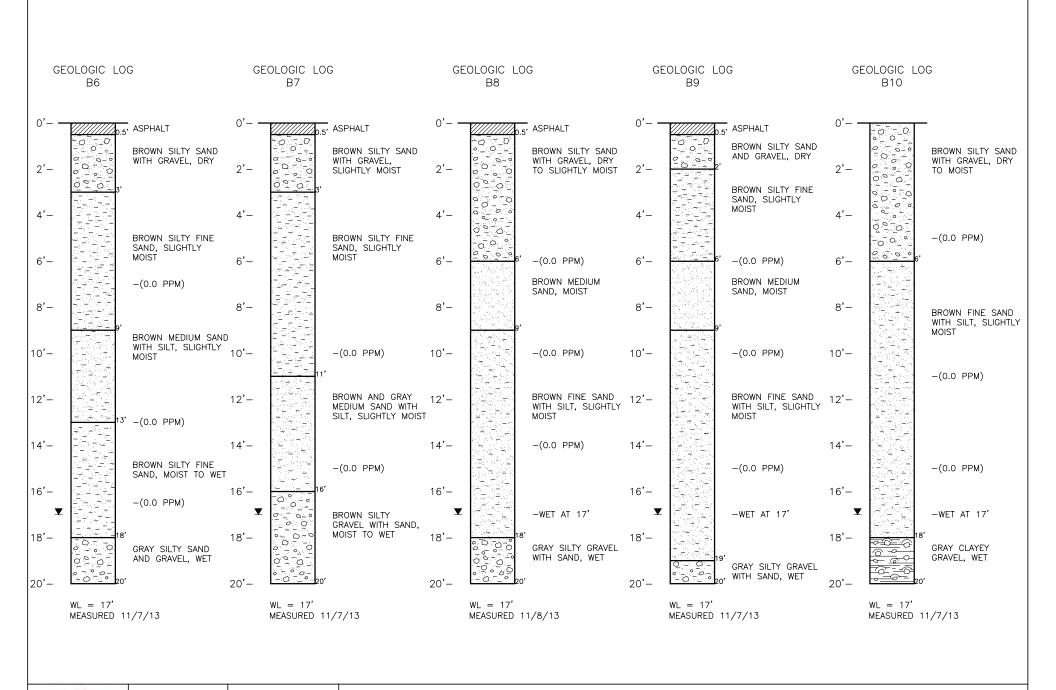






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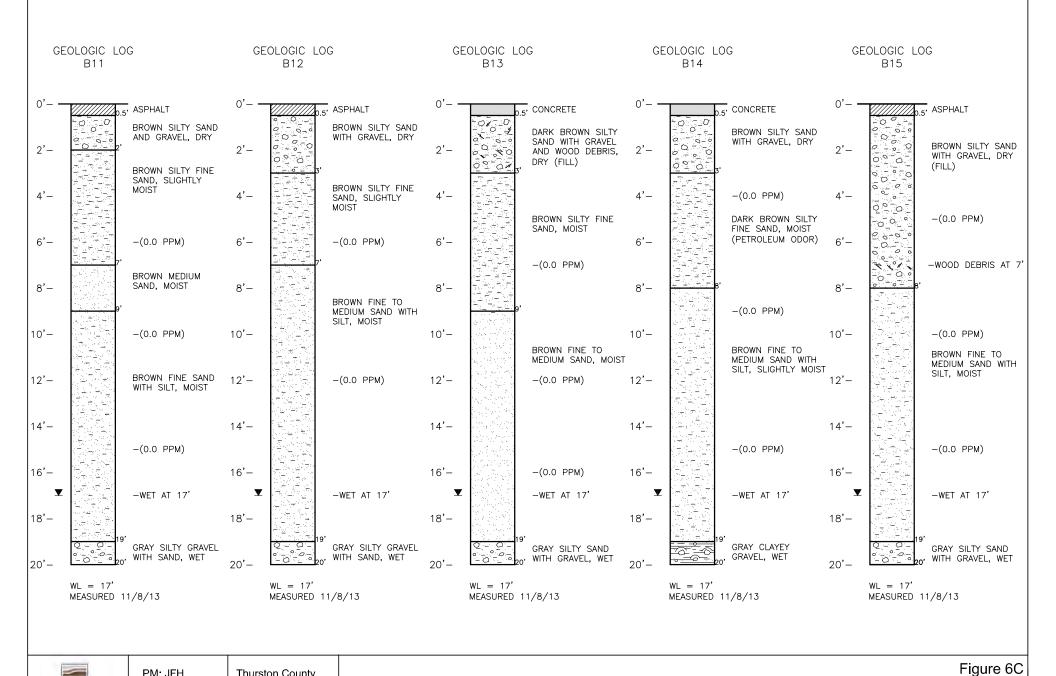
Geologic Logs for Direct-Push Boreholes B1 through B5
Confederated Tribes of the Chehalis Reservation: RestoverTruck Stop/Phase I & II ESA



ROBINSON NOBLE

PM: JFH November 2013 2214-020A

Thurston County T 17 N/R 02 W - 21 Figure 6B Geologic Logs for Direct-Push Boreholes B6 through B10 Confederated Tribes of the Chehalis Reservation: RestoverTruck Stop/Phase I & II ESA



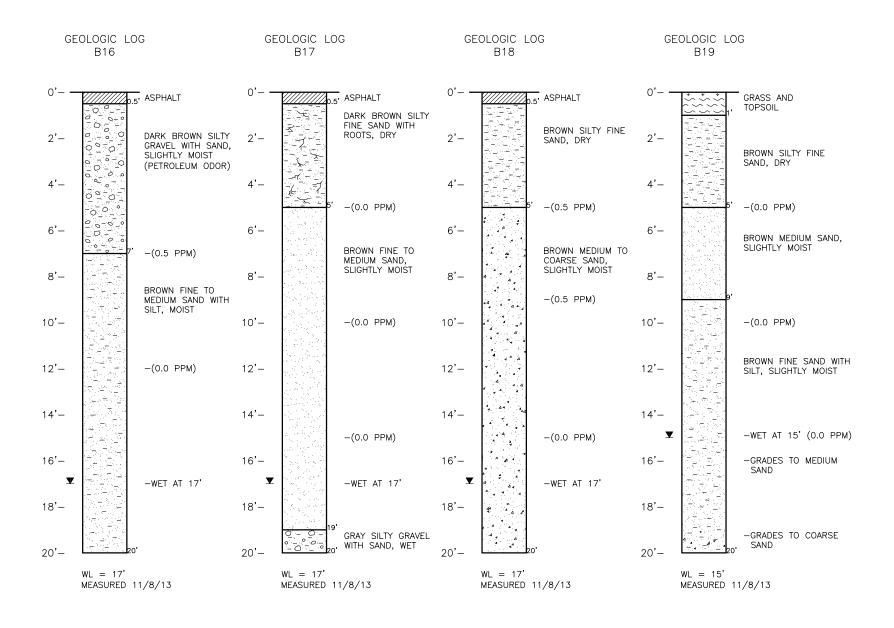
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Thurston County T 17 N/R 02 W - 21

Geologic Logs for Direct-Push Boreholes B11 through B15

Confederated Tribes of the Chehalis Reservation: RestoverTruck Stop/Phase I & II ESA





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Thurston County T 17 N/R 02 W - 21 Figure 6D Geologic Logs for Direct-Push Boreholes B16 through B19

Confederated Tribes of the Chehalis Reservation: RestoverTruck Stop/Phase I & II ESA





# Libby Environmental, Inc.

4139 Libby Road NE • Olympia, WA 98506-2518

November 11, 2013

John Hildenbrand Robinson Noble 3011 Huson Street South Suite A Tacoma, WA 98409

Dear Mr. Hildenbrand:

Please find enclosed the analytical data report for the Restover Project located in Olympia, Washington. Soil and water samples were analyzed for Volatile Organic Compounds by EPA Method 8260C, Gasoline by NWTPH-Gx, and Diesel & Oil by NWTPH-Dx/Dx Extended on November 7, 2013.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. All soil samples are reported on a dry weight basis. An invoice for this analytical work is enclosed.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Jamie L. Deyman

President

Libby Environmental, Inc.

## Libby Environmental, Inc.

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131107-10 Client Project # 2214-020A 4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

#### Volatile Organic Compounds by EPA Method 8260C in Soil

Sample Description		Method	B1-7	B1-16	B3-16	B2-12	B2-12 Dup
•		Blank					-
Date Sampled	Reporting	N/A	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13
Date Analyzed	Limits	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13
•	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Dichlorodifluoromethane	0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Chloromethane	0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Vinyl chloride	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Bromomethane	0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Chloroethane	0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Trichlorofluoromethane	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloroethene	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methylene chloride	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Methyl tert-Butyl Ether (MTBE)	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
trans -1,2-Dichloroethene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,1-Dichloroethane	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
2,2-Dichloropropane	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
cis-1,2-Dichloroethene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Chloroform	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,1,1-Trichloroethane (TCA)	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Carbon tetrachloride	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,1-Dichloropropene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Benzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,2-Dichloroethane (EDC)	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Trichloroethene (TCE)	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,2-Dichloropropane	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Dibromomethane	0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Bromodichloromethane	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
cis-1,3-Dichloropropene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Toluene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Trans-1,3-Dichloropropene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,1,2-Trichloroethane	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Tetrachloroethene (PCE)	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,3-Dichloropropane	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,2-Dibromoethane (EDB) *	0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chlorobenzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,1,1,2-Tetrachloroethane	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Ethylbenzene	0.03	< 0.03	0.068	< 0.03	< 0.03	< 0.03	< 0.03
Total Xylenes	0.03	< 0.03	0.52	0.20	< 0.03	< 0.03	< 0.03
Styrene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02

## Libby Environmental, Inc.

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131107-10 Client Project # 2214-020A 4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

#### Volatile Organic Compounds by EPA Method 8260C in Soil

Sample Description		Method	B1-7	B1-16	B3-16	B2-12	B2-12 Dup
		Blank					
Date Sampled	Reporting	N/A	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13
Date Analyzed	Limits	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Bromoform	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Isopropylbenzene	0.08	< 0.08	< 0.08	0.071	< 0.08	< 0.08	< 0.08
1,2,3-Trichloropropane	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Bromobenzene	0.03	< 0.03	0.063	< 0.03	< 0.03	< 0.03	< 0.03
1,1,2,2-Tetrachloroethane	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
n-Propylbenzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
2-Chlorotoluene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
4-Chlorotoluene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,3,5-Trimethylbenzene	0.02	< 0.02	0.25	0.13	< 0.02	< 0.02	< 0.02
tert-Butylbenzene	0.02	< 0.02	0.13	< 0.02	< 0.02	< 0.02	< 0.02
1,2,4-Trimethylbenzene	0.02	< 0.02	0.93	0.48	< 0.02	< 0.02	< 0.02
sec-Butylbenzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,3-Dichlorobenzene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Isopropyltoluene	0.02	< 0.02	0.17	0.12	< 0.02	< 0.02	< 0.02
1,4-Dichlorobenzene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,2-Dichlorobenzene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
n-Butylbenzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,2-Dibromo-3-Chloropropane	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trichlorolbenzene	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachloro-1,3-butadiene	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Naphthalenes	0.05	< 0.05	0.053	0.13	< 0.05	< 0.05	< 0.05
1,2,3-Trichlorobenzene	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Surrogate Recovery							
Dibromofluoromethane		100	95	102	90	91	89
1,2-Dichloroethane-d4		92	87	66	77	82	84
Toluene-d8		100	99	112	88	99	97
4-Bromofluorobenzene		102	100	85	101	90	91

<sup>&</sup>quot;nd" Indicates not detected at listed detection limit

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%

ANALYSES PERFORMED BY: Paul Burke

<sup>&</sup>quot;int" Indicates that interference prevents determination

<sup>\*</sup> INSTRUMENT DETECTION LIMIT

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131107-10 Client Project # 2214-020A 4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

#### Volatile Organic Compounds by EPA Method 8260C in Soil

Comple Description		B4-10	B5-16	B6-16	B7-16	B9-8	
Sample Description		<b>D</b> 4-10	<b>D</b> 3-10	Б0-10	<b>D</b> /-10	D9-8	
Date Sampled	Reporting	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13	
Date Analyzed	Limits	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13	
2 400 1 22242 200	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
	· · · · · · · ·	( 0 0	<i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	× & & & &	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
Dichlorodifluoromethane	0.06	<6	< 0.06	< 0.06	< 0.06	< 0.06	
Chloromethane	0.06	<6	< 0.06	< 0.06	< 0.06	< 0.06	
Vinyl chloride	0.02	<2	< 0.02	< 0.02	< 0.02	< 0.02	
Bromomethane	0.09	<9	< 0.09	< 0.09	< 0.09	< 0.09	
Chloroethane	0.06	<6	< 0.06	< 0.06	< 0.06	< 0.06	
Trichlorofluoromethane	0.05	<5	< 0.05	< 0.05	< 0.05	< 0.05	
1,1-Dichloroethene	0.05	<5	< 0.05	< 0.05	< 0.05	< 0.05	
Methylene chloride	0.02	<2	< 0.02	< 0.02	< 0.02	< 0.02	
Methyl tert-Butyl Ether (MTBE)	0.05	<5	< 0.05	< 0.05	< 0.05	< 0.05	
trans -1,2-Dichloroethene	0.02	<2	< 0.02	< 0.02	< 0.02	< 0.02	
1,1-Dichloroethane	0.03	<3	< 0.03	< 0.03	< 0.03	< 0.03	
2,2-Dichloropropane	0.05	<5	< 0.05	< 0.05	< 0.05	< 0.05	
cis-1,2-Dichloroethene	0.02	<2	< 0.02	< 0.02	< 0.02	< 0.02	
Chloroform	0.02	<2	< 0.02	< 0.02	< 0.02	< 0.02	
1,1,1-Trichloroethane (TCA)	0.02	<2	< 0.02	< 0.02	< 0.02	< 0.02	
Carbon tetrachloride	0.03	<3	< 0.03	< 0.03	< 0.03	< 0.03	
1,1-Dichloropropene	0.02	<2	< 0.02	< 0.02	< 0.02	< 0.02	
Benzene	0.02	16.2	< 0.02	< 0.02	< 0.02	< 0.02	
1,2-Dichloroethane (EDC)	0.03	<3	< 0.03	< 0.03	< 0.03	< 0.03	
Trichloroethene (TCE)	0.03	<3	< 0.03	< 0.03	< 0.03	< 0.03	
1,2-Dichloropropane	0.02	<2	< 0.02	< 0.02	< 0.02	< 0.02	
Dibromomethane	0.04	<4	< 0.04	< 0.04	< 0.04	< 0.04	
Bromodichloromethane	0.02	<2	< 0.02	< 0.02	< 0.02	< 0.02	
cis-1,3-Dichloropropene	0.02	<2	< 0.02	< 0.02	< 0.02	< 0.02	
Toluene	0.03	237	< 0.03	< 0.03	< 0.03	< 0.03	
Trans-1,3-Dichloropropene	0.03	<3	< 0.03	< 0.03	< 0.03	< 0.03	
1,1,2-Trichloroethane	0.03	<3	< 0.03	< 0.03	< 0.03	< 0.03	
Tetrachloroethene (PCE)	0.02	<2	< 0.02	< 0.02	< 0.02	< 0.02	
1,3-Dichloropropane	0.05	<5	< 0.05	< 0.05	< 0.05	< 0.05	
Dibromochloromethane	0.03	<3	< 0.03	< 0.03	< 0.03	< 0.03	
1,2-Dibromoethane (EDB) *	0.005	< 0.5	< 0.005	< 0.005	< 0.005	< 0.005	
Chlorobenzene	0.02	<2	< 0.02	< 0.02	< 0.02	< 0.02	
1,1,1,2-Tetrachloroethane	0.03	<3	< 0.03	< 0.03	< 0.03	< 0.03	
Ethylbenzene	0.03	468	< 0.03	< 0.03	< 0.03	< 0.03	
Total Xylenes	0.03	2730	< 0.03	< 0.03	< 0.03	< 0.03	
Styrene	0.02	<2	< 0.02	< 0.02	< 0.02	< 0.02	

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131107-10 Client Project # 2214-020A 4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

#### Volatile Organic Compounds by EPA Method 8260C in Soil

Sample Description		B4-10	B5-16	B6-16	B7-16	B9-8	
Date Sampled	Reporting	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13	
Date Analyzed	Limits	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13	
Date Analyzed	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	
	(mg/kg)	(IIIg/Rg)	(IIIg/Rg)	(IIIg/Rg)	(IIIg/Rg)	(IIIg/Kg)	
Bromoform	0.03	<3	< 0.03	< 0.03	< 0.03	< 0.03	
Isopropylbenzene	0.08	33.9	< 0.08	< 0.08	< 0.08	< 0.08	
1,2,3-Trichloropropane	0.03	<3	< 0.03	< 0.03	< 0.03	< 0.03	
Bromobenzene	0.03	<3	< 0.03	< 0.03	< 0.03	< 0.03	
1,1,2,2-Tetrachloroethane	0.03	<3	< 0.03	< 0.03	< 0.03	< 0.03	
n-Propylbenzene	0.02	171	< 0.02	< 0.02	< 0.02	< 0.02	
2-Chlorotoluene	0.02	<2	< 0.02	< 0.02	< 0.02	< 0.02	
4-Chlorotoluene	0.02	<2	< 0.02	< 0.02	< 0.02	< 0.02	
1,3,5-Trimethylbenzene	0.02	378	< 0.02	< 0.02	< 0.02	< 0.02	
tert-Butylbenzene	0.02	178	< 0.02	< 0.02	< 0.02	< 0.02	
1,2,4-Trimethylbenzene	0.02	1230	< 0.02	< 0.02	< 0.02	< 0.02	
sec-Butylbenzene	0.02	15.8	< 0.02	< 0.02	< 0.02	< 0.02	
1,3-Dichlorobenzene	0.03	<3	< 0.03	< 0.03	< 0.03	< 0.03	
Isopropyltoluene	0.02	12.7	< 0.02	< 0.02	< 0.02	< 0.02	
1,4-Dichlorobenzene	0.03	<3	< 0.03	< 0.03	< 0.03	< 0.03	
1,2-Dichlorobenzene	0.03	<3	< 0.03	< 0.03	< 0.03	< 0.03	
n-Butylbenzene	0.02	<2	< 0.02	< 0.02	< 0.02	< 0.02	
1,2-Dibromo-3-Chloropropane	0.05	<5	< 0.05	< 0.05	< 0.05	< 0.05	
1,2,4-Trichlorolbenzene	0.05	<5	< 0.05	< 0.05	< 0.05	< 0.05	
Hexachloro-1,3-butadiene	0.10	<10	< 0.10	< 0.10	< 0.10	< 0.10	
Naphthalenes	0.05	187	< 0.05	0.17	< 0.05	< 0.05	
1,2,3-Trichlorobenzene	0.10	<10	< 0.10	< 0.10	< 0.10	< 0.10	
Surrogate Recovery							
Dibromofluoromethane		103	91	91	89	92	
1,2-Dichloroethane-d4		87	86	87	81	82	
Toluene-d8		103	99	98	86	97	
4-Bromofluorobenzene		95	87	100	100	98	

<sup>&</sup>quot;nd" Indicates not detected at listed detection limit

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination

Sample B4-10 was diluted into calibration range which raises the reporting limits accordingly

<sup>\*</sup> INSTRUMENT DETECTION LIMIT

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#### QA/QC Data - EPA 8260C Analyses

Sample Identification: B3-16							
		Matrix Spike	;	Matı	ix Spike Dup	licate	RPD
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	
1,1-Dichloroethene	0.50	0.45	90	0.50	0.47	94	4.3
Benzene	0.50	0.63	126	0.50	0.63	126	0.3
Toluene	0.50	0.61	122	0.50	0.61	122	0.0
Chlorobenzene	0.50	0.64	128	0.50	0.64	128	0.0
Trichloroethene (TCE)	0.50	0.56	112	0.50	0.56	112	0.0
Surrogate Recovery							
Dibromofluoromethane			98			113	
1,2-Dichloroethane-d4			87			106	
Toluene-d8		98			120		
4-Bromofluorobenzene			95			124	

	Laboratory Control Sample					
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)			
1,1-Dichloroethene Benzene Toluene Chlorobenzene Trichloroethene (TCE)	0.50 0.50 0.50 0.50 0.50	0.47 0.54 0.53 0.54 0.50	94 108 106 108 100			
Surrogate Recovery						
Dibromofluoromethane			100			
1,2-Dichloroethane-d4			88			
Toluene-d8			99			
4-Bromofluorobenzene			91			

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135% ACCEPTABLE RPD IS 35%

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#### Volatile Organic Compounds by EPA Method 8260C in Water

Sample Description		Method	B1-W	B1-W Dup	B3-W	B2-W	B4-W
Date Sampled	Danartina	Blank N/A	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13
Date Analyzed	Reporting Limits	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13
Date Analyzed	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	(μg/l)	$(\mu g/l)$
	(μg/1)	(μg/1)	(μg/1)	(μg/1)	(μg/1)	(μg/1)	(μg/1)
Dichlorodifluoromethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	<2.0	< 2.0
Chloromethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl chloride	0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromomethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,1-Dichloroethene	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methylene chloride	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl tert- Butyl Ether (MTBE)	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
trans -1,2-Dichloroethene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
cis-1,2-Dichloroethene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane (TCA)	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon tetrachloride	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloropropene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzene	1.0	<1.0	4.7	4.3	<1.0	<1.0	18
1,2-Dichloroethane (EDC)	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene (TCE)	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromomethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1.0	<1.0	2.1	1.9	<1.0	<1.0	<1.0
Trans-1,3-Dichloropropene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene (PCE)	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichloropropane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane (EDB) *	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chlorobenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	1.0	<1.0	91	86	<1.0	<1.0	4.7
Total Xylenes	2.0	< 2.0	127	118	< 2.0	< 2.0	14
Styrene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

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#### Volatile Organic Compounds by EPA Method 8260C in Water

Sample Description		Method	B1-W	B1-W Dup	B3-W	B2-W	B4-W
-		Blank		_			
Date Sampled	Reporting	N/A	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13
Date Analyzed	Limits	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13	11/7/13
	$(\mu g/l)$						
Bromoform	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	4.0	<4.0	9.7	<4.0	<4.0	<4.0	1.3
1,2,3-Trichloropropane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromobenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-Propylbenzene	1.0	<1.0	25	23	<1.0	<1.0	1.0
2-Chlorotoluene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	1.0	<1.0	18	17	<1.0	<1.0	1.0
tert-Butylbenzene	1.0	<1.0	20	18	<1.0	<1.0	1.1
1,2,4-Trimethylbenzene	1.0	<1.0	135	127	<1.0	<1.0	7.2
sec-Butylbenzene	1.0	<1.0	2.7	2.4	<1.0	<1.0	<1.0
1,3-Dichlorobenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropyltoluene	1.0	<1.0	2.9	2.6	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-Butylbenzene	1.0	<1.0	6.4	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorolbenzene	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Hexachloro-1,3-butadiene	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Naphthalenes	5.0	< 5.0	15	13	< 5.0	< 5.0	1.7
1,2,3-Trichlorobenzene	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Surrogate Recovery							
Dibromofluoromethane		100	99	100	95	96	97
1,2-Dichloroethane-d4		92	88	85	84	85	80
Toluene-d8		100	98	99	96	99	99
4-Bromofluorobenzene		102	96	103	101	94	95

<sup>&</sup>quot;nd" Indicates not detected at listed detection limit

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination

<sup>\*</sup> INSTRUMENT DETECTION LIMIT

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131107-10 Client Project # 2214-020A 4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

#### Volatile Organic Compounds by EPA Method 8260C in Water

Sample Description		B5-W	B6-W	B7-W	B9-W	
Date Sampled	Reporting	11/7/13	11/7/13	11/7/13	11/7/13	
Date Analyzed	Limits	11/7/13	11/7/13	11/7/13	11/7/13	
2 400 1 111411 2001	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	
	, <u>, , , , , , , , , , , , , , , , , , </u>	, ,	<u>, , , , , , , , , , , , , , , , , , , </u>	, , ,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Dichlorodifluoromethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Chloromethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Vinyl chloride	0.2	< 0.2	< 0.2	< 0.2	< 0.2	
Bromomethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Chloroethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Trichlorofluoromethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	
1,1-Dichloroethene	2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Methylene chloride	1.0	<1.0	<1.0	<1.0	<1.0	
Methyl tert- Butyl Ether (MTBE)	5.0	< 5.0	< 5.0	< 5.0	< 5.0	
trans -1,2-Dichloroethene	1.0	<1.0	<1.0	<1.0	<1.0	
1,1-Dichloroethane	1.0	<1.0	<1.0	<1.0	<1.0	
2,2-Dichloropropane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	
cis-1,2-Dichloroethene	1.0	<1.0	<1.0	<1.0	<1.0	
Chloroform	1.0	<1.0	5.9	<1.0	<1.0	
1,1,1-Trichloroethane (TCA)	1.0	<1.0	<1.0	<1.0	<1.0	
Carbon tetrachloride	1.0	<1.0	<1.0	<1.0	<1.0	
1,1-Dichloropropene	1.0	<1.0	<1.0	<1.0	<1.0	
Benzene	1.0	<1.0	1.1	<1.0	<1.0	
1,2-Dichloroethane (EDC)	1.0	<1.0	<1.0	<1.0	<1.0	
Trichloroethene (TCE)	1.0	<1.0	<1.0	<1.0	<1.0	
1,2-Dichloropropane	1.0	<1.0	<1.0	< 1.0	< 1.0	
Dibromomethane	1.0	<1.0	<1.0	<1.0	<1.0	
Bromodichloromethane	1.0	<1.0	<1.0	< 1.0	< 1.0	
cis-1,3-Dichloropropene	1.0	<1.0	<1.0	<1.0	<1.0	
Toluene	1.0	<1.0	<1.0	<1.0	1.0	
Trans-1,3-Dichloropropene	1.0	<1.0	<1.0	<1.0	<1.0	
1,1,2-Trichloroethane	1.0	<1.0	<1.0	< 1.0	< 1.0	
Tetrachloroethene (PCE)	1.0	<1.0	<1.0	<1.0	<1.0	
1,3-Dichloropropane	1.0	<1.0	<1.0	<1.0	<1.0	
Dibromochloromethane	1.0	<1.0	<1.0	<1.0	<1.0	
1,2-Dibromoethane (EDB) *	0.01	< 0.01	< 0.01	< 0.01	< 0.01	
Chlorobenzene	1.0	<1.0	<1.0	<1.0	<1.0	
1,1,1,2-Tetrachloroethane	1.0	<1.0	<1.0	<1.0	<1.0	
Ethylbenzene	1.0	<1.0	<1.0	<1.0	2.4	
Total Xylenes	2.0	3.3	< 2.0	0.15	15.7	
Styrene	1.0	<1.0	<1.0	<1.0	<1.0	

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131107-10 Client Project # 2214-020A 4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

#### Volatile Organic Compounds by EPA Method 8260C in Water

Sample Description		B5-W	B6-W	B7-W	B9-W	
		11/5/10	11/5/10	11/5/10	11/5/10	
Date Sampled	Reporting	11/7/13	11/7/13	11/7/13	11/7/13	
Date Analyzed	Limits	11/7/13	11/7/13	11/7/13	11/7/13	
	(µg/l)	(µg/l)	(µg/l)	(µg/l)	(µg/l)	
Bromoform	1.0	<1.0	<1.0	<1.0	<1.0	
Isopropylbenzene	4.0	<4.0	<4.0	<4.0	<4.0	
1,2,3-Trichloropropane	1.0	<1.0	<1.0	<1.0	<1.0	
Bromobenzene	1.0	<1.0	<1.0	<1.0	<1.0	
1,1,2,2-Tetrachloroethane	1.0	<1.0	<1.0	<1.0	<1.0	
n-Propylbenzene	1.0	<1.0	<1.0	<1.0	1.3	
2-Chlorotoluene	1.0	<1.0	<1.0	<1.0	<1.0	
4-Chlorotoluene	1.0	<1.0	<1.0	<1.0	<1.0	
1,3,5-Trimethylbenzene	1.0	<1.0	<1.0	<1.0	2.8	
tert-Butylbenzene	1.0	<1.0	<1.0	<1.0	<1.0	
1,2,4-Trimethylbenzene	1.0	1.3	1.0	<1.0	8.5	
sec-Butylbenzene	1.0	<1.0	3.6	<1.0	1.6	
1,3-Dichlorobenzene	1.0	<1.0	<1.0	<1.0	<1.0	
Isopropyltoluene	1.0	<1.0	<1.0	<1.0	<1.0	
1,4-Dichlorobenzene	1.0	<1.0	<1.0	<1.0	<1.0	
1,2-Dichlorobenzene	1.0	<1.0	<1.0	<1.0	<1.0	
n-Butylbenzene	1.0	<1.0	3.5	<1.0	<1.0	
1,2-Dibromo-3-Chloropropane	1.0	<1.0	<1.0	<1.0	<1.0	
1,2,4-Trichlorolbenzene	2.0	< 2.0	< 2.0	< 2.0	< 2.0	
Hexachloro-1,3-butadiene	5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Naphthalenes	5.0	< 5.0	< 5.0	< 5.0	1.2	
1,2,3-Trichlorobenzene	5.0	< 5.0	< 5.0	< 5.0	< 5.0	
Surrogate Recovery						
Dibromofluoromethane		95	91	96	95	
1,2-Dichloroethane-d4		83	67	81	72	
Toluene-d8		98	103	90	95	
4-Bromofluorobenzene		96	90	98	103	

<sup>&</sup>quot;nd" Indicates not detected at listed detection limit

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination

<sup>\*</sup> INSTRUMENT DETECTION LIMIT

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#### QA/QC Data - EPA 8260C Analyses

Sample Identification: B3-W							
		Matrix Spike			rix Spike Dup	licate	RPD
	Spiked Conc. (µg/l)	Measured Conc. (μg/l)	Spike Recovery (%)	Spiked Conc. (µg/l)	Measured Conc. (μg/l)	Spike Recovery (%)	(%)
1,1-Dichloroethene	10	7.2	72	10	7.8	78	8.0
Benzene	10	10.0	100	10	10.3	103	3.0
Toluene	10	9.6	96	10	10.0	100	4.1
Chlorobenzene	10	10.0	100	10	10.8	108	7.7
Trichloroethene (TCE)	10	9.1	91	10	9.4	94	3.2
Surrogate Recovery							
Dibromofluoromethane			96			96	
1,2-Dichloroethane-d4		84 85					
Toluene-d8			99			99	
4-Bromofluorobenzene			93			97	

	Laboratory Control Sample						
	Spiked Conc. (µg/l)	Measured Conc. (µg/l)	Spike Recovery (%)				
1,1-Dichloroethene Benzene Toluene Chlorobenzene Trichloroethene (TCE)	10 10 10 10 10	9.5 10.9 10.6 10.7 9.9	95 109 106 107 99				
Surrogate Recovery							
Dibromofluoromethane			100				
1,2-Dichloroethane-d4			88				
Toluene-d8			99				
4-Bromofluorobenzene			91				

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135% ACCEPTABLE RPD IS 35%

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RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131107-10 Client Project # 2214-020A

### Analyses of Gasoline (NWTPH-Gx) in Soil

Sample	Date	Surrogate	Gasoline
Number	Analyzed	Recovery (%)	(mg/kg)
Method Blank	11/7/13	100	<10
B1-7	11/7/13	99	29
B1-16	11/7/13	112	135
B3-16	11/7/13	88	<10
B2-12	11/7/13	99	<10
B2-12 Dup	11/7/13	97	<10
B4-10	11/7/13	103	42500 E
B5-16	11/7/13	99	<10
B6-16	11/7/13	98	<10
B7-16	11/7/13	86	<10
B9-8	11/7/13	97	<10
Practical Quantitation Limit			10

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Toluene-d8): 65% TO 135%

<sup>&</sup>quot;E" Indicates that the reported result is an estimate because it exceeds the calibration range "int" Indicates that interference prevents determination

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RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131107-10 Client Project # 2214-020A

### Analyses of Gasoline (NWTPH-Gx) in Water

Sample	Date	Surrogate	Gasoline
Number	Analyzed	Recovery (%)	$(\mu g/l)$
Method Blank	11/7/13	100	<100
B1-W	11/7/13	98	3230
B1-W Dup	11/7/13	99	3080
B3-W	11/7/13	96	<100
B2-W	11/7/13	99	<100
B4-W	11/7/13	99	538
B5-W	11/7/13	98	<100
B6-W	11/7/13	103	1023
B7-W	11/7/13	90	<100
B9-W	11/7/13	95	358
Practical Quantitation Limit			100

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Toluene-d8): 65% TO 135%

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RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131107-10 Client Project # 2214-020A

### Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Soil

Sample	Date	Surrogate	Diesel	Oil
Number	Analyzed	Recovery (%)	(mg/kg)	(mg/kg)
Method Blank	11/7/13	97	<25	<40
B1-7	11/7/13	93	<25	<40
B1-7 Dup	11/7/13	90	<25	<40
B1-16	11/7/13	92	<25	<40
B3-16	11/7/13	97	<25	<40
B2-12	11/7/13	84	<25	<40
B4-10	11/7/13	114	<25	<40
B5-16	11/7/13	82	<25	<40
B6-16	11/7/13	87	<25	<40
B7-16	11/7/13	83	<25	<40
B9-8	11/7/13	80	<25	<40
B9-8 Dup	11/7/13	83	<25	<40
Practical Quantitation Limit	i1		25	40

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination

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RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131107-10 Client Project # 2214-020A

### Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Water

Sample	Date	Surrogate	Diesel	Oil
Number	Analyzed	Recovery (%)	$(\mu g/l)$	$(\mu g/l)$
Method Blank	11/7/13	97	< 200	<400
B1-W	11/7/13	90	< 200	<400
B1-W Dup	11/7/13	90	< 200	<400
B3-W	11/7/13	98	< 200	< 400
B2-W	11/7/13	80	< 200	<400
B4-W	11/7/13	80	< 200	<400
B5-W	11/7/13	85	< 200	<400
B6-W	11/7/13	89	< 200	<400
B7-W	11/7/13	83	< 200	<400
B9-W	11/7/13	89	< 200	< 400
Practical Quantitation Lim	<b>i</b> 1		200	400

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination

Libby Environ	mental	, Inc.		Ch	ain	of C	usto	ody R	eco	rd			ww	w.LibbyEnviro	onmental.com
4139 Libby Road NE Olympia, WA 98506		360-352- 360-352-				Date	11	-2-1	3			Page:	1	of Z	
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City:		State:	Zij	o:		Loc	ation:						tate: 01	mpia	wa
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2 B1- WW	19	1015	H26	Amber		1		1	1						
3 B1-16'	160	1010		VOA/JOV									HOL	D 12U1	J
4 63-16	160	1115	Soil	2 UDA Lar											
5 83-8'	8	1120	Soil	2UOA/Jar	115								HOL	10	
6 B3-W		1/25		zwamber					1						
7 B2 - W		1205	water	2 VOA/Amber	1										
8 B2-16	10	1154	Soil	ZVOALJar									HO	40	
9 B2-12	12	1200	Soil	2 VOA Dar											
10 BU-10	10		Soil .	200A/Jar											
11 84-16	16			2 WA /Jar						7			HOL	-0	
12 B4-W			water	2 UOA/AMG	21										
13 B5-16	16	1410	50.1	2 VOA Lar											
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											mber of Co	ontainers	TAT:	24HR 48H	R 5-DAY
LEGAL ACTION CLAUSE: In the event of default	t of payment and/or fail	lury to pay, Client t	egrees to pay the co:	sts of collection including cour	costs and n	rasonable altor	ney fees to b	e determined by	a court of law.					hite - Lab, Yellow - I	

Libby Environ	mental	, Inc.		Ch	ain	of C	ust	ody F	geco	rd				www	.LibbyEn	ironmental.con
4139 Libby Road NE Olympia, WA 98506		360-352- 360-352-				Date	: 11	-7-	-13			Pa	ge:	2	of	2
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3 87-8	8	1520	Soil	2VOA/Jar			1				14.7	11/11/1		HOL	-1)	
4 B7-W	1	1530	water	2 VOA/Amber		14		-		-3						
5 B9-W		1620	twater	200A/Amles	1									7 -		
6 B9-8	8		soil	2VOA/Jar		11,				1						
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4139 Libby Road NE • Olympia, WA 98506-2518

November 11, 2013

John Hildenbrand Robinson Noble 3011 Huson Street South Suite A Tacoma, WA 98409

Dear Mr. Hildenbrand:

Please find enclosed the analytical data report for the Restover Project located in Olympia, Washington. Soil and water samples were analyzed for Volatile Organic Compounds by EPA Method 8260C, Gasoline by NWTPH-Gx, and Diesel & Oil by NWTPH-Dx/Dx Extended on November 8, 2013.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. All soil samples are reported on a dry weight basis. An invoice for this analytical work is enclosed.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Jamie L. Deyman

President

Libby Environmental, Inc.

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131108-10 Client Project # 2214-020A 4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

#### Volatile Organic Compounds by EPA Method 8260C in Soil

Sample Description		Method	B8-15	B8-15 Dup	B11-8	B19-8	B13-8
		Blank					
Date Sampled	Reporting	N/A	11/8/13	11/8/13	11/8/13	11/8/13	11/8/13
Date Analyzed	Limits	11/8/13	11/8/13	11/8/13	11/8/13	11/8/13	11/8/13
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Dichlorodifluoromethane	0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Chloromethane	0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Vinyl chloride	0.00	<0.00	< 0.00	< 0.00	< 0.00	< 0.00	< 0.00
Bromomethane	0.02	<0.02	< 0.02	< 0.02	< 0.02	< 0.02	<0.02
	0.09	<0.09	< 0.09	< 0.09	<0.09	< 0.09	<0.09
Chloroethane	0.05	< 0.05					
Trichlorofluoromethane	0.05	<0.05	< 0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05	<0.05 <0.05
1,1-Dichloroethene	0.03	<0.03	<0.05				
Methylene chloride Methyl <i>tert</i> - Butyl Ether (MTBE)			< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
trans -1,2-Dichloroethene	0.05	< 0.05	< 0.05	< 0.05	<0.05	<0.05	< 0.05
	0.02 0.03	<0.02 <0.03	<0.02 <0.03	<0.02	<0.02	<0.02	<0.02
1,1-Dichloroethane				< 0.03	< 0.03	< 0.03	< 0.03
2,2-Dichloropropane	0.05	< 0.05	< 0.05	< 0.05	<0.05	<0.05	< 0.05
cis -1,2-Dichloroethene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Chloroform	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,1,1-Trichloroethane (TCA)	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Carbon tetrachloride	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,1-Dichloropropene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Benzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,2-Dichloroethane (EDC)	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Trichloroethene (TCE)	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,2-Dichloropropane	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Dibromomethane	0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Bromodichloromethane	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
cis-1,3-Dichloropropene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Toluene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Trans-1,3-Dichloropropene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,1,2-Trichloroethane	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Tetrachloroethene (PCE)	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,3-Dichloropropane	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,2-Dibromoethane (EDB) *	0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chlorobenzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,1,1,2-Tetrachloroethane	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Ethylbenzene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Total Xylenes	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Styrene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02

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#### Volatile Organic Compounds by EPA Method 8260C in Soil

Sample Description		Method	B8-15	B8-15 Dup	B11-8	B19-8	B13-8
		Blank					
Date Sampled	Reporting	N/A	11/8/13	11/8/13	11/8/13	11/8/13	11/8/13
Date Analyzed	Limits	11/8/13	11/8/13	11/8/13	11/8/13	11/8/13	11/8/13
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Bromoform	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Isopropylbenzene	0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
1,2,3-Trichloropropane	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Bromobenzene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,1,2,2-Tetrachloroethane	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
n-Propylbenzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
2-Chlorotoluene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
4-Chlorotoluene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,3,5-Trimethylbenzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
tert-Butylbenzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,2,4-Trimethylbenzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
sec-Butylbenzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,3-Dichlorobenzene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Isopropyltoluene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,4-Dichlorobenzene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,2-Dichlorobenzene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
n-Butylbenzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,2-Dibromo-3-Chloropropane	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trichlorolbenzene	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachloro-1,3-butadiene	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Naphthalenes	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,3-Trichlorobenzene	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Surrogate Recovery							
Dibromofluoromethane		98	89	101	92	92	89
1,2-Dichloroethane-d4		90	76	67	86	84	81
Toluene-d8		100	97	121	98	98	85
4-Bromofluorobenzene		87	100	89	101	101	101

<sup>&</sup>quot;nd" Indicates not detected at listed detection limit

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination

<sup>\*</sup> INSTRUMENT DETECTION LIMIT

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#### Volatile Organic Compounds by EPA Method 8260C in Soil

Sample Description		B12-16
		44.6.44
Date Sampled	Reporting	11/8/13
Date Analyzed	Limits	11/8/13
	(mg/kg)	(mg/kg)
Dichlorodifluoromethane	0.06	< 0.06
Chloromethane	0.06	< 0.06
Vinyl chloride	0.02	< 0.02
Bromomethane	0.09	< 0.09
Chloroethane	0.06	< 0.06
Trichlorofluoromethane	0.05	< 0.05
1,1-Dichloroethene	0.05	< 0.05
Methylene chloride	0.02	< 0.02
Methyl tert- Butyl Ether (MTBE)	0.05	< 0.05
trans -1,2-Dichloroethene	0.02	< 0.02
1,1-Dichloroethane	0.03	< 0.03
2,2-Dichloropropane	0.05	< 0.05
cis-1,2-Dichloroethene	0.02	< 0.02
Chloroform	0.02	< 0.02
1,1,1-Trichloroethane (TCA)	0.02	< 0.02
Carbon tetrachloride	0.03	< 0.03
1,1-Dichloropropene	0.02	< 0.02
Benzene	0.02	< 0.02
1,2-Dichloroethane (EDC)	0.03	< 0.03
Trichloroethene (TCE)	0.03	< 0.03
1,2-Dichloropropane	0.02	< 0.02
Dibromomethane	0.04	< 0.04
Bromodichloromethane	0.02	< 0.02
cis-1,3-Dichloropropene	0.02	< 0.02
Toluene	0.03	< 0.03
Trans-1,3-Dichloropropene	0.03	< 0.03
1,1,2-Trichloroethane	0.03	< 0.03
Tetrachloroethene (PCE)	0.03	< 0.03
1,3-Dichloropropane	0.02	< 0.02
	0.03	< 0.03
Dibromochloromethane		
1,2-Dibromoethane (EDB) *	0.005	< 0.005
Chlorobenzene	0.02	< 0.02
1,1,1,2-Tetrachloroethane	0.03	< 0.03
Ethylbenzene	0.03	< 0.03
Total Xylenes	0.03	< 0.03
Styrene	0.02	< 0.02

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#### Volatile Organic Compounds by EPA Method 8260C in Soil

Sample Description		B12-16
Date Sampled	Reporting	11/8/13
Date Analyzed	Limits	11/8/13
Date I mary Zee	(mg/kg)	(mg/kg)
Bromoform	0.03	< 0.03
Isopropylbenzene	0.08	< 0.08
1,2,3-Trichloropropane	0.03	< 0.03
Bromobenzene	0.03	< 0.03
1,1,2,2-Tetrachloroethane	0.03	< 0.03
n-Propylbenzene	0.02	< 0.02
2-Chlorotoluene	0.02	< 0.02
4-Chlorotoluene	0.02	< 0.02
1,3,5-Trimethylbenzene	0.02	< 0.02
tert-Butylbenzene	0.02	< 0.02
1,2,4-Trimethylbenzene	0.02	< 0.02
sec-Butylbenzene	0.02	< 0.02
1,3-Dichlorobenzene	0.03	< 0.03
Isopropyltoluene	0.02	< 0.02
1,4-Dichlorobenzene	0.03	< 0.03
1,2-Dichlorobenzene	0.03	< 0.03
n-Butylbenzene	0.02	< 0.02
1,2-Dibromo-3-Chloropropane	0.05	< 0.05
1,2,4-Trichlorolbenzene	0.05	< 0.05
Hexachloro-1,3-butadiene	0.10	< 0.10
Naphthalenes	0.05	< 0.05
1,2,3-Trichlorobenzene	0.10	< 0.10
Surrogate Recovery		
Dibromofluoromethane		93
1,2-Dichloroethane-d4		87
Toluene-d8		100
4-Bromofluorobenzene		102

<sup>&</sup>quot;nd" Indicates not detected at listed detection limit

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination

<sup>\*</sup> INSTRUMENT DETECTION LIMIT

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#### QA/QC Data - EPA 8260C Analyses

		Sample Id	lentification:	B12-16			
		Matrix Spike	;	Matı	RPD		
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	
1,1-Dichloroethene	0.50	0.37	74	0.50	0.37	74	0.0
Benzene	0.50	0.52	104	0.50	0.55	110	5.6
Toluene	0.50	0.50	100	0.50	0.50	100	0.0
Chlorobenzene	0.50	0.53	106	0.50	0.55	110	3.7
Trichloroethene (TCE)	0.50	0.46	92	0.50	0.49	98	6.3
Surrogate Recovery							
Dibromofluoromethane			91			85	
1,2-Dichloroethane-d4			85			66	
Toluene-d8			98			96	
4-Bromofluorobenzene			98			86	

	Laboratory (	Control Samp	le
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)
1,1-Dichloroethene Benzene Toluene Chlorobenzene Trichloroethene (TCE)	0.50 0.50 0.50 0.50 0.50	0.39 0.47 0.48 0.48 0.43	78 94 96 96 86
Surrogate Recovery			
Dibromofluoromethane			98
1,2-Dichloroethane-d4			84
Toluene-d8			99
4-Bromofluorobenzene			86

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135% ACCEPTABLE RPD IS 35%

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#### Volatile Organic Compounds by EPA Method 8260C in Water

Sample Description		Method	B8-W	B8-W Dup	B11-W	B19-W	B13-W
Sample Description		Blank	20 11	Bo W Bup	D11 **	21, ,,	213 ((
Date Sampled	Reporting	N/A	11/8/13	11/8/13	11/8/13	11/8/13	11/8/13
Date Analyzed	Limits	11/8/13	11/8/13	11/8/13	11/8/13	11/8/13	11/8/13
,	(μg/l)	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$
	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	(10)	, C /	( U )	(10)	, , , , , , , , , , , , , , , , , , ,
Dichlorodifluoromethane	2.0	<2	<2	<2	<2	<2	<2
Chloromethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl chloride	0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromomethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,1-Dichloroethene	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methylene chloride	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl tert- Butyl Ether (MTBE)	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
trans -1,2-Dichloroethene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
cis-1,2-Dichloroethene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane (TCA)	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbon tetrachloride	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloropropene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Benzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane (EDC)	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene (TCE)	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromomethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1.0	<1.0	1.4	1.6	<1.0	<1.0	<1.0
Trans-1,3-Dichloropropene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene (PCE)	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichloropropane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane (EDB) *	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chlorobenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	1.0	<1.0	12.6	13.9	<1.0	<1.0	8.8
Total Xylenes	2.0	< 2.0	3.1	3.2	< 2.0	< 2.0	42
Styrene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

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#### Volatile Organic Compounds by EPA Method 8260C in Water

Sample Description		Method	B8-W	B8-W Dup	B11-W	B19-W	B13-W
-		Blank		_			
Date Sampled	Reporting	N/A	11/8/13	11/8/13	11/8/13	11/8/13	11/8/13
Date Analyzed	Limits	11/8/13	11/8/13	11/8/13	11/8/13	11/8/13	11/8/13
	$(\mu g/l)$						
Bromoform	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	4.0	<4.0	1.6	1.9	<4.0	<4.0	2.3
1,2,3-Trichloropropane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromobenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-Propylbenzene	1.0	<1.0	4.7	5.2	<1.0	<1.0	3.8
2-Chlorotoluene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	1.0	<1.0	2.8	2.9	<1.0	<1.0	20
tert-Butylbenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	8.6
1,2,4-Trimethylbenzene	1.0	<1.0	1.5	1.6	<1.0	<1.0	60.0
sec-Butylbenzene	1.0	<1.0	1.8	2.0	<1.0	<1.0	1.2
1,3-Dichlorobenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropyltoluene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-Butylbenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorolbenzene	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Hexachloro-1,3-butadiene	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Naphthalenes	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	2.7
1,2,3-Trichlorobenzene	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Surrogate Recovery							
Dibromofluoromethane		98	94	95	92	96	97
1,2-Dichloroethane-d4		90	79	79	77	70	79
Toluene-d8		100	97	100	98	106	102
4-Bromofluorobenzene		87	103	103	86	87	103

<sup>&</sup>quot;nd" Indicates not detected at listed detection limit

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination

<sup>\*</sup> INSTRUMENT DETECTION LIMIT

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#### Volatile Organic Compounds by EPA Method 8260C in Water

Carrata Danadad		D10 W
Sample Description		B12-W
Date Sampled	Reporting	11/8/13
Date Analyzed	Limits	11/8/13
Date Analyzed	Limits (μg/l)	$(\mu g/l)$
-	(μg/1)	(μg/1)
Dichlorodifluoromethane	2.0	<2
Chloromethane	2.0	< 2.0
Vinyl chloride	0.2	< 0.2
Bromomethane	2.0	< 2.0
Chloroethane	2.0	< 2.0
Trichlorofluoromethane	2.0	< 2.0
1,1-Dichloroethene	2.0	< 2.0
Methylene chloride	1.0	<1.0
Methyl tert- Butyl Ether (MTBE)	5.0	< 5.0
trans -1,2-Dichloroethene	1.0	<1.0
1,1-Dichloroethane	1.0	<1.0
2,2-Dichloropropane	2.0	< 2.0
cis-1,2-Dichloroethene	1.0	<1.0
Chloroform	1.0	<1.0
1,1,1-Trichloroethane (TCA)	1.0	<1.0
Carbon tetrachloride	1.0	<1.0
1,1-Dichloropropene	1.0	<1.0
Benzene	1.0	<1.0
1,2-Dichloroethane (EDC)	1.0	<1.0
Trichloroethene (TCE)	1.0	<1.0
1,2-Dichloropropane	1.0	<1.0
Dibromomethane	1.0	<1.0
Bromodichloromethane	1.0	<1.0
cis-1,3-Dichloropropene	1.0	<1.0
Toluene	1.0	<1.0
Trans-1,3-Dichloropropene	1.0	<1.0
1,1,2-Trichloroethane	1.0	<1.0
Tetrachloroethene (PCE)	1.0	<1.0
1,3-Dichloropropane	1.0	<1.0
Dibromochloromethane	1.0	<1.0
1,2-Dibromoethane (EDB) *	0.01	< 0.01
Chlorobenzene	1.0	<1.0
1,1,1,2-Tetrachloroethane	1.0	<1.0
Ethylbenzene	1.0	<1.0
Total Xylenes	2.0	<2.0
•	1.0	<2.0 <1.0
Styrene	1.0	<1.0

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131108-10 Client Project # 2214-020A 4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

#### Volatile Organic Compounds by EPA Method 8260C in Water

Sample Description		B12-W
Date Sampled	Reporting	11/8/13
Date Analyzed	Limits	11/8/13
	(μg/l)	(μg/l)
Bromoform	1.0	<1.0
Isopropylbenzene	4.0	<4.0
1,2,3-Trichloropropane	1.0	<1.0
Bromobenzene	1.0	<1.0
1,1,2,2-Tetrachloroethane	1.0	<1.0
n-Propylbenzene	1.0	<1.0
2-Chlorotoluene	1.0	<1.0
4-Chlorotoluene	1.0	<1.0
1,3,5-Trimethylbenzene	1.0	<1.0
tert-Butylbenzene	1.0	<1.0
1,2,4-Trimethylbenzene	1.0	<1.0
sec-Butylbenzene	1.0	<1.0
1,3-Dichlorobenzene	1.0	<1.0
Isopropyltoluene	1.0	<1.0
1,4-Dichlorobenzene	1.0	<1.0
1,2-Dichlorobenzene	1.0	<1.0
n-Butylbenzene	1.0	<1.0
1,2-Dibromo-3-Chloropropane	1.0	<1.0
1,2,4-Trichlorolbenzene	2.0	< 2.0
Hexachloro-1,3-butadiene	5.0	< 5.0
Naphthalenes	5.0	< 5.0
1,2,3-Trichlorobenzene	5.0	< 5.0
Surrogate Recovery		
Dibromofluoromethane		95
1,2-Dichloroethane-d4		83
Toluene-d8		99
4-Bromofluorobenzene		100

<sup>&</sup>quot;nd" Indicates not detected at listed detection limit

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination

<sup>\*</sup> INSTRUMENT DETECTION LIMIT

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#### QA/QC Data - EPA 8260C Analyses

		Sample Ide	entification:	B12-W			
		Matrix Spike	;	Mat	rix Spike Dup	licate	RPD
	Spiked Conc. (µg/l)	Measured Conc. (μg/l)	Spike Recovery (%)	Spiked Conc. (µg/l)	Measured Conc. (μg/l)	Spike Recovery (%)	
1,1-Dichloroethene	10	7.6	76	10	8.6	86	12.3
Benzene	10	10.8	108	10	11.0	110	1.8
Toluene	10	10.5	105	10	10.5	105	0.0
Chlorobenzene	10	11.0	110	10	11.4	114	3.6
Trichloroethene (TCE)	10	9.8	98	10	10.0	100	2.0
Surrogate Recovery							
Dibromofluoromethane			96			97	
1,2-Dichloroethane-d4			86			84	
Toluene-d8			99			98	
4-Bromofluorobenzene			87			96	

	Laboratory	Control Samp	le
	Spiked Conc. (µg/l)	Measured Conc. (μg/l)	Spike Recovery (%)
1,1-Dichloroethene Benzene Toluene Chlorobenzene Trichloroethene (TCE)	10 10 10 10 10	7.8 9.4 9.6 9.6 8.7	78 94 96 96 87
Surrogate Recovery			
Dibromofluoromethane			98
1,2-Dichloroethane-d4			84
Toluene-d8			99
4-Bromofluorobenzene			86

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135% ACCEPTABLE RPD IS 35%

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RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131108-10 Client Project # 2214-020A

### Analyses of Gasoline (NWTPH-Gx) in Soil

Sample	Date	Surrogate	Gasoline
Number	Analyzed	Recovery (%)	(mg/kg)
Method Blank	11/8/13	100	<10
B8-15	11/8/13	97	<10
B8-15 Dup	11/8/13	121	<10
B11-8	11/8/13	98	<10
B19-8	11/8/13	98	<10
B13-8	11/8/13	85	<10
B12-16	11/8/13	100	<10
Practical Quantitation Limit			10

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Toluene-d8): 65% TO 135%

<sup>&</sup>quot;E" Indicates that the reported result is an estimate because it exceeds the calibration range "int" Indicates that interference prevents determination

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RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131108-10 Client Project # 2214-020A

### Analyses of Gasoline (NWTPH-Gx) in Water

Sample	Date	Surrogate	Gasoline
Number	Analyzed	Recovery (%)	$(\mu g/l)$
Method Blank	11/8/13	100	<100
B8-W	11/8/13	97	1280
B8-W Dup	11/8/13	100	1260
B11-W	11/8/13	98	<100
B19-W	11/8/13	106	<100
B13-W	11/8/13	102	1350
B12-W	11/8/13	99	<100
Practical Quantitation Limit			100

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Toluene-d8): 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination

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Robinson Noble Olympia, Washington Libby Project # L131108-10

**RESTOVER PROJECT** 

Client Project # 2214-020A

### Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Soil

Sample	Date	Surrogate	Diesel	Oil
Number	Analyzed	Recovery (%)	(mg/kg)	(mg/kg)
Method Blank	11/8/13	100	<25	<40
B8-15	11/8/13	102	<25	<40
B8-15 Dup	11/8/13	80	<25	<40
B11-8	11/8/13	107	<25	<40
B19-8	11/8/13	86	<25	<40
B13-8	11/8/13	81	<25	<40
B12-16	11/8/13	105	<25	<40
Practical Quantitation Lim	<b>i</b> 1		25	40

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination

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RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131108-10 Client Project # 2214-020A

### Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Water

Sample	Date	Surrogate	Diesel	Oil
Number	Analyzed	Recovery (%)	$(\mu g/l)$	$(\mu g/l)$
Method Blank	11/8/13	100	< 200	<400
B8-W	11/8/13	105	< 200	<400
B8-W Dup	11/8/13	79	< 200	<400
B11-W	11/8/13	105	< 200	<400
B19-W	11/8/13	79	< 200	<400
B13-W	11/8/13	77	< 200	<400
B12-W	11/8/13	101	< 200	<400
Practical Quantitation Limit	<b>i</b> 1		200	400

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination

int indicates that interference prevents determination

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

Libby Environr	mental	, Inc.		Ch	ain	of Cust	tody	Re	cor	d			www.l	ibbyEnvironmental.	com
4139 Libby Road NE Olympia, WA 98506	Fax	360-352- : 360-352-				Date: ]						Page:		of 2	
Client: Robinson	NOS	le.				Project N	Manage	er: Je	chn	Hill	lenbi	and			
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City:		State:	Zip	o:		Location						City, S	State: Olyn	apia WA	-
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2 B8-8	8	0802	Soil	2 VOAKE									HOLL	)	
3 B8-W		815	water	2 VOA/amber											
4 BII-W		855	water	2000 Jamber	r.							1 1 4			
5 BII-8	8	835	Soll	2004 Ja-											
6 B11-16	16	845	Soil	2 VOA/Ter									HOL	D	
7 B19-W		935	water	200A Jambe											
8 B19-8	8	923	Soul	2 UOA Dar									1	FAT 11-8-13	
9 319-14	14	930	Soll	2VOA Ja									HOL	D	
10 B13-8	8	1010	Soil	2 VOA BOY											
11 B13-W		1020	water	200x lander					П						
12 B13-14	16	1015	Soul	2 VOA Jar									HOLD	)	
13 B12-16	160	1045	Soil	2 VOATOW					1				每	KAT 11-8	
14 B12-7	7	1042	50.1	2 NOA /JOV									racens	MOLD ICAT	11-
15 B12W		1040	weter	ZUON/ambi					V				A CHILD	KAT 11-8	
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17 315-8	VE. 5	1105	Soil	2 VOA /Ja	1										
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LEGAL ACTION CLAUSE. In the event of default of	Commission and Laboratory	to day of	and to see the	to all collections in disting	sorts rad	annahla alla marifa	to be determined	and his a second	of to-	Total Nur	mber of Co	ntainers	TAT: 24	HR 48HR 5-D	_

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4139 Libby Road NE Olympia, WA 98506		360-352- : 360-352-				Date:	11/	3/13				Page:	7	of	2
Client: Robins							-		- 6	. U.I	denbra				
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3 B16-W	1	1145	water	200A Amice	1	1									
4 B10-W		1310		2 VOA/amb		1						9774			
5 810 - 8	8	1255	Sail	2004/Jar								n let	H	OLD	
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12 B18-W				200A/amla	/				1			3 7			
13 317-8	8	1429	30.1	240A/W	-				1						
14 817-14	16	1435	Soul	200A/Ja									HOLD		
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										Total N	umber of Co	ntainers	TAT:	24HR 4	ISHR 5-DAY



4139 Libby Road NE • Olympia, WA 98506-2518

November 11, 2013

John Hildenbrand Robinson Noble 3011 Huson Street South Suite A Tacoma, WA 98409

Dear Mr. Hildenbrand:

Please find enclosed the analytical data report for the Restover Project located in Olympia, Washington. Soil and water samples were analyzed for Volatile Organic Compounds by EPA Method 8260C, Gasoline by NWTPH-Gx, and Diesel & Oil by NWTPH-Dx/Dx Extended on November 9, 2013.

The results of the analyses are summarized in the attached tables. Applicable detection limits and QA/QC data are included. All soil samples are reported on a dry weight basis. An invoice for this analytical work is enclosed.

Libby Environmental, Inc. appreciates the opportunity to have provided analytical services for this project. If you have any further questions about the data report, please give me a call. It was a pleasure working with you on this project, and we are looking forward to the next opportunity to work together.

Sincerely,

Jamie L. Deyman

President

Libby Environmental, Inc.

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131109-10 Client Project # 2214-020A 4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

#### Volatile Organic Compounds by EPA Method 8260C in Soil

Sample Description		Method	B15-8	B16-7	B16-7 Dup	B10-16	B14-8
•		Blank			•		
Date Sampled	Reporting	N/A	11/8/13	11/8/13	11/8/13	11/8/13	11/8/13
Date Analyzed	Limits	11/9/13	11/9/13	11/9/13	11/9/13	11/9/13	11/9/13
,	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Dichlorodifluoromethane	0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Chloromethane	0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Vinyl chloride	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Bromomethane	0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09	< 0.09
Chloroethane	0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06	< 0.06
Trichlorofluoromethane	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,1-Dichloroethene	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Methylene chloride	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Methyl tert-Butyl Ether (MTBE)	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
trans -1,2-Dichloroethene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,1-Dichloroethane	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
2,2-Dichloropropane	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
cis-1,2-Dichloroethene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Chloroform	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,1,1-Trichloroethane (TCA)	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Carbon tetrachloride	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,1-Dichloropropene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Benzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	0.19
1,2-Dichloroethane (EDC)	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Trichloroethene (TCE)	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,2-Dichloropropane	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Dibromomethane	0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04	< 0.04
Bromodichloromethane	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
cis-1,3-Dichloropropene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Toluene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	0.060
Trans-1,3-Dichloropropene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,1,2-Trichloroethane	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Tetrachloroethene (PCE)	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,3-Dichloropropane	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Dibromochloromethane	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,2-Dibromoethane (EDB) *	0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005	< 0.005
Chlorobenzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,1,1,2-Tetrachloroethane	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Ethylbenzene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Total Xylenes	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	0.14
Styrene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02

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#### Volatile Organic Compounds by EPA Method 8260C in Soil

Sample Description		Method	B15-8	B16-7	B16-7 Dup	B10-16	B14-8
		Blank					
Date Sampled	Reporting	N/A	11/8/13	11/8/13	11/8/13	11/8/13	11/8/13
Date Analyzed	Limits	11/9/13	11/9/13	11/9/13	11/9/13	11/9/13	11/9/13
	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
Bromoform	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Isopropylbenzene	0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08	< 0.08
1,2,3-Trichloropropane	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Bromobenzene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,1,2,2-Tetrachloroethane	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
n-Propylbenzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
2-Chlorotoluene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
4-Chlorotoluene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,3,5-Trimethylbenzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
tert-Butylbenzene	0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
1,2,4-Trimethylbenzene	0.02	< 0.02	< 0.02	0.11	0.12	< 0.02	< 0.02
sec-Butylbenzene	0.02	< 0.02	< 0.02	0.054	0.065	< 0.02	< 0.02
1,3-Dichlorobenzene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
Isopropyltoluene	0.02	< 0.02	< 0.02	0.037	0.040	< 0.02	< 0.02
1,4-Dichlorobenzene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
1,2-Dichlorobenzene	0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03	< 0.03
n-Butylbenzene	0.02	< 0.02	< 0.02	0.083	0.094	< 0.02	< 0.02
1,2-Dibromo-3-Chloropropane	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
1,2,4-Trichlorolbenzene	0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05
Hexachloro-1,3-butadiene	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Naphthalenes	0.05	< 0.05	< 0.05	0.082	0.14	< 0.05	< 0.05
1,2,3-Trichlorobenzene	0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10	< 0.10
Surrogate Recovery							
Dibromofluoromethane		99	96	88	91	95	73
1,2-Dichloroethane-d4		89	90	66	81	87	88
Toluene-d8		98	98	86	97	100	100
4-Bromofluorobenzene		92	89	105	106	101	104

<sup>&</sup>quot;nd" Indicates not detected at listed detection limit

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination

<sup>\*</sup> INSTRUMENT DETECTION LIMIT

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131109-10 Client Project # 2214-020A 4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

#### Volatile Organic Compounds by EPA Method 8260C in Soil

Sample Description		B18-8	B17-8
Date Sampled	Reporting	11/8/13	11/8/13
Date Analyzed	Limits	11/9/13	11/9/13
	(mg/kg)	(mg/kg)	(mg/kg)
Dichlorodifluoromethane	0.06	< 0.06	< 0.06
Chloromethane	0.06	< 0.06	< 0.06
Vinyl chloride	0.02	< 0.02	< 0.02
Bromomethane	0.09	< 0.09	< 0.09
Chloroethane	0.06	< 0.06	< 0.06
Trichlorofluoromethane	0.05	< 0.05	< 0.05
1,1-Dichloroethene	0.05	< 0.05	< 0.05
Methylene chloride	0.02	< 0.02	< 0.02
Methyl <i>tert</i> - Butyl Ether (MTBE)	0.05	< 0.05	< 0.05
trans -1,2-Dichloroethene	0.02	< 0.02	< 0.02
1,1-Dichloroethane	0.03	< 0.02	< 0.02
2,2-Dichloropropane	0.05	< 0.05	< 0.05
cis -1,2-Dichloroethene	0.02	< 0.02	< 0.02
Chloroform	0.02	< 0.02	< 0.02
1,1,1-Trichloroethane (TCA)	0.02	< 0.02	< 0.02
Carbon tetrachloride	0.02	< 0.02	< 0.02
1,1-Dichloropropene	0.03	< 0.03	< 0.03
Benzene	0.02	<0.02	< 0.02
1,2-Dichloroethane (EDC)	0.02	< 0.02	< 0.02
	0.03	< 0.03	< 0.03
Trichloroethene (TCE)			
1,2-Dichloropropane	0.02	< 0.02	< 0.02
Dibromomethane	0.04	< 0.04	< 0.04
Bromodichloromethane	0.02	< 0.02	< 0.02
cis-1,3-Dichloropropene	0.02	< 0.02	< 0.02
Toluene	0.03	< 0.03	< 0.03
Trans-1,3-Dichloropropene	0.03	< 0.03	< 0.03
1,1,2-Trichloroethane	0.03	< 0.03	< 0.03
Tetrachloroethene (PCE)	0.02	< 0.02	< 0.02
1,3-Dichloropropane	0.05	< 0.05	< 0.05
Dibromochloromethane	0.03	< 0.03	< 0.03
1,2-Dibromoethane (EDB) *	0.005	< 0.005	< 0.005
Chlorobenzene	0.02	< 0.02	< 0.02
1,1,1,2-Tetrachloroethane	0.03	< 0.03	< 0.03
Ethylbenzene	0.03	< 0.03	< 0.03
Total Xylenes	0.03	< 0.03	< 0.03
Styrene	0.02	< 0.02	< 0.02

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131109-10 Client Project # 2214-020A 4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

#### Volatile Organic Compounds by EPA Method 8260C in Soil

Sample Description		B18-8	B17-8	
Date Sampled	Reporting	11/8/13	11/8/13	
Date Analyzed	Limits	11/9/13	11/9/13	
	(mg/kg)	(mg/kg)	(mg/kg)	
Bromoform	0.03	< 0.03	< 0.03	
Isopropylbenzene	0.08	< 0.08	< 0.08	
1,2,3-Trichloropropane	0.03	< 0.03	< 0.03	
Bromobenzene	0.03	< 0.03	< 0.03	
1,1,2,2-Tetrachloroethane	0.03	< 0.03	< 0.03	
n-Propylbenzene	0.02	< 0.02	< 0.02	
2-Chlorotoluene	0.02	< 0.02	< 0.02	
4-Chlorotoluene	0.02	< 0.02	< 0.02	
1,3,5-Trimethylbenzene	0.02	< 0.02	< 0.02	
tert-Butylbenzene	0.02	< 0.02	< 0.02	
1,2,4-Trimethylbenzene	0.02	< 0.02	< 0.02	
sec-Butylbenzene	0.02	< 0.02	< 0.02	
1,3-Dichlorobenzene	0.03	< 0.03	< 0.03	
Isopropyltoluene	0.02	< 0.02	< 0.02	
1,4-Dichlorobenzene	0.03	< 0.03	< 0.03	
1,2-Dichlorobenzene	0.03	< 0.03	< 0.03	
n-Butylbenzene	0.02	< 0.02	< 0.02	
1,2-Dibromo-3-Chloropropane	0.05	< 0.05	< 0.05	
1,2,4-Trichlorolbenzene	0.05	< 0.05	< 0.05	
Hexachloro-1,3-butadiene	0.10	< 0.10	< 0.10	
Naphthalenes	0.05	< 0.05	< 0.05	
1,2,3-Trichlorobenzene	0.10	< 0.10	< 0.10	
Surrogate Recovery				
Dibromofluoromethane		68	95	
1,2-Dichloroethane-d4		92	89	
Toluene-d8		102	103	
4-Bromofluorobenzene		103	104	

<sup>&</sup>quot;nd" Indicates not detected at listed detection limit

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination

<sup>\*</sup> INSTRUMENT DETECTION LIMIT

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131109-10 Client Project # 2214-020A 4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

### QA/QC Data - EPA 8260C Analyses

Sample Identification: B10-16								
		Matrix Spike	;	Matı	ix Spike Dup	licate	RPD	
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)		
1,1-Dichloroethene	0.50	0.41	82	0.50	0.42	84	2.4	
Benzene	0.50	0.61	122	0.50	0.60	120	1.7	
Toluene	0.50	0.62	124	0.50	0.61	122	1.6	
Chlorobenzene	0.50	0.64	128	0.50	0.58	116	9.8	
Trichloroethene (TCE)	0.50	0.55	110	0.50	0.56	112	1.8	
Surrogate Recovery								
Dibromofluoromethane			75			107		
1,2-Dichloroethane-d4		91 93				93		
Toluene-d8		102				111		
4-Bromofluorobenzene			103	87				

	Laboratory Control Sample						
	Spiked Conc. (mg/kg)	Measured Conc. (mg/kg)	Spike Recovery (%)				
1,1-Dichloroethene Benzene Toluene Chlorobenzene	0.50 0.50 0.50 0.50	0.44 0.55 0.55 0.58	88 110 110 116				
Trichloroethene (TCE)	0.50	0.50	100				
Surrogate Recovery							
Dibromofluoromethane			100				
1,2-Dichloroethane-d4			84				
Toluene-d8			98				
4-Bromofluorobenzene			93				

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135% ACCEPTABLE RPD IS 35%

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### Volatile Organic Compounds by EPA Method 8260C in Water

Sample Description		Method	B15-W	B15-W	B16-W	B10-W	B14-W
		Blank		Dup			
Date Sampled	Reporting	N/A	11/8/13	11/8/13	11/8/13	11/8/13	11/8/13
Date Analyzed	Limits	11/9/13	11/9/13	11/9/13	11/9/13	11/9/13	11/9/13
	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	(µg/l)	$(\mu g/l)$	(µg/l)	(µg/l)
			_	_	_	_	
Dichlorodifluoromethane	2.0	<2	<2	<2	<2	<2	<2
Chloromethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Vinyl chloride	0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2	< 0.2
Bromomethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Chloroethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Trichlorofluoromethane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
1,1-Dichloroethene	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Methylene chloride	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Methyl tert- Butyl Ether (MTBE)	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
trans -1,2-Dichloroethene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2,2-Dichloropropane	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
cis-1,2-Dichloroethene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Chloroform	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1-Trichloroethane (TCA)	1.0	<1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0
Carbon tetrachloride	1.0	<1.0	< 1.0	< 1.0	< 1.0	<1.0	<1.0
1,1-Dichloropropene	1.0	<1.0	< 1.0	<1.0	< 1.0	<1.0	<1.0
Benzene	1.0	<1.0	<1.0	<1.0	5.3	<1.0	11
1,2-Dichloroethane (EDC)	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Trichloroethene (TCE)	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloropropane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromomethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromodichloromethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
cis-1,3-Dichloropropene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Toluene	1.0	<1.0	<1.0	<1.0	1.6	<1.0	496
Trans-1,3-Dichloropropene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Tetrachloroethene (PCE)	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichloropropane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Dibromochloromethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane (EDB) *	0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Chlorobenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene	1.0	<1.0	<1.0	<1.0	55	<1.0	891
Total Xylenes	2.0	<2.0	<2.0	<2.0	66	<2.0	2710
Styrene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131109-10 Client Project # 2214-020A 4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

#### Volatile Organic Compounds by EPA Method 8260C in Water

Sample Description		Method	B15-W	B15-W	B16-W	B10-W	B14-W
		Blank		Dup			
Date Sampled	Reporting	N/A	11/8/13	11/8/13	11/8/13	11/8/13	11/8/13
Date Analyzed	Limits	11/9/13	11/9/13	11/9/13	11/9/13	11/9/13	11/9/13
	$(\mu g/l)$						
Bromoform	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene	4.0	<4.0	<4.0	<4.0	1.9	<4.0	32
1,2,3-Trichloropropane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Bromobenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-Propylbenzene	1.0	<1.0	<1.0	<1.0	5.1	<1.0	85
2-Chlorotoluene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-Chlorotoluene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,3,5-Trimethylbenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	171
tert-Butylbenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	81
1,2,4-Trimethylbenzene	1.0	<1.0	<1.0	<1.0	23	<1.0	536
sec-Butylbenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.7
1,3-Dichlorobenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Isopropyltoluene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	4.5
1,4-Dichlorobenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichlorobenzene	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
n-Butylbenzene	1.0	<1.0	<1.0	<1.0	1.6	<1.0	<1.0
1,2-Dibromo-3-Chloropropane	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorolbenzene	2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0	< 2.0
Hexachloro-1,3-butadiene	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Naphthalenes	5.0	< 5.0	< 5.0	< 5.0	10	< 5.0	236
1,2,3-Trichlorobenzene	5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0	< 5.0
Surrogate Recovery							
Dibromofluoromethane		99	98	99	97	100	100
1,2-Dichloroethane-d4		89	83	83	79	88	89
Toluene-d8		98	98	99	93	101	101
4-Bromofluorobenzene		92	88	98	104	103	100

<sup>&</sup>quot;nd" Indicates not detected at listed detection limit

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination

<sup>\*</sup> INSTRUMENT DETECTION LIMIT

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131109-10 Client Project # 2214-020A 4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

### Volatile Organic Compounds by EPA Method 8260C in Water

Sample Description		B18-W	B17-W
Sample Description		D10-W	D1/-W
Date Sampled	Reporting	11/8/13	11/8/13
Date Analyzed	Limits	11/8/13	11/8/13
Date Analyzed	Limits (μg/l)	$(\mu g/l)$	$(\mu g/l)$
	(μg/1)	(μg/1)	(μg/1)
Dichlorodifluoromethane	2.0	<2	<2
Chloromethane	2.0	< 2.0	< 2.0
Vinyl chloride	0.2	< 0.2	< 0.2
Bromomethane	2.0	< 2.0	< 2.0
Chloroethane	2.0	< 2.0	< 2.0
Trichlorofluoromethane	2.0	<2.0	<2.0
1,1-Dichloroethene	2.0	<2.0	<2.0
Methylene chloride	1.0	<1.0	<1.0
Methyl <i>tert</i> - Butyl Ether (MTBE)	5.0	< 5.0	< 5.0
trans -1,2-Dichloroethene	1.0	<1.0	<1.0
1,1-Dichloroethane	1.0	<1.0	<1.0
2,2-Dichloropropane	2.0	<2.0	< 2.0
cis -1,2-Dichloroethene	1.0	<1.0	<1.0
Chloroform	1.0	<1.0	<1.0
1,1,1-Trichloroethane (TCA)	1.0	<1.0	<1.0
Carbon tetrachloride	1.0	<1.0	<1.0
1,1-Dichloropropene	1.0	<1.0	<1.0
Benzene	1.0	<1.0	<1.0
1,2-Dichloroethane (EDC)	1.0	<1.0	<1.0
Trichloroethene (TCE)	1.0	<1.0	<1.0
1,2-Dichloropropane	1.0	<1.0	<1.0
Dibromomethane	1.0	<1.0	<1.0
Bromodichloromethane	1.0	<1.0	<1.0
cis-1,3-Dichloropropene	1.0	<1.0	<1.0
Toluene	1.0	<1.0	<1.0
Trans-1,3-Dichloropropene	1.0	<1.0	<1.0
1,1,2-Trichloroethane	1.0	<1.0	<1.0
Tetrachloroethene (PCE)	1.0	<1.0	<1.0
1,3-Dichloropropane	1.0	<1.0	<1.0
Dibromochloromethane	1.0	<1.0	<1.0
1,2-Dibromoethane (EDB) *	0.01	< 0.01	< 0.01
Chlorobenzene	1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane	1.0	<1.0	<1.0
Ethylbenzene Ethylbenzene	1.0	<1.0	<1.0
Total Xylenes	2.0	<2.0	<2.0
Styrene	1.0	<1.0	<1.0
50,10110	1.0	<b>\1.0</b>	1.0

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#### Volatile Organic Compounds by EPA Method 8260C in Water

Sample Description		B18-W	B17-W	
Date Sampled	Reporting	11/8/13	11/8/13	
Date Analyzed	Limits	11/9/13	11/9/13	
Date / mary zed	(µg/l)	$(\mu g/l)$	$(\mu g/l)$	
	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	107	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
Bromoform	1.0	<1.0	<1.0	
Isopropylbenzene	4.0	<4.0	<4.0	
1,2,3-Trichloropropane	1.0	<1.0	<1.0	
Bromobenzene	1.0	<1.0	<1.0	
1,1,2,2-Tetrachloroethane	1.0	<1.0	<1.0	
n-Propylbenzene	1.0	<1.0	<1.0	
2-Chlorotoluene	1.0	<1.0	<1.0	
4-Chlorotoluene	1.0	<1.0	<1.0	
1,3,5-Trimethylbenzene	1.0	<1.0	<1.0	
tert-Butylbenzene	1.0	<1.0	<1.0	
1,2,4-Trimethylbenzene	1.0	<1.0	<1.0	
sec-Butylbenzene	1.0	<1.0	<1.0	
1,3-Dichlorobenzene	1.0	<1.0	<1.0	
Isopropyltoluene	1.0	<1.0	<1.0	
1,4-Dichlorobenzene	1.0	<1.0	<1.0	
1,2-Dichlorobenzene	1.0	<1.0	<1.0	
n-Butylbenzene	1.0	<1.0	<1.0	
1,2-Dibromo-3-Chloropropane	1.0	<1.0	<1.0	
1,2,4-Trichlorolbenzene	2.0	< 2.0	< 2.0	
Hexachloro-1,3-butadiene	5.0	< 5.0	< 5.0	
Naphthalenes	5.0	< 5.0	< 5.0	
1,2,3-Trichlorobenzene	5.0	< 5.0	< 5.0	
Surrogate Recovery				
Dibromofluoromethane		93	99	
1,2-Dichloroethane-d4		67	84	
Toluene-d8		96	101	
4-Bromofluorobenzene		107	102	

<sup>&</sup>quot;nd" Indicates not detected at listed detection limit

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination

<sup>\*</sup> INSTRUMENT DETECTION LIMIT

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131109-10 Client Project # 2214-020A 4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

### QA/QC Data - EPA 8260C Analyses

Sample Identification: B10-W							
		Matrix Spike			rix Spike Dup	licate	RPD
	Spiked Conc. (µg/l)	Measured Conc. (μg/l)	Spike Recovery (%)	Spiked Conc. (µg/l)	Measured Conc. (μg/l)	Spike Recovery (%)	(%)
1,1-Dichloroethene	10	9.6	96	10	9.6	96	0.0
Benzene	10	11.7	117	10	11.1	111	5.3
Toluene	10	11.9	119	10	11.3	113	5.2
Chlorobenzene	10	12.3	123	10	11.9	119	3.3
Trichloroethene (TCE)	10	10.6	106	10	10.3	103	2.9
Surrogate Recovery							
Dibromofluoromethane			101			98	
1,2-Dichloroethane-d4		85				89	
Toluene-d8		101			101		
4-Bromofluorobenzene		96			102		

	Laboratory Control Sample						
	Spiked Conc. (µg/l)	Measured Conc. (μg/l)	Spike Recovery (%)				
1,1-Dichloroethene Benzene Toluene Chlorobenzene Trichloroethene (TCE)	10 10 10 10 10	8.9 11.0 10.9 11.6 10.0	89 110 109 116 100				
Surrogate Recovery Dibromofluoromethane			100				
1,2-Dichloroethane-d4			84				
Toluene-d8			98				
4-Bromofluorobenzene			93				

ACCEPTABLE RECOVERY LIMITS FOR MATRIX SPIKES: 65%-135% ACCEPTABLE RPD IS 35%

4139 Libby Road NE Olympia, WA 98506

Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131109-10 Client Project # 2214-020A

## Analyses of Gasoline (NWTPH-Gx) in Soil

Sample	Date	Surrogate	Gasoline
Number	Analyzed	Recovery (%)	(mg/kg)
Method Blank	11/9/13	98	<10
B15-8	11/9/13	98	<10
B16-7	11/9/13	86	<10
B16-7 Dup	11/9/13	97	<10
B10-16	11/9/13	100	<10
B14-8	11/9/13	100	<10
B18-8	11/9/13	102	<10
B17-8	11/9/13	103	<10
Practical Quantitation Limit			10

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Toluene-d8): 65% TO 135%

<sup>&</sup>quot;E" Indicates that the reported result is an estimate because it exceeds the calibration range.

<sup>&</sup>quot;int" Indicates that interference prevents determination

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RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131109-10 Client Project # 2214-020A

## Analyses of Gasoline (NWTPH-Gx) in Water

Sample	Date	Surrogate	Gasoline
Number	Analyzed	Recovery (%)	$(\mu g/l)$
Method Blank	11/9/13	98	<100
B15-W	11/9/13	98	105
B15-W Dup	11/9/13	99	118
B16-W	11/9/13	93	842
B10-W	11/9/13	101	<100
B14-W	11/9/13	101	18000
B18-W	11/9/13	96	<100
B17-W	11/9/13	101	<100
Practical Quantitation Limit			100

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.
"int" Indicates that interference prevents determination

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Toluene-d8): 65% TO 135%

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Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131109-10 Client Project # 2214-020A

# Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Soil

Sample	Date	Surrogate	Diesel	Oil
Number	Analyzed	Recovery (%)	(mg/kg)	(mg/kg)
Method Blank	11/9/13	110	<25	<40
B15-8	11/9/13	112	<25	<40
B16-7	11/9/13	int	175	<40
B16-7 Dup	11/9/13	94	183	<40
B10-16	11/9/13	112	<25	<40
B14-8	11/9/13	91	55	<40
B18-8	11/9/13	107	<25	<40
B17-8	11/9/13	83	<25	<40
Practical Quantitation Lim	<b>i</b> 1		25	40

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination

4139 Libby Road NE Olympia, WA 98506

Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

RESTOVER PROJECT Robinson Noble Olympia, Washington Libby Project # L131109-10 Client Project # 2214-020A

### Analyses of Diesel & Oil (NWTPH-Dx/Dx Extended) in Water

Sample	Date	Surrogate	Diesel	Oil
Number	Analyzed	Recovery (%)	$(\mu g/l)$	$(\mu g/l)$
Method Blank	11/9/13	110	< 200	<400
B15-W	11/8/13	83	< 200	<400
B16-W	11/9/13	106	< 200	<400
B16-W Dup	11/9/13	82	< 200	<400
B10-W	11/9/13	86	< 200	<400
B14-W	11/9/13	110	< 200	<400
B18-W	11/9/13	113	< 200	< 400
B17-W	11/9/13	90	< 200	< 400
Practical Quantitation Limit	i1		200	400

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (2-F Biphenyl): 65% TO 135%

<sup>&</sup>quot;int" Indicates that interference prevents determination



# Site photographs of the Restover Truck Stop (2214-020A)



Retail islands looking north



Rear of convenience store



Western end of property and western adjacent property



Staining on dispenser and concrete (note disrepair of concrete)



Motel



Drain beneath retail canopy (note possible oil-water separator or sump top center)



Gravel truck parking area, looking south



Restaurant



Fuel island and staining and disrepair



Property adjacent to the north across 93rd Ave SW



Northeast corner of subject facing Interstate 5 off ramp

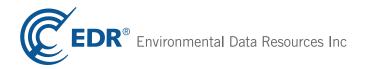


**Restover Truckstop** 2729 93rd Avenue Southwest Olympia, WA 98512

Inquiry Number: 3773458.2s

November 04, 2013

# The EDR Radius Map™ Report with GeoCheck®



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**Thank you for your business.**Please contact EDR at 1-800-352-0050 with any questions or comments.

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A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

#### TARGET PROPERTY INFORMATION

#### **ADDRESS**

2729 93RD AVENUE SOUTHWEST OLYMPIA, WA 98512

#### **COORDINATES**

Latitude (North): 46.9527000 - 46° 57' 9.72" Longitude (West): 122.9406000 - 122° 56' 26.16"

Universal Tranverse Mercator: Zone 10 UTM X (Meters): 504520.0 UTM Y (Meters): 5199691.0

Elevation: 200 ft. above sea level

#### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 46122-H8 MAYTOWN, WA

Most Recent Revision: 1990

#### **AERIAL PHOTOGRAPHY IN THIS REPORT**

Photo Year: 2011 Source: USDA

#### TARGET PROPERTY SEARCH RESULTS

The target property was identified in the following records. For more information on this property see page 7 of the attached EDR Radius Map report:

Site	Database(s)	EPA ID
RESTOVER TRUCK STOP 93RD AVE 2725 93RD AVE OLYMPIA, WA	FINDS	N/A
RESTOVER TRUCKSTOP 2725 93RD AVE SW OLYMPIA, WA 98512	CSCSL ALLSITES HSL Facility Type: Hazardous Sites List	N/A
	LUST UST Financial Assurance	
REST OVER TRUCK STOP 2715 93RD AVE SW OLYMPIA, WA	SPILLS	N/A

2725 93RD AVE SW 2725 93RD AVE SW OLYMPIA, WA 98512 **EDR US Hist Auto Stat** 

N/A

RESTOVER TRUCK STOP EXIT 99- SCOTT LAKE ROAD OLYMPIA, WA

**SPILLS** 

N/A

#### **DATABASES WITH NO MAPPED SITES**

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

#### STANDARD ENVIRONMENTAL RECORDS

#### Federal NPL site list

NPL..... National Priority List

Proposed NPL..... Proposed National Priority List Sites

NPL LIENS..... Federal Superfund Liens

#### Federal Delisted NPL site list

Delisted NPL...... National Priority List Deletions

#### Federal CERCLIS list

#### Federal CERCLIS NFRAP site List

CERC-NFRAP..... CERCLIS No Further Remedial Action Planned

#### Federal RCRA CORRACTS facilities list

CORRACTS..... Corrective Action Report

#### Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF...... RCRA - Treatment, Storage and Disposal

#### Federal RCRA generators list

RCRA-LQG...... RCRA - Large Quantity Generators RCRA-SQG...... RCRA - Small Quantity Generators

RCRA-CESQG...... RCRA - Conditionally Exempt Small Quantity Generator

Federal institutional controls	/ engineering cont	rols registries
--------------------------------	--------------------	-----------------

US ENG CONTROLS..... Engineering Controls Sites List US INST CONTROL..... Sites with Institutional Controls LUCIS.....Land Use Control Information System

Federal ERNS list

ERNS..... Emergency Response Notification System

State and tribal leaking storage tank lists

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

\_\_\_\_\_ Aboveground Storage Tank Locations INDIAN UST...... Underground Storage Tanks on Indian Land

FEMA UST..... Underground Storage Tank Listing

State and tribal institutional control / engineering control registries

INST CONTROL..... Institutional Control Site List

State and tribal voluntary cleanup sites

INDIAN VCP..... Voluntary Cleanup Priority Listing VCP..... Voluntary Cleanup Program Sites ICR...... Independent Cleanup Reports

State and tribal Brownfields sites

BROWNFIELDS..... Brownfields Sites Listing

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS..... A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

..... Open Dump Inventory

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations

SWTIRE Solid Waste Tire Facilities
INDIAN ODI Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL..... Clandestine Drug Labs

CDL..... Clandestine Drug Lab Contaminated Site List

HIST CDL..... List of Sites Contaminated by Clandestine Drug Labs

US HIST CDL..... National Clandestine Laboratory Register

#### Local Land Records

LIENS 2..... CERCLA Lien Information

#### Records of Emergency Release Reports

HMIRS..... Hazardous Materials Information Reporting System

SPILLS 90 data from FirstSearch

#### Other Ascertainable Records

CONSENT..... Superfund (CERCLA) Consent Decrees

TRIS\_\_\_\_\_ Toxic Chemical Release Inventory System

TSCA..... Toxic Substances Control Act

FTTS......FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide

Act)/TSCA (Toxic Substances Control Act)

HIST FTTS...... FIFRA/TSCA Tracking System Administrative Case Listing

SSTS..... Section 7 Tracking Systems

ICIS...... Integrated Compliance Information System

RAATS...... RCRA Administrative Action Tracking System

RMP..... Risk Management Plans

UIC...... Underground Injection Wells Listing MANIFEST..... Hazardous Waste Manifest Data

DRYCLEANERS..... Drycleaner List

NPDES....... Water Quality Permit System Data
AIRS....... Washington Emissions Data System

Inactive Drycleaners Inactive Drycleaners INDIAN RESERV Indian Reservations

SCRD DRYCLEANERS...... State Coalition for Remediation of Drycleaners Listing

US FIN ASSUR..... Financial Assurance Information

EPA WATCH LIST..... EPA WATCH LIST

PRP..... Potentially Responsible Parties

US AIRS..... Aerometric Information Retrieval System Facility Subsystem

2020 COR ACTION.......... 2020 Corrective Action Program List

LEAD SMELTERS....Lead Smelter Sites

PCB TRANSFORMER....... PCB Transformer Registration Database COAL ASH DOE....... Steam-Electric Plant Operation Data

COAL ASH EPA..... Coal Combustion Residues Surface Impoundments List

COAL ASH..... Coal Ash Disposal Site Listing

#### EDR HIGH RISK HISTORICAL RECORDS

#### **EDR Exclusive Records**

EDR MGP..... EDR Proprietary Manufactured Gas Plants

EDR US Hist Cleaners..... EDR Exclusive Historic Dry Cleaners

#### **SURROUNDING SITES: SEARCH RESULTS**

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in **bold italics** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

#### STANDARD ENVIRONMENTAL RECORDS

#### State- and tribal - equivalent NPL

HSL: The Hazardous Sites List is a subset of the CSCSL Report. It includes sites which have been assessed and ranked using the Washington Ranking Method (WARM).

A review of the HSL list, as provided by EDR, and dated 08/26/2013 has revealed that there is 1 HSL site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
WA DNR WEBSTER NURSERY Facility Type: Hazardous Sites List	9805 BLOMBERG ST SW	SW 1/2 - 1 (0.687 mi.)	13	41

#### State- and tribal - equivalent CERCLIS

CSCSL: The State Hazardous Waste Sites records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. The data come from the Department of Ecology's Confirmed & Suspected Contaminated Sites List.

A review of the CSCSL list, as provided by EDR, and dated 07/22/2013 has revealed that there is 1 CSCSL site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
WA DNR WEBSTER NURSERY	9805 BLOMBERG ST SW	SW 1/2 - 1 (0.687 mi.)	13	41

#### State and tribal landfill and/or solid waste disposal site lists

SWF/LF: The Solid Waste Facilities/Landfill Sites records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. The data come from the Department of Ecology's Solid Waste Facilities Handbook.

A review of the SWF/LF list, as provided by EDR, and dated 09/25/2013 has revealed that there is 1 SWF/LF site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SOUTH SOUND STEEL & RECYCLING	9546 LATHROP INDUSTRIAL	SW 0 - 1/8 (0.103 mi.)	6	18

#### ADDITIONAL ENVIRONMENTAL RECORDS

#### Local Lists of Landfill / Solid Waste Disposal Sites

SWRCY: A llisting of recycling center locations.

A review of the SWRCY list, as provided by EDR, and dated 07/25/2013 has revealed that there is 1 SWRCY site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SOUTH SOUND STEEL & RECYCLING	9546 LATHROP INDUSTRIAL	SW 0 - 1/8 (0.103 mi.)	6	18

#### Local Lists of Hazardous waste / Contaminated Sites

ALLSITES: Information on facilities and sites of interest to the Department of Ecology.

A review of the ALLSITES list, as provided by EDR, and dated 08/16/2013 has revealed that there are 7 ALLSITES sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page	
SOUTH SOUND STEEL & RECYCLING	9546 LATHROP INDUSTRIAL	SW 0 - 1/8 (0.103 mi.)	6	18	
ENVIRONMENTAL & TECHNICAL SPEC	9730 LATHROP INDUSTRIAL	SSW 1/4 - 1/2 (0.278 mi.)	7	30	
SHELL 93RD AVE SW TUMWATER	2440 93RD AVE SW	E 1/4 - 1/2 (0.294 mi.)	B8	31	
PILOT TRAVEL CENTER 151	2430 93RD AVE SW	E 1/4 - 1/2 (0.304 mi.)	B9	35	
JOHNSON & MADDOX CONSTRUCTION	2201 93RD AVE SW	E 1/4 - 1/2 (0.467 mi.)	11	38	
Lower Elevation	Address	Direction / Distance	Map ID	Page	
DAIRY FRESH FARMS INC	9636 BLOMBERG RD	WSW 1/4 - 1/2 (0.446 mi.)	10	37	
FOREST LAND MGT CENTER CHEM ST	BLOMBERG ST SW	WSW 1/4 - 1/2 (0.484 mi.)	12	40	

CSCSL NFA: The data set contains information about sites previously on the Confirmed and Suspected Contaminated Sites list that have received a No Further Action (NFA) determination. Because it is necessary to maintain historical records of sites that have been investigated and cleaned up, sites are not deleted from the database when cleanup activities are completed. Instead a No Further Action code is entered based upon the type of NFA determination the site received.

A review of the CSCSL NFA list, as provided by EDR, and dated 07/22/2013 has revealed that there is 1 CSCSL NFA site within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
SHELL 93RD AVE SW TUMWATER	2440 93RD AVE SW	E 1/4 - 1/2 (0.294 mi.)	B8	31

Due to poor or inadequate address information, the following sites were not mapped. Count: 11 records.

#### Site Name

PHILLIPS 66 COMPANY SS 071907 OLD CITY HALL TUMWATER

GILLIARDI RECYCLING FACILITY SAIA MOTOR FREIGHT OLYMPIA INTERCITY TRANSIT KEY SHOP OLYMPIA MILLER CENTRAL

DELS FARM SUPPLY OLYMPIA OLYMPIA CITY UST 101289 OLYMPIA SCHOOL DIST BUS BARN

D&W S&S OLD HWY 99 SHORT PLAT THURSTON CO. S.L.F.

#### Database(s)

FINDS, ALLSITES, UST FINDS, CSCSL, ALLSITES, LUST,

UST

 ${\sf FINDS,\,ALLSITES}$ 

FINDS, ALLSITES

FINDS, ALLSITES, CSCSL NFA FINDS, CSCSL, HSL, ALLSITES,

LUST

 ${\sf FINDS}, \, {\sf ALLSITES}$ 

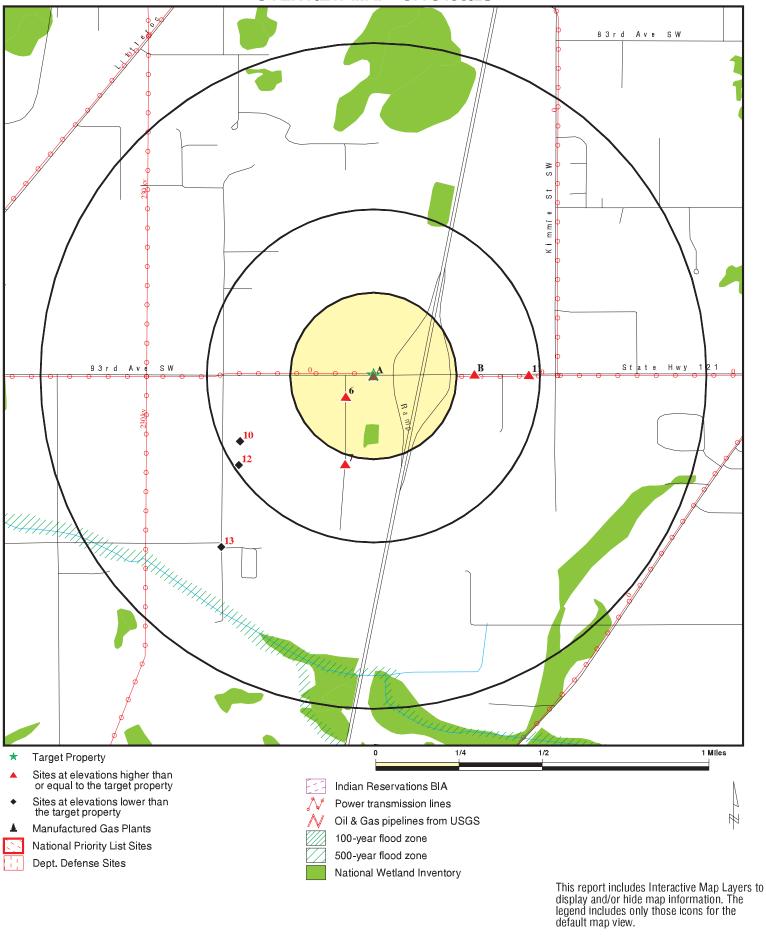
FINDS, ALLSITES, UST

FINDS, CSCSL, HSL, ALLSITES,

LUST, UST ALLSITES

ODI

#### **OVERVIEW MAP - 3773458.2s**



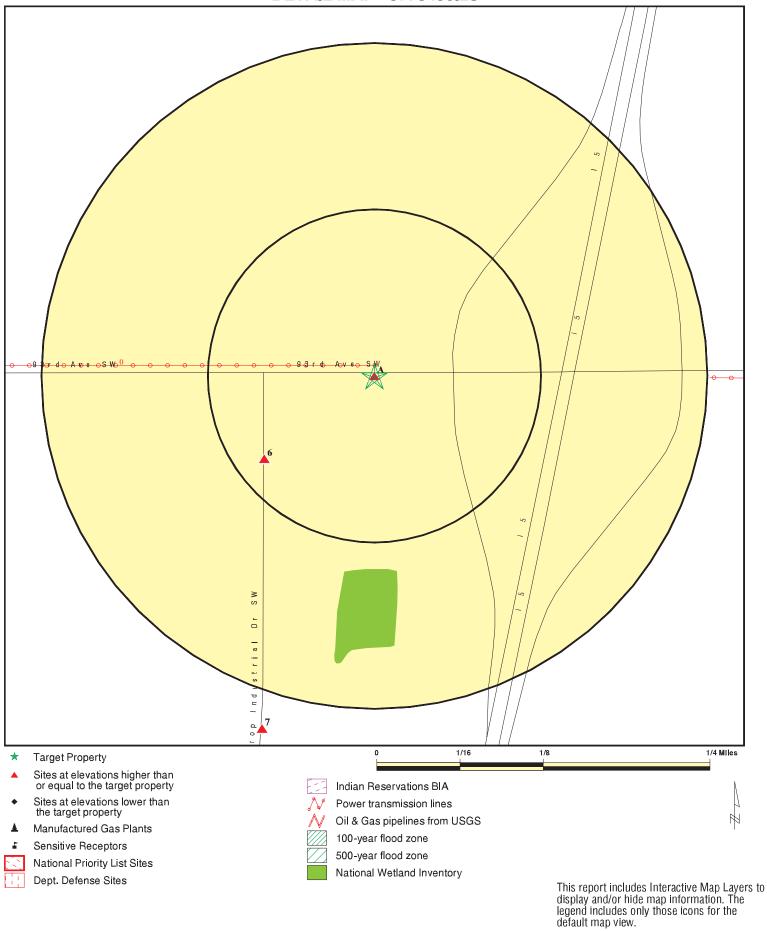
SITE NAME: Restover Truckstop

ADDRESS: 2729 93rd Avenue Southwest

CONTACT: Tonya Johnson

Olympia WA 98512 INQUIRY #: 3773458.2s LAT/LONG: 46.9527 / 122.9406 DATE: November 04, 2013 10:07 am

### **DETAIL MAP - 3773458.2s**



SITE NAME: Restover Truckstop
ADDRESS: 2729 93rd Avenue Southwest
Olympia WA 98512

CLIENT: Robi
CONTACT: Tony
INQUIRY #: 3773

Olympia WA 98512 LAT/LONG: 46.9527 / 122.9406 CLIENT: Robinson & Noble, Inc. CONTACT: Tonya Johnson

INQUIRY #: 3773458.2s DATE: November 04, 2013 10:08 am

### **MAP FINDINGS SUMMARY**

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
STANDARD ENVIRONMENT	TAL RECORDS							
Federal NPL site list								
NPL Proposed NPL NPL LIENS	1.000 1.000 TP		0 0 NR	0 0 NR	0 0 NR	0 0 NR	NR NR NR	0 0 0
Federal Delisted NPL sit	e list							
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS FEDERAL FACILITY	0.500 0.500		0 0	0 0	0 0	NR NR	NR NR	0 0
Federal CERCLIS NFRA	P site List							
CERC-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRAC	TS facilities li	st						
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-COR	RACTS TSD f	acilities list						
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generator	rs list							
RCRA-LQG RCRA-SQG RCRA-CESQG	0.250 0.250 0.250		0 0 0	0 0 0	NR NR NR	NR NR NR	NR NR NR	0 0 0
Federal institutional con engineering controls reg								
US ENG CONTROLS US INST CONTROL LUCIS	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
Federal ERNS list								
ERNS	TP		NR	NR	NR	NR	NR	0
State- and tribal - equiva	alent NPL							
HSL	1.000	1	0	0	0	1	NR	2
State- and tribal - equiva	alent CERCLIS	3						
CSCSL	1.000	1	0	0	0	1	NR	2
State and tribal landfill a solid waste disposal site								
SWF/LF	0.500		1	0	0	NR	NR	1
State and tribal leaking	storage tank l	ists						
LUST	0.500	1	0	0	0	NR	NR	1

### **MAP FINDINGS SUMMARY**

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registere	d storage tai	nk lists						
UST AST INDIAN UST FEMA UST	0.250 0.250 0.250 0.250	1	0 0 0	0 0 0 0	NR NR NR NR	NR NR NR NR	NR NR NR NR	1 0 0 0
State and tribal institutio control / engineering con		es						
INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary	cleanup site	es						
INDIAN VCP VCP ICR	0.500 0.500 0.500		0 0 0	0 0 0	0 0 0	NR NR NR	NR NR NR	0 0 0
State and tribal Brownfie	lds sites							
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMEN	TAL RECORD	<u>s</u>						
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / S Waste Disposal Sites	olid							
ODI DEBRIS REGION 9 SWRCY SWTIRE INDIAN ODI	0.500 0.500 0.500 0.500 0.500		0 0 1 0	0 0 0 0	0 0 0 0	NR NR NR NR NR	NR NR NR NR NR	0 0 1 0
Local Lists of Hazardous Contaminated Sites	waste /							
US CDL ALLSITES CSCSL NFA CDL HIST CDL US HIST CDL	TP 0.500 0.500 TP TP TP	1	NR 1 0 NR NR NR	NR 0 0 NR NR NR	NR 6 1 NR NR NR	NR NR NR NR NR	NR NR NR NR NR NR	0 8 1 0 0
Local Land Records								
LIENS 2	TP		NR	NR	NR	NR	NR	0
Records of Emergency R	elease Repo	rts						
HMIRS SPILLS SPILLS 90	TP TP TP	2	NR NR NR	NR NR NR	NR NR NR	NR NR NR	NR NR NR	0 2 0
Other Ascertainable Rec	ords							
RCRA NonGen / NLR	0.250		0	0	NR	NR	NR	0

### **MAP FINDINGS SUMMARY**

Database	Search Distance (Miles)	Target Property	< 1/8	1/8 - 1/4	1/4 - 1/2	1/2 - 1	> 1	Total Plotted
DOT OPS	TP		NR	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	NR	0
CONSENT	1.000		0	0	0	0	NR	0
ROD	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
TRIS	TP		NR	NR	NR	NR	NR	0
TSCA	TP		NR	NR	NR	NR	NR	0
FTTS	TP		NR	NR	NR	NR	NR	0
HIST FTTS	TP		NR	NR	NR	NR	NR	0
SSTS	TP		NR	NR	NR	NR	NR	0
ICIS	TP		NR	NR	NR	NR	NR	0
PADS	TP		NR	NR	NR	NR	NR	0
MLTS	TP		NR	NR	NR	NR	NR	0
RADINFO	TP		NR	NR	NR	NR	NR	0
FINDS	TP	1	NR	NR	NR	NR	NR	1
RAATS	TP		NR	NR	NR	NR	NR	0
RMP	TP		NR	NR	NR	NR	NR	0
UIC	TP		NR	NR	NR	NR	NR	0
MANIFEST	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
NPDES	TP		NR	NR	NR	NR	NR	0
AIRS	TP		NR	NR	NR	NR	NR	0
Inactive Drycleaners INDIAN RESERV	0.250		0 0	0 0	NR 0	NR 0	NR NR	0 0
SCRD DRYCLEANERS	1.000 0.500		0	0	0	NR	NR NR	0
US FIN ASSUR	0.500 TP		NR	NR	NR	NR	NR	0
EPA WATCH LIST	TP		NR	NR	NR	NR	NR	0
PRP	TP		NR	NR	NR	NR	NR	0
US AIRS	TP		NR	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
LEAD SMELTERS	TP		NR	NR	NR	NR	NR	0
PCB TRANSFORMER	TP		NR	NR	NR	NR	NR	0
COAL ASH DOE	TP		NR	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	Ö
COAL ASH	0.500		Ö	Ö	Ö	NR	NR	Ö
Financial Assurance	TP	1	NR	NR	NR	NR	NR	1
EDR HIGH RISK HISTORICA	AL RECORDS							
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250	1	Ö	Ö	NR	NR	NR	1
EDR US Hist Cleaners	0.250	•	0	Ö	NR	NR	NR	0
	0.200		·	<b>5</b>				Ŭ

#### NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS Map ID

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

Α1 **RESTOVER TRUCK STOP 93RD AVE FINDS** 1007078259 **Target** 

2725 93RD AVE N/A

**Property** OLYMPIA, WA

Site 1 of 5 in cluster A

Actual: 200 ft.

FINDS:

110015549469 Registry ID:

Environmental Interest/Information System

Washington Facility / Site Identification System (WA-FSIS) provides a means to query and display data maintained by the Washington Department of Ecology. This system contains key information for each

facility/site that is currently, or has been, of interest to the Air Quality, Dam Safety, Hazardous Waste, Toxics Cleanup, and Water

Quality Programs.

U004155421 **A2 RESTOVER TRUCKSTOP** CSCSL 2725 93RD AVE SW **Target ALLSITES** N/A

**Property** OLYMPIA, WA 98512 HSL LUST Site 2 of 5 in cluster A **UST** 

**Financial Assurance** 

Actual: 200 ft.

CSCSL:

Facility ID: 244 Region: Southwest

46.951801000000 / -122.9402890000 Lat/Long:

Brownfield Status: Not reported

Rank Status: 3 Clean Up Siteid: 116

Site Status: Cleanup Complete-Active O&M/Monitoring

Not reported PSI?: Contaminant Name: Petroleum-Other

Ground Water: Confirmed Above Cleanup Level

Surface Water: Not reported

Soil: Confirmed Above Cleanup Level

Sediment: Not reported Not reported Air: Bedrock: Not reported Responsible Unit: Headquarters

ALLSITES:

Facility Id: 244 Latitude: 46.951801 Longitude: -122.94028 Ecology Interest Type Code: HWG

Facility ID:

Facility Company: RESTOVER TRUCK STOP

Interaction:

**HWG** Interaction 1:

Interaction 2: Hazardous Waste Generator

**Ecology Program: HAZWASTE** Program Data: **TURBOWASTE** Facility Alt.: Not reported WAD046683983 Program ID: Date Interaction: 05/20/1985

Map ID MAP FINDINGS

Distance

Elevation Site Database(s) EPA ID Number

**RESTOVER TRUCKSTOP (Continued)** 

U004155421

**EDR ID Number** 

Date Interaction 3: 05/20/1985

Facility ID: 244

Facility Company: RESTOVER TRUCK STOP

Interaction: A
Interaction 1: SCS

Interaction 2: State Cleanup Site

Ecology Program: TOXICS
Program Data: ISIS

Facility Alt.: RESTOVER TRUCK STOP

Program ID: Not reported Date Interaction: 03/13/1996 Date Interaction 3: 03/13/1996

Facility ID: 244

Facility Company: RESTOVER TRUCK STOP

Interaction: A
Interaction 1: UST

Interaction 2: Underground Storage Tank

Ecology Program: TOXICS
Program Data: ISIS

Facility Alt.:

Program ID:

4658

Date Interaction:

02/03/1969

Date Interaction 3:

02/03/1969

Facility ID: 244

Facility Company: RESTOVER TRUCK STOP

Interaction: LUST Interaction 1: Interaction 2: **LUST Facility Ecology Program: TOXICS** Program Data: ISIS Facility Alt.: Not reported Program ID: 4658 Date Interaction: 01/01/1988 Date Interaction 3: 01/01/1988

Facility/Site Interaction T: 567
Geographic Location Identifier (Alias Facid): 244
Interaction (Aka Env Int) Type Code: HWG

Interaction (Aka Env Int) Description: Hazardous Waste Generator

Interaction Status:

Federal Program Indentifier: WAD046683983
Interaction Start Date: 05/20/1985
Interaction End Date: 12/31/1991
prgm\_facil: Not reported
cur\_sys\_pr: HAZWASTE
cur\_sys\_nm: TURBOWASTE

Facility/Site Interaction T: 568
Geographic Location Identifier (Alias Facid): 244
Interaction (Aka Env Int) Type Code: SCS

Interaction (Aka Env Int) Description: State Cleanup Site

Interaction Status:

Federal Program Indentifier:

Not reported
Interaction Start Date:

03/13/1996

MAP FINDINGS Map ID

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

#### **RESTOVER TRUCKSTOP (Continued)**

U004155421

Interaction End Date: Not reported

RESTOVER TRUCK STOP prgm\_facil:

**TOXICS** cur\_sys\_pr: ISIS cur\_sys\_nm:

Facility Id: 244 Latitude: 46.951801 Longitude: -122.94028 Ecology Interest Type Code: SCS

Facility ID:

Facility Company: RESTOVER TRUCK STOP

Interaction: Interaction 1: **HWG** 

Hazardous Waste Generator Interaction 2:

**HAZWASTE Ecology Program:** Program Data: **TURBOWASTE** Facility Alt.: Not reported WAD046683983 Program ID: Date Interaction: 05/20/1985 Date Interaction 3: 05/20/1985

Facility ID:

Facility Company: RESTOVER TRUCK STOP

Interaction: Interaction 1: SCS

State Cleanup Site Interaction 2:

**Ecology Program: TOXICS** Program Data: ISIS

Facility Alt.: RESTOVER TRUCK STOP

Program ID: Not reported Date Interaction: 03/13/1996 Date Interaction 3: 03/13/1996

Facility ID: 244

Facility Company: RESTOVER TRUCK STOP

Interaction: Interaction 1: UST

Underground Storage Tank Interaction 2:

TOXICS **Ecology Program:** Program Data: ISIS Facility Alt.: Not reported Program ID: 4658 Date Interaction: 02/03/1969 Date Interaction 3: 02/03/1969

Facility ID:

Facility Company: RESTOVER TRUCK STOP

Interaction:

Interaction 1: LUST **LUST Facility** Interaction 2: **Ecology Program: TOXICS** ISIS Program Data: Facility Alt.: Not reported Program ID: 4658 Date Interaction: 01/01/1988 Date Interaction 3: 01/01/1988

Direction Distance

Elevation Site Database(s) EPA ID Number

**RESTOVER TRUCKSTOP (Continued)** 

U004155421

**EDR ID Number** 

Facility/Site Interaction T: 567
Geographic Location Identifier (Alias Facid): 244
Interaction (Aka Env Int) Type Code: HWG

Interaction (Aka Env Int) Description: Hazardous Waste Generator

Interaction Status:

Federal Program Indentifier: WAD046683983
Interaction Start Date: 05/20/1985
Interaction End Date: 12/31/1991
prgm\_facil: Not reported
cur\_sys\_pr: HAZWASTE
cur\_sys\_nm: TURBOWASTE

Facility/Site Interaction T: 568
Geographic Location Identifier (Alias Facid): 244
Interaction (Aka Env Int) Type Code: SCS

Interaction (Aka Env Int) Description: State Cleanup Site

Interaction Status: A

Federal Program Indentifier:

Interaction Start Date:

Not reported
03/13/1996
Interaction End Date:

Not reported

prgm\_facil: RESTOVER TRUCK STOP

cur\_sys\_pr: TOXICS cur\_sys\_nm: ISIS

Facility Id: 244
Latitude: 46.951801
Longitude: -122.94028
Ecology Interest Type Code: UST

Facility ID: 244

Facility Company: RESTOVER TRUCK STOP

Interaction: I Interaction 1: HWG

Interaction 2: Hazardous Waste Generator

Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported
Program ID: WAD046683983
Date Interaction: 05/20/1985
Date Interaction 3: 05/20/1985

Facility ID: 244

Facility Company: RESTOVER TRUCK STOP

Interaction: A
Interaction 1: SCS

Interaction 2: State Cleanup Site

Ecology Program: TOXICS
Program Data: ISIS

Facility Alt.: RESTOVER TRUCK STOP

Program ID: Not reported
Date Interaction: 03/13/1996
Date Interaction 3: 03/13/1996

Facility ID: 244

Facility Company: RESTOVER TRUCK STOP

Interaction: A Interaction 1: UST

Distance Elevation Site EDR ID Number

Database(s) EPA ID Number

RESTOVER TRUCKSTOP (Continued)

U004155421

Interaction 2: Underground Storage Tank Ecology Program: TOXICS

 Program Data:
 ISIS

 Facility Alt.:
 Not reported

 Program ID:
 4658

 Date Interaction:
 02/03/1969

 Date Interaction 3:
 02/03/1969

Facility ID: 244

Facility Company: RESTOVER TRUCK STOP

Interaction: Interaction 1: LUST **LUST Facility** Interaction 2: **Ecology Program: TOXICS** Program Data: ISIS Facility Alt.: Not reported Program ID: 4658 01/01/1988 Date Interaction: Date Interaction 3: 01/01/1988

Facility/Site Interaction T: 567
Geographic Location Identifier (Alias Facid): 244
Interaction (Aka Env Int) Type Code: HWG

Interaction (Aka Env Int) Description: Hazardous Waste Generator

Interaction Status:

Federal Program Indentifier: WAD046683983
Interaction Start Date: 05/20/1985
Interaction End Date: 12/31/1991
prgm\_facil: Not reported
cur\_sys\_pr: HAZWASTE
cur\_sys\_nm: TURBOWASTE

Facility/Site Interaction T: 568
Geographic Location Identifier (Alias Facid): 244
Interaction (Aka Env Int) Type Code: SCS

Interaction (Aka Env Int) Description: State Cleanup Site

Interaction Status:

Federal Program Indentifier:

Interaction Start Date:

O3/13/1996
Interaction End Date:

Not reported
Not reported

prgm\_facil: RESTOVER TRUCK STOP

cur\_sys\_pr: TOXICS cur\_sys\_nm: ISIS

Facility Id: 244

Latitude: 46.951801

Longitude: -122.94028

Ecology Interest Type Code: LUST

Facility ID: 244

Facility Company: RESTOVER TRUCK STOP

Interaction:

Interaction 1: HWG

Interaction 2: Hazardous Waste Generator

Ecology Program: HAZWASTE
Program Data: TURBOWASTE
Facility Alt.: Not reported

MAP FINDINGS Map ID Direction

Elevation

Distance

Site Database(s) **EPA ID Number** 

**RESTOVER TRUCKSTOP (Continued)** 

U004155421

**EDR ID Number** 

WAD046683983 Program ID: Date Interaction: 05/20/1985 Date Interaction 3: 05/20/1985

Facility ID: 244

RESTOVER TRUCK STOP Facility Company:

Interaction: SCS Interaction 1:

Interaction 2: State Cleanup Site

**Ecology Program: TOXICS** Program Data: ISIS

Facility Alt.: RESTOVER TRUCK STOP

Program ID: Not reported Date Interaction: 03/13/1996 Date Interaction 3: 03/13/1996

Facility ID: 244

Facility Company: RESTOVER TRUCK STOP

Interaction: UST Interaction 1:

Interaction 2: Underground Storage Tank

TOXICS **Ecology Program:** Program Data: ISIS Facility Alt.: Not reported Program ID: 4658 Date Interaction: 02/03/1969 Date Interaction 3: 02/03/1969

Facility ID: 244

RESTOVER TRUCK STOP Facility Company:

Interaction: Interaction 1: LUST Interaction 2: **LUST Facility Ecology Program: TOXICS** Program Data: ISIS Facility Alt.: Not reported Program ID: 4658 Date Interaction: 01/01/1988 01/01/1988 Date Interaction 3:

Facility/Site Interaction T: 567 Geographic Location Identifier (Alias Facid): 244 Interaction (Aka Env Int) Type Code: **HWG** 

Interaction (Aka Env Int) Description: Hazardous Waste Generator

Interaction Status:

Federal Program Indentifier: WAD046683983 Interaction Start Date: 05/20/1985 12/31/1991 Interaction End Date: prgm\_facil: Not reported **HAZWASTE** cur\_sys\_pr: **TURBOWASTE** cur\_sys\_nm:

Facility/Site Interaction T: 568 Geographic Location Identifier (Alias Facid): 244 Interaction (Aka Env Int) Type Code: SCS

Interaction (Aka Env Int) Description: State Cleanup Site

Interaction Status:

Direction Distance

Elevation Site Database(s) EPA ID Number

# **RESTOVER TRUCKSTOP (Continued)**

U004155421

**EDR ID Number** 

Federal Program Indentifier:

Interaction Start Date:

O3/13/1996
Interaction End Date:

Not reported

Not reported

prgm\_facil: RESTOVER TRUCK STOP

cur\_sys\_pr: TOXICS cur\_sys\_nm: ISIS

HSL:

edr\_fstat: WA

edr\_fzip: Not reported edr\_fcnty: THURSTON edr\_zip: Not reported

Facility Type: Hazardous Sites List

Facility Status: Cleanup Complete-Active O&M/Monitoring

FSID Number: 244
Rank: 3
Region: HQ
EDR Link ID: 244

LUST:

Facility ID: 244
Facility Status: Monitoring
Cleanup Site ID: 116
Cleanup Unit Type: Upland

Process Type: Ecology-supervised or conducted
Alternate Name: RESTOVER TRUCKSTOP

Release Status Date: 01/02/1988
Site Response Unit Code: Headquarters

Lat/Long: 46.951801 / -122.94028

Facility ID: 244

Facility Status: Cleanup Started

Cleanup Site ID: 116
Cleanup Unit Type: Upland

Process Type: Ecology-supervised or conducted Alternate Name: RESTOVER TRUCKSTOP

Release Status Date: 01/01/1988
Site Response Unit Code: Headquarters

Lat/Long: 46.951801 / -122.94028

UST:

Facility ID: 244 Site Id: 4658

UBI: 6020999490010001
Phone Number: 3603574701
Paginal Letitude: 46 0518010000000

Decimal Latitude: 46.951801000000003
Decimal Longitude: -122.94028900000001

Tank Name: 1
Tag Number: A8413
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 00/03/1969
Tank Closure Date: Not reported

Capacity Range: 10,000 to 19,999 Gallons

Distance

Elevation Site Database(s) EPA ID Number

# **RESTOVER TRUCKSTOP (Continued)**

Tank Permit Expiration Date: 02/28/2013
Tank Upgrade Date: 06/28/1991

Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Ball Float Valve (vent line)

Tank Material: Steel

Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Interior Lining
Tank Manifold: Not reported

Tank Release Detection: Automatic Tank Gauging

Tank SFC Type: Not reported
Pipe Material: Flexible Piping
Pipe Construction: Single Wall Pipe

Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)

Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: SOUTHWEST
Dispencer/Pump SFC Type: Not reported

Tank Name: 2
Tag Number: A8413
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 00/03/1969
Tank Closure Date: Not reported

Capacity Range: 10,000 to 19,999 Gallons

Tank Permit Expiration Date: 02/28/2013 Tank Upgrade Date: 06/28/1991

Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Ball Float Valve (vent line)

Tank Material: Steel

Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Interior Lining
Tank Manifold: Not reported

Tank Release Detection: Automatic Tank Gauging

Tank SFC Type: Not reported
Pipe Material: Flexible Piping
Pipe Construction: Single Wall Pipe

Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)

Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: SOUTHWEST
Dispencer/Pump SFC Type: Not reported

Tank Name: 3
Tag Number: A8413
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 00/03/1969
Tank Closure Date: Not reported

Capacity Range: 10,000 to 19,999 Gallons

Tank Permit Expiration Date: 02/28/2013

**EDR ID Number** 

U004155421

Distance

Elevation Site Database(s) EPA ID Number

# **RESTOVER TRUCKSTOP (Continued)**

Tank Upgrade Date:

06/28/1991

Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Ball Float Valve (vent line)

Tank Material: Steel

Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Interior Lining
Tank Manifold: Not reported

Tank Release Detection: Automatic Tank Gauging

Tank SFC Type: Not reported
Pipe Material: Flexible Piping
Pipe Construction: Single Wall Pipe

Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)

Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: SOUTHWEST
Dispencer/Pump SFC Type: Not reported

Tank Name: 4
Tag Number: A8413
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 00/03/1969
Tank Closure Date: Not reported

Capacity Range: 10,000 to 19,999 Gallons

Tank Permit Expiration Date: 02/28/2013
Tank Upgrade Date: 09/01/1985

Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Ball Float Valve (vent line)

Tank Material: Steel

Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Interior Lining
Tank Manifold: Not reported

Tank Release Detection: Automatic Tank Gauging

Tank SFC Type: Not reported
Pipe Material: Flexible Piping
Pipe Construction: Single Wall Pipe

Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)

Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: SOUTHWEST
Dispencer/Pump SFC Type: Not reported

Tank Name: 5
Tag Number: A8413
Tank Status: Operational
Tank Status Date: 08/06/1996
Tank Install Date: 00/17/1971
Tank Closure Date: Not reported

Capacity Range: 5,000 to 9,999 Gallons

Tank Permit Expiration Date: 02/28/2013
Tank Upgrade Date: 06/28/1991

**EDR ID Number** 

U004155421

Direction Distance

Elevation Site Database(s) EPA ID Number

# **RESTOVER TRUCKSTOP (Continued)**

U004155421

**EDR ID Number** 

Tank Spill Prevention: Spill Bucket/Spill Box
Tank Overfill Prevention: Ball Float Valve (vent line)

Tank Material: Steel

Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Interior Lining
Tank Manifold: Not reported

Tank Release Detection: Automatic Tank Gauging

Tank SFC Type: Not reported
Pipe Material: Flexible Piping
Pipe Construction: Single Wall Pipe

Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)

Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Corrosion Resistant
Pipe Pumping System: Pressurized System
Responsible Unit: SOUTHWEST
Dispencer/Pump SFC Type: Not reported

Tank Name: 6
Tag Number: A8413
Tank Status: Removed
Tank Status Date: 08/06/1996
Tank Install Date: 00/03/1969
Tank Closure Date: Not reported

Capacity Range: 111 TO 1,100 Gallons

Tank Permit Expiration Date: 02/28/2002
Tank Upgrade Date: Not reported
Tank Spill Prevention: Not reported
Tank Overfill Prevention: Not reported
Tank Material: Steel

Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: Not reported
Tank Manifold: Not reported

Tank Release Detection: Weekly Manual Gauging

Tank SFC Type: Not reported Pipe Material: Not reported Pipe Construction: Not reported

Pipe Primary Release Detection: Automatic Line Leak Detector (ALLD)

Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: Not reported
Pipe Pumping System: Pressurized System
Responsible Unit: SOUTHWEST
Dispencer/Pump SFC Type: Not reported

# WA Financial Assurance 1:

 edr\_fstat:
 WA

 edr\_fzip:
 98502

 edr\_fcnty:
 Not reported

 edr\_zip:
 Not reported

 DOE Site ID:
 4658

 Site Type:
 PLIA

Financial Resp Type: Colony (GUS) Inception Date: 03/05/2011 Expiration Date: 03/05/2012

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

**A3 REST OVER TRUCK STOP** SPILLS S108277701 **Target** 

**2715 93RD AVE SW** N/A

OLYMPIA, WA **Property** 

Site 3 of 5 in cluster A

SPILLS: Actual:

Facility ID: 559337 200 ft. Medium: Not reported

Material Desc: PETROLEUM - DIESEL FUEL

Material Qty: Material Units: **GALLON** 12/09/2006 Date Received: **JEFFERS** Contact Name: EDR Link ID: 559337

Α4 EDR US Hist Auto Stat 1015381230

**Target** 2725 93RD AVE SW N/A **Property** OLYMPIA, WA 98512

Site 4 of 5 in cluster A

**EDR Historical Auto Stations:** Actual:

200 ft. Name: RESTOVER AUTO TRUCK STOP

> 1999 Year:

Address: 2725 93RD AVE SW

Name: RESTOVER AUTO TRUCK STOP

Year: 2000

Address: 2725 93RD AVE SW

RESTOVER AUTO TRUCK STOP Name:

2725 93RD AVE SW

Year: 2003

Α5 **RESTOVER TRUCK STOP** SPILLS S109884589 **Target EXIT 99- SCOTT LAKE ROAD** N/A

OLYMPIA, WA **Property** 

Site 5 of 5 in cluster A

SPILLS: Actual:

Facility ID: 531556 200 ft.

Address:

Medium: Not reported

Material Desc: PETROLEUM - HYDRAULIC OIL

Material Qty: Not reported Material Units: Not reported 01/25/2003 Date Received: Contact Name: Not reported EDR Link ID: 531556

Direction Distance

Distance Elevation Site EDR ID Number Database(s) EPA ID Number

6 SOUTH SOUND STEEL & RECYCLING INC ALLSITES \$108654952 SW 9546 LATHROP INDUSTRIAL DR SW SWF/LF N/A

< 1/8 TUMWATER, WA 98512

0.103 mi. 546 ft.

Relative: ALLSITES:
Higher Facility Id:

 Higher
 Facility Id: Latitude:
 3483630

 Actual:
 46.951825

 Actual:
 Longitude:
 -122.94214

 201 ft.
 Ecology Interest Type Code: Facility ID:
 ENFORFNL

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: RECOVERY
Interaction 2: Energy Recovery

Ecology Program: W2R Program Data: SWFD

Facility Alt.: South Sound Steel & Recycling

Program ID: Not reported
Date Interaction: 01/01/1993
Date Interaction 3: 01/01/1993

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: ENFORFNL
Interaction 2: Enforcement Final
Ecology Program: WATQUAL

Program Data:

Program Data:

Facility Alt.:

Program ID:

Date Interaction:

Date Interaction 3:

Not reported

01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction: A

Interaction 1: **ENFORFNL Enforcement Final** Interaction 2: WATQUAL **Ecology Program:** Program Data: DMS Facility Alt.: Not reported Program ID: Not reported Date Interaction: 01/19/2007 01/19/2007 Date Interaction 3:

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: ENFORFNL Interaction 2: Enforcement Final

Ecology Program: WATQUAL
Program Data: DMS
Facility Alt.: Not reported
Program ID: Not reported
Date Interaction: 01/19/2007
Date Interaction 3: 01/19/2007

**SWRCY** 

**NPDES** 

Facility ID:

Direction Distance

Elevation Site Database(s) EPA ID Number

3483630

# SOUTH SOUND STEEL & RECYCLING INC (Continued)

Facility Company: South Sound Steel & Recycling Inc

Interaction: A

Interaction 1: **ENFORFNL** Interaction 2: **Enforcement Final** WATQUAL **Ecology Program:** Program Data: DMS Facility Alt.: Not reported Program ID: Not reported Date Interaction: 01/19/2007 01/19/2007 Date Interaction 3:

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: ENFORFNL
Interaction 2: Enforcement Final
Ecology Program: WATQUAL
Program Data: DMS
Facility Alt.: Not reported

Program ID:
Date Interaction 3:

Not reported
01/19/2007
01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: ENFORFNL
Interaction 2: Enforcement Final
Ecology Program: WATQUAL
Program Data: DMS
Facility Alt.: Not reported
Program ID: Not reported

Date Interaction: 01/19/2007
Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

**ENFORFNL** Interaction 1: **Enforcement Final** Interaction 2: Ecology Program: WATQUAL Program Data: DMS Facility Alt.: Not reported Program ID: Not reported Date Interaction: 01/19/2007 Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: ENFORFNL
Interaction 2: Enforcement Final
Ecology Program: WATQUAL

Program Data: DMS
Facility Alt.: Not reported
Program ID: Not reported

**EDR ID Number** 

S108654952

Direction Distance

Elevation Site Database(s) EPA ID Number

# SOUTH SOUND STEEL & RECYCLING INC (Continued)

S108654952

**EDR ID Number** 

 Date Interaction:
 01/19/2007

 Date Interaction 3:
 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: **ENFORFNL Enforcement Final** Interaction 2: **Ecology Program:** WATQUAL Program Data: DMS Facility Alt.: Not reported Program ID: Not reported Date Interaction: 01/19/2007 Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: ENFORFNL
Interaction 2: Enforcement Final
Ecology Program: WATQUAL

Program Data: DMS

Facility Alt.:

Program ID:

Date Interaction:

Date Interaction 3:

Not reported

01/19/2007

01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: **ENFORFNL** Interaction 2: **Enforcement Final Ecology Program:** WATQUAL Program Data: DMS Facility Alt.: Not reported Program ID: Not reported Date Interaction: 01/19/2007 Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction: A

Interaction 1: INDUSTGP
Interaction 2: Industrial SW GP
Ecology Program: WATQUAL
Program Data: PARIS

Facility Alt.: SOUTH SOUND STEEL & RECYCLING INC

 Program ID:
 WAR009219

 Date Interaction:
 06/07/2007

 Date Interaction 3:
 06/07/2007

Facility/Site Interaction T: 12798
Geographic Location Identifier (Alias Facid): 3483630
Interaction (Aka Env Int) Type Code: RECOVERY
Interaction (Aka Env Int) Description: Energy Recovery

Interaction Status: A

Federal Program Indentifier: Not reported

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

# SOUTH SOUND STEEL & RECYCLING INC (Continued)

S108654952

Interaction Start Date: 01/01/1993 Interaction End Date: Not reported

prgm\_facil: South Sound Steel & Recycling

W2R cur\_sys\_pr: cur\_sys\_nm: **SWFD** 

12799 Facility/Site Interaction T: Geographic Location Identifier (Alias Facid): 3483630 Interaction (Aka Env Int) Type Code: **ENFORFNL** Interaction (Aka Env Int) Description: **Enforcement Final** 

Interaction Status:

Federal Program Indentifier: Not reported Interaction Start Date: 01/19/2007 Interaction End Date: Not reported prgm\_facil: Not reported cur\_sys\_pr: WATQUAL **DMS** cur\_sys\_nm:

Facility/Site Interaction T: 81469 Geographic Location Identifier (Alias Facid): 3483630 Interaction (Aka Env Int) Type Code: **INDUSTGP** Industrial SW GP Interaction (Aka Env Int) Description: Interaction Status:

Federal Program Indentifier: WAR009219 Interaction Start Date: 06/07/2007 Interaction End Date: Not reported

SOUTH SOUND STEEL & RECYCLING INC prgm\_facil:

cur sys pr: WATQUAL cur\_sys\_nm: **PARIS** 

Facility Id: 3483630 Latitude: 46.951825 Longitude: -122.94214 **INDUSTGP** Ecology Interest Type Code: Facility ID:

Facility Company: South Sound Steel & Recycling Inc

Interaction:

**RECOVERY** Interaction 1: Interaction 2: **Energy Recovery** 

**Ecology Program:** W2R **SWFD** Program Data:

Facility Alt.: South Sound Steel & Recycling

Program ID: Not reported 01/01/1993 Date Interaction: 01/01/1993 Date Interaction 3:

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

**ENFORFNL** Interaction 1: Interaction 2: **Enforcement Final Ecology Program:** WATQUAL

Program Data: **DMS** Facility Alt.: Not reported Program ID: Not reported Date Interaction: 01/19/2007

Distance

Elevation Site Database(s) EPA ID Number

# SOUTH SOUND STEEL & RECYCLING INC (Continued)

S108654952

**EDR ID Number** 

Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

**ENFORFNL** Interaction 1: **Enforcement Final** Interaction 2: WATQUAL **Ecology Program:** Program Data: DMS Facility Alt.: Not reported Program ID: Not reported Date Interaction: 01/19/2007 Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: ENFORFNL
Interaction 2: Enforcement Final
Ecology Program: WATQUAL
Program Data: DMS

Facility Alt.:

Program ID:

Date Interaction:

Date Interaction 3:

Not reported

Not reported

01/19/2007

01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: ENFORFNL
Interaction 2: Enforcement Final
Ecology Program: WATQUAL
Program Data: DMS
Facility Alt.: Not reported
Program ID: Not reported
Date Interaction: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

01/19/2007

Interaction:

Date Interaction 3:

Interaction 1: ENFORFNL
Interaction 2: Enforcement Final
Ecology Program: WATQUAL
Program Data: DMS
Facility Alt.: Not reported
Program ID: Not reported

Program ID: Not reported
Date Interaction: 01/19/2007
Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction: A

Interaction 1: ENFORFNL
Interaction 2: Enforcement Final
Ecology Program: WATQUAL
Program Data: DMS

Direction Distance

Elevation Site Database(s) EPA ID Number

# SOUTH SOUND STEEL & RECYCLING INC (Continued)

S108654952

**EDR ID Number** 

Facility Alt.:

Program ID:

Date Interaction:

Date Interaction 3:

Not reported

Not reported

01/19/2007

01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: **ENFORFNL** Interaction 2: **Enforcement Final** WATQUAL **Ecology Program:** Program Data: **DMS** Facility Alt.: Not reported Program ID: Not reported 01/19/2007 Date Interaction: Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction: A

Interaction 1: ENFORFNL
Interaction 2: Enforcement Final
Ecology Program: WATQUAL
Program Data: DMS
Facility Alt.: Not reported

Program ID: Not reported Not reported Not reported Date Interaction: 01/19/2007 Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: ENFORFNL
Interaction 2: Enforcement Final
Ecology Program: WATQUAL
Program Data: DMS
Facility Alt.: Not reported
Program ID: Not reported
Date Interaction: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

01/19/2007

Interaction:

Date Interaction 3:

Interaction 1: ENFORFNL
Interaction 2: Enforcement Final
Ecology Program: WATQUAL
Program Data: DMS

Facility Alt.:

Program ID:

Date Interaction:

Date Interaction 3:

Not reported

Not reported

01/19/2007

01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: ENFORFNL

Direction Distance

Elevation Site Database(s) EPA ID Number

# SOUTH SOUND STEEL & RECYCLING INC (Continued)

S108654952

**EDR ID Number** 

Interaction 2: Enforcement Final Ecology Program: WATQUAL Program Data: DMS Facility Alt.: Not reported Program ID: Not reported Date Interaction: 01/19/2007 Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction: A

Interaction 1: INDUSTGP
Interaction 2: Industrial SW GP
Ecology Program: WATQUAL
Program Data: PARIS

Facility Alt.: SOUTH SOUND STEEL & RECYCLING INC

 Program ID:
 WAR009219

 Date Interaction:
 06/07/2007

 Date Interaction 3:
 06/07/2007

Facility/Site Interaction T: 12798
Geographic Location Identifier (Alias Facid): 3483630
Interaction (Aka Env Int) Type Code: RECOVERY
Interaction (Aka Env Int) Description: Energy Recovery
Interaction Status: A
Federal Program Indentifier: Not reported
Interaction Start Date: 01/01/1993

Interaction End Date:

prgm\_facil:

Not reported

South Sound Steel & Recycling

cur\_sys\_pr: W2R cur\_sys\_nm: SWFD

Facility/Site Interaction T: 12799
Geographic Location Identifier (Alias Facid): 3483630
Interaction (Aka Env Int) Type Code: ENFORFNL
Interaction (Aka Env Int) Description: Enforcement Final

Interaction Status:

Federal Program Indentifier:

Interaction Start Date:
Interaction End Date:
Interaction

Facility/Site Interaction T: 81469
Geographic Location Identifier (Alias Facid): 3483630
Interaction (Aka Env Int) Type Code: INDUSTGP
Interaction (Aka Env Int) Description: Industrial SW GP
Interaction Status: A

Federal Program Indentifier: WAR009219
Interaction Start Date: 06/07/2007
Interaction End Date: Not reported

prgm\_facil: SOUTH SOUND STEEL & RECYCLING INC

cur\_sys\_pr: WATQUAL cur\_sys\_nm: PARIS

Direction Distance

Elevation Site Database(s) EPA ID Number

# SOUTH SOUND STEEL & RECYCLING INC (Continued)

S108654952

**EDR ID Number** 

 Facility Id:
 3483630

 Latitude:
 46.951825

 Longitude:
 -122.94214

 Ecology Interest Type Code:
 RECOVERY

 Facility ID:
 34836

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: RECOVERY
Interaction 2: Energy Recovery

Ecology Program: W2R Program Data: SWFD

Facility Alt.: South Sound Steel & Recycling

Program ID: Not reported Date Interaction: 01/01/1993 Date Interaction 3: 01/01/1993

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

**ENFORFNL** Interaction 1: Interaction 2: **Enforcement Final** WATQUAL **Ecology Program: DMS** Program Data: Facility Alt.: Not reported Program ID: Not reported 01/19/2007 Date Interaction: Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction: A

Interaction 1: **ENFORFNL** Interaction 2: **Enforcement Final Ecology Program:** WATQUAL Program Data: DMS Facility Alt.: Not reported Program ID: Not reported Date Interaction: 01/19/2007 Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: ENFORFNL
Interaction 2: Enforcement Final
Ecology Program: WATQUAL

Program Data: DMS

Facility Alt.: Not reported Program ID: Not reported Date Interaction: 01/19/2007 Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: ENFORFNL
Interaction 2: Enforcement Final

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

# SOUTH SOUND STEEL & RECYCLING INC (Continued)

S108654952

WATQUAL **Ecology Program:** Program Data: **DMS** Facility Alt.: Not reported Program ID: Not reported 01/19/2007 Date Interaction: 01/19/2007 Date Interaction 3:

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

**ENFORFNL** Interaction 1: Interaction 2: **Enforcement Final** WATQUAL **Ecology Program:** Program Data: **DMS** Facility Alt.: Not reported Program ID: Not reported Date Interaction: 01/19/2007 01/19/2007 Date Interaction 3:

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Α

Interaction:

Interaction 1: **ENFORFNL** Interaction 2: **Enforcement Final** 

WATQUAL **Ecology Program:** Program Data: DMS Facility Alt.: Not reported Program ID: Not reported 01/19/2007 Date Interaction: Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

**ENFORFNL** Interaction 1: **Enforcement Final** Interaction 2: **Ecology Program:** WATQUAL Program Data: **DMS** Facility Alt.: Not reported

Program ID: Not reported 01/19/2007 Date Interaction: Date Interaction 3: 01/19/2007

3483630 Facility ID:

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: **ENFORFNL** Interaction 2: **Enforcement Final** 

**Ecology Program:** WATQUAL Program Data: **DMS** Facility Alt.: Not reported

Program ID: Not reported 01/19/2007 Date Interaction: Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

# SOUTH SOUND STEEL & RECYCLING INC (Continued)

S108654952

Interaction:

**ENFORFNL** Interaction 1: Interaction 2: **Enforcement Final Ecology Program:** WATQUAL Program Data: **DMS** Facility Alt.: Not reported Program ID: Not reported 01/19/2007 Date Interaction: Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

Interaction 1: **ENFORFNL** Interaction 2: **Enforcement Final Ecology Program:** WATQUAL Program Data: DMS Facility Alt.: Not reported Program ID: Not reported 01/19/2007 Date Interaction: Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

**ENFORFNL** Interaction 1: Interaction 2: **Enforcement Final Ecology Program:** WATQUAL

Program Data: **DMS** Facility Alt.: Not reported Program ID: Not reported Date Interaction: 01/19/2007 Date Interaction 3: 01/19/2007

Facility ID: 3483630

Facility Company: South Sound Steel & Recycling Inc

Interaction:

**INDUSTGP** Interaction 1: Industrial SW GP Interaction 2: WATQUAL **Ecology Program:** Program Data: **PARIS** 

Facility Alt.: SOUTH SOUND STEEL & RECYCLING INC

Program ID: WAR009219 Date Interaction: 06/07/2007 Date Interaction 3: 06/07/2007

Facility/Site Interaction T: 12798 Geographic Location Identifier (Alias Facid): 3483630 Interaction (Aka Env Int) Type Code: RECOVERY Interaction (Aka Env Int) Description: **Energy Recovery** Interaction Status:

Federal Program Indentifier: Not reported 01/01/1993 Interaction Start Date: Interaction End Date: Not reported

prgm\_facil: South Sound Steel & Recycling

W2R cur\_sys\_pr: **SWFD** cur\_sys\_nm:

Direction Distance

Elevation Site Database(s) EPA ID Number

# SOUTH SOUND STEEL & RECYCLING INC (Continued)

S108654952

**EDR ID Number** 

Facility/Site Interaction T: 12799
Geographic Location Identifier (Alias Facid): 3483630
Interaction (Aka Env Int) Type Code: ENFORFNL
Interaction (Aka Env Int) Description: Enforcement Final

Interaction Status:

Federal Program Indentifier:

Interaction Start Date:

Interaction End Date:

Program\_facil:

Cur\_sys\_pr:

Cur\_sys\_nm:

Not reported

Not reported

WATQUAL

DMS

Facility/Site Interaction T: 81469
Geographic Location Identifier (Alias Facid): 3483630
Interaction (Aka Env Int) Type Code: INDUSTGP
Interaction (Aka Env Int) Description: Industrial SW GP

Interaction Status:

Federal Program Indentifier: WAR009219
Interaction Start Date: 06/07/2007
Interaction End Date: Not reported

prgm\_facil: SOUTH SOUND STEEL & RECYCLING INC

cur\_sys\_pr: WATQUAL cur\_sys\_nm: PARIS

SWF/LF:

Facility ID: 1104
Region: STATE
Permit Status: EXEMPT
Date Closed: Not reported

Contact Organization: SOUTH SOUND STEEL & RECYCLING

Contact Address1: PO BOX 14400
Contact Address2: Not reported
Contact City: TUMWATER
Contact State: WA
Contact Postal: 98511

Contact EMail: HBRANTLEY@SOUTHSOUNDSTEEL.COM

Contact Phone: 360-705-3532
Contact Phone Ext: Not reported
Permit No: Not reported
Phone: 360-705-3532
Operator Name: Not reported
Operator Organization: Not reported

EMail: hbrantley@southsoundsteel.com

Recycle Survey Code: 5193 Ownership: PRIVATE

Type: RECYCLING FACILITY
Contact Name: HOLLY BRANTLEY
Contact Title: OFFICE MANAGER

Activity1: MATERIAL RECOVERY FACILITY (EXEMPT)

SWRCY:

Service: South Sound Steel & Recycling Inc.

Phone: 360-705-3532 Extension: Not reported

Website: http://www.southsoundsteel.com/

Distance

Elevation Site Database(s) EPA ID Number

# SOUTH SOUND STEEL & RECYCLING INC (Continued)

Email: scrap@southsoundsteel.com

Material Category: Metals
Material Accepted: Aluminum cans

Service: South Sound Steel & Recycling Inc.

Phone: 360-705-3532 Extension: Not reported

Website: http://www.southsoundsteel.com/ Email: scrap@southsoundsteel.com

Material Category: Metals
Material Accepted: Brass

Service: South Sound Steel & Recycling Inc.

Phone: 360-705-3532 Extension: Not reported

Website: http://www.southsoundsteel.com/ Email: scrap@southsoundsteel.com

Material Category: Metals

Material Accepted: Aluminum scrap

Service: South Sound Steel & Recycling Inc.

Phone: 360-705-3532 Extension: Not reported

Website: http://www.southsoundsteel.com/
Email: scrap@southsoundsteel.com

Material Category: Metals
Material Accepted: Copper

Service: South Sound Steel & Recycling Inc.

Phone: 360-705-3532 Extension: Not reported

Website: http://www.southsoundsteel.com/
Email: scrap@southsoundsteel.com

Material Category: Metals

Material Accepted: Ferrous scrap metal

Service: South Sound Steel & Recycling Inc.

Phone: 360-705-3532 Extension: Not reported

Website: http://www.southsoundsteel.com/
Email: scrap@southsoundsteel.com

Material Category: Batteries

Material Accepted: Vehicle battery (from households\*)

Service: South Sound Steel & Recycling Inc.

Phone: 360-705-3532 Extension: Not reported

Website: http://www.southsoundsteel.com/
Email: scrap@southsoundsteel.com

Material Category: Metals
Material Accepted: Other metals

Service: South Sound Steel & Recycling Inc.

Phone: 360-705-3532 Extension: Not reported

Website: http://www.southsoundsteel.com/
Email: scrap@southsoundsteel.com

**EDR ID Number** 

S108654952

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

### SOUTH SOUND STEEL & RECYCLING INC (Continued)

S108654952

Material Category: Metals Material Accepted: Tin cans

South Sound Steel & Recycling Inc. Service:

Phone: 360-705-3532 Not reported Extension:

Website: http://www.southsoundsteel.com/ Email: scrap@southsoundsteel.com

Material Category: Metals Material Accepted: Stainless steel

Service: South Sound Steel & Recycling Inc.

360-705-3532 Phone: Extension: Not reported

Website: http://www.southsoundsteel.com/ Email: scrap@southsoundsteel.com

Metals Material Category:

Material Accepted: Wire, ferrous, bare

Service: South Sound Steel & Recycling Inc.

Phone: 360-705-3532 Extension: Not reported

Website: http://www.southsoundsteel.com/ Email: scrap@southsoundsteel.com

Material Category: Paper

Material Accepted: Corrugated cardboard

NPDES:

Facility Status: Active

Facility Type: Industrial SW GP Admin Region: Headquarters Date Issued: 10/21/2009 Latitude: 46.951825 Longitude: -122.942144 Permit ID: WAR009219 Permit Version: 2

Permit Status: Active

Permit SubStatus: Coverage Issued Paul Stasch **Ecology Contact:** Upper Chehalis WRIA:

Permit Expiration Date: 01/01/2015 Effective Date: 01/01/2010

**ENVIRONMENTAL & TECHNICAL SPECIALISTS** SSW 9730 LATHROP INDUSTRIAL DR STE E1

1/4-1/2 OLYMPIA, WA 98512

0.278 mi. 1467 ft.

7

ALLSITES: Relative:

24729625 Facility Id: Higher Latitude: 46.953719 Actual: -122.94865 Longitude: 203 ft. Ecology Interest Type Code: **HWG** 

Facility ID:

Facility Company: Environmental & Technical Specialists

Interaction:

S109553774

N/A

**ALLSITES** 

Direction Distance

Elevation Site Database(s) **EPA ID Number** 

**ENVIRONMENTAL & TECHNICAL SPECIALISTS (Continued)** 

S109553774

**EDR ID Number** 

HWG Interaction 1:

Interaction 2: Hazardous Waste Generator

Ecology Program: **HAZWASTE** Program Data: **TURBOWASTE** Facility Alt.: Not reported WAH000004945 Program ID: Date Interaction: 04/27/1998 04/27/1998 Date Interaction 3:

**SHELL 93RD AVE SW TUMWATER** В8 **ALLSITES** U003352805

**East** 2440 93RD AVE SW **CSCSL NFA** N/A **UST** 

1/4-1/2 TUMWATER, WA 98507

0.294 mi.

202 ft.

1554 ft. Site 1 of 2 in cluster B

ALLSITES: Relative: Facility Id: Higher

48556587 Latitude: 46.952649 Actual: Longitude: -122.86914

Ecology Interest Type Code: UST

Facility ID:

Facility Company: SHELL STATION 93RD AVE SW

Interaction: Interaction 1: LUST Interaction 2: **LUST Facility Ecology Program: TOXICS** Program Data: ISIS Facility Alt.: Not reported Program ID: 102095 Date Interaction: 09/04/1992 09/04/1992 Date Interaction 3:

Facility ID: 48556587

Facility Company: SHELL STATION 93RD AVE SW

Interaction: Interaction 1: UST

Underground Storage Tank Interaction 2:

Ecology Program: TOXICS ISIS Program Data: Facility Alt.: Not reported Program ID: 102095 10/05/1993 Date Interaction: Date Interaction 3: 10/05/1993

Facility ID: 48556587

Facility Company: SHELL STATION 93RD AVE SW

Interaction: Interaction 1: UST

Interaction 2: Underground Storage Tank

TOXICS **Ecology Program:** Program Data: ISIS Facility Alt.: Not reported Program ID: 10213 06/08/1998 Date Interaction: 06/08/1998 Date Interaction 3:

Direction Distance

Elevation Site Database(s) EPA ID Number

09/04/1992

# SHELL 93RD AVE SW TUMWATER (Continued)

U003352805

**EDR ID Number** 

Facility Id: 48556587
Latitude: 46.952649
Longitude: -122.86914
Ecology Interest Type Code: LUST

Facility ID: 48556587

Facility Company: SHELL STATION 93RD AVE SW

 Interaction:
 I

 Interaction 1:
 LUST

 Interaction 2:
 LUST Facility

 Ecology Program:
 TOXICS

 Program Data:
 ISIS

 Facility Alt.:
 Not reported

 Program ID:
 102095

 Date Interaction:
 09/04/1992

Facility ID: 48556587

Facility Company: SHELL STATION 93RD AVE SW

Interaction: A Interaction 1: UST

Date Interaction 3:

Interaction 2: Underground Storage Tank

Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Not reported
Program ID: 102095
Date Interaction: 10/05/1993
Date Interaction 3: 10/05/1993

Facility ID: 48556587

Facility Company: SHELL STATION 93RD AVE SW

Interaction: I UST

Interaction 2: Underground Storage Tank

Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Not reported
Program ID: 10213
Date Interaction: 06/08/1998
Date Interaction 3: 06/08/1998

CSCSL NFA:

 Facility/Site Id:
 48556587

 CS Id:
 9409

 NFA Date:
 09/09/1992

 Rank:
 Not reported

 VCP:
 No

VCF. INU

Latitude: 46.95264900000001

Longitude: -122.869147

UST:

 Facility ID:
 48556587

 Site Id:
 102095

 UBI:
 Not reported

 Phone Number:
 Not reported

Decimal Latitude: 46.95264900000001

Distance Elevation

Site Database(s) EPA ID Number

## SHELL 93RD AVE SW TUMWATER (Continued)

U003352805

**EDR ID Number** 

Decimal Longitude: -122.869147

Tank Name: 1

Tag Number: Not reported Tank Status: Removed Tank Status Date: 08/06/1996 Tank Install Date: 00/31/1964 Tank Closure Date: Not reported

Capacity Range: 111 TO 1,100 Gallons

Tank Permit Expiration Date: Not reported Not reported Tank Upgrade Date: Tank Spill Prevention: Not reported Tank Overfill Prevention: Not reported Tank Material: Not reported Tank Construction: Not reported Tank Tightness Test: Not reported Tank Corrosion Protection: Not reported Tank Manifold: Not reported Tank Release Detection: Not reported Tank SFC Type: Not reported Pipe Material: Not reported Pipe Construction: Not reported Pipe Primary Release Detection: Not reported Pipe Second Release Detection: Not reported Pipe Corrosion Protection: Not reported Pipe Pumping System: Not reported Responsible Unit: SOUTHWEST Dispencer/Pump SFC Type: Not reported

Tank Name: 2

Tag Number: Not reported Tank Status: Removed Tank Status Date: 08/06/1996 00/31/1964 Tank Install Date: Not reported Tank Closure Date: Capacity Range: Not reported Tank Permit Expiration Date: Not reported Tank Upgrade Date: Not reported Tank Spill Prevention: Not reported Tank Overfill Prevention: Not reported Tank Material: Not reported Tank Construction: Not reported Tank Tightness Test: Not reported Tank Corrosion Protection: Not reported Tank Manifold: Not reported Tank Release Detection: Not reported Tank SFC Type: Not reported Pipe Material: Not reported Not reported Pipe Construction: Pipe Primary Release Detection: Not reported Pipe Second Release Detection: Not reported Pipe Corrosion Protection: Not reported Pipe Pumping System: Not reported Responsible Unit: SOUTHWEST Dispencer/Pump SFC Type: Not reported

Direction Distance Elevation

on Site Database(s) EPA ID Number

### SHELL 93RD AVE SW TUMWATER (Continued)

U003352805

**EDR ID Number** 

Tank Name:

Tag Number: Not reported Tank Status: Removed Tank Status Date: 08/06/1996 Tank Install Date: 00/31/1964 Tank Closure Date: Not reported

Capacity Range: 111 TO 1,100 Gallons

Tank Permit Expiration Date: Not reported Tank Upgrade Date: Not reported Tank Spill Prevention: Not reported Not reported Tank Overfill Prevention: Tank Material: Not reported Tank Construction: Not reported Tank Tightness Test: Not reported Tank Corrosion Protection: Not reported Tank Manifold: Not reported Tank Release Detection: Not reported Tank SFC Type: Not reported Pipe Material: Not reported Pipe Construction: Not reported Pipe Primary Release Detection: Not reported Pipe Second Release Detection: Not reported Pipe Corrosion Protection: Not reported Pipe Pumping System: Not reported SOUTHWEST Responsible Unit: Dispencer/Pump SFC Type: Not reported

Tank Name: 4

Tag Number: Not reported Removed Tank Status: Tank Status Date: 08/06/1996 Tank Install Date: 00/31/1964 Tank Closure Date: Not reported Capacity Range: Not reported Tank Permit Expiration Date: Not reported Tank Upgrade Date: Not reported Tank Spill Prevention: Not reported Tank Overfill Prevention: Not reported Tank Material: Not reported Tank Construction: Not reported Tank Tightness Test: Not reported Tank Corrosion Protection: Not reported Tank Manifold: Not reported Tank Release Detection: Not reported Tank SFC Type: Not reported Pipe Material: Not reported Pipe Construction: Not reported Pipe Primary Release Detection: Not reported Pipe Second Release Detection: Not reported Pipe Corrosion Protection: Not reported Pipe Pumping System: Not reported SOUTHWEST Responsible Unit: Dispencer/Pump SFC Type: Not reported

Tank Name: 5

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

## SHELL 93RD AVE SW TUMWATER (Continued)

U003352805

Tag Number: Not reported Tank Status: Removed Tank Status Date: 08/06/1996 Tank Install Date: 00/31/1964 Tank Closure Date: Not reported Capacity Range: Not reported Tank Permit Expiration Date: Not reported Tank Upgrade Date: Not reported Tank Spill Prevention: Not reported Tank Overfill Prevention: Not reported Tank Material: Not reported Tank Construction: Not reported Tank Tightness Test: Not reported Tank Corrosion Protection: Not reported Tank Manifold: Not reported Tank Release Detection: Not reported Not reported Tank SFC Type: Pipe Material: Not reported Pipe Construction: Not reported Pipe Primary Release Detection: Not reported Pipe Second Release Detection: Not reported Pipe Corrosion Protection: Not reported Pipe Pumping System: Not reported Responsible Unit: SOUTHWEST Dispencer/Pump SFC Type: Not reported

ALLSITES S108969920 **B9 PILOT TRAVEL CENTER 151** 2430 93RD AVE SW **SPILLS East** N/A 1/4-1/2 TUMWATER, WA 98512 **Financial Assurance** 

0.304 mi.

1604 ft. Site 2 of 2 in cluster B

ALLSITES: Relative: 5885201 Facility Id: Higher Latitude: 46.954698 Actual: Longitude: -122.93510 202 ft. TIER2

Ecology Interest Type Code: Facility ID: 5885201

Facility Company: **PILOT TRAVEL CENTER 151** 

Interaction: Interaction 1: UST

Interaction 2: Underground Storage Tank

**Ecology Program: TOXICS** Program Data: ISIS Facility Alt.: Not reported Program ID: Not reported Date Interaction: 09/06/2007 Date Interaction 3: 09/06/2007

Facility ID: 5885201

Facility Company: PILOT TRAVEL CENTER 151

Interaction: Interaction 1: TIER2

Interaction 2: Emergency/Haz Chem Rpt TIER2

**Ecology Program: HAZWASTE EPCRA** Program Data:

**PILOT TRAVEL CENTER 151** Facility Alt.:

Program ID: CRK000080510

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

# **PILOT TRAVEL CENTER 151 (Continued)**

S108969920

Date Interaction: 02/08/2013 02/08/2013 Date Interaction 3:

5885201 Facility Id: Latitude: 46.954698 Longitude: -122.93510 Ecology Interest Type Code: UST

Facility ID: 5885201

Facility Company: PILOT TRAVEL CENTER 151

Interaction: Interaction 1: UST

Interaction 2: Underground Storage Tank

**Ecology Program: TOXICS** Program Data: ISIS Facility Alt.: Not reported Program ID: Not reported Date Interaction: 09/06/2007 Date Interaction 3: 09/06/2007

Facility ID: 5885201

Facility Company: **PILOT TRAVEL CENTER 151** 

Interaction:

Interaction 1: TIER2

Emergency/Haz Chem Rpt TIER2 Interaction 2:

**Ecology Program: HAZWASTE EPCRA** Program Data:

Facility Alt.: PILOT TRAVEL CENTER 151

Program ID: CRK000080510 Date Interaction: 02/08/2013 Date Interaction 3: 02/08/2013

SPILLS:

Facility ID: 626703 Medium: SOIL

Material Desc: PETROLEUM - DIESEL FUEL

Material Qty: 50 **GALLON** Material Units: Date Received: 05/12/2011 Contact Name: Not reported EDR Link ID: 626703

WA Financial Assurance 1:

WA edr\_fstat: edr\_fzip: 98512 edr\_fcnty: Not reported edr\_zip: Not reported DOE Site ID: 619382 Other Ins Site Type: Financial Resp Type: **AISLIC** Inception Date: 09/01/2009 **Expiration Date:** 09/01/2010

Direction Distance

Distance Elevation Site EDR ID Number

EDR ID Number

EPA ID Number

10 DAIRY FRESH FARMS INC ALLSITES U003353703
WSW 9636 BLOMBERG RD UST N/A

1/4-1/2 0.446 mi. 2355 ft.

Relative: ALLSITES:

**Lower** Facility Id: 58695185 Latitude: 46.949159

OLYMPIA, WA 98502

Actual: Longitude: 46.949159

Actual: Longitude: -122.95154

198 ft. Ecology Interest Type Code: UST

Facility ID: 58695185

Facility Company: DAIRY FRESH FARMS INC

Interaction:

Interaction 1: UST

Interaction 2: Underground Storage Tank

Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Not reported
Program ID: 1897
Date Interaction: 06/08/1998
Date Interaction 3: 06/08/1998

UST:

Tag Number:

 Facility ID:
 58695185

 Site Id:
 1897

 UBI:
 Not reported

 Phone Number:
 2063579411

Decimal Latitude: 46.949159000000002 Decimal Longitude: -122.95153999999999

Not reported

Tank Name: 1.

Tank Status: Closed in Place 08/06/1996 Tank Status Date: 00/31/1964 Tank Install Date: Tank Closure Date: Not reported Capacity Range: Not reported Tank Permit Expiration Date: Not reported Tank Upgrade Date: Not reported Tank Spill Prevention: Not reported Tank Overfill Prevention: Not reported Tank Material: Steel Tank Construction: Not reported Tank Tightness Test: Not reported Tank Corrosion Protection: Not reported Tank Manifold: Not reported Tank Release Detection: Not reported Not reported Tank SFC Type: Not reported Pipe Material: Pipe Construction: Not reported Pipe Primary Release Detection: Not reported Pipe Second Release Detection: Not reported Pipe Corrosion Protection: Not reported Pipe Pumping System: Not reported SOUTHWEST Responsible Unit: Dispencer/Pump SFC Type: Not reported

Direction Distance

Distance Elevation Site EDR ID Number

Database(s) EPA ID Number

## **DAIRY FRESH FARMS INC (Continued)**

U003353703

U003355073

N/A

Tank Name: Not reported Tag Number: Tank Status: Closed in Place Tank Status Date: 08/06/1996 Tank Install Date: 00/31/1964 Tank Closure Date: Not reported Capacity Range: Not reported Tank Permit Expiration Date: Not reported Tank Upgrade Date: Not reported Tank Spill Prevention: Not reported Tank Overfill Prevention: Not reported Tank Material: Steel Tank Construction: Not reported Tank Tightness Test: Not reported Tank Corrosion Protection: Not reported Tank Manifold: Not reported Tank Release Detection: Not reported Tank SFC Type: Not reported Pipe Material: Not reported Not reported Pipe Construction: Pipe Primary Release Detection: Not reported Pipe Second Release Detection: Not reported Pipe Corrosion Protection: Not reported

\_\_\_\_

Not reported SOUTHWEST

Not reported

11 JOHNSON & MADDOX CONSTRUCTION CO INC ALLSITES
East 2201 93RD AVE SW UST

1/4-1/2 OLYMPIA, WA 98512

0.467 mi. 2467 ft.

Relative: ALLSITES:

 Higher
 Facility Id:
 45485533

 Latitude:
 46.952689

 Actual:
 Longitude:
 -122.94163

 203 ft.
 Ecology Interest Type Code:
 UST

Pipe Pumping System:

Dispencer/Pump SFC Type:

Responsible Unit:

Facility ID: 45485533

Facility Company: JOHNSON & MADDOX CONSTRUCTION CO INC

Interaction: I UST

Interaction 2: Underground Storage Tank

Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Not reported
Program ID: 6410
Date Interaction: 06/01/1982
Date Interaction 3: 06/01/1982

UST:

 Facility ID:
 45485533

 Site Id:
 6410

 UBI:
 Not reported

 Phone Number:
 2067544445

Decimal Latitude: 46.952688999999999

Direction Distance Elevation

evation Site Database(s) EPA ID Number

#### **JOHNSON & MADDOX CONSTRUCTION CO INC (Continued)**

U003355073

**EDR ID Number** 

Decimal Longitude: -122.94163

Tank Name: 1

Tag Number: Not reported Tank Status: Removed 08/06/1996 Tank Status Date: 00/01/1982 Tank Install Date: Tank Closure Date: Not reported Not reported Capacity Range: Tank Permit Expiration Date: 07/01/1994 Tank Upgrade Date: Not reported Tank Spill Prevention: Not reported Tank Overfill Prevention: Not reported Tank Material: Steel

Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: None
Tank Manifold: Not reported

Tank Release Detection: Manual Inventory Control (daily)

Tank SFC Type: Not reported Pipe Material: Steel

Pipe Construction: Not reported
Pipe Primary Release Detection: Other
Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Not reported
Responsible Unit: SOUTHWEST
Dispencer/Pump SFC Type: Not reported

Tank Name: 2

Tag Number: Not reported Tank Status: Removed Tank Status Date: 08/06/1996 00/01/1982 Tank Install Date: Not reported Tank Closure Date: Capacity Range: Not reported Tank Permit Expiration Date: 07/01/1994 Tank Upgrade Date: Not reported Tank Spill Prevention: Not reported Tank Overfill Prevention: Not reported Tank Material: Steel

Tank Construction: Single Wall Tank
Tank Tightness Test: Not reported
Tank Corrosion Protection: None
Tank Manifold: Not reported

Tank Release Detection: Manual Inventory Control (daily)

Tank SFC Type: Not reported Pipe Material: Steel
Pipe Construction: Not reported Pipe Primary Release Detection: Not reported Pipe Second Paleage Detection: Not reported Pipe Second Paleage Detection: Not reported

Pipe Second Release Detection: Not reported
Pipe Corrosion Protection: None
Pipe Pumping System: Not reported
Responsible Unit: SOUTHWEST
Dispencer/Pump SFC Type: Not reported

Direction Distance

Elevation Site Database(s) **EPA ID Number** 

12 FOREST LAND MGT CENTER CHEM STORAGE **ALLSITES** U003354109 **WSW BLOMBERG ST SW** UST N/A

1/4-1/2 OLYMPIA, WA 98504

0.484 mi. 2558 ft.

ALLSITES: Relative:

Lower Facility Id: 77342168

Latitude: 47.040651 Actual: Longitude: -122.89569 198 ft. Ecology Interest Type Code: UST

Facility ID: 77342168

Facility Company: FOREST LAND MGT CENTER CHEM STORAGE

Interaction: Interaction 1:

UST

Interaction 2: Underground Storage Tank

TOXICS **Ecology Program:** Program Data: ISIS Facility Alt.: Not reported Program ID: 3276 06/08/1998 Date Interaction: 06/08/1998 Date Interaction 3:

UST:

Tag Number:

Facility ID: 77342168 Site Id: 3276 UBI: Not reported Phone Number: 2067535348

Decimal Latitude: 47.040650999999997 Decimal Longitude: -122.89569400000001

Not reported

Tank Name:

Tank Status: Removed 08/06/1996 Tank Status Date: Tank Install Date: 00/31/1964 Tank Closure Date: Not reported Capacity Range: Not reported Tank Permit Expiration Date: Not reported Tank Upgrade Date: Not reported Tank Spill Prevention: Not reported Tank Overfill Prevention: Not reported Tank Material: Steel Tank Construction: Not reported Tank Tightness Test: Not reported Not reported Tank Corrosion Protection: Tank Manifold: Not reported Tank Release Detection: Not reported Not reported Tank SFC Type: Not reported Pipe Material: Pipe Construction: Not reported Pipe Primary Release Detection: Not reported Pipe Second Release Detection: Not reported Pipe Corrosion Protection: Not reported Pipe Pumping System: Not reported SOUTHWEST Responsible Unit: Dispencer/Pump SFC Type: Not reported

**EDR ID Number** 

Direction Distance

Distance Elevation Site EDR ID Number Database(s) EPA ID Number

 13
 WA DNR WEBSTER NURSERY
 CSCSL
 \$102845969

 SW
 9805 BLOMBERG ST SW
 ALLSITES
 N/A

 1/2-1
 TUMWATER, WA 98512
 HSL

1/2-1 0.687 mi. 3628 ft.

Relative: CSCSL:

Lower Facility ID: 8786341
Region: Southwest

**Actual:** Lat/Long: 46.94735 / -122.9508199999

194 ft. Brownfield Status: Not reported

Rank Status: 3 Clean Up Siteid: 3380

Site Status: Construction Complete-Performance Monitoring

PSI?: Not reported

Contaminant Name: Pesticides-Unspecified

Ground Water: Confirmed Above Cleanup Level

Surface Water: Not reported

Soil: Confirmed Above Cleanup Level

Sediment: Not reported
Air: Not reported
Bedrock: Not reported
Responsible Unit: Southwest

ALLSITES:

Facility Id: 8786341
Latitude: 46.94735
Longitude: -122.95082
Ecology Interest Type Code: SCS

Facility ID: 8786341

Facility Company: WA DNR WEBSTER NURSERY

Interaction: I Interaction 1: UST

Interaction 2: Underground Storage Tank

Ecology Program: TOXICS
Program Data: ISIS
Facility Alt.: Not reported
Program ID: 5834
Date Interaction: 01/05/2000
Date Interaction 3: 01/05/2000

Facility ID: 8786341

Facility Company: WA DNR WEBSTER NURSERY

Interaction: A
Interaction 1: SCS

Interaction 2: State Cleanup Site

Ecology Program: TOXICS
Program Data: ISIS

Facility Alt.: WA DNR WEBSTER NURSERY

Program ID: Not reported Date Interaction: 06/01/1996 Date Interaction 3: 06/01/1996

 Facility Id:
 8786341

 Latitude:
 46.94735

 Longitude:
 -122.95082

 Ecology Interest Type Code:
 UST

Facility ID: 8786341

Direction Distance

**EDR ID Number** Elevation Site Database(s) **EPA ID Number** 

UST

# WA DNR WEBSTER NURSERY (Continued)

S102845969

Facility Company: WA DNR WEBSTER NURSERY

Interaction: Interaction 1:

Interaction 2: **Underground Storage Tank** 

**TOXICS Ecology Program:** ISIS Program Data: Facility Alt.: Not reported Program ID: 5834 Date Interaction: 01/05/2000 Date Interaction 3: 01/05/2000

Facility ID: 8786341

Facility Company: WA DNR WEBSTER NURSERY

Interaction: Interaction 1: SCS

State Cleanup Site Interaction 2:

**TOXICS Ecology Program:** Program Data: ISIS

WA DNR WEBSTER NURSERY Facility Alt.:

Program ID: Not reported 06/01/1996 Date Interaction: 06/01/1996 Date Interaction 3:

HSL:

WA edr\_fstat:

edr\_fzip: Not reported THURSTON edr\_fcnty: edr\_zip: Not reported

**Hazardous Sites List** Facility Type:

Facility Status: Construction Complete-Performance Monitoring

FSID Number: 8786341 Rank: SW Region: 8786341 EDR Link ID:

Count: 11 records. ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
OLYMPIA	1007068298	PHILLIPS 66 COMPANY SS 071907	RTE 12		FINDS, ALLSITES, UST
OLYMPIA	1007061820	OLD CITY HALL TUMWATER	215 2ND AVE		FINDS, CSCSL, ALLSITES, LUST, UST
OLYMPIA	1011847584	GILLIARDI RECYCLING FACILITY	SR 510 RESERVATION ROAD		FINDS, ALLSITES
OLYMPIA	1007728336	SAIA MOTOR FREIGHT OLYMPIA	CAPITAL WAY BETWEEN 4TH & STAT		FINDS, ALLSITES
OLYMPIA	1007074631	INTERCITY TRANSIT KEY SHOP	CAPITOL & STATE ST		FINDS, ALLSITES, CSCSL NFA
OLYMPIA	1007063805	OLYMPIA MILLER CENTRAL	1920 N CENTRAL		FINDS, CSCSL, HSL, ALLSITES, LUST
OLYMPIA	1007445356	THURSTON CO. S.L.F.	MARVIN RD. AT INTERSTATE 5		ODI
OLYMPIA	1008001572	DELS FARM SUPPLY OLYMPIA	7720 OLD HWY 99 SE		FINDS, ALLSITES
OLYMPIA	1007068569	OLYMPIA CITY UST 101289	STATE AVE & PLUM ST		FINDS, ALLSITES, UST
OLYMPIA	1007072620	OLYMPIA SCHOOL DIST BUS BARN	1914 S WILSON		FINDS, CSCSL, HSL, ALLSITES, LUST, UST
TUMWATER	S110039523	D&W S&S OLD HWY 99 SHORT PLAT	BONNIEWOOD DR SE & OLD HWY 99	98512	2 ALLSITES

# **GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING**

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

## STANDARD ENVIRONMENTAL RECORDS

#### Federal NPL site list

NPL: National Priority List

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

Date of Government Version: 04/26/2013 Source: EPA
Date Data Arrived at EDR: 05/09/2013 Telephone: N/A

Number of Days to Update: 62 Next Scheduled EDR Contact: 01/20/2014
Data Release Frequency: Quarterly

**NPL Site Boundaries** 

Sources

EPA's Environmental Photographic Interpretation Center (EPIC)

Telephone: 202-564-7333

EPA Region 1 EPA Region 6

Telephone 617-918-1143 Telephone: 214-655-6659

EPA Region 3 EPA Region 7

Telephone 215-814-5418 Telephone: 913-551-7247

EPA Region 4 EPA Region 8

Telephone 404-562-8033 Telephone: 303-312-6774

EPA Region 5 EPA Region 9

Telephone 312-886-6686 Telephone: 415-947-4246

EPA Region 10

Telephone 206-553-8665

Proposed NPL: Proposed National Priority List Sites

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

Date of Government Version: 04/26/2013 Source: EPA
Date Data Arrived at EDR: 05/09/2013 Telephone: N/A

Number of Days to Update: 62 Next Scheduled EDR Contact: 01/20/2014
Data Release Frequency: Quarterly

NPL LIENS: Federal Superfund Liens

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

Date of Government Version: 10/15/1991 Date Data Arrived at EDR: 02/02/1994 Date Made Active in Reports: 03/30/1994

Number of Days to Update: 56

Source: EPA Telephone: 202-564-4267 Last EDR Contact: 08/15/2011

Next Scheduled EDR Contact: 11/28/2011 Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

#### Federal Delisted NPL site list

**DELISTED NPL: National Priority List Deletions** 

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

Date of Government Version: 04/26/2013 Date Data Arrived at EDR: 05/09/2013 Date Made Active in Reports: 07/10/2013

Number of Days to Update: 62

Source: EPA Telephone: N/A

Last EDR Contact: 10/11/2013

Next Scheduled EDR Contact: 01/20/2014 Data Release Frequency: Quarterly

#### Federal CERCLIS list

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 04/26/2013 Date Data Arrived at EDR: 05/29/2013 Date Made Active in Reports: 08/09/2013

Number of Days to Update: 72

Source: EPA

Telephone: 703-412-9810 Last EDR Contact: 10/18/2013

Next Scheduled EDR Contact: 12/09/2013 Data Release Frequency: Quarterly

#### FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

Date of Government Version: 07/31/2012 Date Data Arrived at EDR: 10/09/2012 Date Made Active in Reports: 12/20/2012

Number of Days to Update: 72

Source: Environmental Protection Agency

Telephone: 703-603-8704 Last EDR Contact: 10/11/2013

Next Scheduled EDR Contact: 01/20/2014 Data Release Frequency: Varies

#### Federal CERCLIS NFRAP site List

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 04/26/2013 Date Data Arrived at EDR: 05/29/2013 Date Made Active in Reports: 08/09/2013

Number of Days to Update: 72

Source: EPA Telephone: 703-412-9810

Last EDR Contact: 10/18/2013

Next Scheduled EDR Contact: 12/09/2013
Data Release Frequency: Quarterly

#### Federal RCRA CORRACTS facilities list

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

Date of Government Version: 07/11/2013 Date Data Arrived at EDR: 08/08/2013 Date Made Active in Reports: 09/13/2013

Number of Days to Update: 36

Source: EPA

Telephone: 800-424-9346 Last EDR Contact: 10/02/2013

Next Scheduled EDR Contact: 01/13/2014 Data Release Frequency: Quarterly

#### Federal RCRA non-CORRACTS TSD facilities list

RCRA-TSDF: RCRA - Treatment, Storage and Disposal

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 07/11/2013 Date Data Arrived at EDR: 08/08/2013 Date Made Active in Reports: 09/13/2013

Number of Days to Update: 36

Source: Environmental Protection Agency

Telephone: (206) 553-1200 Last EDR Contact: 10/02/2013

Next Scheduled EDR Contact: 01/13/2014 Data Release Frequency: Quarterly

#### Federal RCRA generators list

RCRA-LQG: RCRA - Large Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 07/11/2013 Date Data Arrived at EDR: 08/08/2013 Date Made Active in Reports: 09/13/2013

Number of Days to Update: 36

Source: Environmental Protection Agency

Telephone: (206) 553-1200 Last EDR Contact: 10/02/2013

Next Scheduled EDR Contact: 01/13/2014 Data Release Frequency: Quarterly

RCRA-SQG: RCRA - Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 07/11/2013 Date Data Arrived at EDR: 08/08/2013 Date Made Active in Reports: 09/13/2013

Number of Days to Update: 36

Source: Environmental Protection Agency

Telephone: (206) 553-1200 Last EDR Contact: 10/02/2013

Next Scheduled EDR Contact: 01/13/2014 Data Release Frequency: Quarterly

RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 07/11/2013 Date Data Arrived at EDR: 08/08/2013 Date Made Active in Reports: 09/13/2013

Number of Days to Update: 36

Source: Environmental Protection Agency

Telephone: (206) 553-1200 Last EDR Contact: 10/02/2013

Next Scheduled EDR Contact: 01/13/2014 Data Release Frequency: Varies

#### Federal institutional controls / engineering controls registries

US ENG CONTROLS: Engineering Controls Sites List

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

Date of Government Version: 06/17/2013 Date Data Arrived at EDR: 06/21/2013 Date Made Active in Reports: 10/03/2013 Number of Days to Update: 104

Source: Environmental Protection Agency Telephone: 703-603-0695 Last EDR Contact: 09/10/2013

Next Scheduled EDR Contact: 12/23/2013 Data Release Frequency: Varies

US INST CONTROL: Sites with Institutional Controls

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

Date of Government Version: 06/17/2013 Date Data Arrived at EDR: 06/21/2013 Date Made Active in Reports: 10/03/2013 Source: Environmental Protection Agency Telephone: 703-603-0695

Last EDR Contact: 09/10/2013

Number of Days to Update: 104

Next Scheduled EDR Contact: 12/23/2013 Data Release Frequency: Varies

LUCIS: Land Use Control Information System

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

Date of Government Version: 08/20/2013 Date Data Arrived at EDR: 08/23/2013 Date Made Active in Reports: 11/01/2013 Source: Department of the Navy Telephone: 843-820-7326 Last EDR Contact: 08/15/2013

Number of Days to Update: 70

Next Scheduled EDR Contact: 09/02/2013 Data Release Frequency: Varies

#### Federal ERNS list

ERNS: Emergency Response Notification System

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 01/17/2013 Date Made Active in Reports: 02/15/2013

Source: National Response Center, United States Coast Guard

Telephone: 202-267-2180 Last EDR Contact: 10/01/2013

Number of Days to Update: 29

Next Scheduled EDR Contact: 01/13/2014 Data Release Frequency: Annually

### State- and tribal - equivalent NPL

HSL: Hazardous Sites List

The Hazardous Sites List is a subset of the CSCSL Report. It includes sites which have been assessed and ranked using the Washington Ranking Method (WARM).

Date of Government Version: 08/26/2013 Date Data Arrived at EDR: 09/13/2013 Date Made Active in Reports: 10/16/2013 Source: Department of Ecology Telephone: 360-407-7200 Last EDR Contact: 09/11/2013

Number of Days to Update: 33

Next Scheduled EDR Contact: 12/23/2013 Data Release Frequency: Semi-Annually

State- and tribal - equivalent CERCLIS

CSCSL: Confirmed and Suspected Contaminated Sites List

State Hazardous Waste Sites. State hazardous waste site records are the states' equivalent to CERCLIS. These sites may or may not already be listed on the federal CERCLIS list. Priority sites planned for cleanup using state funds (state equivalent of Superfund) are identified along with sites where cleanup will be paid for by potentially responsible parties. Available information varies by state.

Date of Government Version: 07/22/2013 Date Data Arrived at EDR: 07/26/2013 Date Made Active in Reports: 09/19/2013

Number of Days to Update: 55

Source: Department of Ecology Telephone: 360-407-7200 Last EDR Contact: 10/25/2013

Next Scheduled EDR Contact: 02/03/2014 Data Release Frequency: Semi-Annually

### State and tribal landfill and/or solid waste disposal site lists

SWF/LF: Solid Waste Facility Database

Solid Waste Facilities/Landfill Sites. SWF/LF type records typically contain an inventory of solid waste disposal facilities or landfills in a particular state. Depending on the state, these may be active or inactive facilities or open dumps that failed to meet RCRA Subtitle D Section 4004 criteria for solid waste landfills or disposal sites.

Date of Government Version: 09/25/2013 Date Data Arrived at EDR: 09/25/2013 Date Made Active in Reports: 10/16/2013

Number of Days to Update: 21

Source: Department of Ecology Telephone: 360-407-6132 Last EDR Contact: 09/20/2013

Next Scheduled EDR Contact: 12/23/2013 Data Release Frequency: Annually

#### State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tanks Site List

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state.

Date of Government Version: 08/19/2013 Date Data Arrived at EDR: 08/22/2013 Date Made Active in Reports: 09/19/2013

Number of Days to Update: 28

Source: Department of Ecology Telephone: 360-407-7183 Last EDR Contact: 08/22/2013

Next Scheduled EDR Contact: 12/02/2013 Data Release Frequency: Quarterly

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Arizona, California, New Mexico and Nevada

Date of Government Version: 03/01/2013 Date Data Arrived at EDR: 03/01/2013 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 42

Source: Environmental Protection Agency

Telephone: 415-972-3372 Last EDR Contact: 10/28/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Quarterly

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 08/27/2013 Date Data Arrived at EDR: 08/27/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 66

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 10/28/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Varies

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 07/29/2013 Date Data Arrived at EDR: 07/30/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 94

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 10/28/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Quarterly

INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

Date of Government Version: 08/27/2012 Date Data Arrived at EDR: 08/28/2012 Date Made Active in Reports: 10/16/2012

Number of Days to Update: 49

Source: EPA Region 8 Telephone: 303-312-6271 Last EDR Contact: 10/28/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Quarterly

INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land
A listing of leaking underground storage tank locations on Indian Land.

Date of Government Version: 02/01/2013 Date Data Arrived at EDR: 05/01/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 184

Source: EPA Region 1 Telephone: 617-918-1313 Last EDR Contact: 11/01/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Varies

INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land LUSTs on Indian land in Florida, Mississippi and North Carolina.

Date of Government Version: 08/01/2013 Date Data Arrived at EDR: 08/02/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 91

Source: EPA Region 4 Telephone: 404-562-8677 Last EDR Contact: 10/28/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Semi-Annually

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 09/12/2011 Date Data Arrived at EDR: 09/13/2011 Date Made Active in Reports: 11/11/2011

Number of Days to Update: 59

Source: EPA Region 6 Telephone: 214-665-6597 Last EDR Contact: 10/28/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Varies

### State and tribal registered storage tank lists

UST: Underground Storage Tank Database

Registered Underground Storage Tanks. UST's are regulated under Subtitle I of the Resource Conservation and Recovery Act (RCRA) and must be registered with the state department responsible for administering the UST program. Available information varies by state program.

Date of Government Version: 02/08/2013 Date Data Arrived at EDR: 02/08/2013 Date Made Active in Reports: 02/19/2013

Number of Days to Update: 11

Source: Department of Ecology Telephone: 360-407-7183 Last EDR Contact: 09/10/2013

Next Scheduled EDR Contact: 12/02/2013 Data Release Frequency: Quarterly

AST: Aboveground Storage Tank Locations

A listing of aboveground storage tank locations regulated by the Department of Ecology's Spill Prevention, Preparedness and Response Program.

Date of Government Version: 04/09/2013 Date Data Arrived at EDR: 05/09/2013 Date Made Active in Reports: 07/25/2013

Number of Days to Update: 77

Source: Department of Ecology Telephone: 360-407-7562 Last EDR Contact: 08/01/2013

Next Scheduled EDR Contact: 11/18/2013 Data Release Frequency: Varies

#### INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 09/28/2012
Date Data Arrived at EDR: 11/07/2012
Date Made Active in Reports: 04/12/2013

Number of Days to Update: 156

Source: EPA, Region 1 Telephone: 617-918-1313 Last EDR Contact: 11/01/2014

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Varies

#### INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

Date of Government Version: 08/01/2013 Date Data Arrived at EDR: 08/02/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 91

Source: EPA Region 4 Telephone: 404-562-9424 Last EDR Contact: 10/28/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Semi-Annually

#### INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

Date of Government Version: 08/20/2013 Date Data Arrived at EDR: 08/23/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 70

Source: EPA Region 5 Telephone: 312-886-6136 Last EDR Contact: 10/28/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Varies

#### INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

Date of Government Version: 05/10/2011 Date Data Arrived at EDR: 05/11/2011 Date Made Active in Reports: 06/14/2011

Number of Days to Update: 34

Source: EPA Region 6 Telephone: 214-665-7591 Last EDR Contact: 10/28/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Semi-Annually

#### INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 02/28/2013 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 43

Source: EPA Region 7 Telephone: 913-551-7003 Last EDR Contact: 10/28/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Varies

#### INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

Date of Government Version: 07/29/2013 Date Data Arrived at EDR: 08/01/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 92

Source: EPA Region 8 Telephone: 303-312-6137 Last EDR Contact: 10/28/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Quarterly

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

Date of Government Version: 02/05/2013 Date Data Arrived at EDR: 02/06/2013 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 65

Source: EPA Region 10 Telephone: 206-553-2857 Last EDR Contact: 10/28/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Quarterly

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

Date of Government Version: 02/21/2013 Date Data Arrived at EDR: 02/26/2013 Date Made Active in Reports: 04/12/2013

Number of Days to Update: 45

Source: EPA Region 9 Telephone: 415-972-3368 Last EDR Contact: 10/28/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Quarterly

FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

Date of Government Version: 01/01/2010 Date Data Arrived at EDR: 02/16/2010 Date Made Active in Reports: 04/12/2010

Number of Days to Update: 55

Source: FEMA

Telephone: 202-646-5797 Last EDR Contact: 10/17/2013

Next Scheduled EDR Contact: 01/27/2014 Data Release Frequency: Varies

#### State and tribal institutional control / engineering control registries

INST CONTROL: Institutional Control Site List Sites that have institutional controls.

Date of Government Version: 07/22/2013 Date Data Arrived at EDR: 07/26/2013 Date Made Active in Reports: 09/19/2013

Number of Days to Update: 55

Source: Department of Ecology Telephone: 360-407-7170 Last EDR Contact: 10/25/2013

Next Scheduled EDR Contact: 02/03/2014 Data Release Frequency: Varies

#### State and tribal voluntary cleanup sites

ICR: Independent Cleanup Reports

These are remedial action reports Ecology has received from either the owner or operator of the sites. These actions have been conducted without department oversight or approval and are not under an order or decree. This database is no longer updated by the Department of Ecology.

Date of Government Version: 12/01/2002 Date Data Arrived at EDR: 01/03/2003 Date Made Active in Reports: 01/22/2003

Number of Days to Update: 19

Source: Department of Ecology Telephone: 360-407-7200 Last EDR Contact: 08/10/2009

Next Scheduled EDR Contact: 11/09/2009 Data Release Frequency: No Update Planned

VCP: Voluntary Cleanup Program Sites

Sites that have entered either the Voluntary Cleanup Program or its predecessor Independent Remedial Action Program.

Date of Government Version: 07/22/2013 Date Data Arrived at EDR: 07/26/2013 Date Made Active in Reports: 09/20/2013

Number of Days to Update: 56

Source: Department of Ecology Telephone: 360-407-7200 Last EDR Contact: 10/22/2013

Next Scheduled EDR Contact: 02/03/2014 Data Release Frequency: Varies

INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

Date of Government Version: 09/28/2012 Date Data Arrived at EDR: 10/02/2012 Date Made Active in Reports: 10/16/2012

Number of Days to Update: 14

Source: EPA, Region 1 Telephone: 617-918-1102 Last EDR Contact: 10/01/2013

Next Scheduled EDR Contact: 01/13/2014 Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008 Date Data Arrived at EDR: 04/22/2008 Date Made Active in Reports: 05/19/2008

Number of Days to Update: 27

Source: EPA, Region 7 Telephone: 913-551-7365 Last EDR Contact: 04/20/2009

Next Scheduled EDR Contact: 07/20/2009

Data Release Frequency: Varies

#### State and tribal Brownfields sites

**BROWNFIELDS: Brownfields Sites Listing** 

A listing of brownfields sites included in the Confirmed & Suspected Sites Listing. Brownfields are abandoned, idle or underused commercial or industrial properties, where the expansion or redevelopment is hindered by real or perceived contamination. Brownfields vary in size, location, age, and past use -- they can be anything from a five-hundred acre automobile assembly plant to a small, abandoned corner gas station.

Date of Government Version: 07/22/2013 Date Data Arrived at EDR: 07/26/2013 Date Made Active in Reports: 09/19/2013

Number of Days to Update: 55

Source: Department of Ecology Telephone: 360-725-4030 Last EDR Contact: 10/25/2013

Next Scheduled EDR Contact: 02/03/2014 Data Release Frequency: Varies

#### ADDITIONAL ENVIRONMENTAL RECORDS

#### Local Brownfield lists

US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

Date of Government Version: 06/24/2013 Date Data Arrived at EDR: 06/25/2013 Date Made Active in Reports: 08/09/2013

Number of Days to Update: 45

Source: Environmental Protection Agency

Telephone: 202-566-2777 Last EDR Contact: 09/24/2013

Next Scheduled EDR Contact: 01/08/2014 Data Release Frequency: Semi-Annually

#### Local Lists of Landfill / Solid Waste Disposal Sites

DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009 Date Data Arrived at EDR: 05/07/2009 Date Made Active in Reports: 09/21/2009

Number of Days to Update: 137

Source: EPA, Region 9 Telephone: 415-947-4219 Last EDR Contact: 10/28/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: No Update Planned

ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

Date of Government Version: 06/30/1985 Date Data Arrived at EDR: 08/09/2004 Date Made Active in Reports: 09/17/2004

Number of Days to Update: 39

Source: Environmental Protection Agency

Telephone: 800-424-9346 Last EDR Contact: 06/09/2004 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

SWRCY: Recycling Facility List

A llisting of recycling center locations.

Date of Government Version: 07/25/2013 Date Data Arrived at EDR: 08/02/2013 Date Made Active in Reports: 09/19/2013

Number of Days to Update: 48

Source: Department of Ecology Telephone: 360-407-6105 Last EDR Contact: 10/28/2013

Next Scheduled EDR Contact: 02/11/2014

Data Release Frequency: Varies

SWTIRE: Solid Waste Tire Facilities

This study identified sites statewide with unauthorized accumulations of scrap tires.

Date of Government Version: 11/01/2005 Date Data Arrived at EDR: 03/16/2006 Date Made Active in Reports: 04/13/2006

Number of Days to Update: 28

Source: Department of Ecology

Telephone: N/A

Last EDR Contact: 09/13/2013

Next Scheduled EDR Contact: 12/23/2013 Data Release Frequency: Varies

INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998 Date Data Arrived at EDR: 12/03/2007 Date Made Active in Reports: 01/24/2008

Number of Days to Update: 52

Source: Environmental Protection Agency

Telephone: 703-308-8245 Last EDR Contact: 07/31/2013

Next Scheduled EDR Contact: 11/18/2013 Data Release Frequency: Varies

#### Local Lists of Hazardous waste / Contaminated Sites

US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 08/06/2013 Date Data Arrived at EDR: 09/11/2013 Date Made Active in Reports: 10/03/2013

Number of Days to Update: 22

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 09/04/2013

Next Scheduled EDR Contact: 12/16/2013 Data Release Frequency: Quarterly

ALLSITES: Facility/Site Identification System Listing

Information on facilities and sites of interest to the Department of Ecology.

Date of Government Version: 08/16/2013 Date Data Arrived at EDR: 08/20/2013 Date Made Active in Reports: 09/19/2013

Number of Days to Update: 30

Source: Department of Ecology Telephone: 360-407-6423 Last EDR Contact: 08/16/2013

Next Scheduled EDR Contact: 11/18/2013 Data Release Frequency: Quarterly

CSCSL NFA: Confirmed and Contaminated Sites - No Further Action

The data set contains information about sites previously on the Confirmed and Suspected Contaminated Sites list that have received a No Further Action (NFA) determination. Because it is necessary to maintain historical records of sites that have been investigated and cleaned up, sites are not deleted from the database when cleanup activities are completed. Instead, a No Further Action code is entered based upon the type of NFA determination the site received.

Date of Government Version: 07/22/2013 Date Data Arrived at EDR: 07/26/2013 Date Made Active in Reports: 09/19/2013

Number of Days to Update: 55

Source: Department of Ecology Telephone: 360-407-7170 Last EDR Contact: 10/25/2013

Next Scheduled EDR Contact: 02/03/2014 Data Release Frequency: Semi-Annually

CDL: Clandestine Drug Lab Contaminated Site List

Illegal methamphetamine labs use hazardous chemicals that create public health hazards. Chemicals and residues can cause burns, respiratory and neurological damage, and death. Biological hazards associated with intravenous needles, feces, and blood also pose health risks.

Date of Government Version: 08/09/2013 Date Data Arrived at EDR: 08/23/2013 Date Made Active in Reports: 09/20/2013

Number of Days to Update: 28

Source: Department of Health Telephone: 360-236-3380 Last EDR Contact: 08/09/2013

Next Scheduled EDR Contact: 11/25/2013 Data Release Frequency: Varies

HIST CDL: List of Sites Contaminated by Clandestine Drug Labs

This listing of contaminated sites by Clandestine Drug Labs includes non-remediated properties. The current CDL listing does not. This listing is no longer updated by the state agency.

Date of Government Version: 02/08/2007 Date Data Arrived at EDR: 06/26/2007 Date Made Active in Reports: 07/19/2007

Number of Days to Update: 23

Source: Department of Health Telephone: 360-236-3381 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008

Data Release Frequency: No Update Planned

US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007 Date Data Arrived at EDR: 11/19/2008 Date Made Active in Reports: 03/30/2009

Number of Days to Update: 131

Source: Drug Enforcement Administration

Telephone: 202-307-1000 Last EDR Contact: 03/23/2009

Next Scheduled EDR Contact: 06/22/2009 Data Release Frequency: No Update Planned

Local Land Records

#### LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

Date of Government Version: 02/06/2013 Date Data Arrived at EDR: 04/25/2013 Date Made Active in Reports: 05/10/2013

Number of Days to Update: 15

Source: Environmental Protection Agency

Telephone: 202-564-6023 Last EDR Contact: 11/01/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Varies

#### Records of Emergency Release Reports

#### HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 02/27/2013

Number of Days to Update: 55

Source: U.S. Department of Transportation

Telephone: 202-366-4555 Last EDR Contact: 10/01/2013

Next Scheduled EDR Contact: 01/13/2014 Data Release Frequency: Annually

#### SPILLS: Reported Spills

Spills reported to the Spill Prevention, Preparedness and Response Division.

Date of Government Version: 09/26/2013 Date Data Arrived at EDR: 09/27/2013 Date Made Active in Reports: 10/16/2013

Number of Days to Update: 19

Source: Department of Ecology Telephone: 360-407-6950 Last EDR Contact: 09/23/2013

Next Scheduled EDR Contact: 01/08/2014 Data Release Frequency: Semi-Annually

#### SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

Date of Government Version: 05/23/2006 Date Data Arrived at EDR: 01/03/2013 Date Made Active in Reports: 03/06/2013

Number of Days to Update: 62

Source: FirstSearch Telephone: N/A

Last EDR Contact: 01/03/2013 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

#### Other Ascertainable Records

#### RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

Date of Government Version: 07/11/2013 Date Data Arrived at EDR: 08/08/2013 Date Made Active in Reports: 09/13/2013

Number of Days to Update: 36

Source: Environmental Protection Agency

Telephone: (206) 553-1200 Last EDR Contact: 10/02/2013

Next Scheduled EDR Contact: 01/13/2014 Data Release Frequency: Varies

DOT OPS: Incident and Accident Data

Department of Transporation, Office of Pipeline Safety Incident and Accident data.

Date of Government Version: 07/31/2012 Date Data Arrived at EDR: 08/07/2012 Date Made Active in Reports: 09/18/2012

Number of Days to Update: 42

Source: Department of Transporation, Office of Pipeline Safety

Telephone: 202-366-4595 Last EDR Contact: 08/05/2013

Next Scheduled EDR Contact: 11/18/2013 Data Release Frequency: Varies

#### DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 11/10/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 62

Source: USGS

Telephone: 888-275-8747 Last EDR Contact: 10/18/2013

Next Scheduled EDR Contact: 01/27/2014 Data Release Frequency: Semi-Annually

#### FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 02/26/2013 Date Made Active in Reports: 03/13/2013

Number of Days to Update: 15

Source: U.S. Army Corps of Engineers

Telephone: 202-528-4285 Last EDR Contact: 09/10/2013

Next Scheduled EDR Contact: 12/23/2013 Data Release Frequency: Varies

#### CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2013 Date Data Arrived at EDR: 08/07/2013 Date Made Active in Reports: 10/03/2013

Number of Days to Update: 57

Source: Department of Justice, Consent Decree Library

Telephone: Varies

Last EDR Contact: 09/30/2013

Next Scheduled EDR Contact: 01/13/2014 Data Release Frequency: Varies

### ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 04/26/2013 Date Data Arrived at EDR: 06/11/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 143

Source: EPA

Telephone: 703-416-0223 Last EDR Contact: 09/13/2013

Next Scheduled EDR Contact: 12/23/2013 Data Release Frequency: Annually

#### UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010 Date Data Arrived at EDR: 10/07/2011 Date Made Active in Reports: 03/01/2012

Number of Days to Update: 146

Source: Department of Energy Telephone: 505-845-0011 Last EDR Contact: 05/28/2013

Next Scheduled EDR Contact: 09/09/2013 Data Release Frequency: Varies

#### US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/01/2013 Date Data Arrived at EDR: 09/05/2013 Date Made Active in Reports: 10/03/2013

Number of Days to Update: 28

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959 Last EDR Contact: 09/05/2013

Next Scheduled EDR Contact: 12/16/2013 Data Release Frequency: Semi-Annually

TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 07/31/2013 Date Made Active in Reports: 09/13/2013

Number of Days to Update: 44

Source: EPA

Telephone: 202-566-0250 Last EDR Contact: 08/30/2013

Next Scheduled EDR Contact: 12/09/2013 Data Release Frequency: Annually

TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant

site.

Date of Government Version: 12/31/2006 Date Data Arrived at EDR: 09/29/2010 Date Made Active in Reports: 12/02/2010

Number of Days to Update: 64

Source: EPA

Telephone: 202-260-5521 Last EDR Contact: 09/24/2013

Next Scheduled EDR Contact: 01/08/2014 Data Release Frequency: Every 4 Years

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA/Office of Prevention, Pesticides and Toxic Substances

Telephone: 202-566-1667 Last EDR Contact: 08/22/2013

Next Scheduled EDR Contact: 12/09/2013 Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009 Date Data Arrived at EDR: 04/16/2009 Date Made Active in Reports: 05/11/2009

Number of Days to Update: 25

Source: EPA

Telephone: 202-566-1667 Last EDR Contact: 08/22/2013

Next Scheduled EDR Contact: 12/09/2013 Data Release Frequency: Quarterly

HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2007

Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

Date of Government Version: 10/19/2006 Date Data Arrived at EDR: 03/01/2007 Date Made Active in Reports: 04/10/2007

Number of Days to Update: 40

Source: Environmental Protection Agency

Telephone: 202-564-2501 Last EDR Contact: 12/17/2008

Next Scheduled EDR Contact: 03/17/2008 Data Release Frequency: No Update Planned

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009 Date Data Arrived at EDR: 12/10/2010 Date Made Active in Reports: 02/25/2011

Number of Days to Update: 77

Source: EPA

Telephone: 202-564-4203 Last EDR Contact: 10/28/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Annually

ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/20/2011 Date Data Arrived at EDR: 11/10/2011 Date Made Active in Reports: 01/10/2012

Number of Days to Update: 61

Source: Environmental Protection Agency

Telephone: 202-564-5088 Last EDR Contact: 10/09/2014

Next Scheduled EDR Contact: 01/27/2014 Data Release Frequency: Quarterly

PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2013 Date Data Arrived at EDR: 07/17/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 107

Source: EPA

Telephone: 202-566-0500 Last EDR Contact: 10/18/2013

Next Scheduled EDR Contact: 01/27/2014 Data Release Frequency: Annually

MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 07/22/2013 Date Data Arrived at EDR: 08/02/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 91

Source: Nuclear Regulatory Commission

Telephone: 301-415-7169 Last EDR Contact: 09/10/2013

Next Scheduled EDR Contact: 12/23/2013 Data Release Frequency: Quarterly

RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

Date of Government Version: 09/30/2013 Date Data Arrived at EDR: 10/09/2013 Date Made Active in Reports: 11/01/2013

Number of Days to Update: 23

Source: Environmental Protection Agency

Telephone: 202-343-9775 Last EDR Contact: 10/09/2013

Next Scheduled EDR Contact: 01/20/2014 Data Release Frequency: Quarterly

#### FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 03/08/2013 Date Data Arrived at EDR: 03/21/2013 Date Made Active in Reports: 07/10/2013

Number of Days to Update: 111

Source: EPA Telephone: (206) 553-1200 Last EDR Contact: 09/11/2013

Next Scheduled EDR Contact: 12/23/2013 Data Release Frequency: Quarterly

#### RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

Date of Government Version: 04/17/1995 Date Data Arrived at EDR: 07/03/1995 Date Made Active in Reports: 08/07/1995

Number of Days to Update: 35

Source: EPA

Telephone: 202-564-4104 Last EDR Contact: 06/02/2008

Next Scheduled EDR Contact: 09/01/2008 Data Release Frequency: No Update Planned

#### RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/08/2012 Date Data Arrived at EDR: 05/25/2012 Date Made Active in Reports: 07/10/2012

Number of Days to Update: 46

Source: Environmental Protection Agency

Telephone: 202-564-8600 Last EDR Contact: 10/28/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Varies

#### **BRS: Biennial Reporting System**

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 02/26/2013 Date Made Active in Reports: 04/19/2013

Number of Days to Update: 52

Source: EPA/NTIS Telephone: 800-424-9346 Last EDR Contact: 08/26/2013

Next Scheduled EDR Contact: 12/09/2013 Data Release Frequency: Biennially

UIC: Underground Injection Wells Listing A listing of underground injection wells.

Date of Government Version: 08/19/2013 Date Data Arrived at EDR: 08/22/2013 Date Made Active in Reports: 09/19/2013

Number of Days to Update: 28

Source: Department of Ecology Telephone: 360-407-6143 Last EDR Contact: 08/22/2013

Next Scheduled EDR Contact: 12/02/2013 Data Release Frequency: Varies

WA MANIFEST: Hazardous Waste Manifest Data Hazardous waste manifest information.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 04/29/2013 Date Made Active in Reports: 06/10/2013

Number of Days to Update: 42

Source: Department of Ecology

Telephone: N/A

Last EDR Contact: 10/21/2013

Next Scheduled EDR Contact: 02/03/2014 Data Release Frequency: Annually

DRYCLEANERS: Drycleaner List

A listing of registered drycleaners who registered with the Department of Ecology (using the SIC code of 7215

and 7216) as hazardous waste generators.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 04/29/2013 Date Made Active in Reports: 06/10/2013

Number of Days to Update: 42

Source: Department of Ecology Telephone: 360-407-6732 Last EDR Contact: 10/21/2013

Next Scheduled EDR Contact: 02/03/2014 Data Release Frequency: Varies

NPDES: Water Quality Permit System Data
A listing of permitted wastewater facilities.

Date of Government Version: 07/28/2013 Date Data Arrived at EDR: 07/30/2013 Date Made Active in Reports: 09/19/2013

Number of Days to Update: 51

Source: Department of Ecology Telephone: 360-407-6073 Last EDR Contact: 10/21/2013

Next Scheduled EDR Contact: 02/03/2014 Data Release Frequency: Quarterly

AIRS (EMI): Washington Emissions Data System Emissions inventory data.

Date of Government Version: 12/31/2011 Date Data Arrived at EDR: 01/11/2013 Date Made Active in Reports: 02/22/2013

Number of Days to Update: 42

Source: Department of Ecology Telephone: 360-407-6040 Last EDR Contact: 09/23/2013

Next Scheduled EDR Contact: 01/08/2014 Data Release Frequency: Annually

INACTIVE DRYCLEANERS: Inactive Drycleaners A listing of inactive drycleaner facility locations.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 04/29/2013 Date Made Active in Reports: 06/10/2013

Number of Days to Update: 42

Source: Department of Ecology Telephone: 360-407-6732 Last EDR Contact: 10/21/2013

Next Scheduled EDR Contact: 02/03/2014 Data Release Frequency: Annually

INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater

than 640 acres.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 12/08/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 34

Source: USGS

Telephone: 202-208-3710 Last EDR Contact: 10/18/2013

Next Scheduled EDR Contact: 01/27/2014 Data Release Frequency: Semi-Annually

#### SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

Date of Government Version: 03/07/2011 Date Data Arrived at EDR: 03/09/2011 Date Made Active in Reports: 05/02/2011

Number of Days to Update: 54

Source: Environmental Protection Agency

Telephone: 615-532-8599 Last EDR Contact: 10/21/2013

Next Scheduled EDR Contact: 02/03/2014 Data Release Frequency: Varies

#### PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

Date of Government Version: 02/01/2011 Date Data Arrived at EDR: 10/19/2011 Date Made Active in Reports: 01/10/2012

Number of Days to Update: 83

Source: Environmental Protection Agency

Telephone: 202-566-0517 Last EDR Contact: 11/01/2013

Next Scheduled EDR Contact: 02/11/2014 Data Release Frequency: Varies

#### PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

Date of Government Version: 04/15/2013 Date Data Arrived at EDR: 07/03/2013 Date Made Active in Reports: 09/13/2013

Number of Days to Update: 72

Source: EPA

Telephone: 202-564-6023 Last EDR Contact: 10/04/2013

Next Scheduled EDR Contact: 01/13/2014 Data Release Frequency: Quarterly

#### FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 02/06/2006 Date Made Active in Reports: 01/11/2007

Number of Days to Update: 339

Source: U.S. Geological Survey Telephone: 888-275-8747 Last EDR Contact: 10/18/2013

Next Scheduled EDR Contact: 01/27/2014

Data Release Frequency: N/A

#### COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005 Date Data Arrived at EDR: 08/07/2009 Date Made Active in Reports: 10/22/2009

Number of Days to Update: 76

Source: Department of Energy Telephone: 202-586-8719 Last EDR Contact: 10/15/2013

Next Scheduled EDR Contact: 01/27/2014 Data Release Frequency: Varies

#### US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

Date of Government Version: 01/23/2013 Date Data Arrived at EDR: 01/30/2013 Date Made Active in Reports: 05/10/2013

Number of Days to Update: 100

Source: EPA

Telephone: 202-564-5962 Last EDR Contact: 09/30/2013

Next Scheduled EDR Contact: 01/13/2014 Data Release Frequency: Annually

#### Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for hazardous waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 05/23/2011 Date Data Arrived at EDR: 05/26/2011 Date Made Active in Reports: 06/27/2011

Number of Days to Update: 32

Source: Department of Ecology Telephone: 360-407-6754 Last EDR Contact: 08/16/2013

Next Scheduled EDR Contact: 12/02/2013 Data Release Frequency: Varies

# COAL ASH: Coal Ash Disposal Site Listing A listing of coal ash disposal site locations.

Date of Government Version: 06/20/2013 Date Data Arrived at EDR: 06/21/2013 Date Made Active in Reports: 07/25/2013

Number of Days to Update: 34

Source: Department of Ecology Telephone: 360-407-6933 Last EDR Contact: 09/10/2013

Next Scheduled EDR Contact: 12/23/2013 Data Release Frequency: Varies

#### Financial Assurance 3: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/01/2001 Date Data Arrived at EDR: 03/06/2007 Date Made Active in Reports: 04/19/2007

Number of Days to Update: 44

Source: Department of Ecology Telephone: 360-407-6136 Last EDR Contact: 08/22/2013

Next Scheduled EDR Contact: 12/02/2013 Data Release Frequency: Varies

#### Financial Assurance 1: Financial Assurance Information Listing

A listing of financial assurance information for underground storage tank facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

Date of Government Version: 02/24/2012 Date Data Arrived at EDR: 02/24/2012 Date Made Active in Reports: 03/27/2012

Number of Days to Update: 32

Source: Department of Ecology Telephone: 360-586-1060 Last EDR Contact: 08/16/2013

Next Scheduled EDR Contact: 12/02/2013 Data Release Frequency: Varies

#### LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/29/2013 Date Data Arrived at EDR: 02/14/2013 Date Made Active in Reports: 02/27/2013

Number of Days to Update: 13

Source: Environmental Protection Agency

Telephone: 703-603-8787 Last EDR Contact: 09/24/2013

Next Scheduled EDR Contact: 01/20/2014 Data Release Frequency: Varies

#### LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2001 Date Data Arrived at EDR: 10/27/2010 Date Made Active in Reports: 12/02/2010

Number of Days to Update: 36

Source: American Journal of Public Health

Telephone: 703-305-6451 Last EDR Contact: 12/02/2009 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011 Date Data Arrived at EDR: 05/18/2012 Date Made Active in Reports: 05/25/2012

Number of Days to Update: 7

Source: Environmental Protection Agency

Telephone: 703-308-4044 Last EDR Contact: 08/16/2013

Next Scheduled EDR Contact: 11/25/2013 Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 03/04/2013 Date Data Arrived at EDR: 03/15/2013 Date Made Active in Reports: 05/10/2013

Number of Days to Update: 56

Source: Environmental Protection Agency

Telephone: 202-566-1917 Last EDR Contact: 09/27/2013

Next Scheduled EDR Contact: 12/02/2013 Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 06/30/2013 Date Data Arrived at EDR: 08/13/2013 Date Made Active in Reports: 09/13/2013

Number of Days to Update: 31

Source: Environmental Protection Agency

Telephone: 617-520-3000 Last EDR Contact: 08/07/2013

Next Scheduled EDR Contact: 11/25/2013 Data Release Frequency: Quarterly

US AIRS MINOR: Air Facility System Data A listing of minor source facilities.

Date of Government Version: 01/23/2013 Date Data Arrived at EDR: 01/30/2013 Date Made Active in Reports: 05/10/2013

Number of Days to Update: 100

Source: EPA

Telephone: 202-564-5962 Last EDR Contact: 09/30/2013

Next Scheduled EDR Contact: 01/13/2014 Data Release Frequency: Annually

COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010 Date Data Arrived at EDR: 01/03/2011 Date Made Active in Reports: 03/21/2011

Number of Days to Update: 77

Source: Environmental Protection Agency

Telephone: N/A

Last EDR Contact: 09/13/2013

Next Scheduled EDR Contact: 12/23/2013 Data Release Frequency: Varies

#### **EDR HIGH RISK HISTORICAL RECORDS**

#### **EDR Exclusive Records**

EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A Source: EDR, Inc.

Date Data Arrived at EDR: N/A Telephone: N/A

Date Made Active in Reports: N/A Last EDR Contact: N/A

Number of Days to Update: N/A

Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

#### EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Source: EDR, Inc.
Date Data Arrived at EDR: N/A Telephone: N/A
Date Made Active in Reports: N/A Last EDR Contact: N/A

Number of Days to Update: N/A Next Scheduled EDR Contact: N/A

Data Release Frequency: Varies

#### EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A Source: EDR, Inc.
Date Data Arrived at EDR: N/A Telephone: N/A
Date Made Active in Reports: N/A Last EDR Contact: N/A

Number of Days to Update: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR US Hist Cleaners: EDR Proprietary Historic Dry Cleaners - Cole

Date of Government Version: N/A

Date Data Arrived at EDR: N/A

Date Made Active in Reports: N/A

Last EDR Contact: N/A

Number of Days to Update: N/A Next Scheduled EDR Contact: N/A Data Release Frequency: Varies

EDR US Hist Auto Stat: EDR Proprietary Historic Gas Stations - Cole

Date of Government Version: N/A

Date Data Arrived at EDR: N/A

Date Made Active in Reports: N/A

Last EDR Contact: N/A

Number of Days to Update: N/A Next Scheduled EDR Contact: N/A

Data Release Frequency: Varies

#### **COUNTY RECORDS**

#### KING COUNTY:

Abandoned Landfill Study in King County

The King County Abandoned Landfill Survey was conducted from October through December 1984 by the Health Department's Environmental Health Division at the request of the King County Council. The primary objective of the survey was to determine if any public health problems existed at the predetermined 24 sites.

Date of Government Version: 04/30/1985 Date Data Arrived at EDR: 11/07/1994 Date Made Active in Reports: N/A Number of Days to Update: 0 Source: Seattle-King County Department of Public Health Telephone: 206-296-4785 Last EDR Contact: 10/21/1994

Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

#### SEATTLE COUNTY:

Abandoned Landfill Study in the City of Seattle

The Seattle Abandoned Landfill Survey was conducted in June and July of 1984 by the Health Department's Environmental Health Division at the request of the Mayor's Office. The primary objective of the survey was to determine if any public health problems existed at the predetermined 12 sites.

Date of Government Version: 07/30/1984 Date Data Arrived at EDR: 11/07/1994 Date Made Active in Reports: N/A Number of Days to Update: 0 Source: Seattle - King County Department of Public Health

Telephone: 206-296-4785 Last EDR Contact: 10/21/1994 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

#### SEATTLE/KING COUNTY:

Seattle - King County Abandoned Landfill Toxicity / Hazard Assessment Project

This report presents the Seattle-King County Health Department's follow-up investigation of two city owned and four county owned abandoned landfills which was conducted from February to December 1986.

Date of Government Version: 12/31/1986 Date Data Arrived at EDR: 08/18/1995 Date Made Active in Reports: 09/20/1995 Number of Days to Update: 33 Source: Department of Public Health Telephone: 206-296-4785 Last EDR Contact: 08/14/1995 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

### SNOHOMISH COUNTY:

Solid Waste Sites of Record at Snohomish Health District

Solid waste disposal and/or utilization sites in Snohomish County.

Date of Government Version: 11/16/2011 Date Data Arrived at EDR: 03/29/2012 Date Made Active in Reports: 05/03/2012

Number of Days to Update: 35

Source: Snohomish Health District Telephone: 206-339-5250 Last EDR Contact: 09/27/2013

Next Scheduled EDR Contact: 01/08/2014 Data Release Frequency: Semi-Annually

#### TACOMA/PIERCE COUNTY:

#### Closed Landfill Survey

Following numerous requests for information about closed dumpsites and landfills in Pierce County, the Tacoma-Pierce County Health Department decided to conduct a study on the matter. The aim of the study was to evaluate public health risks associated with the closed dumpsites and landfills, and to determine the need, if any, for further investigations of a more detailed nature. The sites represent all of the known dumpsites and landfills closed after 1950.

Date of Government Version: 09/01/2002 Date Data Arrived at EDR: 03/24/2003 Date Made Active in Reports: 05/14/2003

Number of Days to Update: 51

Source: Tacoma-Pierce County Health Department

Telephone: 206-591-6500 Last EDR Contact: 03/19/2003 Next Scheduled EDR Contact: N/A

Data Release Frequency: No Update Planned

#### OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

Date of Government Version: 07/30/2013 Date Data Arrived at EDR: 08/19/2013 Date Made Active in Reports: 10/03/2013

Number of Days to Update: 45

Source: Department of Energy & Environmental Protection

Telephone: 860-424-3375 Last EDR Contact: 08/19/2013

Next Scheduled EDR Contact: 12/02/2013 Data Release Frequency: Annually

NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 08/01/2013 Date Data Arrived at EDR: 08/07/2013 Date Made Active in Reports: 09/10/2013

Number of Days to Update: 34

Source: Department of Environmental Conservation

Telephone: 518-402-8651 Last EDR Contact: 08/07/2013

Next Scheduled EDR Contact: 11/18/2013 Data Release Frequency: Annually

PA MANIFEST: Manifest Information
Hazardous waste manifest information.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 07/24/2013 Date Made Active in Reports: 08/19/2013

Number of Days to Update: 26

Source: Department of Environmental Protection

Telephone: 717-783-8990 Last EDR Contact: 10/21/2013

Next Scheduled EDR Contact: 02/03/2014 Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2012 Date Data Arrived at EDR: 08/09/2013 Date Made Active in Reports: 09/27/2013

Number of Days to Update: 49

Source: Department of Natural Resources

Telephone: N/A

Last EDR Contact: 09/16/2013

Next Scheduled EDR Contact: 12/30/2013 Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

Electric Power Transmission Line Data Source: Rextag Strategies Corp. Telephone: (281) 769-2247

U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

#### AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services,

a federal agency within the U.S. Department of Health and Human Services.

#### **Nursing Homes**

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

#### Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary

and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

Daycare Centers: Daycare Center Listing

Source: Department of Social & Health Services

Telephone: 253-383-1735

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

### STREET AND ADDRESS INFORMATION

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### **GEOCHECK®-PHYSICAL SETTING SOURCE ADDENDUM**

#### **TARGET PROPERTY ADDRESS**

RESTOVER TRUCKSTOP 2729 93RD AVENUE SOUTHWEST OLYMPIA, WA 98512

#### **TARGET PROPERTY COORDINATES**

Latitude (North): 46.9527 - 46° 57' 9.72" Longitude (West): 122.9406 - 122° 56' 26.16"

Universal Tranverse Mercator: Zone 10 UTM X (Meters): 504520.0 UTM Y (Meters): 5199691.0

Elevation: 200 ft. above sea level

#### **USGS TOPOGRAPHIC MAP**

Target Property Map: 46122-H8 MAYTOWN, WA

Most Recent Revision: 1990

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

- 1. Groundwater flow direction, and
- 2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

### **GROUNDWATER FLOW DIRECTION INFORMATION**

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

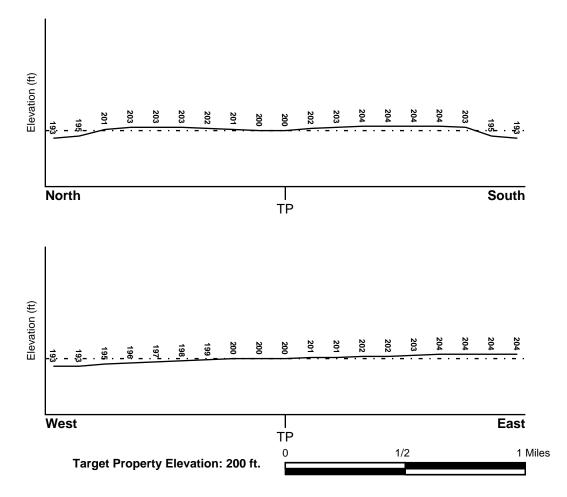
#### **TOPOGRAPHIC INFORMATION**

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

#### TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NW

#### SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

#### **HYDROLOGIC INFORMATION**

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

**FEMA FLOOD ZONE** 

FEMA Flood

Target Property County

Electronic Data

THURSTON, WA

YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property:

5301880280C - FEMA Q3 Flood data

Additional Panels in search area:

5301880300C - FEMA Q3 Flood data

NATIONAL WETLAND INVENTORY

NWI Electronic

NWI Quad at Target Property

Data Coverage

MAYTOWN

YES - refer to the Overview Map and Detail Map

#### HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

#### Site-Specific Hydrogeological Data\*:

Search Radius: 1.25 miles
Location Relative to TP: 0 - 1/8 Mile East

Site Name: RESTOVER TRUCK STOP

Site EPA ID Number: WAD046683983
Groundwater Flow Direction: NOT AVAILABLE
Measured Depth to Water: an average of 9.5 feet

Hydraulic Connection: The uppermost aquifer at the site is located in the Vashon recessional

outwash and is unconfined to a depth of at least 60 feet.

Sole Source Aquifer: No information about a sole source aquifer is available
Data Quality: Information is inferred in the CERCLIS investigation report(s)

#### **AQUIFLOW**®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

LOCATION GENERAL DIRECTION
MAP ID FROM TP GROUNDWATER FLOW
Not Reported

### **GROUNDWATER FLOW VELOCITY INFORMATION**

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

### **GEOLOGIC AGE IDENTIFICATION**

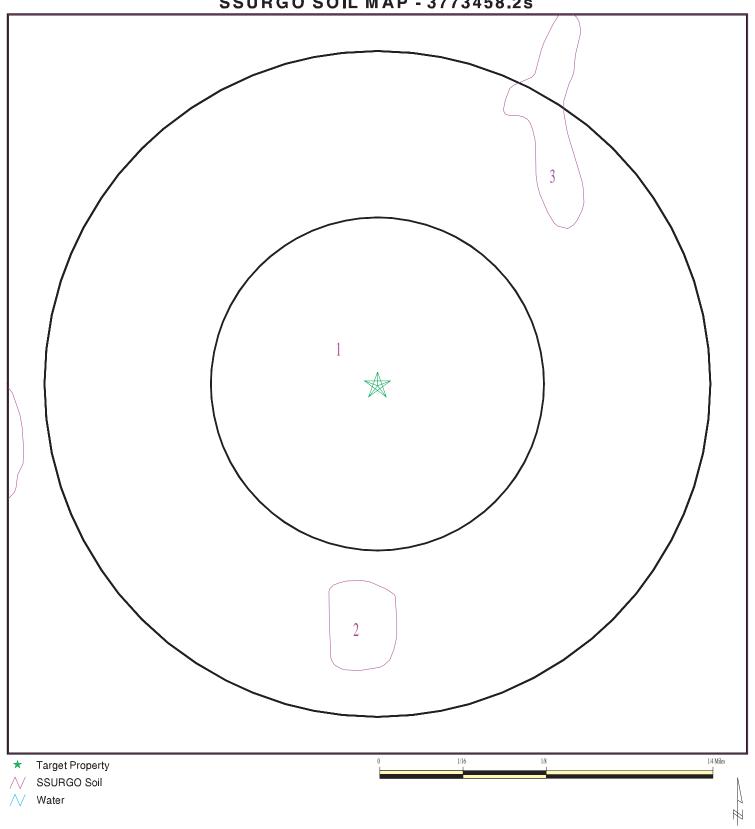
Era: Cenozoic Category: Stratifed Sequence

System: Quaternary Series: Quaternary

Code: Q (decoded above as Era, System & Series)

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

## SSURGO SOIL MAP - 3773458.2s



SITE NAME: Restover Truckstop
ADDRESS: 2729 93rd Avenue Southwest
Olympia WA 98512
LAT/LONG: 46.9527 / 122.9406

CLIENT: Robinson & Noble, Inc. CONTACT: Tonya Johnson INQUIRY #: 3773458.2s

DATE: November 04, 2013 10:10 am

### DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

Soil Map ID: 1

Soil Component Name: Cagey

Soil Surface Texture: loamy sand

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward

movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Moderately well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 61 inches

Soil Layer Information							
Boundary			Classification		Saturated hydraulic		
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
1	0 inches	5 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.1
2	5 inches	27 inches	loamy sand	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.1
3	27 inches	59 inches	fine sand	Granular materials (35 pct. or less passing No. 200), Fine Sand.	COARSE-GRAINED SOILS, Sands, Clean Sands, Poorly graded sand. COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 141 Min: 42	Max: 7.3 Min: 6.1

### Soil Map ID: 2

Soil Component Name: Water

Soil Surface Texture: loamy sand

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward

movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

No Layer Information available.

### Soil Map ID: 3

Soil Component Name: Norma

Soil Surface Texture: silt loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high

water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

	Soil Layer Information						
	Bou	ındary		Classification Saturated hydraulic			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		Soil Reaction (pH)
1	0 inches	7 inches	silt loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 5.1

	Soil Layer Information						
	Boundary Classification		fication	Saturated hydraulic			
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil	conductivity micro m/sec	Soil Reaction (pH)
2	7 inches	29 inches	sandy loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6.5 Min: 5.6
3	29 inches	59 inches	sandy loam	Granular materials (35 pct. or less passing No. 200), Silty, or Clayey Gravel and Sand.	COARSE-GRAINED SOILS, Sands, Sands with fines, Silty Sand.	Max: 42 Min: 14	Max: 6.5 Min: 5.6

### **LOCAL / REGIONAL WATER AGENCY RECORDS**

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

### WELL SEARCH DISTANCE INFORMATION

DATABASE SEARCH DISTANCE (miles)

Federal USGS 1.000

Federal FRDS PWS Nearest PWS within 1 mile

State Database 1.000

#### FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
1	USGS40001237080	0 - 1/8 Mile NNE
A2	USGS40001237106	0 - 1/8 Mile NW
A3	USGS40001237107	0 - 1/8 Mile NW
4	USGS40001237131	0 - 1/8 Mile NNE
7	USGS40001236964	1/8 - 1/4 Mile SW
8	USGS40001237070	1/8 - 1/4 Mile West
10	USGS40001237239	1/4 - 1/2 Mile NE
11	USGS40001237008	1/4 - 1/2 Mile ESE
B12	USGS40001236842	1/4 - 1/2 Mile SSW
C13	USGS40001237105	1/4 - 1/2 Mile ENE

## **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

### FEDERAL USGS WELL INFORMATION

		LOCATION
MAP ID	WELL ID	FROM TP
		_
D14	USGS40001237108	1/4 - 1/2 Mile WNW
D16	USGS40001237081	1/4 - 1/2 Mile West
C17	USGS40001237189	1/4 - 1/2 Mile East
F19	USGS40001237382	1/4 - 1/2 Mile North
F20 E21	USGS40001237383	1/4 - 1/2 Mile North 1/4 - 1/2 Mile WNW
E21 E22	USGS40001237240	1/4 - 1/2 Mile WNW
23	USGS40001237241 USGS40001237277	1/4 - 1/2 Mile WNW
G25	USGS40001237277	1/4 - 1/2 Mile RVV
H27	USGS40001237033 USGS40001237082	1/2 - 1 Mile West
H28	USGS40001237109	1/2 - 1 Mile West
29	USGS40001236831	1/2 - 1 Mile WSW
30	USGS40001237320	1/2 - 1 Mile NW
I31	USGS40001237157	1/2 - 1 Mile West
K33	USGS40001237471	1/2 - 1 Mile NNW
134	USGS40001237158	1/2 - 1 Mile West
K35	USGS40001237472	1/2 - 1 Mile NNW
36	USGS40001236965	1/2 - 1 Mile WSW
J38	USGS40001236781	1/2 - 1 Mile SW
39	USGS40001237092	1/2 - 1 Mile West
L40	USGS40001237051	1/2 - 1 Mile East
L41	USGS40001237007	1/2 - 1 Mile East
M42	USGS40001237265	1/2 - 1 Mile WNW
K43	USGS40001237510	1/2 - 1 Mile NNW
N45	USGS40001237470	1/2 - 1 Mile NE
N46	USGS40001237469	1/2 - 1 Mile NE
M47	USGS40001237266	1/2 - 1 Mile WNW
50	USGS40001237069	1/2 - 1 Mile East
51 52	USGS40001236782 USGS40001237414	1/2 - 1 Mile WSW 1/2 - 1 Mile WNW
P53	USGS40001237414 USGS40001237215	1/2 - 1 Mile VVNVV
P54	USGS40001237215 USGS40001237156	1/2 - 1 Mile ENE
Q55	USGS40001237130	1/2 - 1 Mile ESE
R56	USGS40001236822	1/2 - 1 Mile ESE
Q57	USGS40001236962	1/2 - 1 Mile ESE
R60	USGS40001236806	1/2 - 1 Mile ESE
61	USGS40001237001	1/2 - 1 Mile West
S62	USGS40001237052	1/2 - 1 Mile West
64	USGS40001236629	1/2 - 1 Mile SW
66	USGS40001236814	1/2 - 1 Mile ESE
67	USGS40001237473	1/2 - 1 Mile NW
T68	USGS40001237413	1/2 - 1 Mile ENE
69	USGS40001236558	1/2 - 1 Mile SSE
S70	USGS40001237034	1/2 - 1 Mile West
U71	USGS40001237412	1/2 - 1 Mile ENE
72 70	USGS40001236966	1/2 - 1 Mile West
73	USGS40001236541	1/2 - 1 Mile SW
V74 75	USGS40001237600 USGS40001237190	1/2 - 1 Mile NW 1/2 - 1 Mile West
75 W76	USGS40001237190 USGS40001236614	1/2 - 1 Mile vvest
VV76 V77	USGS40001237631	1/2 - 1 Mile SW
U78	USGS40001237631 USGS40001237450	1/2 - 1 Mile INV
5.0	2230 1000 1201 400	I, E I WIND LINE

### FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
	USGS40001236615	1/2 - 1 Mile SW
V80	USGS40001237632	1/2 - 1 Mile NW
81	USGS40001236841	1/2 - 1 Mile ESE
82	USGS40001236843	1/2 - 1 Mile WSW
V83	USGS40001237643	1/2 - 1 Mile NW
X84	USGS40001236800	1/2 - 1 Mile WSW
Y85	USGS40001237009	1/2 - 1 Mile West
X86	USGS40001236783	1/2 - 1 Mile WSW
87	USGS40001236412	1/2 - 1 Mile SSE
Y88	USGS40001237002	1/2 - 1 Mile West
X89	USGS40001236801	1/2 - 1 Mile WSW
X90	USGS40001236751	1/2 - 1 Mile WSW
X91	USGS40001236807	1/2 - 1 Mile WSW
Z92	USGS40001237091	1/2 - 1 Mile East
93	USGS40001236613	1/2 - 1 Mile SE
94	USGS40001237630	1/2 - 1 Mile NE
Y95	USGS40001237053	1/2 - 1 Mile West
Y96	USGS40001237017	1/2 - 1 Mile West
Y97	USGS40001237018	1/2 - 1 Mile West
AA98	USGS40001237437	1/2 - 1 Mile ENE
AB99	USGS40001237000	1/2 - 1 Mile East
AB102	USGS40001236961	1/2 - 1 Mile East
AA103	USGS40001237449	1/2 - 1 Mile ENE
104	USGS40001236628	1/2 - 1 Mile SE
AB105	USGS40001236960	1/2 - 1 Mile East
AC106	USGS40001236780	1/2 - 1 Mile ESE
Z107	USGS40001237068	1/2 - 1 Mile East
108	USGS40001237016	1/2 - 1 Mile East
109	USGS40001237411	1/2 - 1 Mile ENE
AC110	USGS40001236799	1/2 - 1 Mile ESE

#### FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID WELL ID FROM TP

No PWS System Found

Note: PWS System location is not always the same as well location.

#### STATE DATABASE WELL INFORMATION

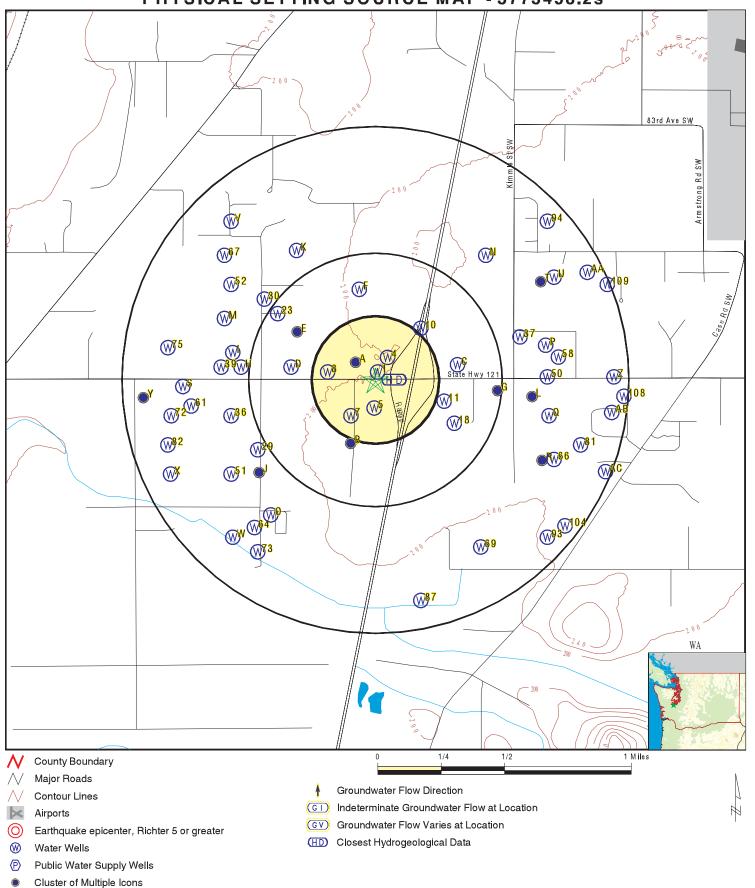
MAP ID	WELL ID	LOCATION FROM TP
5	WA7000000005968	0 - 1/8 Mile South
A6	WA700000005998	1/8 - 1/4 Mile WNW
B9	WA700000005949	1/4 - 1/2 Mile SSW
E15	WA700000006007	1/4 - 1/2 Mile WNW
18	WA700000005959	1/4 - 1/2 Mile ESE
G24	WA700000005981	1/4 - 1/2 Mile East
G26	WA700000005982	1/4 - 1/2 Mile East

## **GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE SUMMARY**

### STATE DATABASE WELL INFORMATION

WELL ID	LOCATION FROM TP
WA7000000005937	1/2 - 1 Mile SW
WA700000006009	1/2 - 1 Mile ENE
WA700000005970	1/2 - 1 Mile East
WA700000005917	1/2 - 1 Mile SW
WA700000005916	1/2 - 1 Mile SW
WA700000005999	1/2 - 1 Mile East
WA700000005943	1/2 - 1 Mile ESE
WA700000006035	1/2 - 1 Mile ENE
WA700000005941	1/2 - 1 Mile ESE
WA700000005975	1/2 - 1 Mile West
WA700000005974	1/2 - 1 Mile West
	WA7000000005937 WA7000000006009 WA700000005970 WA700000005917 WA700000005916 WA700000005999 WA700000005943 WA700000006035 WA700000005941 WA700000005975

## PHYSICAL SETTING SOURCE MAP - 3773458.2s



SITE NAME: Restover Truckstop

ADDRESS: 2729 93rd Avenue Southwest

Olympia WA 98512 LAT/LONG: 46.9527 / 122.9406 CLIENT: Robinson & Noble, Inc. CONTACT: Tonya Johnson

INQUIRY #: 3773458.2s

DATE: November 04, 2013 10:09 am

#### **GEOCHECK®-PHYSICAL SETTING SOURCE MAP FINDINGS**

Map ID Direction Distance

Elevation Database EDR ID Number

NNE 0 - 1/8 Mile FED USGS USGS40001237080

0 - 1/8 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465712122562101

Monloc name: 17N/02W-16P03

Monloc type: Well

Monloc desc: Not Reported

17100103 Drainagearea value: Not Reported Huc code: Contrib drainagearea: Not Reported Drainagearea Units: Not Reported 46.9531531 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.9404168 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 194
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Aquifer type: Not Reported

Construction date: 19800318 Welldepth: 58 Welldepth units: ft Wellholedepth: 59

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to

Date Surface Sealevel

1980-03-20 14

A2 NW FED USGS USGS40001237106

0 - 1/8 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465714122562601

Monloc name: 17N/02W-16P04

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9537086 Longitude: -122.9418058 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99 Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19880401 Welldepth: 40 Welldepth units: ft Wellholedepth: 40

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1988-04-01 15

A3 NW FED USGS USGS40001237107

0 - 1/8 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465714122562701 Monloc name: 17N/02W-16P01

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.9537086 Latitude: Longitude: -122.9420836 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99

Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown
Vert coord refeve: NGVD29

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19780727 Welldepth: 56.25 Welldepth units: ft Wellholedepth: 56.25

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1978-07-27 14

4 NNE FED USGS USGS40001237131

0 - 1/8 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465715122561801

Monloc name: 17N/02W-16Q01

Monloc type: Well

Monloc desc: Not Reported

Huc code:17100103Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:46.9539864Longitude:-122.9395835Sourcemap scale:24000

Horiz Acc measure: 1 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 200 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported
Formation type: Not Reported
Aquifer type: Not Reported

Construction date: 19010101 Welldepth: Not Reported Welldepth units: Not Reported Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

5 South WA WELLS WA700000005968 0 - 1/8 Mile

Higher

 Objectid:
 12686
 Pwsid:
 71970

 Srcnum:
 01
 Pwssrcid:
 7197001

Systemname: RESTOVER TRUCK STOP

Systemgrou: A

Systemtype: TNC Region: SW

County: THURSTON Smaid: Not Reported

Ftrespopul: 0 Resconnect: Totalconne: 1 Srcname: WELL #1 W Srctype: Srcusecode: Ρ Srcwelldep: 0 Township: 17 Range: 02W Section: 21

Qtrqtrsect: NESW
Longitude: -122.9407
Latitude: 46.951094
Latlongmet: MAP

Latlongmet:MAPSrcsuscept:HSrcvulnioc:HSrcvulnvoc:H

Srcvulnsoc: U Doewelltag: Not Reported Srctot6mo: 0 Srctot1yr: 0

Srctot5yr: 0 Srctot10yr: 0

Protection: Assigned Pricontact: 3603574701

Priconta 1: Not Reported Priconta 2: 2729 93RD AVE SW

Priconta 3: OLYMPIA Priconta 4: WA

Priconta 5: 98512

Priconta 6: Not Reported

Pwseffecti: 01/01/1970 Srceffecti: 01/01/1970

Internalon: N Site id: WA700000005968

A6 WNW 1/8 - 1/4 Mile Higher

WA WELLS WA700000005998

Objectid: 4911 07771 Pwsid: Srcnum: 01 Pwssrcid: 0777101

93RD AVENUE PARK WEST Systemname:

Systemgrou: В **GRPB** Systemtype:

SW Region: **THURSTON** County: Smaid: 119 Ftrespopul: 0 Resconnect: 0 Totalconne: 2 Srcname: WELL #1 W Srctype: Ρ Srcusecode:

Srcwelldep: 69 17 Township: 02W Range: Section: 16 **Qtrqtrsect: SESW** 

Longitude: -122.942872 Latitude: 46.953726

**GPS** Latlongmet: Srcsuscept: Ν Srcvulnioc: U Srcvulnvoc: Н

Srcvulnsoc: Χ Doewelltag: Not Reported

0 Srctot6mo: Srctot1yr: 0 Srctot5yr: 0 Srctot10yr:

Protection: Assigned Pricontact: 3608760958 Priconta 1: NORTHWEST WATER SYSTEMSPINGnta 2: PO BOX 123

Priconta 3: PORT ORCHARD Priconta 4: WA

Priconta 5: 983660123

Priconta 6: reg@nwwatersystems.com

Pwseffecti: 10/30/2001 Srceffecti: 10/30/2001

Internalon: Site id: WA700000005998

**FED USGS** USGS40001236964

1/8 - 1/4 Mile Higher

> USGS-WA Org. Identifier:

Formal name: **USGS** Washington Water Science Center

Monloc Identifier: USGS-465703122562901

17N/02W-21C01 Monloc name:

Monloc type: Well

Monloc desc: Not Reported Huc code: 17100103

Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported 46.9506531 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.942639 Sourcemap scale: 24000 Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 195 feet Vertacc measure val: 50 Vert measure units:

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Not Reported Aquifername: Not Reported Formation type: Aquifer type: Not Reported

19700101 Welldepth: 62 Construction date:

Welldepth units: Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1970-07-01 14

8 West FED USGS USGS40001237070

1/8 - 1/4 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465711122562901

Monloc name: 17N/02W-16P02

Monloc type: Well

Monloc desc: Not Reported

17100103 Drainagearea value: Not Reported Huc code: Not Reported Contrib drainagearea: Not Reported Drainagearea Units: 46.9531531 Contrib drainagearea units: Not Reported Latitude: -122.9445837 24000 Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 193
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19821015 Welldepth: 77
Welldepth units: ft Wellholedepth: 77

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 2

1990-07-24 10.93 1988-08-08 13.51

B9 SSW WA WELLS WA700000005949 1/4 - 1/2 Mile

Higher

 Objectid:
 4635
 Pwsid:
 07344

 Srcnum:
 01
 Pwssrcid:
 0734401

Systemname: LATHROP INDUSTRIAL PARK 350

Systemgrou: A

Systemtype: NTNC Region: SW County: THURSTON Smaid: 147 Ftrespopul: 3 Resconnect: 1

Totalconne: 19 Srcname: WELL #1 AHF062

Srctype:WSrcusecode:PSrcwelldep:164Township:17Range:02WSection:21

Otrotrsect: SENW
Longitude: -122.942139
Latitude: 46.949176
Latitude: CRS

Latlongmet: **GPS** Srcsuscept: L Srcvulnioc: Μ Srcvulnvoc: L Srcvulnsoc: AHF062 L Doewelltag: 220 Srctot6mo: Srctot1yr: 310 700 Srctot5yr: Srctot10yr: 980

Protection: CFR Pricontact: 3603578783
Priconta 1: Not Reported Priconta 2: 921 LAKERIDGE WAY, SUITE 201

Priconta 3: OLYMPIA Priconta 4: WA

Priconta 5: 98502

Priconta 6: kgubbe@thurstonpud.com

Pwseffecti: 04/01/1981 Srceffecti: 01/01/1970

Internalon: N Site id: WA700000005949

10 NE FED USGS USGS40001237239

1/4 - 1/2 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465721122560801

Monloc name: 17N/02W-16K01

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Contrib drainagearea units: Not Reported 46.955653 Latitude: Longitude: -122.9368057 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19930714 Welldepth: 40
Welldepth units: ft Wellholedepth: 40

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1993-07-14 12

11 ESE 1/4 - 1/2 Mile Higher

FED USGS USGS40001237008

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465706122560101

Monloc name: 17N/02W-21B01

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.9514864 Latitude: -122.934861 24000 Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 200
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19580101 Welldepth: 21

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

------

1958-01-01 15

B12 SSW FED USGS USGS40001236842

1/4 - 1/2 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465657122563101

Monloc name: 17N/02W-21F01

Monloc type: Well

Monloc desc: Not Reported

17100103 Not Reported Huc code: Drainagearea value: Not Reported Not Reported Drainagearea Units: Contrib drainagearea: Contrib drainagearea units: Not Reported Latitude: 46.9489865 Longitude: -122.9431946 24000 Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 195
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19810424 Welldepth: 178 Welldepth units: ft Wellholedepth: 178

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 2

Feet below Feet to Feet below Feet to
Date Surface Sealevel Date Surface Sealevel

1990-07-24 35.37 1988-09-21 39.15

C13
ENE FED USGS USGS40001237105

1/4 - 1/2 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465714122555901

Monloc name: 17N/02W-16Q02

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9537086 Longitude: -122.9343055 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 196
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19790822 Welldepth: 54 Welldepth units: ft Wellholedepth: 55

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1979-08-22 20

D14 WNW FED USGS USGS40001237108

1/4 - 1/2 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465714122564601

Monloc name: 17N/02W-16N02

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code:17100103Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:46.9537086Longitude:-122.9473616Sourcemap scale:Not Reported

Horiz Acc measure units:

seconds

Horiz Acc measure: 10

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported
Formation type: Not Reported
Aquifer type: Not Reported

Construction date: 19941227 Welldepth: 80
Welldepth units: ft Wellholedepth: 80

Wellholedepth units: ft

Lower

Ground-water levels, Number of Measurements: 0

E15
WNW
WA WELLS WA700000006007
1/4 - 1/2 Mile

 Objectid:
 4321
 Pwsid:
 06868

 Srcnum:
 01
 Pwssrcid:
 0686801

Systemname: NORTHWEST PIPELINE

Systemgrou: B

Systemtype: GRPB Region: SW

County: THURSTON Smaid: Not Reported

Ftrespopul: 0 Resconnect: 0

Totalconne: 1 Srcname: WELL #1 NO TAG

Srctype:WSrcusecode:PSrcwelldep:80Township:17Range:02WSection:16

Qtrqtrsect: NESW
Longitude: -122.946936
Latitude: 46.95506

Latlongmet:GPSSrcsuscept:NSrcvulnioc:USrcvulnvoc:H

Srcvulnsoc: X Doewelltag: Not Reported Srctot6mo: 0 Srctot1yr: 0

Srctot5yr: 0 Srctot10yr: 0

Protection: Assigned Pricontact: 4258681010

Priconta 1: ATTN TUMWATER MINI DISTRICPFiconta 2: 22909 NE REDMOND FALL CITY RD

Priconta 3: REDMOND Priconta 4: WA

Priconta 5: 98053

Priconta 6: Not Reported

Pwseffecti: 11/06/1998 Srceffecti: 11/06/1998

Internalon: N Site id: WA700000006007

D16 West 1/4 - 1/2 Mile Lower

FED USGS USGS40001237081

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465712122564801

Monloc name: 17N/02W-16N01

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.9531531 Latitude: -122.9479172 24000 Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 195
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19580901 Welldepth: 21

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

------

1958-09-01 16

1/4 - 1/2 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465717122555501

Monloc name: 17N/02W-16R01

Monloc type: Well
Monloc desc: Not Reported

17100103 Not Reported Huc code: Drainagearea value: Not Reported Not Reported Drainagearea Units: Contrib drainagearea: Contrib drainagearea units: Not Reported Latitude: 46.9534308 Longitude: -122.9331943 24000 Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 195
Vert measure units: feet Vertacc measure val: 50

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19520701 Welldepth: 34

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to Surface Sealevel

Date Surface Sealevel

1952-07-01 9

18
ESE
WA WELLS WA700000005959
1/4 - 1/2 Mile

1/4 - 1/2 Mile Higher

 Objectid:
 3433
 Pwsid:
 05547

 Srcnum:
 01
 Pwssrcid:
 0554701

Systemname: LINCOLN CREEK LUMBER CO

Systemgrou: A

Systemtype: TNC Region: SW

County: THURSTON Smaid: Not Reported

Ftrespopul: 0 Resconnect: 0

Totalconne: 2 Srcname: WELL #1 NO WELL TAG

Srctype:WSrcusecode:PSrcwelldep:140Township:17Range:02WSection:20

Qtrqtrsect: NE

Longitude: -122.934014 Latitude: 46.950224

Latlongmet: GPS Srcsuscept: H Srcvulnioc: M Srcvulnvoc: H

Srcvulnsoc: U Doewelltag: Not Reported

 Srctot6mo:
 0
 Srctot1yr:
 0

 Srctot5yr:
 0
 Srctot10yr:
 0

Protection: Assigned Pricontact: 3609569147

Priconta 1: Not Reported Priconta 2: 2421 93RD AVE SW

Priconta 3: TUMWATER Priconta 4: WA

Priconta 5: 98512
Priconta 6: Not Reported

Pwseffecti: 11/27/1996 Srceffecti: 11/27/1996

Internalon: N Site id: WA700000005959

F19
North
1/4 - 1/2 Mile
FED USGS USGS40001237382

Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465729122562601

Monloc name: 17N/02W-16F02

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code:17100103Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:46.9578752Longitude:-122.941806Sourcemap scale:Not Reported

TC3773458.2s Page A-23

Horiz Acc measure units:

seconds

Horiz Acc measure: 10

Horiz coord refsys:

Horiz Collection method: Interpolated from map

> NAD83 Vert measure val: 9999.99 feet Vertacc measure val: 999

Vert measure units: Vert accmeasure units: feet Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Not Reported Formation type: Not Reported Aquifer type: Construction date: 19920224

Welldepth: 59 Welldepth units: Wellholedepth: 59 ft

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to Surface Sealevel

Date

1992-02-24 11

F20 North **FED USGS** USGS40001237383 1/4 - 1/2 Mile

Higher

Org. Identifier: **USGS-WA** 

Formal name: USGS Washington Water Science Center

USGS-465729122562701 Monloc Identifier:

Monloc name: 17N/02W-16F01

Monloc type: Well

Monloc desc: **GWSI DATABASE AUGMENTATION SITE** 

Huc code: 17100103 Drainagearea value: Not Reported Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Contrib drainagearea units: Not Reported 46.9578752 Latitude: Longitude: -122.9420837 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

NAD83 Horiz coord refsys: Vert measure val:

9999.99 Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet Vertcollection method: Unknown

US NGVD29 Countrycode: Vert coord refsys:

Aquifername: Not Reported

Formation type: Unclassified Overburden

Aquifer type: Not Reported

Construction date: 19940408 Welldepth: 46.58 Welldepth units: ft Wellholedepth: 50.58

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1994-04-08 15

1/4 - 1/2 Mile Lower

E21 WNW **FED USGS** USGS40001237240

TC3773458.2s Page A-24

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465721122564501

Monloc name: 17N/02W-16M04

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.955653 Latitude: -122.9470839 Not Reported Longitude: Sourcemap scale: Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19931213 Welldepth: 40 Welldepth units: ft Wellholedepth: 40

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to

Date Surface Sealevel

1993-12-13 15

E22
WNW FED USGS USGS40001237241
1/4 - 1/2 Mile

Lower
Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465721122564601

Monloc name: 17N/02W-16M03

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

17100103 Not Reported Huc code: Drainagearea value: Not Reported Contrib drainagearea: Not Reported Drainagearea Units: Contrib drainagearea units: Not Reported Latitude: 46.955653 Longitude: -122.9473617 Not Reported Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19931206 Welldepth: 40 Welldepth units: ft Wellholedepth: 40

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to Surface Sealevel

-----

1993-12-07 16

23 NW FED USGS USGS40001237277

1/4 - 1/2 Mile Lower

Date

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465724122565101

Monloc name: 17N/02W-16M02

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9564863 Longitude: -122.9487506 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 191
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported
Formation type: Not Reported
Aquifer type: Not Reported

Construction date: 19880205 Welldepth: 38 Welldepth units: ft Wellholedepth: 39

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1988-02-05 15

G24
East WA WELLS WA700000005981

East 1/4 - 1/2 Mile Higher

 Objectid:
 2832
 Pwsid:
 04564

 Srcnum:
 01
 Pwssrcid:
 0456401

Systemname: ADAIR HOMES

Systemgrou: B

Systemtype: GRPB Region: SW

County: THURSTON Smaid: Not Reported

Ftrespopul: 3 Resconnect: 1

Totalconne: 1 Srcname: WELL 01

Srctype:WSrcusecode:PSrcwelldep:63Township:17Range:02WSection:21

Otrqtrsect:Not ReportedLongitude:-122.930681Latitude:46.952103Latlongmet:GPS

Latlongmet: GPS Srcsuscept: U

 Srcvulnioc:
 Not Reported
 Srcvulnvoc:
 Not Reported

 Srcvulnsoc:
 Not Reported
 Doewelltag:
 Not Reported

 Srctot6mo:
 0
 Srctot1yr:
 0

 Srctot5yr:
 0
 Srctot10yr:
 0

Protection: Assigned Pricontact: 3603528571

Priconta 1: Not Reported Priconta 2: 2303 93RD AVE SW Priconta 3: OLYMPIA Priconta 4: WA

Priconta 3: OLYMPIA Priconta 4: Priconta 5: 98502

Priconta 6: Not Reported

Pwseffecti: 01/01/1981 Srceffecti: 01/01/1970

Internalon: N Site id: WA700000005981

G25
East FED USGS USGS40001237033

1/4 - 1/2 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465708122554501

Monloc name: 17N/02W-21A01

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Contrib drainagearea units: Not Reported 46.952042 Latitude: Longitude: -122.9304163 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 196 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet
Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported

Formation type: Unclassified Overburden

Aquifer type: Not Reported

Construction date: 19780505 Welldepth: 63 Welldepth units: ft Wellholedepth: 63

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 2

1990-07-24 11.35 1988-09-08 15.59

G26 East 1/4 - 1/2 Mile Higher

WA WELLS WA700000005982

 Objectid:
 504
 Pwsid:
 00881

 Srcnum:
 01
 Pwssrcid:
 0088101

Systemname: JOHNSON, LARRY

Systemgrou: B

Systemtype: GRPB Region: SW

County: THURSTON Smaid: Not Reported Ftrespopul: 3 Resconnect: 1

 Totalconne:
 1
 Srcname:
 WELL 01

 Srctype:
 W
 Srcusecode:
 P

 Srcwelldep:
 67
 Township:
 17

 Range:
 02W
 Section:
 21

Qtrqtrsect:Not ReportedLongitude:-122.93012Latitude:46.952148

Latlongmet: GPS Srcsuscept: U

Srcvulnioc: Not Reported Srcvulnvoc: Not Reported Srcvulnsoc: Not Reported Doewelltag: Not Reported

 Srctot6mo:
 0
 Srctot1yr:
 0

 Srctot5yr:
 0
 Srctot10yr:
 0

Protection: Assigned Pricontact: 0000000000

Priconta 1: Not Reported Priconta 2: 2303 93RD AVE SW

Priconta 3: OLYMPIA Priconta 4: WA

Priconta 5: 98502

Priconta 6: Not Reported

Pwseffecti: 05/01/1980 Srceffecti: 01/01/1970

Internalon: N Site id: WA700000005982

H27
West FED USGS USGS40001237082
1/2 - 1 Mile

1/2 - 1 Mi Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465712122570201

Monloc name: 17N/02W-17R02

Monloc type: Well

Monloc desc: Not Reported
Huc code: 17100103

Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.9531531 Latitude: Longitude: -122.9518062 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 195
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19801021 Welldepth: 54
Welldepth units: ft Wellholedepth: 55

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 2

Feet below Feet to Feet below Feet to
Date Surface Sealevel Date Surface Sealevel

1990-07-24 16.05 1988-08-02 18.14

H28
West FED USGS USGS40001237109
1/2 - 1 Mile

Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465714122570201

Monloc name: 17N/02W-17R05

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

17100103 Huc code: Drainagearea value: Not Reported Contrib drainagearea: Not Reported Drainagearea Units: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9537086 -122.9518062 Not Reported Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99

Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19770210 Welldepth: 60 Welldepth units: ft Wellholedepth: 60

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1977-02-14 20

29
WSW FED USGS USGS40001236831

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465656122565701

Monloc name: 17N/02W-20H02

Monloc type: Well

Monloc desc: Not Reported

Huc code:17100103Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:46.9487087Longitude:-122.950417Sourcemap scale:24000

Horiz Acc measure: 1 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 191
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19870605 Welldepth: 64
Welldepth units: ft Wellholedepth: 74

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 2

Feet below Feet to Feet below Feet to
Date Surface Sealevel Date Surface Sealevel

1990-07-25 10.61 1988-09-20 13.95

30 NW FED USGS USGS40001237320 1/2 - 1 Mile

Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465727122565501

Monloc name: 17N/02W-16M01

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Not Reported Drainagearea Units: Not Reported Contrib drainagearea: 46.9573196 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.9498618 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 190 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19600101 Welldepth: 18

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

I31
West FED USGS USGS40001237157

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465716122570401

Monloc name: 17N/02W-17R07

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.9542642 Latitude: -122.9523618 Not Reported Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

TIOTIZ ACC ITIEASUTE.

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet

Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19850819 Welldepth: 94.17 Welldepth units: ft Wellholedepth: 110

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

-----

1985-08-23 49

Lower

332 SW WA WELLS WA700000005937 1/2 - 1 Mile

 Objectid:
 3483
 Pwsid:
 05618

 Srcnum:
 01
 Pwssrcid:
 0561801

Systemname: DAIRY FRESH

Systemgrou: B

Systemtype: GRPB Region: SW

County: **THURSTON** Smaid: Not Reported Ftrespopul: 0 Resconnect: 0 WELL #1 Totalconne: Srcname: 1 W Srctype: Srcusecode: Ρ

 Srctype:
 W
 Srcusecode:
 P

 Srcwelldep:
 1
 Township:
 17

 Range:
 02W
 Section:
 21

 Qtrqtrsect:
 SWNW

Longitude: -122.949908 Latitude: 46.947513 Latlongmet: GPS

 Latlongmet:
 GPS
 Srcsuscept:
 U

 Srcvulnioc:
 Not Reported
 Srcvulnvoc:
 Not Reported

 Srcvulnsoc:
 Not Reported
 Doewelltag:
 Not Reported

 Srctot6mo:
 0
 Srctot1yr:
 0

 Srctot5yr:
 0
 Srctot10yr:
 0

Protection: Assigned Pricontact: 3603579411

Priconta 1: Not Reported Priconta 2: 9636 BLOMBERG ST SW

Priconta 3: OLYMPIA Priconta 4: WA

Priconta 5: 98512
Priconta 6: Not Reported

Pwseffecti: 12/16/1996 Srceffecti: 12/16/1996

Internalon: N Site id: WA700000005937

Map ID Direction Distance

Elevation Database EDR ID Number

K33
NNW FED USGS USGS40001237471

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465736122564501

Monloc name: 17N/02W-16D02

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

17100103 Drainagearea value: Not Reported Huc code: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: 46.9598196 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.947084 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19930929 Welldepth: 40 Welldepth units: ft Wellholedepth: 40

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1993-09-29 12

I34
West FED USGS USGS40001237158

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465716122570501 Monloc name: 17N/02W-17R06

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9542642 Longitude: -122.9526396 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19811005 Welldepth: 35 Welldepth units: ft Wellholedepth: 35

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1981-10-08 10

**FED USGS** USGS40001237472

1/2 - 1 Mile Lower

> Org. Identifier: **USGS-WA**

USGS Washington Water Science Center Formal name:

USGS-465736122564601 Monloc Identifier:

Monloc name: 17N/02W-16D01

Monloc type: Well

Monloc desc: **GWSI DATABASE AUGMENTATION SITE** 

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.9598196 Latitude: Longitude: -122.9473618 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Interpolated from map Horiz Collection method:

Horiz coord refsys: NAD83 Vert measure val: 9999.99 Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet Vertcollection method: Unknown

US NGVD29 Countrycode: Vert coord refsys:

Not Reported Aquifername: Formation type: Not Reported Aquifer type: Not Reported

19930817 Welldepth: Construction date: 40 Welldepth units: ft Wellholedepth: 40

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1993-08-17 12

36 wsw 1/2 - 1 Mile Lower

Org. Identifier: **USGS-WA** 

Formal name: **USGS** Washington Water Science Center

USGS-465703122570501 Monloc Identifier:

Monloc name: 17N/02W-20A01

Monloc type: Well

**GWSI DATABASE AUGMENTATION SITE** Monloc desc:

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9506531 Longitude: -122.9526395 Sourcemap scale: Not Reported

**FED USGS** 

USGS40001236965

Horiz Acc measure units:

Vert measure val:

Countrycode:

Welldepth:

Wellholedepth:

Vertacc measure val:

seconds

9999.99

999

US

55

56

Horiz Acc measure: 10

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83
Vert measure units: feet
Vert accmeasure units: feet

Vertcollection method: Unknown Vert coord refsys: NGVD29

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported Construction date: 19770818

Construction date: 19770818
Welldepth units: ft

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to

Date Surface Sealevel

1977-08-20 20

37
ENE WA WELLS WA700000006009
1/2 - 1 Mile

Higher

 Objectid:
 1564
 Pwsid:
 02513

 Srcnum:
 01
 Pwssrcid:
 0251301

Systemname: MULFORD ESTATES

Systemgrou: A

Systemtype: Comm Region: SW
County: THURSTON Smaid: Not Reported

Transport 54

Ftrespopul: 54 Resconnect: 20
Totalconne: 20 Srcname: WELL #1 AEJ175 MULFORD EST

 Totalconne:
 20
 Srcname:
 WE

 Srctype:
 W
 Srcusecode:
 P

 Srcwelldep:
 98
 Township:
 17

 Range:
 02W
 Section:
 15

 Range:
 02W

 Qtrqtrsect:
 SWSW

 Longitude:
 -122.92853

 Latitude:
 46.95516

 Latlongmet:
 MAP
 Srcsuscept:
 L

 Srcvulnioc:
 M
 Srcvulnvoc:
 L

 Srcvulnsoc:
 L
 Doewelltag:
 AEJ175

 Srctot6mo:
 310
 Srctot1yr:
 440

 Srctot5yr:
 980
 Srctot10yr:
 1390

 Protection:
 CFR
 Pricontact:
 3607913323

Priconta 1: Not Reported Priconta 2: 2030 91ST AVE SW

Priconta 3: OLYMPIA Priconta 4: WA

Priconta 5: 98512
Priconta 6: Not Reported

Pwseffecti: 06/29/1993 Srceffecti: 06/29/1993

Internalon: N Site id: WA700000006009

J38 SW 1/2 - 1 Mile Lower

FED USGS USGS40001236781

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465651122565801

Monloc name: 17N/02W-20H01

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.9473199 Latitude: -122.9506948 24000 Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 195
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19560101 Welldepth: 70

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

39
West FED USGS USGS40001237092

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465713122570801

Monloc name: 17N/02W-17R01

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9534308 Longitude: -122.953473 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 190 Vert measure units: feet Vertacc measure val: 50

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19580918 Welldepth: 33

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1958-09-18 18

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465709122553501

Monloc name: 17N/02W-22D01

Monloc type: Well

Monloc desc: Not Reported

17100103 Drainagearea value: Not Reported Huc code: Not Reported Contrib drainagearea: Not Reported Drainagearea Units: Contrib drainagearea units: Not Reported Latitude: 46.9523197 -122.9276385 24000 Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 205
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19760410 Welldepth: 64
Welldepth units: ft Wellholedepth: 65

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1976-04-10 7

East 1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465706122553501

Monloc name: 17N/02W-22D02

Monloc type: Well

Monloc desc: Not Reported

Huc code:17100103Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:46.9514864Longitude:-122.9276384Sourcemap scale:24000

Horiz Acc measure: 1 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 200 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19860627 Welldepth: 86
Welldepth units: ft Wellholedepth: 86

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 2

Feet below Feet to Feet below Feet to
Date Surface Sealevel Date Surface Sealevel

1990-07-24 11.28 1988-10-07 15.78

M42
WNW
FED USGS USGS40001237265
1/2 - 1 Mile

Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465723122570501

Monloc name: 17N/02W-17R04

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Not Reported Drainagearea Units: Not Reported Contrib drainagearea: 46.9562086 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.9526397 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Hade Oallast's a seath as a later at frace.

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 192
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19730320 Welldepth: 93 Welldepth units: ft Wellholedepth: 122

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 2

1990-07-25 10.08 1988-07-18 11.86

Note: A nearby site that taps the same aquifer was being pumped.

Map ID Direction Distance

Elevation Database EDR ID Number

K43
NNW FED USGS USGS40001237510
1/2 - 1 Mile

Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465739122564501

Monloc name: 17N/02W-16D03

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

17100103 Drainagearea value: Not Reported Huc code: Not Reported Contrib drainagearea: Not Reported Drainagearea Units: 46.9606529 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.947084 Sourcemap scale: Not Reported seconds Horiz Acc measure: 10 Horiz Acc measure units:

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19931012 Welldepth: 40 Welldepth units: ft Wellholedepth: 40

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1993-10-12 13

Higher

L44
East WA WELLS WA700000005970
1/2 - 1 Mile

 Objectid:
 1838
 Pwsid:
 02917

 Srcnum:
 01
 Pwssrcid:
 0291701

Systemname: TAYLOR Systemgrou: B

Systemtype: GRPB Region: SW

County: THURSTON Smaid: Not Reported Ftrespopul: 0 Resconnect: 0

Totalconne: 2 Srcname: WELL #1 W Ρ Srctype: Srcusecode: Srcwelldep: 86 Township: 17 Range: 02W Section: 22

Qtrqtrsect: Not Reported Longitude: -122.927301 Latitude: 46.951453

Latlongmet: GPS Srcsuscept: U

Srcvulnioc: Not Reported Srcvulnvoc: Not Reported Srcvulnsoc: Not Reported Doewelltag: Not Reported

Srctot6mo: 0 Srctot1yr: 0

Srctot10yr: Srctot5yr:

Protection: Assigned Pricontact: 3605320530 Priconta 1: Not Reported Priconta 2: 9404 SW KIMMIE

**OLYMPIA** Priconta 3: Priconta 4: WA

Priconta 5: 98512 Priconta 6: Not Reported

Pwseffecti: 12/01/1993 Srceffecti: 12/01/1993

Internalon: Site id: WA700000005970

N45 **FED USGS** USGS40001237470

1/2 - 1 Mile Higher

> Org. Identifier: **USGS-WA**

Formal name: USGS Washington Water Science Center

USGS-465736122554901 Monloc Identifier:

17N/02W-16A01 Monloc name:

Monloc type: Well

Monloc desc: **GWSI DATABASE AUGMENTATION SITE** 

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported 46.9598196 Contrib drainagearea units: Not Reported Latitude: -122.9315278 Not Reported Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

9999.99 Horiz coord refsys: NAD83 Vert measure val: Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet Unknown Vertcollection method:

Vert coord refsys: NGVD29 Countrycode: US

Not Reported Aquifername: Not Reported Formation type: Aquifer type: Not Reported

Construction date: 19930624 Welldepth: 40 Wellholedepth: Welldepth units: ft 40

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to

Date Surface Sealevel

1993-06-25 14

N46 **FED USGS** USGS40001237469

1/2 - 1 Mile Higher

> Org. Identifier: **USGS-WA**

USGS Washington Water Science Center Formal name:

Monloc Identifier: USGS-465736122554801

17N/02W-16A02 Monloc name:

Monloc type: Well

Monloc desc: **GWSI DATABASE AUGMENTATION SITE** 

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9598196 Longitude: -122.93125 Sourcemap scale: Not Reported

Horiz Acc measure: 10

Interpolated from map

Horiz Acc measure units: seconds

Horiz Collection method: Horiz coord refsys:

NAD83

Vert measure val: Vertacc measure val:

9999.99 999

Vert measure units: Vert accmeasure units: Vertcollection method:

feet Unknown

feet

NGVD29

Countrycode:

US

Aquifername: Formation type: Aquifer type:

Vert coord refsys:

Not Reported Not Reported Not Reported

Welldepth:

40 40

Construction date: Welldepth units:

19930512 ft

Wellholedepth:

Wellholedepth units:

Ground-water levels, Number of Measurements: 1

Feet below Surface

Feet to

Date Sealevel

1993-05-12 10

M47 WNW **FED USGS** USGS40001237266 1/2 - 1 Mile

Lower

Org. Identifier: **USGS-WA** 

Formal name: USGS Washington Water Science Center

USGS-465723122570901 Monloc Identifier:

Monloc name: 17N/02W-17R03

Monloc type: Well

**GWSI DATABASE AUGMENTATION SITE** Monloc desc:

Huc code: 17100103 Drainagearea value: Not Reported Not Reported Drainagearea Units: Not Reported Contrib drainagearea: 46.9562086 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.9537509 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

NAD83 Horiz coord refsys: Vert measure val: 192 feet Vertacc measure val: Vert measure units: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

US NGVD29 Countrycode: Vert coord refsys:

Aquifername: Not Reported

Unclassified Overburden Formation type:

Aquifer type: Not Reported

Construction date: 19800602 Welldepth: 119 Welldepth units: ft Wellholedepth: 257

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 2

Feet below Feet to Feet below Feet to Date Surface Sealevel Date Surface Sealevel

1988-07-18 10.74 1990-07-25 9.03

**O48** SW 1/2 - 1 Mile

Lower

WA700000005917 **WA WELLS** 

TC3773458.2s Page A-40

 Objectid:
 2295
 Pwsid:
 03619

 Srcnum:
 01
 Pwssrcid:
 0361901

Systemname: LOS CEDROS MOBILE HOME PARK

Systemgrou: A

Systemtype: Comm Region: SW

County: THURSTON Smaid: Not Reported

Ftrespopul: 98 Resconnect: 40

Totalconne: 40 Srcname: OLD WELL #1 AEJ169

Srctype:WSrcusecode:SSrcwelldep:30Township:17Range:02WSection:21

Qtrqtrsect: NWSW
Longitude: -122.949281
Latitude: 46.944987

Srcsuscept: Latlongmet: **GPS** Н Srcvulnioc: Srcvulnvoc: Μ Μ AEJ169 Srcvulnsoc: Μ Doewelltag: Srctot6mo: 220 Srctot1yr: 310 Srctot5yr: 700 Srctot10yr: 980

Protection: CFR Pricontact: 3604380785
Priconta 1: Not Reported Priconta 2: PO BOX 8637

Priconta 3: LACEY Priconta 4: WA

Priconta 5: 985098637

Priconta 6: tajanzen@comcast.net

Pwseffecti: 09/01/1980 Srceffecti: 01/01/1970

Internalon: N Site id: WA700000005917

O49 SW 1/2 - 1 Mile

WA WELLS WA700000005916

 Objectid:
 2296
 Pwsid:
 03619

 Srcnum:
 02
 Pwssrcid:
 0361902

Systemname: LOS CEDROS MOBILE HOME PARK

Systemgrou: A

Lower

Systemtype: Comm Region: SW

County: THURSTON Smaid: Not Reported

Ftrespopul: 98 Resconnect: 40
Totalconne: 40 Srcname: NEW WELL #2 AEJ168

Srctype:WSrcusecode:PSrcwelldep:100Township:17Range:02WSection:21

Qtrqtrsect: NWSW
Longitude: -122.949379
Latitude: 46.944983

Latlongmet: **GPS** Srcsuscept: L Srcvulnioc: Μ Srcvulnvoc: L Srcvulnsoc: L Doewelltag: AEJ168 220 Srctot6mo: Srctot1yr: 310 700 980 Srctot5yr: Srctot10yr:

Protection: CFR Pricontact: 3604380785
Priconta 1: Priconta 2: PO BOX 8637

Priconta 3: LACEY Priconta 4: WA

Priconta 5: 985098637

Priconta 6: tajanzen@comcast.net

Pwseffecti: 09/01/1980 Srceffecti: 01/01/1970

Internalon: N Site id: WA700000005916

Map ID Direction Distance

Elevation Database EDR ID Number

50 East FED USGS USGS40001237069

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465711122553001

Monloc name: 17N/02W-15N01

Monloc type: Well

Monloc desc: Not Reported

17100103 Drainagearea value: Not Reported Huc code: Contrib drainagearea: Not Reported Drainagearea Units: Not Reported 46.9528753 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.9262495 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 205
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19580922 Welldepth: 68

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1958-09-22 20

51 WSW FED USGS USGS40001236782

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465651122570501 Monloc name: 17N/02W-20H03

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9473199 Longitude: -122.9526394 Sourcemap scale: Not Reported Horiz Acc measure units: Horiz Acc measure: 10 seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99 Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19870414 Welldepth: 73
Welldepth units: ft Wellholedepth: 74

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1987-04-29 13

52 WNW FED USGS USGS40001237414

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465730122570501

Monloc name: 17N/02W-17J02

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.958153 Latitude: Longitude: -122.9526398 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99

Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown
Vert coord refeve: NGVD29

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported
Formation type: Not Reported
Aquifer type: Not Reported

Construction date: 19810101 Welldepth: 38.33 Welldepth units: ft Wellholedepth: 40.33

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1981-01-01 14

P53
ENE FED USGS USGS40001237215

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465719122553101

Monloc name: 17N/02W-15N02

Monloc type: Well

Monloc desc: Not Reported

Huc code:17100103Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:46.9550975Longitude:-122.9265274Sourcemap scale:24000

Horiz Acc measure: 1 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 205 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported
Formation type: Not Reported
Aquifer type: Not Reported

Construction date: 19580919 Welldepth: 13

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

-----

1958-09-19 10

P54
East FED USGS USGS40001237156

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465716122553001

Monloc name: 17N/02W-15N03

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Contrib drainagearea units: Not Reported 46.9542641 Latitude: Longitude: -122.9262496 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US Aquifername: Not Reported

Formation type: Not Reported
Aquifer type: Not Reported

Construction date: 19920127 Welldepth: 98.5 Welldepth units: ft Wellholedepth: 102

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1992-02-14 18

Q55 ESE 1/2 - 1 Mile Higher

FED USGS USGS40001236963

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465703122553001

Monloc name: 17N/02W-22D03

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.9506531 Latitude: -122.9262494 Not Reported Longitude: Sourcemap scale: Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert measure units: feet

Vertcollection method: Unknown
Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19860602 Welldepth: 79.5 Welldepth units: ft Wellholedepth: 84.5

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to

Date Surface Sealevel

1986-06-10 10

R56 ESE FED USGS USGS40001236822

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465655122553301

Monloc name: 17N/02W-22E03

Monloc type: Well

Monloc desc: Not Reported

17100103 Not Reported Huc code: Drainagearea value: Not Reported Not Reported Drainagearea Units: Contrib drainagearea: Contrib drainagearea units: Not Reported Latitude: 46.9484309 Longitude: -122.9270827 24000 Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 200 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19730720 Welldepth: 87 Welldepth units: ft Wellholedepth: 106

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1973-07-20 18

Q57
ESE FED USGS USGS40001236962

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465703122552901 Monloc name: 17N/02W-22D04

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Contrib drainagearea units: Not Reported Latitude: 46.9506531 Longitude: -122.9259717 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99

Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported

Formation type: Unclassified Overburden

Aquifer type: Not Reported

Construction date: 19881011 Welldepth: 100 Welldepth units: ft Wellholedepth: 100

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1988-10-11 20

58 East WA WELLS WA700000005999

1/2 - 1 Mile Higher

 Objectid:
 1771
 Pwsid:
 02826

 Srcnum:
 01
 Pwssrcid:
 0282601

Systemname: OLYMPIC STRUCTURES

Systemgrou: B

Systemtype: GRPB Region: SW

County: THURSTON Smaid: Not Reported

Ftrespopul: 0 Resconnect: 0

Totalconne: 2 Srcname: WELL #1

Srctype:WSrcusecode:PSrcwelldep:80Township:17Range:02WSection:15

Qtrqtrsect: SWSW
Longitude: -122.925326
Latitude: 46.954006
Latlongmet: GPS

Latlongmet: GPS Srcsuscept: U

Srcvulnioc: Not Reported Srcvulnvoc: Not Reported Srcvulnsoc: Not Reported Doewelltag: Not Reported Srcvulnsoc: Srcvulnvoc: Srcvulnvoc: Not Reported Srcvulnvoc: Not Reported Not Reported Srcvulnvoc: Not Reported N

 Srctot6mo:
 220
 Srctot1yr:
 310

 Srctot5yr:
 700
 Srctot10yr:
 980

 Protection:
 CFR
 Pricontact:
 3609435433

Priconta 1: Not Reported Priconta 2: 1850 93RD AVE SW

Priconta 3: OLYMPIA Priconta 4: WA

Priconta 5: 98512
Priconta 6: Not Reported

Pwseffecti: 11/04/1993 Srceffecti: 11/04/1993

Internalon: N Site id: WA700000005999

ESE 1/2 - 1 Mile Higher

 Objectid:
 1204
 Pwsid:
 01981

 Srcnum:
 02
 Pwssrcid:
 0198102

Systemname: AMERICAN HERITAGE CAMPGROUNDS

Systemgrou: A

Systemtype: TNC Region: SW

County: THURSTON Smaid: Not Reported

Ftrespopul: 3 Resconnect: 2

Totalconne: 88 Srcname: WELL #2 NO WELL TAG

Srctype:WSrcusecode:PSrcwelldep:117Township:17Range:02ESection:22

Qtrqtrsect: SWNW Longitude: -122.926689 Latitude: 46.948095

Latlongmet: MAP Srcsuscept: H Srcvulnioc: H Srcvulnvoc: H

Srcvulnsoc: U Doewelltag: Not Reported

 Srctot6mo:
 0
 Srctot1yr:
 0

 Srctot5yr:
 0
 Srctot10yr:
 0

Protection: Assigned Pricontact: 3609438778

Priconta 1: Not Reported Priconta 2: 9610 KIMMIE ST SW

Priconta 3: OLYMPIA Priconta 4: WA

Priconta 5: 98512

Priconta 6: pdheck@comcast.net

Pwseffecti: 01/01/1970 Srceffecti: 01/01/1970

Internalon: N Site id: WA700000005943

ESE 1/2 - 1 Mile Higher

FED USGS USGS40001236806

WA700000005943

**WA WELLS** 

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465653122553201

Monloc name: 17N/02W-22E02

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.9478754 Latitude: -122.9268049 24000 Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 200 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19730816 Welldepth: 117 Welldepth units: ft Wellholedepth: 117

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

-----

1973-08-16 14

61 West FED USGS USGS40001237001 1/2 - 1 Mile

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465705122571401

Monloc name: 17N/02W-20B06

Monloc type: Well
Monloc desc: Not Reported
Huc code: 17100103

17100103 Not Reported Huc code: Drainagearea value: Not Reported Not Reported Drainagearea Units: Contrib drainagearea: Contrib drainagearea units: Not Reported Latitude: 46.9512087 Longitude: -122.955973 24000 Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 191
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19730305 Welldepth: 91
Welldepth units: ft Wellholedepth: 91

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 2

Feet below Feet to Feet below Feet to
Date Surface Sealevel Date Surface Sealevel

1990-07-25 14.61 1988-09-20 17.48

S62 West FED USGS USGS40001237052

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465709122571801

Monloc name: 17N/02W-20B03

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9523197 Longitude: -122.9562508 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 190
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19600101 Welldepth: 18

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 0

T63
ENE WA WELLS WA700000006035

1/2 - 1 Mile Higher

 Objectid:
 2720
 Pwsid:
 04374

 Srcnum:
 01
 Pwssrcid:
 0437401

Systemname: APEC SUPPLY

Systemgrou: B

Systemtype: GRPB Region: SW

County: THURSTON Smaid: Not Reported

Ftrespopul: 0 Resconnect: 0

Totalconne: 3 Srcname: WELL #1 ABS243

Srctype:WSrcusecode:PSrcwelldep:60Township:17Range:02WSection:15

Otrotrsect:NWSWLongitude:-122.927365Latitude:46.958485Latlongmet:GPS

Latlongmet:GPSSrcsuscept:USrcvulnioc:Not ReportedSrcvulnvoc:Not ReportedSrcvulnsoc:Not ReportedDoewelltag:ABS243

 Strctotlemo:
 0
 Srctot1yr:
 0

 Srctot5yr:
 0
 Srctot10yr:
 0

Protection: Assigned Pricontact: 3603577849
Priconta 1: Priconta 2: 8904 KIMMIE RD SW

Priconta 3: OLYMPIA Priconta 4: WA

Priconta 5: 98512
Priconta 6: Not Reported

Pwseffecti: 02/23/1995 Srceffecti: 02/23/1995

Internalon: N Site id: WA700000006035

64 SW FED USGS USGS40001236629

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465640122565801

Monloc name: 17N/02W-20J02

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Contrib drainagearea units: Not Reported 46.9442644 Latitude: Longitude: -122.9506947 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 190
Vert measure units: feet Vertacc measure val: 10
Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19800104 Welldepth: 123 Welldepth units: ft Wellholedepth: 123

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

-----

1980-01-04 8

R65 ESE 1/2 - 1 Mile Higher

WA WELLS WA700000005941

 Objectid:
 1203
 Pwsid:
 01981

 Srcnum:
 01
 Pwssrcid:
 0198101

Systemname: AMERICAN HERITAGE CAMPGROUNDS

Systemgrou: A

Systemtype: TNC Region: SW

County: THURSTON Smaid: Not Reported

Ftrespopul: 3 Resconnect: 2

Totalconne: 88 Srcname: WELL #1 NO WELL TAG

Srctype:WSrcusecode:PSrcwelldep:76Township:17Range:02ESection:22

Qtrqtrsect:SWNWLongitude:-122.926185Latitude:46.948031

Latlongmet: GPS Srcsuscept: H Srcvulnioc: H Srcvulnvoc: H

Srcvulnsoc: U Doewelltag: Not Reported

 Srctot6mo:
 0
 Srctot1yr:
 0

 Srctot5yr:
 0
 Srctot10yr:
 0

Protection: Assigned Pricontact: 3609438778

Priconta 1: Not Reported Priconta 2: 9610 KIMMIE ST SW

Priconta 3: OLYMPIA Priconta 4: WA

Priconta 5: 98512

Priconta 6: pdheck@comcast.net

Pwseffecti: 01/01/1970 Srceffecti: 01/01/1970

Internalon: N Site id: WA700000005941

66 ESE FED USGS USGS40001236814

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465654122552801

Monloc name: 17N/02W-22E01

Monloc type: Well

Monloc desc: Not Reported Huc code: 17100103

Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9481532 Longitude: -122.9256938 24000 Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 200 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19010101 Welldepth: 77.2

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1973-07-20 18

67 NW FED USGS USGS40001237473

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465736122570701

Monloc name: 17N/02W-17J01

Monloc type: Well

Monloc desc: Not Reported

17100103 Huc code: Drainagearea value: Not Reported Not Reported Contrib drainagearea: Drainagearea Units: Not Reported 46.9598196 Contrib drainagearea units: Not Reported Latitude: -122.9531954 24000 Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 195
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19800315 Welldepth: 136 Welldepth units: ft Wellholedepth: 136

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 2

1990-07-25 11.59 1988-07-18 13.82

T68
ENE FED USGS USGS40001237413

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465730122553001

Monloc name: 17N/02W-15M02

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code:17100103Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:46.958153Longitude:-122.9262497Sourcemap scale:Not Reported

Horiz Acc measure: 10

Horiz coord refsys:

Horiz Collection method: Interpolated from map

NAD83

Vert measure val: 9999.99
Vertacc measure val: 999

seconds

US

Horiz Acc measure units:

Countrycode:

Vert measure units: feet
Vert accmeasure units: feet

Vertcollection method: Unknown
Vert coord refsys: NGVD29

Aquifer type:

NGVD29

Aquifername:

Not Reported

Not Reported

Aquifer type:

Not Reported

Construction date: 19940701 Welldepth: 58
Welldepth units: ft Wellholedepth: 58

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1994-07-01 22

69 SSE FED USGS USGS40001236558

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465636122555001

Monloc name: 17N/02W-21J01

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Not Reported Drainagearea Units: Not Reported Contrib drainagearea: 46.9431533 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.931805 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 193 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet
Vertcollection method: Interpolated from topographic

Vertcollection method: Interpolated from topographic map
Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19790607 Welldepth: 26
Welldepth units: ft Wellholedepth: 26

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 2

Feet below Feet to Feet below Feet to

Date Surface Sealevel Date Surface Sealevel

1990-07-24 6.96 1988-09-21 8.65

S70 West 1/2 - 1 Mile Lower

FED USGS USGS40001237034

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465708122572001

Monloc name: 17N/02W-20B02

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.9523197 Latitude: -122.9570842 24000 Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 190 Vert measure units: 50

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19560101 Welldepth: 60

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to

Date Surface Sealevel

1956-09-15 14

U71
ENE FED USGS USGS40001237412

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465730122552901

Monloc name: 17N/02W-15M03

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

17100103 Not Reported Huc code: Drainagearea value: Not Reported Not Reported Drainagearea Units: Contrib drainagearea: Contrib drainagearea units: Not Reported Latitude: 46.958153 -122.9259719 Not Reported Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19920401 Welldepth: 59
Welldepth units: ft Wellholedepth: 59

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to see Surface Sealevel

Date Surface Sealevel

1992-04-01 12

72
West FED USGS USGS40001236966
1/2 - 1 Mile

1/2 - 1 Mil Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465703122572301 Monloc name: 17N/02W-20B09

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.9506531 Latitude: Longitude: -122.9576397 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99

Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported
Formation type: Not Reported
Aquifer type: Not Reported

Construction date: 19950303 Welldepth: 60 Welldepth units: ft Wellholedepth: 60

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1995-03-03 12

73 SW FED USGS USGS40001236541

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465635122565701

Monloc name: 17N/02W-20J03

Monloc type: Well

Monloc desc: Not Reported

Huc code:17100103Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:46.9428755Longitude:-122.9504169Sourcemap scale:24000

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Horiz Acc measure: 1 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 188
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19860513 Welldepth: 60
Welldepth units: ft Wellholedepth: 60

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 2

Feet below Feet to Feet below Feet to
Date Surface Sealevel Date Surface Sealevel

1990-07-24 5.88 1988-08-12 7.48

V/4 NW FED USGS USGS40001237600 1/2 - 1 Mile

1/2 - 1 N Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465742122570401

Monloc name: 17N/02W-17H04

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Contrib drainagearea units: Not Reported 46.9614862 Latitude: Longitude: -122.952362 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported

Formation type: Unclassified Overburden

Aquifer type: Not Reported

Construction date: 19930112 Welldepth: 96 Welldepth units: ft Wellholedepth: 98

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

-----

1993-01-13 25

Lower

75 West FED USGS USGS40001237190 1/2 - 1 Mile

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Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465717122572401

Monloc name: 17N/02W-17Q01

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.9545419 Latitude: -122.9579176 Not Reported Longitude: Sourcemap scale: Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet

Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19910703 Welldepth: 64
Welldepth units: ft Wellholedepth: 64

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to

Date Surface Sealevel

1991-07-05 6

W76 SW FED USGS USGS40001236614

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465638122570401

Monloc name: 17N/02W-20J04

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

17100103 Not Reported Huc code: Drainagearea value: Not Reported Contrib drainagearea: Not Reported Drainagearea Units: Contrib drainagearea units: Not Reported Latitude: 46.9437088 Longitude: -122.9523614 Not Reported Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19810414 Welldepth: 30.5 Welldepth units: ft Wellholedepth: 30.5

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

-----

1981-04-16 4

V77 NW FED USGS USGS40001237631

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465743122570401

Monloc name: 17N/02W-17H03

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.961764 Latitude: Longitude: -122.952362 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19940625 Welldepth: Not Reported Welldepth units: Not Reported Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1994-06-26 30

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465733122552701

Monloc name: 17N/02W-15M01

Monloc type: Well

Monloc desc: Not Reported

Huc code:17100103Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:46.9589863Longitude:-122.9254164Sourcemap scale:24000

Horiz Acc measure: 1 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 195 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19580520 Welldepth: 40

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1958-05-20 18

\_\_\_\_

W79 SW FED USGS USGS40001236615 1/2 - 1 Mile

Org. Identifier: USGS-WA

Lower

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465638122570501

Monloc name: 17N/02W-20J01

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Not Reported Drainagearea Units: Not Reported Contrib drainagearea: 46.9437088 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.9526392 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19790317 Welldepth: Not Reported Welldepth units: Not Reported Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

-----

1979-03-18 8

Lower

V80 NW FED USGS USGS40001237632 1/2 - 1 Mile

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Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465743122570501

Monloc name: 17N/02W-17H02

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.961764 Latitude: -122.9526399 Not Reported Longitude: Sourcemap scale: Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert measure units: feet
Vert accmeasure units: feet

Vertcollection method: Unknown
Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19810320 Welldepth: 39.8 Welldepth units: ft Wellholedepth: 41.2

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

-----

1981-03-20 7

ESE FED USGS USGS40001236841

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465657122552001

Monloc name: 17N/02W-22NW2

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

17100103 Not Reported Huc code: Drainagearea value: Not Reported Not Reported Drainagearea Units: Contrib drainagearea: 46.9489865 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.9234715 Not Reported Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19820901 Welldepth: 38 Welldepth units: ft Wellholedepth: 38

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to Surface Sealevel

Date

1982-09-01 13

82 WSW **FED USGS** USGS40001236843

1/2 - 1 Mile Lower

> Org. Identifier: **USGS-WA**

USGS Washington Water Science Center Formal name:

USGS-465657122572401 Monloc Identifier:

Monloc name: 17N/02W-20G03

Monloc type: Well

Monloc desc: **GWSI DATABASE AUGMENTATION SITE** 

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.9489865 Latitude: Longitude: -122.9579174 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Interpolated from map Horiz Collection method:

Horiz coord refsys: NAD83 Vert measure val: 9999.99 Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet

Vertcollection method: Unknown

US NGVD29 Countrycode: Vert coord refsys:

Not Reported Aquifername: Formation type: Not Reported Aquifer type: Not Reported

Welldepth: Construction date: 19770801 52.5 Welldepth units: ft Wellholedepth: 52.5

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to Surface Sealevel

1977-08-02 14

V83 NW **FED USGS** USGS40001237643 1/2 - 1 Mile

Lower

Date

Org. Identifier: **USGS-WA** 

Formal name: USGS Washington Water Science Center

USGS-465744122570701 Monloc Identifier:

Monloc name: 17N/02W-17H01

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Not Reported Drainagearea value: Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9620418 Longitude: -122.9531955 Sourcemap scale: 24000

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Horiz Acc measure: 1 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 190 Vert measure units: 190 Vert measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported
Formation type: Not Reported
Aquifer type: Not Reported

Construction date: 19850605 Welldepth: 39 Welldepth units: ft Wellholedepth: 39

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1988-09-08 13.56

X84 WSW FED USGS USGS40001236800 1/2 - 1 Mile

Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465652122572301

Monloc name: 17N/02W-20G05

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Contrib drainagearea units: Not Reported 46.9475976 Latitude: Longitude: -122.9576396 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported

Formation type: Unclassified Overburden

Aquifer type: Not Reported

Construction date: 19870414 Welldepth: 90 Welldepth units: ft Wellholedepth: 90

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 0

Y85
West FED USGS USGS40001237009
1/2 - 1 Mile

Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465706122573301

Monloc name: 17N/02W-20B08

Monloc type: Well

Monloc desc: DRL LOC: NW NW S20 T17N R02W

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.9516389 Latitude: Not Reported -122.95925 Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Global positioning system (GPS), uncorrected

Horiz coord refsys: NAD83 Vert measure val: 192 Vert measure units: feet Vertacc measure val: 21

Vert accmeasure units: feet
Vertcollection method: Interpolated from digital elevation model (DEM)

Vert coord refsys: NAVD88 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 20081122 Welldepth: 78 Welldepth units: ft Wellholedepth: 82

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 0

WSW FED USGS USGS40001236783 1/2 - 1 Mile

Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465651122572301

Monloc name: 17N/02W-20G04

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9473199 Longitude: -122.9576396 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19780322 Welldepth: 51.8 Welldepth units: ft Wellholedepth: 51.8

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1978-03-24 9

87 SSE FED USGS USGS40001236412

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465625122560801

Monloc name: 17N/02W-21Q01

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

17100103 Not Reported Huc code: Drainagearea value: Contrib drainagearea: Not Reported Drainagearea Units: Not Reported 46.9400978 Contrib drainagearea units: Not Reported Latitude: -122.936805 Not Reported Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported

Formation type: Unclassified Overburden

Aquifer type: Not Reported

Construction date: 19930705 Welldepth: 40 Welldepth units: ft Wellholedepth: 40

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1993-08-05 6

Y88
West FED USGS USGS40001237002

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465705122572901

Monloc name: 17N/02W-20B05

Monloc type: Well

Monloc desc: Not Reported

Huc code:17100103Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:46.9512087Longitude:-122.9593065Sourcemap scale:24000

Horiz Acc measure: 1 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 188
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported

Formation type: Unclassified Overburden

Aquifer type: Not Reported

Construction date: 19870605 Welldepth: 71 Welldepth units: ft Wellholedepth: 80

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 2

Feet below Feet to Feet below Feet to
Date Surface Sealevel Date Surface Sealevel

1990-07-26 9.27

Lower

Note: Other conditions existed that would affect the measured water level.

1988-09-20 11.59

X89
WSW
FED USGS USGS40001236801
1/2 - 1 Mile

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465652122572401

Monloc name: 17N/02W-20G06

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

17100103 Huc code: Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9475976 Longitude: -122.9579174 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99 Vert measure units: Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported
Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19870414 Welldepth: 66
Welldepth units: ft Wellholedepth: 66

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1987-06-03 13

Map ID Direction Distance

Database EDR ID Number Elevation

X90 WSW **FED USGS** USGS40001236751

1/2 - 1 Mile Lower

> Org. Identifier: **USGS-WA**

Formal name: USGS Washington Water Science Center

USGS-465650122572301 Monloc Identifier:

17N/02W-20G02 Monloc name:

Well Monloc type:

Monloc desc: Not Reported

17100103 Drainagearea value: Not Reported Huc code: Contrib drainagearea: Not Reported Drainagearea Units: Not Reported 46.9470421 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.9576396 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 190 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units:

Vertcollection method: Interpolated from topographic map

US Vert coord refsys: NGVD29 Countrycode:

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

19010101 Welldepth: 39.7 Construction date:

Welldepth units: Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet to Feet below Surface Sealevel Date

1975-04-24 8

X91 WSW USGS40001236807 **FED USGS** 

1/2 - 1 Mile Lower

> Org. Identifier: **USGS-WA**

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465653122571601

Monloc name: 17N/02W-20G01

Monloc type: Well

Not Reported Monloc desc:

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9470421 Longitude: -122.9576396 Sourcemap scale: 24000 Horiz Acc measure units: Horiz Acc measure: seconds

Interpolated from map Horiz Collection method:

Horiz coord refsys: NAD83 Vert measure val: 190 Vert measure units: feet Vertacc measure val: 50

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Not Reported Formation type:

Aquifer type: Not Reported

Construction date: 19600101 Welldepth: 80

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

-----

1960-01-01 13

Z92 East FED USGS USGS40001237091

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465713122550701

Monloc name: 17N/02W-15P01

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9528753 Longitude: -122.9212493 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 205
Vert measure units: feet Vertacc measure val: 50

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19520901 Welldepth: 82

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1952-09-01 17

93 SE FED USGS USGS40001236613

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465638122553001

Monloc name: 17N/02W-22M03

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code:17100103Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:46.9437088Longitude:-122.9262492Sourcemap scale:Not Reported

Horiz Acc measure units:

Countrycode:

seconds

US

Horiz Acc measure: 10

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99 Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet Vertcollection method: Unknown Vert coord refsys: NGVD29

Aquifername: Not Reported Not Reported Formation type: Not Reported Aquifer type:

19840424 28 Construction date: Welldepth: Welldepth units: Wellholedepth: 28 ft

Wellholedepth units:

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1984-04-28 10

NE **FED USGS** USGS40001237630 1/2 - 1 Mile

Higher

Org. Identifier: **USGS-WA** 

Formal name: USGS Washington Water Science Center

USGS-465743122553001 Monloc Identifier:

Monloc name: 17N/02W-15E02

Monloc type: Well

Monloc desc: **GWSI DATABASE AUGMENTATION SITE** 

Huc code: 17100103 Drainagearea value: Not Reported Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Contrib drainagearea units: Not Reported 46.961764 Latitude: Longitude: -122.9262499 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

NAD83 9999.99 Horiz coord refsys: Vert measure val: Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet Vertcollection method: Unknown

US NGVD29 Countrycode: Vert coord refsys: Aquifername: Not Reported

Not Reported Formation type: Aquifer type: Not Reported

Construction date: 19870801 Welldepth: 46.5 Welldepth units: ft Wellholedepth: 53

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

1987-08-07 15

Y95 West 1/2 - 1 Mile Lower

**FED USGS** USGS40001237053

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465709122573101

Monloc name: 17N/02W-20B01

Monloc type: Well

Monloc desc: Not Reported Huc code: 17100103

Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.952042 Latitude: -122.9601399 24000 Longitude: Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 190
Vert measure units: feet Vertacc measure val: 50

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19440101 Welldepth: 16

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

-----

1944-06-28 12

Y96
West FED USGS USGS40001237017

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465707122573201

Monloc name: 17N/02W-20B07

Monloc type: Well
Monloc desc: Not Reported
Huc code: 17100103

17100103 Not Reported Huc code: Drainagearea value: Not Reported Not Reported Drainagearea Units: Contrib drainagearea: Contrib drainagearea units: Not Reported Latitude: 46.9517642 Longitude: -122.9601398 24000 Sourcemap scale: Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 188 Vert measure units: feet Vertacc measure val: 50

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19660101 Welldepth: 80

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to

Date Surface Sealevel

1966-07-01 11.00

Y97
West FED USGS USGS40001237018

1/2 - 1 Mile Lower

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465707122573202

Monloc name: 17N/02W-20B04

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9517642 Longitude: -122.9601398 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 188
Vert measure units: feet Vertacc measure val: 50

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19660101 Welldepth: 80

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1966-08-01 11

AA98
ENE FED USGS USGS40001237437

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465732122551801

Monloc name: 17N/02W-15L04

Monloc type: Well

Monloc desc: Not Reported

Huc code:17100103Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:46.9587085Longitude:-122.9229163Sourcemap scale:24000

Horiz Acc measure: 1 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 200 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19770123 Welldepth: 58
Welldepth units: ft Wellholedepth: 58

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 2

Feet below Feet to Feet below Feet to
Date Surface Sealevel Date Surface Sealevel

1990-07-26 15.27 1988-08-10 18.54

AB99
East FED USGS USGS40001237000
1/2 - 1 Mile

Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465705122551101

Monloc name: 17N/02W-22C02

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Not Reported Drainagearea Units: Not Reported Contrib drainagearea: 46.9512087 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.9209715 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 200 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19740902 Welldepth: 106

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1974-09-02 35

Y100 West 1/2 - 1 Mile Lower

WA WELLS WA700000005975

 Objectid:
 7843
 Pwsid:
 25980

 Srcnum:
 01
 Pwssrcid:
 2598001

Systemname: OLYMPIA FORESTRY SCIENCES LAB

Systemgrou: A

Systemtype: NTNC Region: SW

County: THURSTON Smaid: Not Reported

Ftrespopul: 0 Resconnect: 0

Totalconne: 1 Srcname: WELL #1 WW NO TAG

Srctype:WWSrcusecode:PSrcwelldep:80Township:17Range:02WSection:20

Qtrqtrsect:NWNELongitude:-122.960346Latitude:46.951722

Latlongmet: GPS Srcsuscept: M Srcvulnioc: L Srcvulnvoc: M

Srcvulnsoc: L Doewelltag: Not Reported Srctot6mo: 440 Srctot1yr: 620 Srctot5yr: 1390 Srctot10yr: 1970 Protection: 3609562317 **CFR** Pricontact:

Priconta 1: Not Reported Priconta 2: 1835 BLACK LK BLVD SW STE A

Priconta 3: OLYMPIA Priconta 4: WA

Priconta 5: 985125623

Priconta 6: rjwatson@fs.fed.us

Pwseffecti: 01/01/1979 Srceffecti: 01/01/1970

Internalon: N Site id: WA700000005975

Y101 West 1/2 - 1 Mile Lower

WA WELLS WA700000005974

 Objectid:
 7844
 Pwsid:
 25980

 Srcnum:
 02
 Pwssrcid:
 2598002

Systemname: OLYMPIA FORESTRY SCIENCES LAB

Systemgrou: A

Systemtype: NTNC Region: SW

County: THURSTON Smaid: Not Reported

Ftrespopul: 0 Resconnect: 0

Totalconne: 1 Srcname: WELL #2 WW NO TAG

Srctype:WWSrcusecode:PSrcwelldep:80Township:17Range:02WSection:20

Qtrqtrsect: NWNE
Longitude: -122.960394
Latitude: 46.95172

Latlongmet: GPS Srcsuscept: L Srcvulnioc: L Srcvulnvoc: M

Srcvulnsoc: L Doewelltag: Not Reported

 Srctot6mo:
 440
 Srctot1yr:
 620

 Srctot5yr:
 1390
 Srctot10yr:
 1970

 Protection:
 CFR
 Pricontact:
 3609562317

Priconta 1: Not Reported Priconta 2: 1835 BLACK LK BLVD SW STE A

Priconta 3: OLYMPIA Priconta 4: WA

Priconta 5: 985125623
Priconta 6: rjwatson@fs.fed.us

Pwseffecti: 01/01/1979 Srceffecti:

Internalon: N Site id: WA700000005974

01/01/1970

Map ID Direction Distance

Elevation Database EDR ID Number

AB102
East FED USGS USGS40001236961
1/2 - 1 Mile

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465703122551101

Monloc name: 17N/02W-22C03

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

17100103 Drainagearea value: Not Reported Huc code: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: 46.9506531 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.9209714 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99
Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19800410 Welldepth: 34 Welldepth units: ft Wellholedepth: 67

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1980-04-11 9

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465733122551801

Monloc name: 17N/02W-15L03

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported 46.9589863 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.9229163 Sourcemap scale: 24000 seconds Horiz Acc measure: Horiz Acc measure units:

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 200 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19580516 Welldepth: Not Reported Welldepth units: Not Reported Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to Date Surface Sealevel

-----

1958-05-16 19

SE FED USGS USGS40001236628

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465640122552901

Monloc name: 17N/02W-22M04

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported 46.9443611 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.9247778 Sourcemap scale: Not Reported Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Global positioning system (GPS), uncorrected

Horiz coord refsys: NAD83 Vert measure val: 204
Vert measure units: feet Vertacc measure val: 21

Vert accmeasure units: feet

Vertcollection method: Interpolated from digital elevation model (DEM)

Vert coord refsys: NAVD88 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 20050629 Welldepth: 78 Welldepth units: ft Wellholedepth: 78

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 0

AB105
East FED USGS USGS40001236960

East 1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465703122551001

Monloc name: 17N/02W-22C04

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code:17100103Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:46.9506531Longitude:-122.9206937Sourcemap scale:Not Reported

Horiz Acc measure: 10

Interpolated from map

Horiz Acc measure units: seconds

Horiz Collection method:

NAD83

Vert measure val: Vertacc measure val:

9999.99 999

Horiz coord refsys: Vert measure units: Vert accmeasure units:

feet feet

Unknown Countrycode:

US

Vertcollection method: Vert coord refsys: Aquifername:

Formation type:

Aquifer type:

NGVD29 Not Reported

Not Reported

Not Reported

Welldepth: Wellholedepth: 84 86

**FED USGS** 

USGS40001236780

Construction date: Welldepth units:

19871118 ft Wellholedepth units:

Ground-water levels, Number of Measurements: 1

Feet below

Feet to

Date Surface Sealevel

1987-12-03 20

AC106 1/2 - 1 Mile Higher

> Org. Identifier: **USGS-WA**

Formal name: USGS Washington Water Science Center

USGS-465651122551401 Monloc Identifier:

Monloc name: 17N/02W-22F03

Monloc type: Well

Not Reported Monloc desc:

Huc code: 17100103 Drainagearea value: Not Reported Not Reported Drainagearea Units: Not Reported Contrib drainagearea: 46.9473199 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.9218047 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

NAD83 Horiz coord refsys: Vert measure val: 198 feet Vertacc measure val: Vert measure units: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

US NGVD29 Countrycode: Vert coord refsys:

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19840213 Welldepth: 66 Welldepth units: ft Wellholedepth: 66

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 2

Feet below Feet to Feet below Feet to Date Surface Sealevel Date Surface Sealevel

1990-07-25 12.95

Note: The site had been pumped recently.

1988-08-26 13.34

Map ID Direction Distance

Elevation Database EDR ID Number

Z107
East FED USGS USGS40001237068

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465711122550801

Monloc name: 17N/02W-15P02

Monloc type: Well

Monloc desc: Not Reported

17100103 Drainagearea value: Not Reported Huc code: Contrib drainagearea: Not Reported Drainagearea Units: Not Reported 46.9528753 Contrib drainagearea units: Not Reported Latitude: Longitude: -122.9201382 Sourcemap scale: 24000 Horiz Acc measure: Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 205
Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19580328 Welldepth: 28

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1958-03-28 10

108
East FED USGS USGS40001237016
1/2 - 1 Mile

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465707122550701

Monloc name: 17N/02W-22C01

Monloc type: Well

Monloc desc: Not Reported

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported Latitude: 46.9517642 Longitude: -122.9198603 Sourcemap scale: 24000 Horiz Acc measure units: Horiz Acc measure: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 200 Vert measure units: feet Vertacc measure val: 10

Vert accmeasure units: feet

Vertcollection method: Interpolated from topographic map

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported

Aquifer type: Not Reported

Construction date: 19711231 Welldepth: 60

Welldepth units: ft Wellholedepth: Not Reported

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to Surface Sealevel

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1971-12-31 16

ENE FED USGS USGS40001237411

1/2 - 1 Mile Higher

Date

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465730122551201

Monloc name: 17N/02W-15L09

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code: 17100103 Drainagearea value: Not Reported Drainagearea Units: Not Reported Contrib drainagearea: Not Reported Contrib drainagearea units: Not Reported 46.958153 Latitude: Longitude: -122.9212495 Sourcemap scale: Not Reported Horiz Acc measure: 10 Horiz Acc measure units: seconds

Horiz Collection method: Interpolated from map

Horiz coord refsys: NAD83 Vert measure val: 9999.99

Vert measure units: feet Vertacc measure val: 999

Vert accmeasure units: feet
Vertcollection method: Unknown

Vert coord refsys: NGVD29 Countrycode: US

Aquifername: Not Reported Formation type: Not Reported Aquifer type: Not Reported

Construction date: 19940428 Welldepth: 59 Welldepth units: ft Wellholedepth: 59

Wellholedepth units: ft

Ground-water levels, Number of Measurements: 1

Feet below Feet to
Date Surface Sealevel

1994-04-28 14

AC110
ESE FED USGS USGS40001236799
1/2 - 1 Mile

1/2 - 1 Mile Higher

Org. Identifier: USGS-WA

Formal name: USGS Washington Water Science Center

Monloc Identifier: USGS-465652122551101

Monloc name: 17N/02W-22F06

Monloc type: Well

Monloc desc: GWSI DATABASE AUGMENTATION SITE

Huc code:17100103Drainagearea value:Not ReportedDrainagearea Units:Not ReportedContrib drainagearea:Not ReportedContrib drainagearea units:Not ReportedLatitude:46.9475976Longitude:-122.9209713Sourcemap scale:Not Reported

Horiz Acc measure: 10

Interpolated from map

Horiz Collection method: Horiz coord refsys: Vert measure units: Vert accmeasure units:

NAD83 feet feet

Vertcollection method: Unknown
Vert coord refsys: NGVD29
Aquifername: Not Reported
Formation type: Not Reported
Aquifer type: Not Reported
Construction date: 19830920

Welldepth units: ft

Wellholedepth units: Not Reported

Ground-water levels, Number of Measurements: 1

Feet below Feet to

Date Surface Sealevel

1983-09-26 29

Horiz Acc measure units: seconds

Vert measure val: 9999.99 Vertacc measure val: 999

Countrycode:

Welldepth: 56

Wellholedepth: Not Reported

US

### AREA RADON INFORMATION

Federal EPA Radon Zone for THURSTON County: 3

Note: Zone 1 indoor average level > 4 pCi/L.

: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.

: Zone 3 indoor average level < 2 pCi/L.

Federal Area Radon Information for THURSTON COUNTY, WA

Number of sites tested: 38

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area - 1st Floor	0.584 pCi/L	97%	3%	0%
Living Area - 2nd Floor	Not Reported	Not Reported	Not Reported	Not Reported
Basement	2.171 pCi/L	86%	14%	0%

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### **TOPOGRAPHIC INFORMATION**

USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

#### HYDROLOGIC INFORMATION

Flood Zone Data: This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

NWI: National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

#### HYDROGEOLOGIC INFORMATION

AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

#### **GEOLOGIC INFORMATION**

Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map. USGS Digital Data Series DDS - 11 (1994).

STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### LOCAL / REGIONAL WATER AGENCY RECORDS

#### FEDERAL WATER WELLS

PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

#### STATE RECORDS

Water Wells

Source: Department of Health Telephone: 360-236-3148 Group A and B well locations.

Water Well Listing

Source: Public Utility District Telephone: 206-779-7656

A listing of water well locations in Kitsap County.

#### OTHER STATE DATABASE INFORMATION

Oil and Gas Well Listing

Source: Department of Natural Resources

Telephone: 360-902-1450

Locations that represent oil and gas test well sites in Washington State from 1890 to present.

#### RADON

Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency

(USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

**EPA Radon Zones** 

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor

radon levels.

#### **OTHER**

Airport Landing Facilities: Private and public use landing facilities

Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater

Source: Department of Commerce, National Oceanic and Atmospheric Administration

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

#### STREET AND ADDRESS INFORMATION

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# **Restover Truckstop**

2729 93rd Avenue Southwest Olympia, WA 98512

Inquiry Number: 3773458.5

November 07, 2013

# The EDR Aerial Photo Decade Package



# **EDR Aerial Photo Decade Package**

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

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with any questions or comments.

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# **Date EDR Searched Historical Sources:**

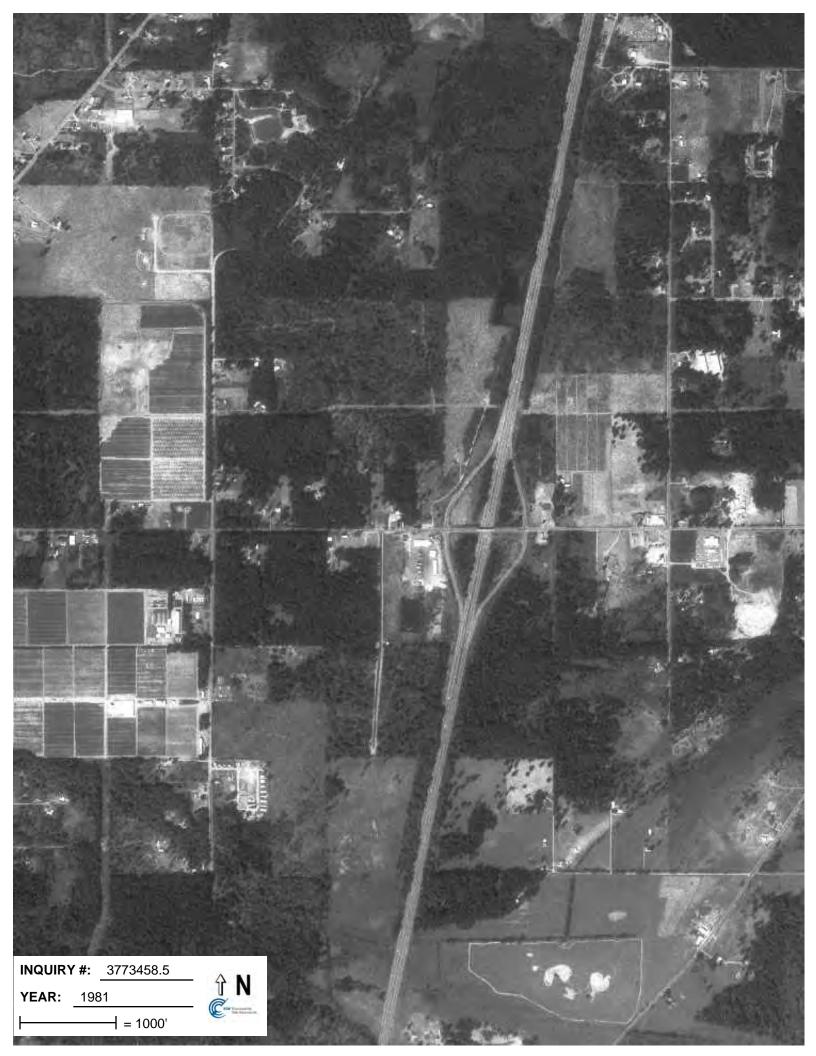
Aerial Photography November 07, 2013

# **Target Property:**

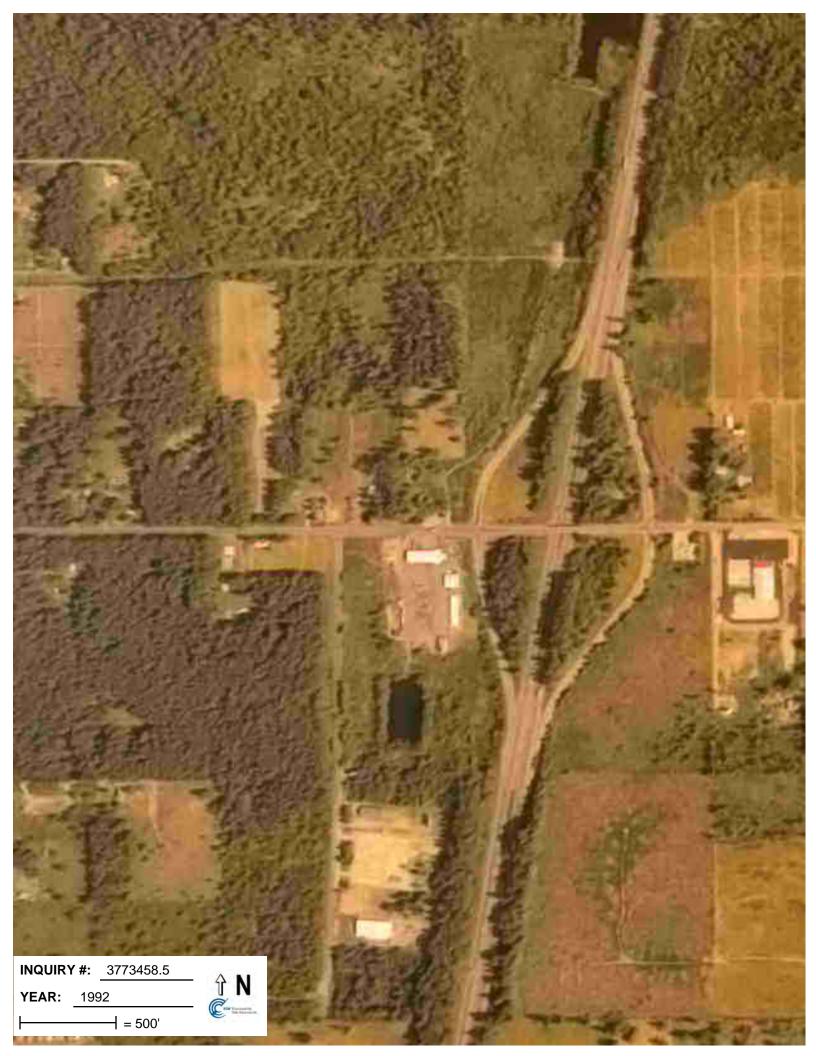
2729 93rd Avenue Southwest Olympia, WA 98512

<u>Year</u>	<u>Scale</u>	<u>Details</u>	<u>Source</u>
1975	Aerial Photograph. Scale: 1"=1000'	Panel #: 46122-H8, Maytown, WA;/Flight Date: September 13, 1975	EDR
1981	Aerial Photograph. Scale: 1"=1000'	Panel #: 46122-H8, Maytown, WA;/Flight Date: August 08, 1981	EDR
1991	Aerial Photograph. Scale: 1"=500'	Panel #: 46122-H8, Maytown, WA;/DOQQ - acquisition dates: July 30, 1991	EDR
1992	Aerial Photograph. Scale: 1"=500'	Panel #: 46122-H8, Maytown, WA;/Flight Date: June 18, 1992	EDR
2005	Aerial Photograph. Scale: 1"=500'	Panel #: 46122-H8, Maytown, WA;/Flight Year: 2005	EDR
2006	Aerial Photograph. Scale: 1"=500'	Panel #: 46122-H8, Maytown, WA;/Flight Year: 2006	EDR
2009	Aerial Photograph. Scale: 1"=500'	Panel #: 46122-H8, Maytown, WA;/Flight Year: 2009	EDR
2011	Aerial Photograph. Scale: 1"=500'	Panel #: 46122-H8, Maytown, WA;/Flight Year: 2011	EDR

















# **Restover Truckstop**

2729 93rd Avenue Southwest Olympia, WA 98512

Inquiry Number: 3773458.4

October 31, 2013

# **EDR** Historical Topographic Map Report



# **EDR Historical Topographic Map Report**

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

**Thank you for your business.**Please contact EDR at 1-800-352-0050 with any questions or comments.

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TARGET QUAD

NAME: CHEHALIS

MAP YEAR: 1916

SERIES: 30

SCALE: 1:125000

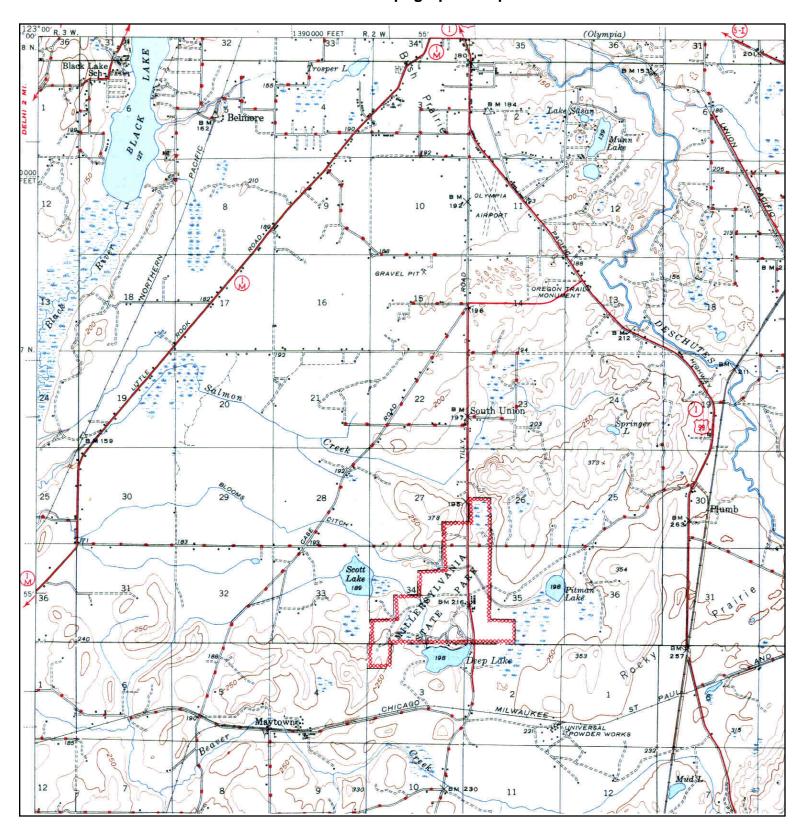
SITE NAME: Restover Truckstop

ADDRESS: 2729 93rd Avenue Southwest

Olympia, WA 98512

LAT/LONG: 46.9527 / -122.9406

CLIENT: Robinson & Noble, Inc.





TARGET QUAD NAME: TENINO

MAP YEAR: 1944

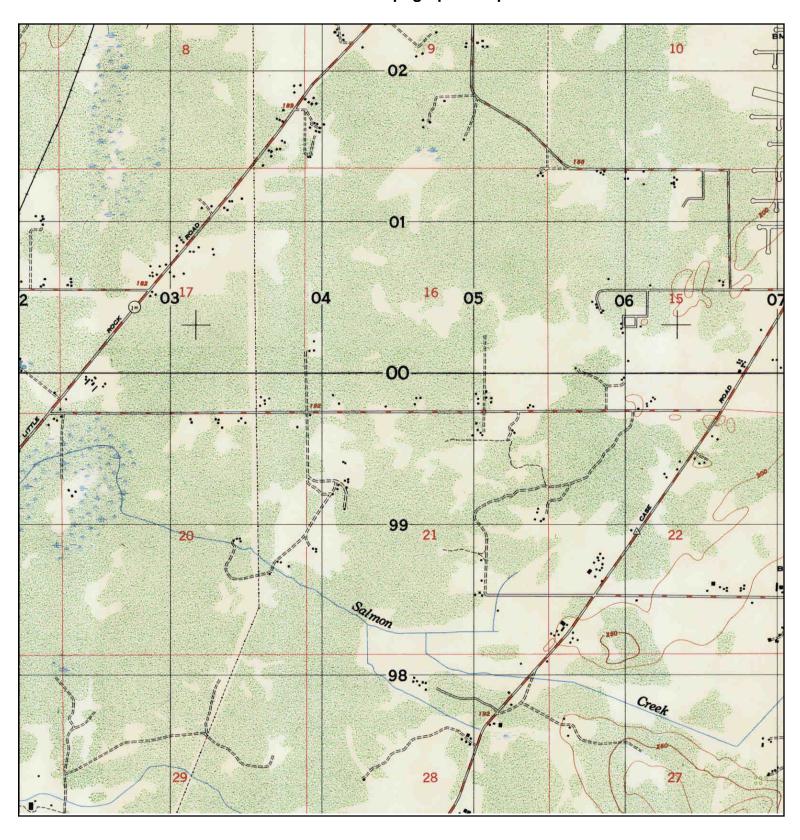
SERIES: 15 SCALE: 1:62500 SITE NAME: Restover Truckstop

ADDRESS: 2729 93rd Avenue Southwest

Olympia, WA 98512

LAT/LONG: 46.9527 / -122.9406

CLIENT: Robinson & Noble, Inc.





TARGET QUAD

NAME: MAYTOWN

MAP YEAR: 1949

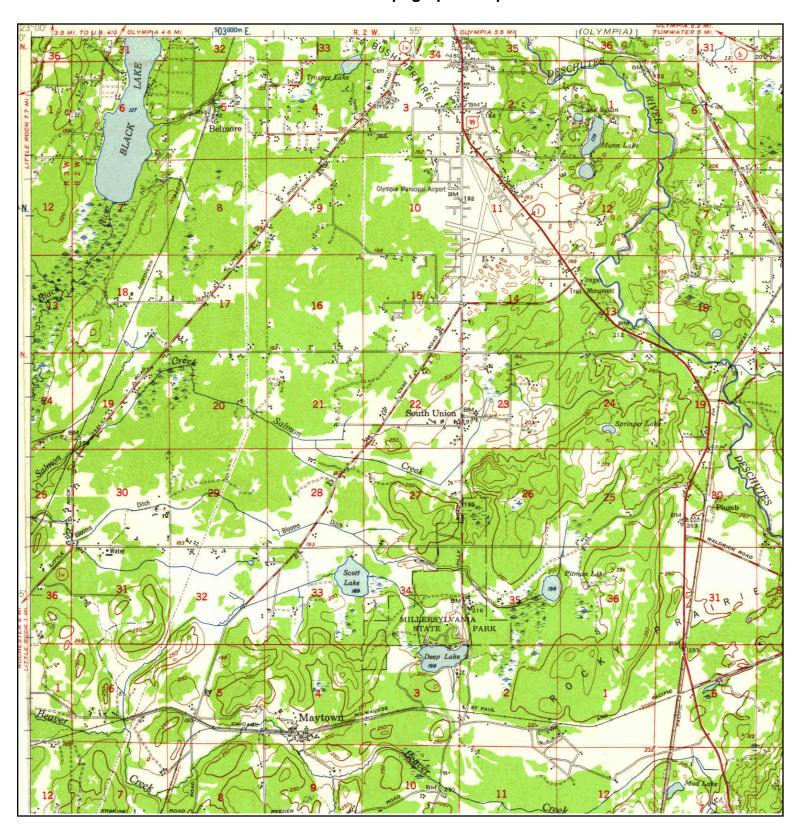
SERIES: 7.5 SCALE: 1:25000 SITE NAME: Restover Truckstop

ADDRESS: 2729 93rd Avenue Southwest

Olympia, WA 98512

LAT/LONG: 46.9527 / -122.9406

CLIENT: Robinson & Noble, Inc.





TARGET QUAD NAME: TENINO

MAP YEAR: 1949

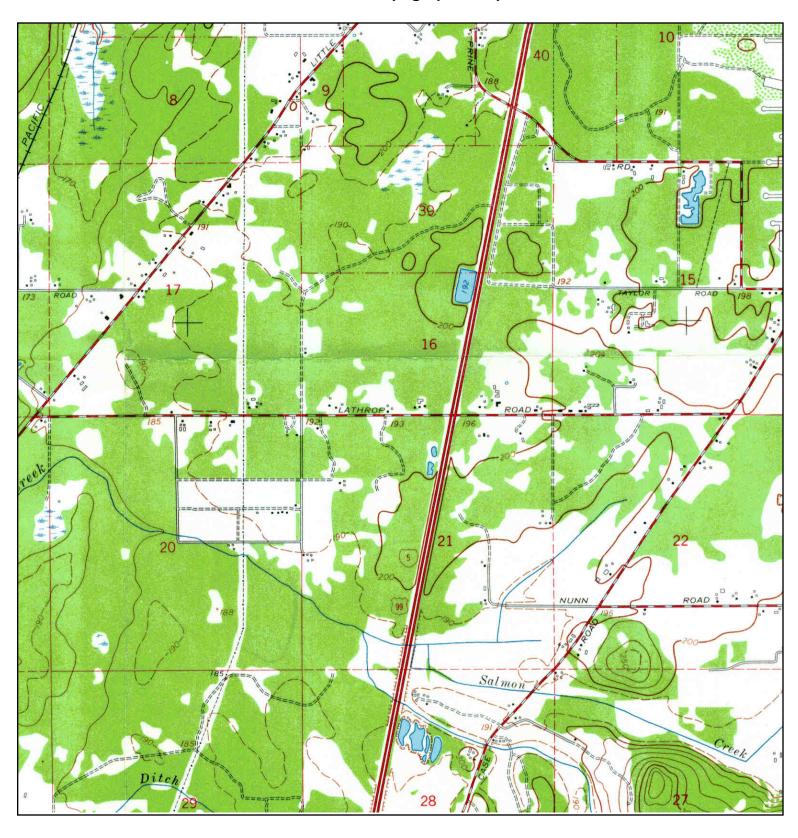
SERIES: 15 SCALE: 1:62500 SITE NAME: Restover Truckstop

ADDRESS: 2729 93rd Avenue Southwest

Olympia, WA 98512

LAT/LONG: 46.9527 / -122.9406

CLIENT: Robinson & Noble, Inc.





TARGET QUAD

NAME: **MAYTOWN** 

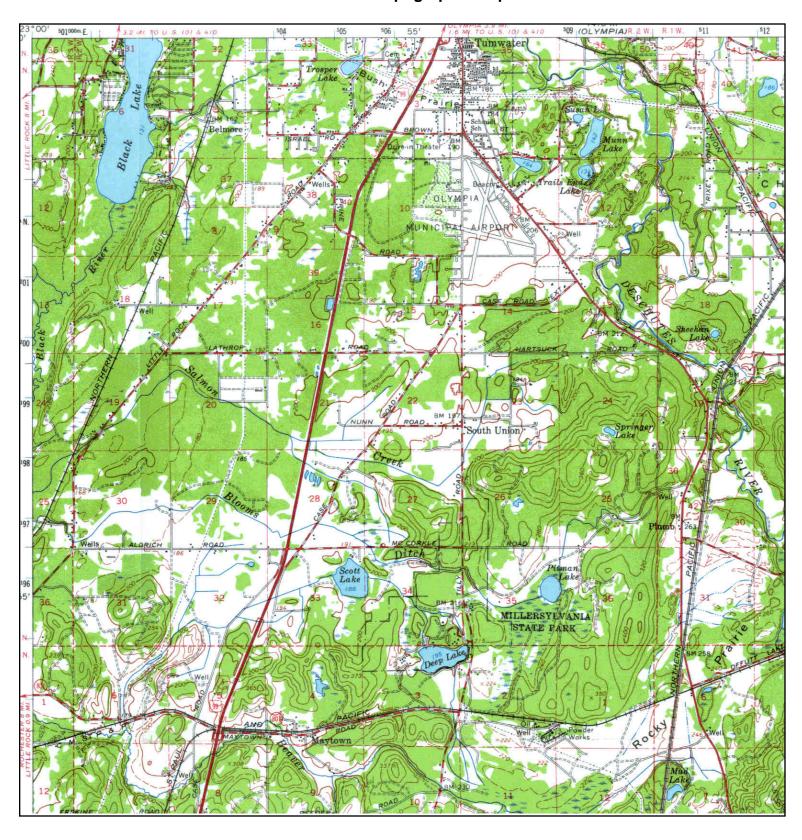
MAP YEAR: 1959

SERIES: 7.5 SCALE: 1:24000 SITE NAME: Restover Truckstop

ADDRESS: 2729 93rd Avenue Southwest

Olympia, WA 98512

LAT/LONG: 46.9527 / -122.9406 CLIENT: Robinson & Noble, Inc.





TARGET QUAD NAME: TENINO

MAP YEAR: 1959

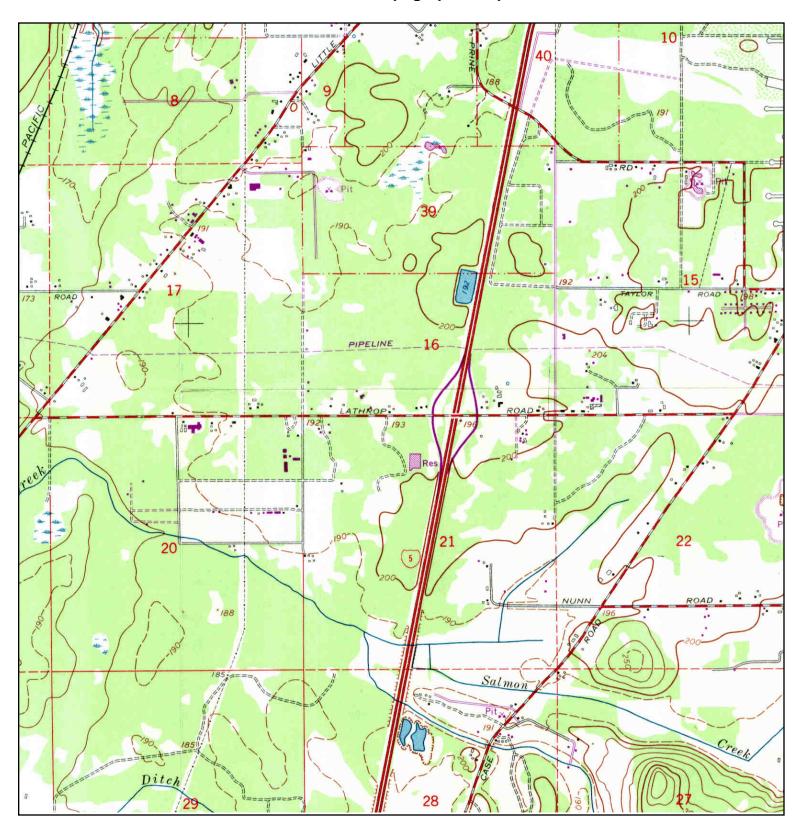
SERIES: 15 SCALE: 1:62500 SITE NAME: Restover Truckstop

ADDRESS: 2729 93rd Avenue Southwest

Olympia, WA 98512

LAT/LONG: 46.9527 / -122.9406

CLIENT: Robinson & Noble, Inc.





TARGET QUAD

NAME: MAYTOWN MAP YEAR: 1968

PHOTOREVISED FROM: 1959

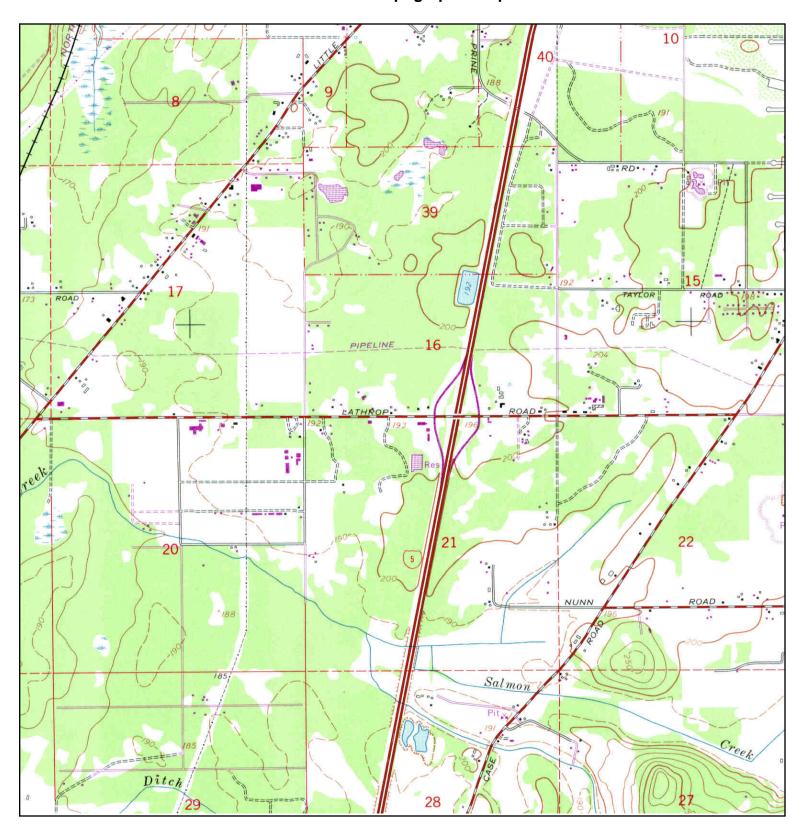
SERIES: 7.5 SCALE: 1:24000 SITE NAME: Restover Truckstop

ADDRESS: 2729 93rd Avenue Southwest

Olympia, WA 98512

LAT/LONG: 46.9527 / -122.9406

CLIENT: Robinson & Noble, Inc.





TARGET QUAD

NAME: MAYTOWN MAP YEAR: 1973

PHOTOREVISED FROM: 1959

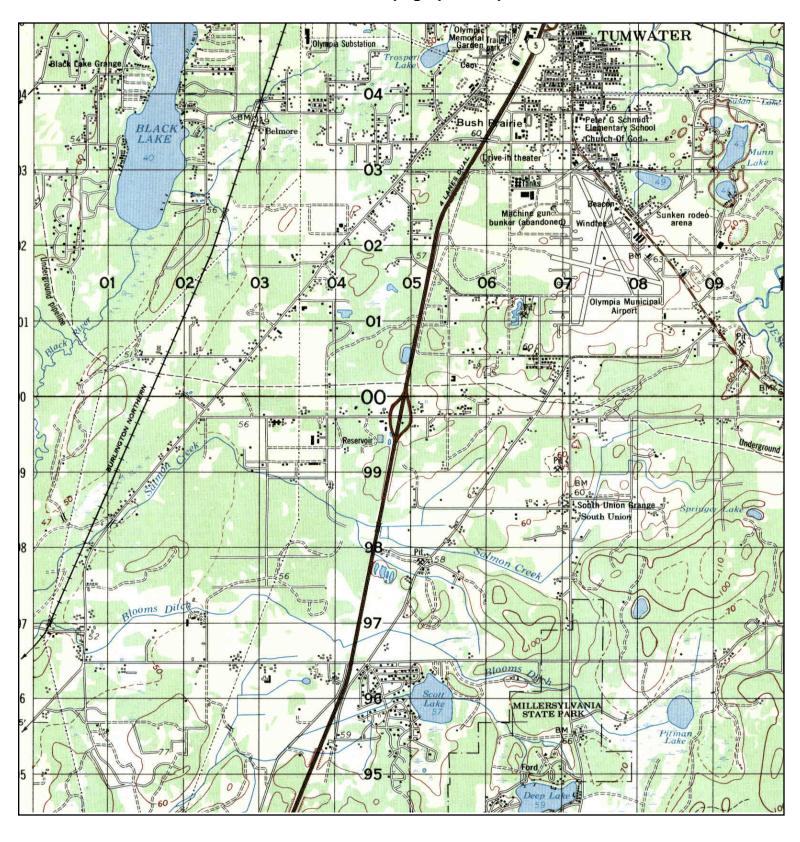
SERIES: 7.5 SCALE: 1:24000 SITE NAME: Restover Truckstop

ADDRESS: 2729 93rd Avenue Southwest

Olympia, WA 98512

LAT/LONG: 46.9527 / -122.9406

CLIENT: Robinson & Noble, Inc.





TARGET QUAD NAME: TENINO

MAP YEAR: 1975

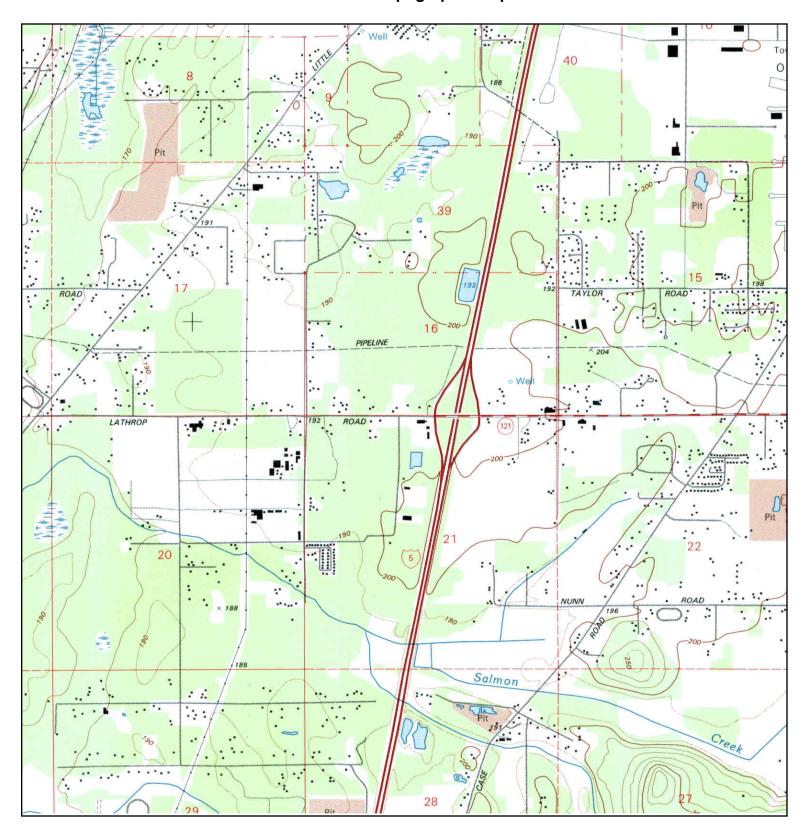
SERIES: 15 SCALE: 1:50000 SITE NAME: Restover Truckstop

ADDRESS: 2729 93rd Avenue Southwest

Olympia, WA 98512

LAT/LONG: 46.9527 / -122.9406

CLIENT: Robinson & Noble, Inc.





TARGET QUAD

NAME: MAYTOWN

MAP YEAR: 1990

SERIES: 7.5 SCALE: 1:24000 SITE NAME: Restover Truckstop

ADDRESS: 2729 93rd Avenue Southwest

Olympia, WA 98512

LAT/LONG: 46.9527 / -122.9406

CLIENT: Robinson & Noble, Inc.

# **Restover Truckstop**

2729 93rd Avenue Southwest Olympia, WA 98512

Inquiry Number: 3773458.3

October 31, 2013

# **Certified Sanborn® Map Report**



# **Certified Sanborn® Map Report**

10/31/13

Site Name: Client Name:

Restover Truckstop 2729 93rd Avenue Southwest Olympia, WA 98512 Robinson & Noble, Inc. 3011 Huson Street South Tacoma, WA 98409

EDR Inquiry # 3773458.3 Contact: Tonya Johnson



The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Robinson & Noble, Inc. were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting www.edrnet.com/sanborn and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

### Certified Sanborn Results:

Site Name: Restover Truckstop

Address: 2729 93rd Avenue Southwest

City, State, Zip: Olympia, WA 98512

**Cross Street:** 

**P.O.** # NA

**Project:** 2214-020A **Certification #** EF39-413A-931A

### **UNMAPPED PROPERTY**

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.



Sanborn® Library search results Certification # EF39-413A-931A

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

Library of Congress

✓ University Publications of America

▼ EDR Private Collection

The Sanborn Library LLC Since 1866™

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**Restover Truckstop** 2729 93rd Avenue Southwest

Olympia, WA 98512

Inquiry Number: 3773458.6

November 01, 2013

# The EDR-City Directory Image Report



### **TABLE OF CONTENTS**

### **SECTION**

**Executive Summary** 

**Findings** 

**City Directory Images** 

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### **EXECUTIVE SUMMARY**

### **DESCRIPTION**

Environmental Data Resources, Inc.'s (EDR) City Directory Report is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Report includes a search of available city directory data at 5 year intervals.

### **RESEARCH SUMMARY**

The following research sources were consulted in the preparation of this report. A check mark indicates where information was identified in the source and provided in this report.

<u>Year</u>	Target Street	Cross Street	<u>Source</u>
2013	$\overline{\checkmark}$		Cole Information Services
2008	$\overline{\checkmark}$		Cole Information Services
2003	$\overline{\checkmark}$		Cole Information Services
1999	$\overline{\checkmark}$		Cole Information Services
1995			Polk's City Directory
1989			Polk's City Directory
1984			Polk's City Directory
1978			Polk's City Directory
1973			Polk's City Directory
1968			Polk's City Directory
1963			Polk's City Directory

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# **FINDINGS**

### TARGET PROPERTY STREET

2729 93rd Avenue Southwest Olympia, WA 98512

<u>Year</u>	CD Image	<u>Source</u>			
93RD AVE SW					
2013	pg A1	Cole Information Services			
2008	pg A2	Cole Information Services			
2003	pg A3	Cole Information Services			
1999	pg A5	Cole Information Services			
1995	-	Polk's City Directory	Street not listed in Source		
1989	-	Polk's City Directory	Street not listed in Source		
1984	-	Polk's City Directory	Street not listed in Source		
1978	-	Polk's City Directory	Street not listed in Source		
1973	-	Polk's City Directory	Street not listed in Source		
1968	-	Polk's City Directory	Street not listed in Source		
1963	-	Polk's City Directory	Street not listed in Source		

3773458-6 Page 2

# **FINDINGS**

# **CROSS STREETS**

No Cross Streets Identified

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<u>Target Street</u> <u>Cross Street</u>

<u>Source</u>

Cole Information Services

93RD AVE SW 2013

JOHNSONS MACHINE & PERFORMANCE SHOP 1510 1845 LTL INC 1850 HARSCO CORP 1900 **CUPP APPRAISALS GARYS GARDEN GATE** 1902 LANAE ALDRICH 2001 **WASHINGTON CEDAR & SUPPLY** 2020 JOSEPH SCHELLER 2122 ROBERT SCHELLER 2201 **EDWARD JONES** EDWARD JONES FINANCIAL ADVISOR ME JIM HUNTER & ASSOCIATES MEE PHILLIP ACCOUNTING SH ELECTRIC 2209 JOHNSON & MADDOX CONSTRUCTIONS CO IN JOHNSON PROPERTIES 2222 OCCUPANT UNKNOWN 2303 ADAIR HOMES 2321 OCCUPANT UNKNOWN 2416 OCCUPANT UNKNOWN 2421 93RD AVE ESPRESSO LINCOLN CREEK LUMBER CO 2430 ILS WAYPORT MCDONALDS TUMWATER PILOT PILOT TRAVEL 2725 **DEANNAS RESTAURANT** 2729 MARION GIERSZEWSKI **REST OVER TRUCK STOP** RESTOVER TRUCK PLAZA 2742 OCCUPANT UNKNOWN 2828 PAUL SPICCOLI 2842 MICHAEL MULLEN 2855 OCCUPANT UNKNOWN 2900 **GUARDIAN SELF STORAGE** UHAUL NEIGHBORHOOD DEALER 2901 OCCUPANT UNKNOWN 2907 OCCUPANT UNKNOWN 2910 BLUE MOUNTAIN MECHANICAL **DENVER SCHMIDTKE** 2920 OCCUPANT UNKNOWN 3012 OCCUPANT UNKNOWN 3040 **SHINEABLIND** 3100 LANCE KINNEY 3102 CHRISTINE FEW 3126 JAMES SHUMATE 3215 **KYLE MILLER** 3232 LMC INC OCCUPANT UNKNOWN

Target Street **Cross Street** 

<u>Source</u> Cole Information Services

#### 93RD AVE SW 2008

101E	WEIGHT TO LOVING & EVGAVATION
1845	WEIKS TRUCKING & EXCAVATION
1850	TECTONIX INC DEBORAH CUPP APPRAISALS
1900	
2004	GARYS GARDEN GATE
2001	MR WHO GREENS CORP TRANS ATM LLC
2020	WASHINGTON CEDAR & SUPPLY CO JOSEPH SCHELLER
2020 2122	
2201	
2201	CARPENTRY SOLUTIONS LLC
	DOUBLE D TREE SERVICE LLC
	JIM HUNTER & ASSOCIATES
	MEE PHILLIP ACCOUNTING
	NORMAN SCOTT LLC
	ROCK PRODUCTS LLC
	URBAN TANNING SPA LTD
2222	JOSEPH HULL
2303	ADAIR HOMES INC
	INDUSTRIAL & MARINE MANAGEMENT
2321	ROBERT REID
2416	OCCUPANT UNKNOWN
2421	LINCOLN CREEK LUMBER CO INC
2430	HANSEN CONSTRUCTION
2725	K KISMET
	RESTOVER TRUCK STOP
2729	KISMET KA SITARA LLC
2742	MAHAM BAJWA
2828	MARVIN LOCKE
2842	APRIA HEALTHCARE
	MICHAEL MULLEN
2855	BRIAN LARSON
2900	GUARDIAN SELF STORAGE
2901	OCCUPANT UNKNOWN
2907	FRAN BURTON
2910	OCCUPANT UNKNOWN
2920	KAPPERT WATERFRONT CONSTRUCTION
2002	OCCUPANT UNKNOWN
3002	BROCK LOGAN
3012 3040	LARRY RIPPLEY BLIND DEPOT INC
3040	OCCUPANT UNKNOWN
3100	JENNIFER KINNEY
3100	OCCUPANT UNKNOWN
3102	JAMES NELSON
3126	JAMES SHUMATE
3215	SANDRA WALKER
3232	LMC INC
	MIKEAL LINKER

<u>Target Street</u> <u>Cross Street</u>

<u>Source</u>
Cole Information Services

# 93RD AVE SW 2003

454	a ceoper jourgen	
151		l
405	JOHNSONS MACHINE	l
185		l
400	OLYMPIC STRUCTURES INC	l
190		l
	PETE SEWARD	l
	SARAH STANSBURY	l
000	SEWARD & SONS SERVICES	l
200		l
202		l
212		l
220		l
	JIM HUNTER & ASSOCS	l
	LEGENDS ROOFING CO	l
	PHILLIP MEE PHILLIP MEE	l
	RON HILL	l
220		l
220	JOHNSON & MADDOX	l
	JOHNSON & MADDOX  JOHNSON PROPERTIES	l
222		l
222	TOMS TOPSOIL	l
230		l
230	OCCUPANT UNKNOWN	l
232		l
232		l
241		l
242	ACE HARDWARE LNCLN CREEK LMBR	l
	LINCOLN CREEK LUMBER	l
272		l
212	K KISMET	l
	RESTOVER AUTO TRUCK STOP	l
272		l
274		l
	RONNY WELLS	l
282		l
285		l
290		l
290		l
291		l
292		l
294		l
300	D2 BROCK LOGAN	l
301	2 LARRY RIPPLEY	l
304		l
	DONNAS ECO SCAPES	l
	MARK ZORAD	
	SHINE A BLIND	
310	00 DALE KINNEY	
310	2 KIMBERLY LOGAN	

<u>Target Street</u> <u>Cross Street</u> <u>Source</u>

✓ - Cole Information Services

93RD AVE SW 2003 (Cont'd)

3111 JAMES NELSON 3126 JAMES SHUMATE 3215 E BENAVIDEZ 3232 LMC INC

Cross Street

Target Street

s Street Source

Cole Information Services

93RD AVE SW 1999

1510	CAPT CRUNCH AUTO DISMANTLING
1310	JOHNSON'S MACHINE
1850	OLYMPIC STRUCTURES INCORPORATED
1900	A AACTION GROUP
1900	BEN POTTER
2001	MR WHO GREENS
2001	WASHINGTON CEDAR & SUPPLY COMPANY
2020	JOSEPH SCHELLER
2020	ALFRED SCHELLER
2201	BELL & JOLLY CONSTRUCTION
	GROUP/7 INCORPORATED
	HILL RON GROUP/7 INCORPORATED
	HUNTER JIM AND ASSOCIATES
	MEE PHILLIP CPA
0000	RON HILL
2209	JOHNSON & MADDOX CONST COMPANY INCORPORATED
0000	JOHNSON PROPERTIES
2222	TOM HULL
2303	ADAIR HOMES INCORPORATED CONSTRUCTION
0004	ADAIR HOMES INCORPORATED SALES
2321	ALLEN REID
2416	T THOMAS
2421	ACE HARDWARE LINCOLN CREEK LUMBER COMPANY
	LINCOLN CREEK LUMBER ACE HARDWARE
2430	WASHINGTON STATE OF STATE PATROL
2725	HANNAHS PANTRY
	RESTOVER AUTO TRUCK STOP
2729	OCCUPANT UNKNOWN
	SOUND HOME TRANSPORT
2734	OCCUPANT UNKNOWN
2742	RONNY WELLS
2828	L DEMARS
2855	BRIAN LARSON
2901	STANLEY GOERCKE
2907	ERIC RIPPLEY
2910	COOPER LOGGING & TREE SERVICE INCORPORATED
	NW TIMBER SERVICES
	OCCUPANT UNKNOWN
	RICH COOPER LOGGING
2920	STEVE TURNER
3002	B LOGAN
3012	LARRY RIPPLEY
3040	BLIND DEPOT SHINE A BLIND
	OCCUPANT UNKNOWN
3100	DALE KINNEY
3102	K LOGAN
3111	MELVIN NELSON
3126	JIM SHUMATE
3232	DON TOWNE

# APPENDIX E

# **Thurston County Assessor**

Parcel Number: 12721210200 Date: 11/11/2013

Situs Address: 2725 93RD AVE SW

Owner: KISMET KA SITARA LLC Address: 2729 93RD AVE SW

OLYMPIA, WA 98512-9144

Taxpayer: KISMET KA SITARA LLC Address: 2729 93RD AVE SW

OLYMPIA, WA 98512-9144

**Abbreviated Legal:** Section 21 Township 17 Range 2W Quarter NE NW BLA000846TC TR B Document 3336732

**Associations:** 99001849800 LEOS GRILL

99000358200 RESTOVER TRUCKSTOP

Sect/Town/Range: 21 17 2W

5.50 Acres

TCA Number: 471 Neighborhood: 62N1 RTL Property Type: Taxable: YES **Active Exemptions:** 

Fire District: FIRE DISTRICT #11 Fire District: W THURSTON RFA **School District:** TUMWATER S.D. #33

**Market Values** Tax Year 2014 2013 2012 2011 2010 2009 2008 2007 2006 2005 Assessment Year 2013 2012 2011 2010 2009 2008 2007 2006 2005 2004 Market Value Land \$1,096,600 \$1,169,700 \$1,169,700 \$856,550 \$1,052,300 \$954,450 \$856,550 \$815,750 \$500,200 \$333,500 \$526,600 \$650,200 \$581,300 \$662,700 \$710,300 \$736,800 \$714,100 \$674,200 \$522,800 \$622,800 Market Value Buildings

Market Value Total \$1,623,200 \$1,751,000 \$1,832,400 \$1,566,850 \$1,789,100 \$1,668,550 \$1,530,750 \$1,465,950 \$1,023,000 \$956,300

Commercial Structures							
<b>Building</b> RESTAURANT	<b>Year Built</b> 1969	Floor 1	Square Feet 3100	No. Floors	Total Sq. Ft. 3100	<b>Quality</b> LOW/FAIR	<b>Condition</b> AVERAGE
					3100		
CONVENC-STOR	1969	2	1860	1	1860	AVERAGE	AVERAGE
					1860		
CLUB-HOUSE	1969	1	2460	1	2460	FAIR	FAIR
		2	2100	1	2100		
					4560		

Detached Structures						
Code	Year Built	Square Feet	Quality	Condition		
PVNG-ASPHALT	1969	129156	LOW/FAIR	POOR		
PVNG-CONCRTE	1969	4408	AVERAGE	AVERAGE		
CC PUMP ISLND	1999	918	FAIR	AVERAGE		

### **Land Characteristics**

Land Influence(s) Land Flag 8040 CG-CONVIENCE/GAS MT-MOD-TRAFFIC Lot Square Footage Not Listed PS-PART IMPRVD SITE 5.5 Lot Acreage IA-INTERCHANGE ACCESS **Effective Frontage** Not Listed **Effective Depth** Not Listed **Water Source** Not Listed Sewer Source Not Listed

Sales

Sale Date: 02/28/2001 02/28/2001 02/28/2001 Price: \$500,000 \$500,000 Excise:

286743S 286744S 292055

Sale Type: STATUTRY WARNTY DEED STATUTRY WARNTY DEED STATUTRY WARNTY DEED Recording Number: 3339511 3339511 3374453

Seller: COSDEN TIMOTHY

KISMET KA SITARA LLC KISMET KA SITARA LLC KISMET KA SITARA LLC

**Multiple Parcel Sale:** 

The Assessor's Office maintains property records on approximately 112,000 parcels in Thurston County for tax purposes. Though records are updated regularly, the accuracy and timeliness of published data cannot be guaranteed. Any person or entity that relies on information obtained from this website does so at his or her own risk. Neither Thurston County nor the Assessor will be held liable for damage or losses caused by use of this information. *All critical information should be independently verified.* 

#### Office of the Assessor

Steven J. Drew, Assessor

2000 Lakeridge Drive SW - Olympia, WA 98502

Customer Service (360)867-2200 -- Fax (360)867-2201 -- TDD (360)754-2933



August 22, 2013

Mr. Dayabir (Pintu) Bath P.O. Box 5 Olympia, Washington 98507-0005

RE: Remedial Action - Soil Excavation, Groundwater Monitoring Well Installation, and Sampling Letter Report

Restover Truck Stop 2725 – 93<sup>rd</sup> Avenue SW Olympia, WA 98501

Dear Mr. Bath:

Associated Environmental Group (AEG) has conducted remedial action activities (excavation) to remediate petroleum contaminated soil (PCS) at the Restover Truck Stop property, located at the above-referenced address in Olympia, Washington (herein referred to as the Site). In addition, AEG drilled, installed, and sampled a monitoring well adjacent to the excavation to replace one that was destroyed during excavation. This letter report summarizes the field activities, the analytical results for the soil and groundwater samples collected during the remedial action activities, and two groundwater monitoring events. Our recommendations regarding additional activities at the Site are also included in this report.

#### SITE BACKGROUND

The Restover Truck Stop is located ten miles south of Olympia, Washington, on 93<sup>rd</sup> Avenue, immediately west of Exit 99 on Interstate 5. The five acre facility includes a gas station, minimart, restaurant, and hotel. The gasoline station has been in operation since 1969. Figure 1, *Site and Vicinity Map*, presents the general boundaries of the Site and vicinity area.

In 1971, the first report of groundwater contamination from petroleum products was discovered in a domestic water well across 93<sup>rd</sup> avenue from the Restover Truck Stop. More reports came in from other wells successively farther from the truck stop through 1982. Ecology oversaw site cleanup actions after numerous investigations revealed the source of the contamination. It was estimated by Ecology that about 65,000 gallons of gasoline were lost at Restover between 1974, and 1981 (Ecology and Environment, Inc., 1991). Since discovery of the contamination, numerous remedial actions have been successfully completed. Monitoring wells offsite in former areas of environmental concern have been decommissioned. Additionally, with the exception of a monitoring well located in the northern area of the Site, WDOE-6A, the remaining wells at the Site have also been decommissioned.

Well WDOE-6A has continued to slowly show declining concentrations of total petroleum hydrocarbons in the gasoline range (TPH-G) and benzene detected above the Model Toxics Control Act (MTCA) Method A cleanup levels. In an effort to accelerate the biodegradation of the TPH-G and benzene, approximately 800 pounds of Regenesis' Oxygen Releasing Compound - Advanced (ORC-A®) was injected into the subsurface around well WDOE-6A in May 2012. This appeared to have limited effect and it was suggested that there may be a pocket of residual contamination at well WDOE-6A. Based on this information, it was decided to attempt to excavate well WDOE-6A and the adjacent soil.

#### SCOPE OF WORK

This portion of the project included:

- The excavation, transport, and disposal of PCS from the location of groundwater monitoring well WDOE-6A (refer to Figure 1, *Site and Vicinity Map*), using a backhoe operated by AEG's subcontractor, Advance Environmental;
- Placement of 175 pounds of ORC-A® in the excavation, mixed with the backfill;
- Drilling and installing a 20-foot deep groundwater monitoring well adjacent to the excavation to replace well WDOE-6A which was destroyed during excavation (Well WDOE-6AR); and
- Sampling the water from the new monitoring well, WDOE-6AR twice (3 months apart).

#### **Excavation Activities**

On April 9, 2013, approximately 46.5 tons of petroleum contaminated soil (PCS) was excavated at the location of monitoring well WDOE-6A to a depth immediately above the saturated zone; 16 feet below ground surface (bgs); using a track-hoe operated by Advance Environmental. When it was estimated that the contaminated soil was removed, soil samples were collected from the base of the excavation at 16 feet bgs and from the north sidewall at 11 feet bgs. These samples were field screened for petroleum hydrocarbon volatiles using a photo ionization detector (PID) instrument.

The field screening did not detect petroleum hydrocarbon volatiles in the sidewall sample and detected 7.6 parts per million (ppm) of volatile constituents at 16 feet bgs. Because groundwater was found at 16 feet bgs, further excavation to a deeper depth was not possible.

Subsurface conditions at the excavation location generally consisted of a brown sand with gravel to a depth of approximately 2½ feet bgs, and brown medium sand to the base of the excavation at 16 feet bgs.

#### Backfill and Oxygen Reducing Compound Treatment

After collection of the samples for field screening, the excavation was backfilled with crushed recycled concrete backfill material. To accelerate the microbial degradation of any remaining

petroleum hydrocarbons in soil, 175 pounds of Regenesis' ORC-A® powder was added to the groundwater accumulated in the excavation at a depth of approximately 16 feet bgs. According to Regenesis, ORC-A® is a:

"...calcium oxy-hydroxide that provides controlled-release molecular oxygen to the subsurface environment where it will accelerate the rate of naturally occurring aerobic contaminant biodegradation in groundwater and saturated soils for up to 12 months upon hydration..."

The excavation backfill was then compacted and the area repaved with asphalt. The final dimension of the excavation was approximately 8 feet long by 6 feet wide by 16 feet in depth.

#### Soil Disposal

A total of approximately 46.5 tons of petroleum contaminated soil (PCS) was excavated from the Site. The PCS was loaded onto trucks at the Site and transported to the Wasco County Landfill in The Dalles, Oregon, for ultimate disposal and treatment. A copy of the Wasco Landfill Special Waste Application is attached in Appendix A – Supporting *Documents*.

#### Well Installation

During excavation, groundwater monitoring well WDOE-6A was entirely removed and transported offsite for disposal. To replace the well that was removed, on April 17, 2013, AEG and its subcontractor, ESN Northwest, drilled and installed a new monitoring well approximately 5 feet west of the excavation.

This well, designated WDOE-6AR, was drilled and constructed using a 9-inch outside diameter/4½-inch inside diameter hollow-stemmed auger. The well was constructed using 2-inch PVC well screen and casing to a depth of 21 feet bgs. The screened interval is 15 feet long, from 5 feet to 20 feet bgs. The well was completed as a "flush-mount well" per the Ecology regulations, WAC 173-160 - Minimum Standards for Construction and Maintenance of Wells. A copy of the boring log and well construction diagram is attached in Appendix A - Supporting Documents. At the time of drilling, water was encountered at a depth of approximately 11 feet bgs.

After construction of the well, it was developed using a submersible pump to remove water with entrained fine grained sediments (fines) from the vicinity of the well screen. This was to allow the water to flow freely from the formation into the well, and also reduce the turbidity of the water during sampling. The well was then allowed to equilibrate with the formation for approximately 12 days before it was sampled.

#### Groundwater Sampling and Analyses

On April 29, 2013, AEG sampled Well WDOE-6AR. Upon arriving at the site, a depth to water measurement was obtained and the well assessed for the presence of potential light non-aqueous phase liquid (LNAPL) i.e. free product. The well was then sampled following industry standard low-flow purging and sampling techniques. The sample was collected in laboratory provided

containers and placed in a portable chilled ice chest for transport to a Washington State accredited environmental laboratory for analysis (Libby Environmental, Inc.). The well was sampled again on July 29, 2013 following the same procedures.

The samples were analyzed for TPH-G and the fuel associated volatile organic compounds benzene, toluene, ethylbenzene, and total xylenes (BTEX).

#### RESULTS

The results from the analyses as well as the historical analytical results from the destroyed well WDOE-6A are presented in the attached Table 1 - Summary of Groundwater Analytical Results. The laboratory datasheets from Libby Environmental Inc. are attached in Appendix A - Supporting Documents.

#### April 29, 2013 Groundwater Sample Results

The results for the April 29, 2013, sampling event show that the water sample from monitoring well WDOE-6AR contained gasoline range TPH at 5,900 ug/l which is above the Washington State Department of Ecology Model Toxics Control Act (MTCA) Method A cleanup level of 800 ug/l for groundwater containing benzene, and above the cleanup level of 1,000 ug/l for groundwater not containing benzene. Benzene was not detected in the sample from well WDOE-6AR. However, benzene has been historically detected in previous sampling events at the destroyed well WDOE-6A.

The concentration of gasoline TPH in the sample from well WDOE-6AR during the April 2013 sampling event was higher than the previous sampling at well WDOE-6A. It is not known why the TPH concentration was higher but may be a result of disturbing the soil and groundwater during excavation. Because benzene is volatile, the mixing of soil may have caused the benzene to volatilize resulting in the non-detection of that constituent in the groundwater sample from well WDOE-6AR.

The gasoline associated volatile organic compounds ethylbenzene and total xylenes were also detected in the sample from well WDOE-6AR at 4.89 ug/l and 14.2 ug/l, respectively, significantly below the MTCA Method A cleanup levels of 700 ug/l for ethylbenzene and 1,000 ug/l for total xylenes.

#### July 29, 2013 Groundwater Sample Results

The analytical results for the groundwater samples collected on July 29, 2013 show that the level of TPH gasoline has decreased significantly to 800 ug/l. This concentration is the MTCA Method A Cleanup level. The analytical results also show that the concentrations of ethylbenzene and total xylenes have decreased and remain below the MTCA Method A cleanup level, at 2.1 ug/l and 8.2 ug/l. In contrast, the concentrations of benzene and toluene increased slightly from being not detectable, to 1.3 ug/l and 3.3 ug/l respectively. These concentrations are slightly above the laboratory reporting limit and are still significantly below the MTCA Method A cleanup level.

Associated Environmental Group, LLC

Remedial Action – Soil Excavation Letter Report Restover Truck Stop, Olympia, WA AEG Project No. 12-116 August 22, 2013

Because the TPH gasoline concentration in the groundwater is not below its cleanup level and because the previous sampling event show a significantly higher concentration of TPH gasoline, Ecology may not consider the sample "clean".

The reason for the significant decrease in the TPH gasoline concentration may be a result of the groundwater concentrations equilibrating after the excavation, or a result of the ORC-A® releasing oxygen and stimulating biodegradation. ORC-A® is reported to have a lifespan of up to 12 months and would likely still be releasing oxygen at the Site. In addition, the depth to water was significantly lower in the July 2013, sampling event.

In the April 2013 sampling event, the depth to water was 10.75 feet below the top of the well casing. In July, the depth to water was 15.38 feet below the top of the well casing (Table 2, Summary of Depth to Water Measurements). This is to be expected since July is the "dry" season of the year in Western Washington. If there is residual gasoline contamination remaining in the soil at shallow depths, as the water levels decline there would be less contact with contaminated soil and the concentrations of TPH in the water would be lower.

#### RECOMMENDATIONS

Because gasoline range TPH was found in the groundwater samples from well WDOE-6AR in concentrations at or above the MTCA Method A cleanup levels, and because ORC-A® was mixed into the excavation backfill, it is recommended that the well be sampled quarterly to determine if the concentration is continuing to decline, and if the ORC-A® is still active at the Site. In addition, sampling throughout the various seasons will assist in determining if there is a correlation between the depth to groundwater and the concentrations of TPH.

Once the ORC-A® is no longer active, Ecology will require a minimum of four quarters of "clean" samples before they will consider issuing a "no further action" (NFA) letter. Should the concentrations of TPH-G not continue to decline and remain at or above the Method A cleanup levels, further assessment and/or remediation may need to be considered.

Please do not hesitate to contact us at 360-352-9835 should you have questions or require additional information.

Sincerely,

Associated Environmental Group, LLC

David R. Polivka, L.G./L.H.G. Senior Project Hydrogeologist

DAVID R. POLIVKA

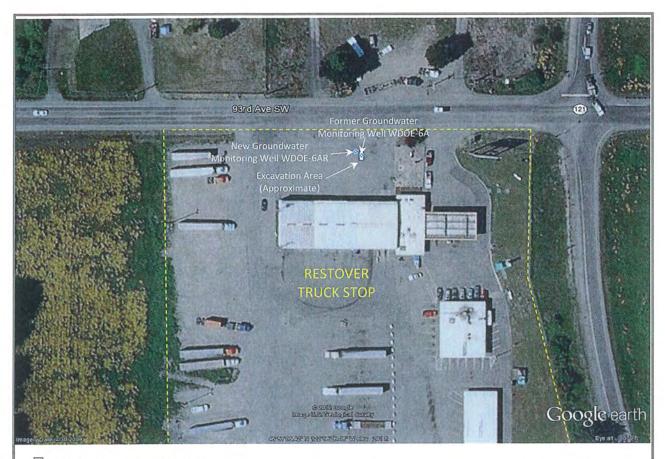
Attachments: Figure 1 - Site and Vicinity Map

Table 1 – Summary of Groundwater Analytical Results
Table 2 – Summary of Depth to Water Measurements

Appendix A - Supporting Documents (Special Waste Application, Boring Log

and Laboratory Datasheets)

Appendix B – Site Photographs



APPROXIMATE EXCAVATION AREA (Location not to scale with figure)



LOCATION (Location not to scale with figure)





ASSOCIATED ENVIRONMENTAL GROUP, LLC

## FIGURE 1 Site and Vicinity Map

RESTOVER TRUCK STOP

2725 93<sup>rd</sup> Ave. SW Olympia, WA AEG Project No.: 12-116

# Table 1 Summary of Groundwater Analytical Results Restover Truck Stop Olympia, WA

		Conding Terr?	Se	lect Volatile (	Select Volatile Organic Compounds <sup>3</sup> (ug/L)	s (ug/L)	Santana
Well Number <sup>1</sup>	Date Sampled	(ug/L)	Benzene	Toluene	Ethylbenzene	Total Xylenes	(ug/L)
	February-97	006'6	16	14	61	219	1
	August-97	9,010	8	111	44	156	1
	February-98	4,500	20	40	34	126	1
	January-99	7,900	29	15	76	300	1
	January-00	7,300	17	7.8	53	160	1
WDOE-6A	2/5/2002	6,500	19	6	0.69	159.0	255
	10/3/2005	3,400	5.5	1.3	14.4	23.4	1
	3/16/2012	1,800	∀	7	1.6	2.3	1
	11/13/2012	2,200	2.4	3.2	11.4	15.0	1
	2/12/2013	3,600	15.6	10.4	19.5	35.9	1
	4/29/2013.	5,900	\ 	7	4.89	14.2	1
WDOE-6ARW	7/29/2013	800	1.3	3.3	2.1	8.2	1
	PQL	100	1	2	1	3	
Ecology MTCA Method	Method A Clean Up Levels	800 4	5	1,000	700	1,000	

# Notes:

Approximate monitoring well location is shown in Figure 1

<sup>&</sup>lt;sup>2</sup>Gasoline range total petroleum hydrocarbons (TPH). Analyzed by Northwest Method NWTPH-Gx

Select Volatile Organic Compounds (VOC). Analyzed by EPA Method 8021B.

Cleanup level with presence of benzene

<sup>&</sup>lt;sup>5</sup>VOC data from Ecology reports. VOCs were reported as a combined BTEX value. Note: Data from 1997 to 2005 from Ecology reports. ug/L= micrograms per liter

MTCA = Model Toxics Control Act PQL=Practical Quantitation Limits

<sup>-- =</sup> not analyzed for this constituent

<sup>&</sup>lt;= not detected above laboratory limits

<sup>\*</sup> Ecology has not designated a MTCA Method A cleanup level for this constituent

Table 2 Summary of Depth-to-Water Measurements Restover Truck Stop Olympia, WA

Well Number/ TOC Elevation	Date of	DTW	DT LPH	ГРН	GW Elevation	Change in GW Elevation
(feet)	Measurement	(TOC) (feet)	(feet)	(feet)	(feet)	(feet)
	3/16/2012	9.30				
WOOF 64	11/13/2012	16.78				
MOCEOUR	2/12/2013	10.88				
	4/29/2013	10.75				
WDOE-6ARW	7/29/2013	15.38				

# Notes:

TOC = Top of casing elevation relative to assigned benchmark.

DTW = Depth to water below top of casing.

DT LPH = Depth to liquid phase hydrocarbons LPH = Liquid phase hydrocarbons thickness.

GW Elevation = Groundwater Elevation -- = Not measured, not available, or not applicable

# **APPENDIX-A Supporting Documents**

(Special Waste Application; Boring Log; Laboratory Datasheets)

Wasco Landfill 2550 Steele Road The Dalles, OR 97058 PH: 541.296.4082 FX: 541.296.6449



#### FOR OFFICE USE ONLY

APPROVAL NUMBER:

EXPIRATION DATE:

APPROVED BY:

#### SPECIAL WASTE APPLICATION

Information utilized for completion of this form must originate from an authorized representative of the generator of the waste material.

The information on this form must be COMPLETELY FILLED OUT, TYPE WRITTEN, and the form must be SIGNED BY AUTHORIZED REPRESENTATIVE.

		INFORMATION	Total Control of the
	n, list prior approval number(s):		
2. Have there been any changes  ☐YES ■ NO (Update	to the composition of, or process generating the danalysis may be required even if no change	ils waste stream that would alter the chara to process or composition.)	acteristics of the waste stream?
B. GENERATOR INFO		C. CUSTOMER/BILLING I	NFORMATION
Generator Name: Rest Over	Truck Stop	Billing Name: Associated Environ	nmental Group, LLC
2. Address: 2729 93rd Ave. SW	1	2. Address: 605 11th Ave. SE Suite	e 201
City: Olympia	County: Thurston	City: Olympia	County: Thurston
State: WA	Zip: 98512	State: WA	Zip: 98501
3. Site Location (if different):		3. Contact Name: Michael Chun	
4. Contact Name: Matthew Wils	son	4. Phone Number: (360) 352-9835	5. Fax Number: (360) 352-8164
5. Phone Number: (360) 485-22	31 6. Fax Number: (360) 352-8164	6. Email Address: mchun@aegwa.	com
7. Email Address: mwilson@ae	gwa.com	7. Is there a service agreement on fil	e? ☐ YES ■ NO
8. State Facility ID # (if applicable	9):	8. Agent / Consultant: Associated E	nvironmental Group, LLC
9. State Waste Code (if applicable	e):	9. Letter of Authorization: YES	■ NO
D. TRANSPORTER/SHI	PPING INFORMATION	E. WASTE STREAM INFO	RMATION
1. Name: To be determined		Common Name of Material or Was	ste Stream:
2. Street Address:		Soil	
City: S	tate: Zip:	Detailed Description of Process or	How Generated (Allach additional sheet if needed):
3. Phone Number:	4. Fax Number:	Excavation	
5. Contact Name:		3. Physical State at 70°F: Solid	Semi-Solid Sludge
6. Email Address:		Liquid Powder Ot	
7. EPA or State Transporter ID #:		4. Free Liquids: NO YES	% Liquids:
8. Packaging: Bulk Solids	Bulk Liquids Drums Roll-Off	5. Color: Brown	6, pH Range: 7
	uck Vacuum Box Bagged	7. Odor: None Mild Sign	nificant Describe:
9. Estimated Volume: 16		8. Flash Point: 165 P °F 0	
	Drums Gallons Other:	9, Reactive: NO YES with:	
10. Shipping Frequency: Month Quarter	per: One Time Project Year Other:	10. State Required Information (if app	licable):
*	F. NON-HAZARDOU	S DETERMINATION	
1. Attached Document(s) (check a	all that apply): Not Applicable Process	Knowledge MSDS Certified	Analytical Report
2. If Process Knowledge, provide of	details;		
3. If analytical data is attached, is	the data derived from testing a representative s ype of Sample: Composite Grab	sample in accordance with 40 CFR 261 an Analysis Provided;	d/or other applicable laws?
4. If Exempt Waste, check applica  Oil & Gas E&P Waste – 40	ble item below: UST Corrective Action – 4 CFR 261.4(b)(5) RCRA-Empty Contained		uct Waste – 40 CFR 761,62 reference):
certify this waste is not hazardous or dematerials, that all known and suspected PCB's regulated by TSCA or any other wastes may undergo inspection upon a	G. GENERATOR CERTIFITATION CERTIFITATION CERTIFITATION CERTIFITATION CONTINUES AND CON	scribed is properly identified, classified, packag province of origin. I certify this waste does not and a regulated hazardous waste by government or this analysis are representative of the material the delivered material does not conform to the	contain any regulated radioactive ent or local authority, and does not contain als described herein. I understand that all describion herein. Notification will be
AUTHORIZEO REPRESENTATIVE SIGNATURE		4/1/13 DATE COMPLETED	
THE PROPERTY OF THE PROPERTY O		DATE COMPLETED	

RESTOVER TRK SIP

# DEPARTMENT OF ECOLOGY 36/

Haliter 11, 1995

TH Mike Kuntz

Toxics Cleanup Program

FREE Pan Marti Pari

Environmental Investigations & Laboratory Services

AHHHE) \* Restover Truck Stop Soil Sample Results collected April 1995

The state of the interim action. A summary of the results and the laboratory data sheets is the interim action. A summary of the results and the laboratory data sheets is the interim action. A summary of the results and the laboratory data sheets is the interim action. A summary of the results and the laboratory data sheets is the interim action. A summary of the results and the laboratory data sheets is the interim action. A summary of the results and the laboratory data sheets is the interim action. A summary of the results and the laboratory data sheets is the interim action. A summary of the results and the laboratory data sheets is the interim action. A summary of the results and the laboratory data sheets is the interim action. A summary of the results and the laboratory data sheets is the interim action. A summary of the results and the laboratory data sheets is the interim action. A summary of the results and the laboratory data sheets is the interim action. A summary of the results and the laboratory data sheets is the interim action. A summary of the results and the laboratory data sheets is the interim action. A summary of the results and the laboratory data sheets is the interim action. A summary of the results and the laboratory data sheets is the laboratory data sheets is the laboratory data sheets in the laboratory data sheets is the laboratory data sheets in the laboratory data sheets is the laboratory data sheets in the laboratory data sheets is the laboratory data sheets in the laboratory data sheets is the laboratory data sheets in the laboratory data sheets is the laboratory data sheets in the laboratory data

All said samples were analyzed for benzene, toluene, ethylbenzene, total xylene (BTEX) and retail petroleum hydrocarbons as gasoline (TPH-G). All four BTEX compounds were deligible to three of the samples: SSB14 at 20-22 and 24-26 feet and SSB1 at 22-24 feet, with initial concentrations of 625 ug/kg, 1150 ug/kg and 430 ug/kg, respectively. Total and 20-22 feet at conscious detected in two additional samples: SSB5 at 10-12 and 20-22 feet at conscious limits for benzene, toluene, and ethylbenzene were high for sample SSB5 at 18-13 for TPH as gasoline was detected in all but one sample. Samples collected in 1941 for TPH were analyzed for total recoverable, which is not directly comparable to the HPH-Yr samples collected in 1995. A summary comparing analytical results is found in 1941.

MANUAL TRUIC Control Act cleanup levels for soil were exceeded in sample SSB5 at INCLEANUE for TPH, xylene and possibly benzene (refer to Table 1). All other detections was a supplied to the following the same of the same

the the continue/kg) were substantially lower in 1995 (ranging from 112,300 to less than 2004).

constitution and thomation on the effectiveness of the interim action. If you have any questions of comments about this data please call me at 407-6768.

PMI

ee: Tim Nord Larry Goldstein

and the state of Restover Truck Stop Soft Samples collected on April 26–27, 11995 as compared to a migrature of

			20 20 20 20 20 20 20 20 20 20 20 20 20 2
			N.G. 117 (450) 117 (450) 2 (45
Seinzeine G/Kg)	(10.00)	368)	11.0 11.0 3800 30 30 160 160 19 100 100 100
Ethyll (u	38	1891	ND 24,000 J 1700 J ND 1300 UU
oluene (ug/kg)	40,000	1935	1110 1300 10 10 23 98 98 9.6 0.6 0.1
Te	4(	1991	0N 0N 0N 0N 0N 0N 0N 0N
izene ig/kg)	500	1995	11 U 1300 U 10 U 36 J 94 W 8.8 U 9.6 U 9.1 U
n) n)	5	1991	
TPH=G. (mg/kg)	1(00,0)	1995	3.3 U 61 61 3100 66 67 16 15 15
R-TPR (mg/kg)	0''0 0'	าเรยา	36 220 520 111 1180 113
	Signeral Indianal Security	1.1(e) (1.5 <u>11</u> )(11)(e) (1.1(e))	28.20 26 26 26 26 26 26 26 26 26 26 26 26 26

IND = The analyte was not detected at or above the reported value.

U = The analyte was not detected at or above the reported value.

L = The analyte was positively identified. The associated numerical value is an estimate.



#### 14=(e)=(No)

SET-12 OF SOURL BORTINGS





ecology and environment, inc.
International Specialists in the Environment

FIGURE 3-1
RESTOVER TRUCK STOP
SOIL BORING LOCATIONS

RESTOVER TRUCK STOP OLYMPIA, WA

FRUCT MGR APPROVED BY PROST/UGB NO. FAN NO.

DRAWN BY DATE: DIR NO. C. DIR NO. CORP. (IX

To be own the light

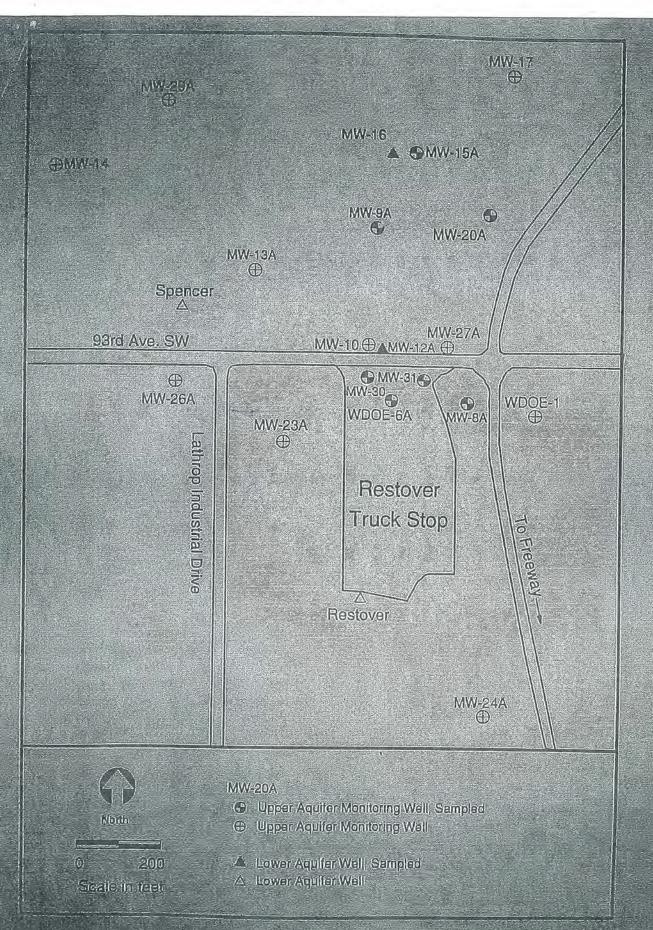


Figure 1: Well Locations, Restover Truck Stop



# ASSOCIATED ENVIRONMENTAL GROUP, LLC

#### LOG OF BOREHOLE

PROJ	ECT: Restover Truck Stop			JOB#	12-116		BORING /WELL#	WDO	E-6AF	PAGE 1 OF
Locat	on: 2725 93rd Avenue Olympia, Washington			Approx	ximate Gro	und Sur	face Eleva	ation*: 1	98' (W	GS84 datum
-	ntractor/Equipment: ESN Northwest/Power Probe 9630						ch Inside D	iameter	Hollov	V Stem Auger
Date	4/17/2013	T_	_	Logge	d By:Matt \	Vilson		-	_	
Depth (ft)	Soil Description	Unified Soil Symbol	Sample	Sample Recovery	Sample	Time	Blows/Foot	PID Reading (ppm)	Sheen	Monitoring Well
	Asphalt 4 inches.  Brown, dry to moist, medium dense, SAND with gravels to 2 1/2 feet bgs.									
	Brown, moist, medium dense, SAND (poorly graded)	SP			N/A	850	N/A	0	not obs.	
5					N/A	900	N/A	0	not obs.	
10					N/A	905	N/A	0	not obs.	
	Brown saturated medium dense SAND (poorly graded) to 20 feet bgs.	SP								
15					N/A	915	N/A	0	not obs.	
				-	N/A	930	N/A	82	not obs.	
20				-						
	Total depth at 21 feet bgs. Overdrilled to 21 feet because of heaving. Groundwater encountered at 11 feet bgs, at time of drilling. Boring completed as monitoiring well WDOE-6AR (Ecology Well ID Tag #BHK315			-						2" Schedule 40 PVC casing w/ 15' of 0.010" slotted screen
25										
	E	xplanat			MAZ-11					
I	2-inch O.D. split spoon sample			onitoring \ Clean S		1		Flush-m	ount M	lonument
$\otimes$	No Recovery			Bentoni			* Approxim Google E	ate Elev	ation f	rom
ieinie.	Contact located approximately			Grout/C	oncrete		Coogle E	orur IIIIa	96 913	72011
ATD	Groundwater level at time of drilling or date of measurement			Screene Blank C	ed Casing asing					

Libby Environmental, Inc.	nental, Inc.		Chs	in of Cu	hain of Custody Record	p	
4139 Libby Road NE	Ph: 360-352-2110	-2110			1 - 1		1
Olympia, WA 98506	Fax: 360-352-4154	-4154		Date:	21/62/17	8	Page: / of /
Client: AEG				Proje	Project Manager: Mukey	T. Chun	
Address: 605 1141	AVE 4 Suite 201	701.0%	MA wow	Proje	3	as Touch	1 5/40
Phone: (350) 352-9	\$35 Fax:		, ,	Locat	100	AVE SW	City: Olympia MA
Client Project # /2-/	9,			Collector:	otor: Jeff U	lilsan	Date of Collection: 4/29/13
8 17					1		
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						Total Number of Containers	ainers
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## Libby Environmental, Inc.

4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154

Email: libbyenv@aol.com

RESTOVER TRUCK STOP PROJECT AEG, LLC Olympia, Washington Libby Project # L130429-3 Client Project # 12-116

#### Analyses of Gasoline (NWTPH-Gx) & BTEX (EPA Method 8260C) in Water

Sample	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline	Surrogate
Number	Analyzed	$(\mu g/l)$	$(\mu g/1)$	$(\mu g/l)$	$(\mu g/1)$	$(\mu g/l)$	Recovery (%)
Method Blank	4/30/13	nd	nd	nd	nd	nd	106
LCS	4/30/13	98%	94%				104
WDOE-6ARW	4/30/13	nd	nd	4.89	14.2	5900	104
L130429-4 MS	4/30/13	103%	97%				108
L130429-4 MSD	4/30/13	104%	94%				103
Practical Quantitati	on Limit	1	2	1	2	100	

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Toluene-d8): 65% TO 135%

ANALYSES PERFORMED BY: Kyle Williams

<sup>&</sup>quot;int" Indicates that interference prevents determination.

## 98506  ## AEG    COS     MK   ME     12-1      1340  352-983    1340  3	Libby Environmental, Inc.	Imental, Inc. Ph: 360-352-2110	2110	5	Chain of Custody Record	ırd	www.LibbyEnvironmental.com
Project Name:	W, WA	Fax: 360-352~	4154		7/29/	L. Chin	1
Jungle   State: WA Zip: 98.50   Location: 2725 93" ANE SW City, State: WA Zip: 98.50   Location: 2725 93" ANE SW City, State: Wildow Container   Sample   Container   Type   Ty	s: 605	SE			0	Truch's	
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### Libby Environmental, Inc.

4139 Libby Road NE Olympia, WA 98506 Phone: (360) 352-2110 FAX: (360) 352-4154 Email: libbyenv@aol.com

RESTOVER TRUCK STOP PROJECT AEG, LLC Olympia, Washington Libby Project # 1130729-3 Client Project # 12-116

#### Analyses of Gasoline (NWTPH-Gx) & BTEX (EPA Method 8021B) in Water

Sample	Date	Benzene	Toluene	Ethylbenzene	Xylenes	Gasoline	Surrogate
Number	Analyzed	$(\mu g/l)$	$(\mu g/1)$	$(\mu g/l)$	$(\mu g/l)$	$(\mu g/l)$	Recovery (%)
Method Blank	7/31/13	nd	nd	nd	nd	nd	85
LCS	7/31/13	66%	80%				96
WDOE-6ARW	7/31/13	1.3	3.3	2.1	8.2	800	110
L130726-1 MS	7/31/13	94%	69%				74
Practical Quantitat	ion Limit	1	2	1	3	100	

<sup>&</sup>quot;nd" Indicates not detected at the listed detection limits.

ACCEPTABLE RECOVERY LIMITS FOR SURROGATE (Trifluorotoluene): 65% TO 135%

ANALYSES PERFORMED BY: Jamie Deymar

<sup>&</sup>quot;int" Indicates that interference prevents determination.

Associated Environmental Group, LLC

Remedial Action – Soil Excavation Letter Report
Restover Truck Stop, Olympia, WA
AEG Project No. 12-116
May 20, 2013

**APPENDIX-B Site Photographs** 



#### SITE PHOTOGRAPHIC RECORD

Project No.: 12-118





Photo Excavating Soil at Location of Former
#1: Monitoring Well WDOE-6A (looking South)



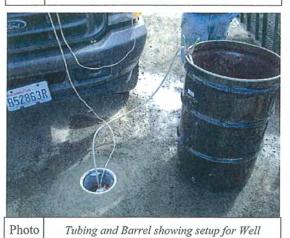
Photo #2: Mixing ORC-A into the Backfill of the Excavation



Photo Preparing the Excavation Area for #3: Paving.(Looking Northwest)



Photo Drilling New Monitoring Well WDOE-6AR (Looking Northeast)



Development

#5:







# Office of Drinking Water

#### Individual System View - RESTOVER TRUCK STOP - Water System Id - 71970

Compl	iance Actions	Operating Permits	Ope	erators	Reports		Water Use Efficiency
Gen	eral Information	Source Info	rmation	S	amples	E	xceedances
Source 01	- WELL #1						
Source Status	Active	Usage	Permanent	WRIA	Upper Chehalis	Intertie Supplying System	NA
Туре	Groundwater Well	Capacity (gpm)		Township	17	Intertie Supplying Number	NA
Effective Date	1/1/1970	Treated	No	Range	02W		
nactive Date		Metered	Undefined	Section	21		
DOE Well Tag Number		Well Depth (ft)	0	Qtr/Qtr Section	NESW		

Records 1 - 1 of 1

Home Page | Find Water Systems | Find Water Quality | Downloads/Reports

<u>DOH Home</u> | <u>Community and Environment</u>| <u>Drinking Water Home</u> | <u>Drinking Water Contacts</u>

Display as table with source treatment information



## WATER FACILITIES INVENTORY (WFI) FORM

ONE FORM PER SYSTEM

Quarter: 3

Updated: 04/23/2010

Printed: 11/8/2013

WFI Printed For: On-Demand

Submission Reason: No Change

RETURN TO: Southwest Regional (	Office, PO Box 47823,	Olympia, W.	A, 98504
---------------------------------	-----------------------	-------------	----------

	2 SYSTEM NAME			3. COUNT	T		4. GROUP	5. TYPE
71970 8	RESTOVERT	RUCK STO	Р	THURS	TON		A	TNC
DAYABIR 2729 93F	ACT NAME & MAILING (PINTU) S. BATH [C RD AVE SW A, WA 98512			7. OWNER NAMI DAYABIR (P 2729 93RD A OLYMPIA, W	NTU) S. BA		B. Owner Nur TITLE:	nber 029891
ATTN	G IF DIFFERENT FROM 93RD AVE SW STATE WA			STREET ADDRE	SS IF DIFFE	ERENT FROM	STATE ZIP	
9. 24 HOUR PRIMA	RY CONTACT INFOR	MATION		10. OWNER CO	NTACT INFO	RMATION		
Primary Contact Day	time Phone: (360)	357-4701		Owner Daytime F	hone:	(360) 357-470	1	
Primary Contact Mol	bile/Cell Phone: (206)	669-4843		Owner Mobile/Ce		(206) 669-484		
Primary Contact Eve	ening Phone: (xx	x) xxx-xxxx		Owner Evening F	hone:	(xxx) xxx-xxxx		
						*		
	WAC 246-290-420(9	) requires that		Owner Fax Phon rovide 24-hour cor		E-mail: XX ation for emer		
11. SATELLITE MAN  Not applica  Owned and  Managed O	WAC 246-290-420(S NAGEMENT AGENCY ble (Skip to #12) I Managed SMA I	) requires that		a lumber of many record		ation for eme		
11. SATELLITE MAN  Not applical  Owned and  Managed O  Owned Only	WAC 246-290-420(S NAGEMENT AGENCY ble (Skip to #12) I Managed SMA I Only	o) requires that - SMA (check or NAME:	nly one)	a lumber of many record		ation for eme	rgencies.	
11. SATELLITE MAN  Not applical  Owned and  Managed O  Owned Only  12. WATER SYSTEM  Agricultural  Commercial / B  Day Care  Food Service/F	WAC 246-290-420(S  NAGEMENT AGENCY ble (Skip to #12) I Managed SMA I  Only Y  M CHARACTERISTICS  Business	O) requires that	pply)    Hospital/Clini   Industrial   Licensed Res	rovide 24-hour cor	Resi	SMA	Number:	
Not applicate Managed O Owned Only  Managed O Owned Only  12. WATER SYSTEM  Agricultural Commercial / E Day Care  Food Service/F 1,000 or more page of the page of	WAC 246-290-420(S  NAGEMENT AGENCY ble (Skip to #12) I Managed SMA I  Only Y  M CHARACTERISTICS  Business	ore days per year	pply)  Hospital/Clini Industrial Licensed Res	rovide 24-hour cor	Resi	SMA  dential  porary Farm Wer (church, fire s	Number:	CITY (gallons

# WATER FACILITIES INVENTORY (WFI) FORM - Continued

1. SYSTEMID	3. COUNTY						4. G	ROUF	5. T	YPE			
71970 8	RESTOVER TRUCK STOP	THURSTON			N			Α		TNC			
								ACTIVE SERVICE CONNECTIONS		DOHUSE ONLY CALCULATED ACTIVE CONNECTIONS		DOH USE ONLY APPROVED CONNECTIONS	
25. SINGLE FAMILY RESIDENCES (How many of the following do you have?)								0		0		Unapproved	
A. Full Time Single Family Residences (Occupied 180 days or more per year)     B. Part Time Single Family Residences (Occupied less than 180 days per year)								0					
								0					
26. MULTI-FAMIL	Y RESIDENTIAL BUILDINGS (How ma	any of t	he follo	wing d	o you h	ave?)							
	condos, duplexes, barracks, dorms							0	_				
<ul> <li>B. Full Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied more than 180 days/year</li> <li>C. Part Time Residential Units in the Apartments, Condos, Duplexes, Dorms that are occupied less than 180 days/year</li> </ul>								0					
							r	0					
A Recreational Services	NTIAL CONNECTIONS (How many of	the foll	owing o	do you	have?)		_						
A. Recreational Services and/or Transient Accommodations (Campsites, RV sites, hotel/motel/overnight units)     B. Institutional, Commercial/Business, School, Day Care, Industrial Services, etc.							0	- 100	0				
								1		1			
28. TOTAL SERVICE CONNECTIONS 29. FULL-TIME RESIDENTIAL POPULATION									_1_	1			
	nts are served by this system 180 or more d	lays per	_			0							
30. PART-TIME R	ESIDENTIAL POPULATION	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
	ne residents are present each month?												
B. How many days p	er month are they present?											$\vdash$	
31. TEMPORARY & TRANSIENT USERS		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A How many total visitors, attendees, travelers, campers, patients or customers have access to the water system each month?		9000	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000	9000
	er month is water accessible to the public?	30	30	30	30	30	30	30	30	30	30	30	30
32. REGULAR NON-RESIDENTIAL USERS		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
A. If you have schools, daycares, or businesses connected to your water system, how many students daycare children and/or employees are present each month?		16	16	16	16	16	16	16	16	16	16	16	16
How many days per month are they present?		30	30	30	30	30	30	30	30	30	30	30	30
33. ROUTINE COLIFORM SCHEDULE		JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
		1	1	1	1	1	1	1	1	1	1	1	1
		QUARTERLY				ANNUALLY				ONCE EVERY 3 YEARS			
<ol> <li>NITRATE SC (One Sample</li> </ol>	CHEDULE per source by time period)						S01						



#### Pre - Adequacy Data Summary As of: 11/8/2013

Ownership:

Owner Type ..: Individual

Owner Name.: DAYABIR (PINTU) BATH

Page 1 of 2 Report Date: 11/8/2013

#### Administrative Data

"Mailing Information:"

RESTOVER TRUCK STOP, 71970

DAYABIR (PINTU) S BATH

(360) 357-4701

2729 93RD AVE SW

OLYMPIA, WA 98512

Last WFI Update:4/23/2010

Group....:A

Type....:TNC

DOH Region .....: Southwest

County.....: THURSTON

Connections:

Active Connections.....:

Approved Connections .:

Unapproved



#### Pre - Adequacy Data Summary As of: 11/8/2013

Page 2 of 2 Report Date: 11/8/2013

#### **Operating Permit Description**

Current and Valid Operating Permit (Yes/No) - Yes

Permit Category Color.: Blue DOH Recommendation:

Blue: Systems in this category are considered adequate for existing uses but are not considered adequate for adding new service connections.

#### Water Quality Violations

Incident Date Severity

\*\*\* No Current Violation Found for Water System \*\*\*

#### **Operator Certification Requirement**

\*\*\* No Certified Operator Required \*\*\*

#### Water System Plan Requirement

Not Required

#### Compliance Actions

Action Status Issue Date Reason

\*\*\* No Current Compliance Actions Found \*\*\*

#### Regional Staff Comments

#### Disclaimer

This is a DOH Pre - Adequacy Data Summary for this water system that is based on information available at this time. Other entities such as Local Building, Planning and Health Jurisdictions, or financial institutions have alternative authority to make final decisions involving development, building permits and financial.





## Exhibit B Phase I Environmental Site Assessment Scope of Services

Phase I Environmental Site Assessments (Phase I ESA, also known as Level One ESA studies) are conducted to protect a property owner from assuming an unknown environmental risk. The assessment gathers available information regarding past or present site activities which have the potential to cause environmental contamination. Robinson Noble performs Phase I ESAs generally following the format and content of ASTM Standard E1527-05. Depending on the nature of the site being evaluated and the requirements of the Client, additional elements beyond the scope of the ASTM standard may be included. Any additional scope of service items are detailed in the professional services agreement (PSA) to which this scope of service is attached. If an item is not indicated herein or in the applicable PSA, it is not included in the Project.

The standard components of the Phase I ESA will include:

- Reasonably ascertainable identification of past and present site ownership and uses (as deemed relevant to evaluating the subject site).
- Inspection of the site and any structures for the presence of potentially hazardous substances. Any areas not inspected will be clearly noted in the project report.
- Description of site environmental characteristics; such as the size, layout, extent of development, natural features, etc.
- An assessment of hazardous substance or waste storage, handling, or disposal practices as they
  pertain to evaluate the presence of an actual, and/or material threat of, a hazardous substance release.
- An assessment of nearby properties whose activities may have an environmental impact on the subject property.
- Conclusions regarding potential problems and recommendations for further action.

For the purposes of the Phase I ESA scope of services, the term hazardous substance is as defined by ASTM Standard E1527-05 except with the inclusion of petroleum products.

In performing the assessment Robinson Noble, Inc. will utilize a review of reasonably ascertainable, selected available public records and historical research, an inspection of the site, and may conduct interviews with tenants, owners, and/or public agency officials to evaluate the potential environmental liabilities associated with a property.

#### Site Location

The Phase I ESA will be completed for the site located at 2729 93<sup>rd</sup> Avenue SW in Olympia, Washington.

#### Records Review

Review of public agency records can provide significant background information on the site, including ownership history; past uses; permits or inventories for hazardous materials or wastes; reported spills, releases or known contamination; or other regulatory actions. Agencies which may be contacted include local assessor's office, planning department, utility district, fire department, health department, agricultural commissioner, or air quality management district. State environmental protection agencies, such as the Washington State Department of Ecology, maintain databases of sites which have been investigated and may also be contacted. The U.S. Environmental Protection Agency also maintains databases of hazardous waste generators or sites with hazardous waste contamination. Robinson Noble, Inc. will search applicable data bases using a data extraction and reporting firm. We may also conduct a physical review of agency files as deemed necessary.

#### Historical Research

In order to review past use of the property, documents such as title history, maps, building permits, or aerial photographs may be reviewed as appropriate. Maps, such as parcel, topographic and fire-insurance maps, will also be reviewed as applicable. Only reasonably ascertainable sources will be used.

#### Site Inspection

A site inspection will be conducted to evaluate the subject for site activities or uses which pose a high potential for environmental contamination. These items include but are not limited to:

- storage tanks (underground and above ground)
- water wells (domestic, agricultural or industrial)
- waste water systems
- drums or chemical storage areas
- ponds or surface impoundments
- maintenance or shop areas
- sumps or storm drains
- stained soil or pavement
- transformers
- piles of waste or trash
- dead or dying vegetation
- unusual odors
- other observations that in the opinion of the field investigator indicate the possible presence of conditions of concern.

#### Interviews

In order to determine current and past site practices, interviews with persons familiar with the site may be conducted. This may be done in person, in writing or via telephone. Examples of the types of individuals that may be contacted include: property owners, site managers, former employees, neighbors, and/or local agency officials. Where interviews are deemed necessary, reasonable attempts will be made to conduct the interviews, though we cannot guarantee that interviews will be conducted. ASTM Standard E1527-05 requires that a reasonable attempt be made to interview representatives of current non-residential occupants, if five or less; or if more than five, all major occupants. Robinson Noble will make a reasonable attempt to interview occupants whose operations are likely to indicate recognized environmental conditions in connection to the subject property. However, unless specifically directed by the Client including agreement to pay extra compensation, Robinson Noble will not meet the standard for occupant interviews.

#### Report

The activities described above will be documented in a report. The report will present the findings of the assessment and any recommendations for further action, if necessary. Be advised that the Phase I ESA does not typically include the collection of environmental samples. Two hard copies and one digital copy of the report text, figures, and site photographs will be provided. Unless otherwise noted, appendices will only be provided digitally and included on the attached CD. Hard copies of the appendices or additional copies of the report will be provided at a cost of up to \$125 each.

Robinson Noble's services in relation to the Phase I ESA are intended for the Client's sole use and benefit. Except as agreed in writing, Robinson Noble's services and work product shall not be used or relied upon by any other person on entity other than the Client nor for any other purpose. Robinson Noble's services are limited to those expressly set forth above, and Robinson Noble has no other obligations or responsibilities for the Project except as agreed in writing. Robinson Noble has no responsibility for conditions that occur on or to the subject property following the completion of our field work at the subject property. Nor are we responsible for the acts or omissions of other parties working on the Project; our work on the Project shall not relieve other parties of their responsibility for performing their work in accordance with applicable plans, specifications, and regulations.



#### STATEMENT OF QUALIFICATIONS

#### **Company Introduction**

Robinson Noble is an environmental consulting firm providing earth science and engineering support for public, private, commercial, and industrial clients throughout Washington State and the Pacific Northwest. Drawing upon a highly-skilled team of licensed geologists, hydrogeologists, geotechnical engineers, and environmental scientists, our services are tailored to provide the desired level of assistance to help our clients achieve their project goals. Robinson Noble delivers a level of expertise and experience that belies our modest size and Small Business status. Senior personnel are actively involved in all project stages, providing excellent quality control. Our reputation for technical excel-

lence reflects our clients' successes over the past 65 years.

We work with clients and counsel to develop cost-effective, legally-defensible solutions to complex technical and regulatory challenges. Our professional staff is detail-oriented and applies sound scientific and engineering principles to every project, large and small. We have extensive experience preparing planning documents, including work plans, field sampling plans, quality assurance/quality control (QA/QC) plans, and health & safety plans. Our targeted investigations and work protocols are specifically designed to yield accurate results, meet project planning goals, and move a project forward. Put simply, Robinson Noble has the experience, technical savvy, and key relationships to help our clients succeed.

#### Tacoma

3011 South Huson Street, Suite A Tacoma, Washington 98409 253.475.7711

#### Woodinville

17625 130th Avenue NE, Suite 102 Woodinville, Washington 98072 425.488.0599

www.robinson-noble.com

King County Small Contractor and Supplier (SCS #1103)

#### **Environmental Services**

Robinson Noble is skilled in a wide range of environmental services that support the evaluation, remediation, and restoration of contaminated sites. We have extensive experience in evaluating hydrogeologic and geochemical conditions and water quality issues including metals and organics. Collectively, these capabilities are critical to evaluating potential adverse effects to the environment and to fate and transport considerations.

We routinely integrate and interpret environmental data in support of state and federal environmental programs, remedial investigations, and property transfer evaluations. We are well versed in environmental compliance and remediation alternatives and have established relationships with regulatory agencies.

#### **Site Characterization and Remediation**

Our scientists have characterized contaminated sites ranging in size from small build-

ing interiors to large brownfields redevelopments. Where complex contaminant issues are identified, we perform feasibility studies

Robinson Noble, Inc. Page 1

to define and evaluate remedial alternatives under MTCA and CERCLA regulations. Our project deliverables clearly communicate the nature, extent, fate, distribution, and possible effects of contamination originating from the site. Once the contaminant source is identified, we can recommend source control actions to mitigate ongoing "recontamination" from that source. We also have extensive experience in designing and implementing post-remediation environmental monitoring investigations to ensure the continuing effectiveness of the remedy.

#### **Emergency Response Services**

Robinson Noble maintains 24-hour call-out capability and have senior staff with direct experience responding to hazardous material emergencies. We have provided response management, scientific support, emergency planning and exposure assessments on an urgent basis. We maintain standing relationships with key regional response contractors, allowing us to quickly mobilize resources needed to quickly control and contain hazardous material releases.

#### **Environmental Sampling**

Robinson Noble has broad environmental sampling capabilities and experience including surface and subsurface soil and sediment sampling, groundwater sampling, and surface water sampling. We are adept in the use of hand augers and hand-operated power augers for near-surface soil sampling. When deeper target depths are required, we utilize direct-push, sonic, auger, air-rotary and/or cable-drilling techniques. We also maintain a wide-range of sampling and monitoring instruments in-house to support geologic, hydrogeologic, and environmental explorations.

#### **Property Investigations**

Robinson Noble produces high quality, duediligence documents for a wide variety of clients including banks, developers, public agencies, industries, residential landowners, and tribes. Our Phase I Environmental Site Assessments (ESAs) are performed in compliance with All Appropriate Inquiry ASTM E 1527-05 guidance and represent a key foundation for property transfer decision-making. We also routinely perform asbestos, lead, and other inspection services.

In addition, our firm is recognized for performing environmental subsurface investigations and generating robust Phase II documents that resolve the contamination issue, help to pinpoint our client's options for achieving regulatory compliance, and reduce the potential for environmental liability. We are particularly adept at interpreting environmental data, performing appropriate quality management measures, and developing critical conclusions and recommendations regarding the best course of action for a particular site.

#### **Water Quality Services**

Our experts have performed numerous evaluations of potential environmental issues associated with groundwater and surface water impacts related to industrial activities, including mining and rock quarry operations. We have evaluated seawater intrusion, metals contamination, and a wide range of water quality issues. Findings from our environmental investigations are routinely incorporated into NEPA/SEPA EIS documents, NPDES permits, and a wide range of other environmental and water quality-based permits.

#### **Hydrogeologic Services**

Historically, Robinson Noble's services have been in hydrogeology and groundwater development, with an emphasis on the oversight of commercial well drilling projects and advanced applications of water well technology. Over the last 65 years, our experience in groundwater resource development and protection has enabled us to expand our services into many different aspects of groundwater and environmental sciences.

Page 2 Robinson Noble, Inc.

We provide scientific and technical services in the definition, development, and protection of ground-water resources for public and private use--its source and destiny, its quality and protection, and the methods for its recovery.

#### **Groundwater Resource Development**

Our firm brought scientific methods to the design, construction, and development of water wells in Washington State. This expertise greatly improved the success and quality of water resource identification and development projects. We have the most extensive water well drilling project experience of any hydrogeologic firm in the state. Robinson Noble has designed wells for nearly every drilling method, well application, and hydrogeologic setting in the Pacific Northwest. We provide drilling project management services, well design, construction planning, testing oversight, operations troubleshooting, and rehabilitation guidance.

#### **Water Resource Management**

Our groundwater resource management services include wellhead protection planning, groundwater availability studies, well and wellfield management, hydrostratigraphic unit definition, SEPA assistance, and related support services. Robinson Noble has been involved in Aquifer Storage and Recovery (ASR) projects, which allow the use of winter surplus water during the drier summer months, since the 1970s.

Groundwater flow models are another tool we provide to help water purveyors manage their resources efficiently. These models, which are often developed in coordination with other purveyors and private water users, can simulate how future activities or environmental conditions could change resource availability over time. We perform all levels of groundwater modeling, including analytical, analytic element, and numerical (MODFLOW) groundwater modeling. We have also provided assistance to the USGS in their regional modeling efforts.

We regularly work with a variety of agencies and stakeholder groups to develop regional

management strategies. By providing a high level of technical expertise, Robinson Noble facilitates the best data collection and hydrogeologic practices available, providing a high degree of confidence in the project outcome.

#### Water Resource Law & Permitting

The legal and regulatory issues of water use are some of the more complex aspects of a water resources project. Our extensive water rights experience and our long-term partnerships with many water law attorneys allow us to provide high-quality technical support to the water rights process. Our water law and resource permitting services include:

- assistance with initial applications/ moving applications to permit status;
- consulting regarding Ecology's costreimbursement process;
- providing strategies for transfers;
- negotiating, developing, and implementing mitigation plans; and
- providing technical support for appeals.

#### **Aggregate Mining Support**

Robinson Noble provides technical consultation on virtually all aspects of aggregate operations including: site evaluation, resource estimation/valuation, SEPA/NEPA compliance, EIS technical support, land-use changes, stormwater and water-supply issues, mining and reclamation plans. We support land development, restoration, or environmental enhancement for mining operations by defining groundwater concerns and helping identify proper mitigation actions. We have a long history of helping gravel mining operators with water-related issues at both the public and private levels.

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#### **Geophysical Investigations**

Robinson Noble provides a full suite of borehole geophysics and groundwater-related surface geophysics. These diagnostic tools can help refine our existing field data or regional knowledge and thus improve the chances of success for water resource or environmental projects. Our geophysical survey capabilities include:

- down-hole video inspection;
- resistivity, spontaneous potential, and natural gamma-ray logging;
- caliper, temperature, and plumbness/ alignment surveys;
- electrical resistivity; and
- time-domain electromagnetic, seismic, and gravimetric analyses.

#### **Geotechnical Services**

Robinson Noble provides common-sense geotechnical engineering solutions and construction testing services. Our geotechnical engineers have engaged in nearly every facet of geotechnical engineering and soil mechanics with direct experience in soil mechanics, geotechnical feasibility and design, geologic hazard evaluation, field inspection, and soil testing. With first-hand experience in the construction field, our principal engineers also have the practical experience to provide cost-effective solutions to difficult problems and site conditions.

#### **Geotechnical Engineering**

Robinson Noble specializes in professional geotechnical and geologic consulting services. Our projects are completed under the direction of licensed geotechnical engineers, with support as needed from our hydrogeologists and environmental staff.

Our geotechnical services are typically solicited early in a project planning effort and often include an initial feasibility study of the project, subsurface investigations, plan reviews, and construction observation and testing. We also perform forensic investigations of slope and foundation failures, including groundwater intrusion into buildings, and litigation support for legal counsel on various projects and fact-finding investigations. Collectively, this experience informs our evaluations of subsequent projects and site conditions, allowing our clients to make more informed decisions about their projects.

#### **In-House Geotechnical Laboratory**

Robinson Noble maintains an in-house laboratory equipped to evaluate the properties and characteristics of soil, completed in accordance with ASTM standards. Properly describing the soil allows our engineers to scientifically analyze the planned improvements within the underlying soil and

groundwater conditions.

We commonly complete soil tests such as:

- Sieve and hydrometer analysis
- Moisture content and density
- Proctor tests
- Atterberg limits
- Sand equivalent
- Specific gravity and absorption
- Direct shear
- Consolidation
- Hydraulic conductivity/permeability

#### **Construction Observation & Testing**

Robinson Noble provides a wide range of construction-related services to verify contracted work is completed to project specifications. Earthworks are our specialty including soil compaction, site stripping, and foundation sub-grade preparation. We focus on good communication between our in-house personnel, the contractor, and the owner, which is key to a successful project.

Our staff has worked on a variety of project types: roadways, buildings, retaining walls, dams, and water and sewer lines. We also regularly provide services during slope repair/reconfiguration or habitat restoration work. Our services on these projects may include grading observations, soil moisture/density testing, foundation sub-grade evaluation, pile

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and tieback evaluation, pile driving evaluation, daily report documentation, and erosion control, including turbidity and pH testing.

#### **Landslides & Slope Stability**

Our geotechnical engineers and geologists are specialists in the geologic hazards of the Puget Sound region. We have the expertise to recognize potential site issues and address them before they become construction problems.

We have a keen understanding of how potential geologic hazards can potentially impact existing and proposed projects. These hazards have been broadly identified on local jurisdictional maps, so reviewing agencies know to request a specific type of geologic or geotechnical study.

Some common evaluations include:

- Landslide Hazards in areas with documented past landslide activity or slope and subsurface conditions that could increase landslide risks.
- Steep-Slope Hazards in areas with a combination of steep inclination and vertical relief.
- Seismic Hazards in areas subject to soil instabilities or liquifaction during an earthquake, resulting in a sudden loss of bearing capacity.
- Erosion Hazards where the combination of slope, soil types, and vegetation coverage make an area particularly susceptible to erosion.

### **Selected Project Experience**

Our experience ranges from simple projects to large-scale, multidisciplinary efforts involving personnel from one or more divisions including teaming partners, subcontractors, and regulatory agencies. The following projects reflect the broad range of services we offer. The key services provided are highlighted by color as follows:





## Windstar Apartments, Tacoma Housing Authority, Tacoma, Washington

Robinson Noble provided comprehensive environmental consulting services to address buried containers of paint waste present within a courtyard of an active apartment complex. Our initial involvement with the project identified the presence of the wastes, defined the quantity of impacted soil, and provided an evaluation of possible cleanup alternatives. As a temporary measure, a protective cap was placed over the waste pit and institutional controls, including groundwater monitoring, were implemented. Regulatory authorities requested that waste material needed to be removed following cap placement. Robinson Noble completed this removal action on time, under budget, and without complaint from

the residents. The site, which eventually received a no-further-action designation under Ecology's VCP program, is now administratively closed.



### RI/FS and Phase I/II, Premera Blue Cross, Mountlake Terrace, Washington

Robinson Noble completed a due-diligence Phase I investigation of an industrial site in Mountlake Terrace and results disclosed the presence of a former painting and metal electroplating operation. To assess the potential impacts from these identified Recognized Environmental Conditions, we conducted a limited subsurface investigation. Results indicated a chlorinated solvent plume beneath the site. The client's compressed timeline required the investigation be expedited. In that time, we were able to

coordinate, schedule, permit, and direct the drilling of 35 boreholes and 10 monitoring wells, as well as complete a preliminary RI/ FS. Our ability to characterize the extent of the chlorinated-solvent plume and provide projected planning level cleanup costs allowed the client to move quickly ahead with purchasing the property. A formal RI/FS, including a Terrestrial Ecological Evaluation (TEE), under MTCA has been submitted to Ecology and site remediation is under way.



#### Asian Counseling Center, Asian Counseling and Referral Services, Seattle, Washington

The project was located in an old fill area and extended up the adjacent slope into a City of Seattle designated Environmentally Critical Area. Our explorations found undocumented fill material that extended as much as 20 feet below the existing ground surface to the elevation of the planned underground parking garage. Our geotechnical engineers provided recommendations for design and construction of three types of wall systems including soldier pile, masonry block, and rockeries.



Asian Counseling Center, Seattle, Washington

Construction challenges included heavy groundwater seepage in excavation cuts and extremely moisture-sensitive soils at the base of the building excavation. We provided recommendations for drains to intercept seepage, which was much more economical than the dewatering system that was also considered.

Our engineers provided consultation to the design team throughout all phases of design and construction, including pre-construction design meetings with the contractor. Because of our involvement, the complicated geologic conditions were addressed with the necessary geotechnical improvements.





### **Proposed Biomass Energy Facility, Con**fidential Client, Mason County, Washing-

Robinson Noble was selected to provide hydrogeologic and environmental evaluations of a proposed biomass-to-electricity project in Western Washington State due to our intimate knowledge of the hydrogeology and our experience in emergency prevention and response management. Our investigations focused on the potential impacts to groundwater resources and established appropriate engineering and institutional controls to minimize the risk of groundwater impact, including design criteria for product containment, material storage, fueling, and stormwater management. We also provided recommendations for emergency response actions, employee training, and facility monitoring.



#### **Kingsgate Booster Pump Station and** Reservoir, Woodinville Water District, Woodinville, Washington

The project will consist of a new booster pump station with back-up power. The flow control vault will be upgraded, a new dedicated tap and transmission line will be installed to bring water to the booster pump station, and upgrades to Pressure Reducing Value (PRV) No. 16 will be completed in the Kingsgate area. The project will provide additional fire suppression storage at the Kingsgate Reservoir and help to maintain pressures within the distribution system for the neighborhood.

We explored subsurface conditions with a truck-mounted drill rig. Soil samples obtained during the subsurface explorations were visually classified in our lab to confirm

Page 6 Robinson Noble, Inc. or modify observations made in the field. Our findings and recommendations were presented in a geotechnical report.



### Groundwater Development, Lakehaven Utility District, Federal Way, Washington

Since the mid-1960s, Robinson Noble has been the groundwater consultants to Lakehaven Utility District and its predecessors: Federal Way Water & Sewer and King County Water Districts 124, 100, and 64. During that time, we provided the hydrogeologic expertise for more than 50 drilling projects, regional aquifer definition, numerical modeling, wellhead protection, and the general application of hydrogeology to the District's groundwater resource development and management.

"They exceed my expectations. I have been here at the District for over 13 years; RN has been working with the District for more than 30 years. Their quality keeps going up ...."

John Bowman Lakehaven Utility District

Robinson Noble hydrogeologists have provided the design of and supervised the drilling, construction, and testing of every production well used today by the District, as well as injection wells and numerous monitoring and test wells. We have used both cable-tool and rotary methods, drilled to depths over 1,000 feet, and tested wells at rates up to several thousand gallons per minute. Wells have been completed with casing sizes from 6 to 24 inches. We have also developed and supervised various well rehabilitation projects, as well as well decommissioning plans.



# Foundation House Retirement Community, Foundation Partners, Bothell, Washington

Our services included geotechnical consultation and construction observation at a 120-unit, senior-living center. The site access road crosses a known deep-seated landslide

in low-strength silt soils. We prepared a design to improve the stability of the slope above and below the access road using soil-cement filled trenches. This cost-effective solution saved our client significant investment as conventional steel or concrete stabilization piles would have been much more costly.

In addition to the soil-cement filled slope stability trenches, earthwork for this project included fills of up to 15 feet. In some deep fill areas, strippings were placed under planned pavement areas where the risk of minor settlement was acceptable to the project owner. To achieve compaction specifications, a mixture of cement and kiln dust was mixed into the on-site soils, which had a high silt and moisture content.

Despite potential problems, the earthwork phase of the project proceeded fairly smoothly with the exception of rain delays and a minor failure in a vault excavation in the area of a known landslide. We immediately prepared a shoring design for the excavation in the failure area using concrete ecology blocks. The shoring was quickly installed by the contractor and the failure was halted.





### Hydrogeologic and Biologic Evaluation Ellensburg Cement Products, Ellensburg, Washington

Ellensburg Cement Products filed an application to operate a gravel mine along the 500-year floodplain of the Yakima River. As part of the ongoing SEPA review process, Robinson Noble provided an evaluation of the shallow groundwater flow regime. In addition to the delineation of the physical parameters of this floodplain system, we were part of the multi-disciplinary consulting team that evaluated the potential for biologic and thermal impacts to the Yakima River as a result of the proposed mining. We created a monitoring well design that met the specific biologic sampling criteria of the riverine gravel setting. Essential to the project were the definition and evaluation of the

site's hydrogeologic conditions in relation to the regional valley system.





#### Upper Springbrook Creek Ecosystem Restoration, US Corps of Engineers, Renton, Washington

Upper Springbrook Creek, located in Renton, Washington, had shifted into a drainage ditch, and flow under the adjacent road was routed through a 30-inch corrugated metal pipe (CMP) that was not suitable for spawning salmon. This project included the replacement of the existing CMP pipe with a new, 10-foot-wide concrete box culvert.

As part of the Performance Systems, Inc. team, Robinson Noble's engineers were responsible for the geotechnical aspects of the project: determining the bearing capacity of the underlying soils and lateral pressure loads on the sides of the box culvert; evaluating the erosion potential within the site; providing seismic design parameters for structural design of the culvert; the control of groundwater; and excavation considerations, including recommended slope angles, estimated settlement potential, and structural fill recommendations. Subsurface soil investigations were accomplished with manual equipment, as heavy equipment was not permitted outside the road prism.



Robinson Noble provided additional construction observation services, including evaluation of the backfill around the culvert and preparation of the road subgrade. We also investigated soft soil conditions in the new creek channel alignment away from the

box culvert which were limiting construction equipment access. Finally, we provided our professional opinion on the new creek thread and the stability of the berms.





### General Services Consulting, Lakewood Water District, Lakewood, Washington

Robinson Noble has been providing consulting services to Lakewood Water District since 1950, shortly after the District was formed. We have worked on or overseen the installation of all but one of the District's 43 well drilling projects including test/observation wells and potable supply wells ranging in size from 8 inches to 24 inches in diameter and depths to 1,075 feet. We have provided hydrogeologic expertise to the District to assist with everything from simple well operations/troubleshooting questions to complex regional flow modeling to resolve water rights issues.

"The District has been with RN for over 35 years. Last projects were water monitoring, salmon habitat impact analysis, and water rights. I was very happy with end products." "RN are very professional and thorough."

Randy Black Lakewood Water District

Our geotechnical engineers have recently completed an assessment of a new water main alignment as the District plans for future sources. With help from our environmental staff, we are currently completing an update of the District's wellhead protection plan. On an annual basis, we assist the District with analysis and reporting of data from a monitoring program covering 23 wells and all four of the aquifer systems used by the District as part of a Department of Ecology reporting requirement. Additionally, Robinson Noble recently represented the District (along with several neighboring regional water purveyors) in a major USGS groundwater modeling effort, providing District data relevant to the process and ensuring that

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the project outcome adequately represents our (and the District's) understanding of the water resources system in the area.



Foss Site One Brownfields Redevelopment, Confidential Client, Tacoma, Washington Robinson Noble was selected as part of a team comprised of members in the fields of engineering, architecture, geotechnical, consulting, commercial brokers, and lending institutions paving the way for a major development on the Foss Waterway Development Authority site.

Our responsibilities for this multi-million dollar project included: the preparation and submittal of a draft work plan to Ecology; revision and submittal of a final work plan approved by Ecology; finalizing remedial action costs and schedules; conducting construction-related soil excavation oversight; and soil characterization and documentation. In all, 20,000 tons of soil, concrete remnants, pier caps, and wood pilings were excavated and properly disposed of. The project was completed on time and under budget.



Foss Site One, Tacoma, Washington



#### Co-Generation Facility EFSEC Application, Sumas Energy 2, Inc., Whatcom County, Washington

Sumas Energy 2 proposed to construct a co-generation power plant in the City's industrial area and requested site certification from the Washington Energy Facility Site Evaluation Council (EFSEC) and the Canadian National Energy Board (NEB). Robinson Noble provided hydrogeologic evaluations of

the site, the City's water sources (and supporting water rights), and potential impacts to surrounding community wells. Our work included well testing, a water rights/water use analysis, local and regional hydrostratigraphic analysis, wetland/drainage issues, well impact analyses, and input to an Environmental Impact Statement and a Site Certification Application. We then provided expert testimony in the EFSEC hearings. After review of the revised application, EFSEC unanimously recommended approval of the project, due in particular to the extra effort the proponent committed to provide.



## Salmon Bay Marine Center, West Water Development, Inc., Seattle, Washington

Salmon Bay Marine Center, with 13 sideby- side dock slips on the south shore of Salmon Bay, is considered the largest super yacht only facility on the West Coast. The site was previously the home of the Marco Shipyard and has been redeveloped extensively.

The site is underlain by loose fill placed many years ago above the native silt soils. A large diameter sewer pipe traverses the site and crosses Salmon Bay. Two of the new buildings are constructed close to this pipe.



Salmon Bay Marine Center, Seattle, Washington

We completed subsurface explorations at the site and consulted with the owner and structural engineer to determine the optimal foundation system for the site structures. Auger-cast piles were selected to support the buildings, and we analyzed the pile's capacity to resist lateral seismic loading and the deflections that would result. We also provided seismic consultation concern-

ing the existing bulkhead. Steel pipe piles provide lateral support to the new offshore floating piers. We analyzed the required pipe embedment, lateral load capacity, and resulting lateral deflection. Robinson Noble geotechnical engineers provided observation and consultation services during pile installation and during project earthwork construction.





#### Various Emergency Repair and Stabilization Projects, City of Lake Stevens, Washington

We have provided geotechnical services, as needed, to the City of Lake Stevens. In two of the cases, immediate response was requested in which we were on site the next day.

Outfall Creek from Lake Stevens: The Neopolis restaurant spans the outfall creek from Lake Stevens and is founded on a combination of piers and shallow foundations. An embankment failure extended out from under the building and undermined the sidewalk. We provided an evaluation of the immediate risk to the structure and also provided recommendations for repair of the bank and re-supporting the sidewalk.

Catherine Creek: An embankment adjacent to Catherine Creek has slumped, causing a failure of the roadway. The stream turns sharply at this location before crossing under a bridge. The area of distress is adjacent to the bridge abutment, is approximately 40 feet long, and extends into the western travel lane approximately five feet. We provided an MSE slope embankment design to restabilize the embankment. Our design also provided protection from scour and erosion of the embankment using a combination of geo-grid, coir cloth, and plantings. We have also provided a design to reduce ongoing scour of an eastern abutment of the bridge.

Emergency Road Repair: A plugged drain system on the upside of the road caused

water to flow over Lake Stevens Road into the slide area. This eventually caused a flow failure, leaving a scarp about 10 feet in height. Our engineers evaluated the conditions and provided consultation during repair. Our consultation also included identification of stable soils, recommendations for benching into those soils, and groundwater cutoff and drainage recommendations.



#### **Seattle Fire Station 35, Rice Fergus Miller** Architects, Snohomish County, Washington

The project consists of a new fire station building and associated driveways. Our engineers completed an investigation to evaluate the soil and groundwater conditions at the site, to develop geotechnical engineering recommendations for use in the design of specific construction elements, and to provide criteria for site preparation and construction of the new fire station structures. We encountered fill soils to an approximate depth of five feet overlying loose to medium dense weathered soils. These conditions required specific foundation recommendations. We also completed pavement sections and construction consultation and testing services, including verification of foundation bearing conditions.



#### Long-Term Groundwater Monitoring, Olympic Water and Sewer, Inc., Jefferson County, Washington

In an effort to assess the long-term condition of the aguifers in the Port Ludlow area, Olympic Water and Sewer (OWSI), with the assistance of Robinson Noble. established and continues to maintain an extensive groundwater monitoring network. The program was initiated in 1994 and has been assessed on an annual basis since inception. The network monitors the three primary aguifers in the Port Ludlow area and currently consists of 17 wells owned and maintained by 8 separate participants (both public and private). Parameters monitored

Page 10 Robinson Noble, Inc. included static water levels, pumping water levels, production volumes, conductivity and chloride concentrations, and rainfall. Hydrologic and water quality information gained through this endeavor provides an excellent basis for the OWSI's water resource management program and currently represents one of the more extensive water resource data sets in Jefferson County.

"RN are very professional and thorough."

Larry Smith
Olympic Water & Sewer, Inc.



#### Spill Characterization and Remediation, Tacoma Public Utilities – Tacoma Rail, Tacoma, Washington

Robinson Noble was retained to conduct characterization, remedial design, and management of a locomotive oil spill in a commercial/residential area of Tacoma, Washington. The project involved conducting an initial characterization of the extent of possible contaminant impacts to soils adjacent to the rail line, preparation of a characterization report for agency review, remedial design and evaluation of alternatives, coordination of remedial contractors, management/oversight of remedial activities, and preparation of a final report. Robinson Noble staff was responsible for sampling activities as well as directing site security and coordinating project activities around rail line operation schedules.



## Perrigo Park, Bruce Dees Landscape Architects, Redmond, Washington

This park is mainly an active recreation park with two full-scale soccer and baseball fields and also includes tennis courts, volleyball sand court picnic area and tot play area. During design of the park, we were retained to provide a ground water mounding analysis for the storm water infiltration system design.

Robinson Noble was also retained for Phase

Il of the project, which will add approximately 2.7 acres to the existing Perrigo Park facility. The new phase involves multiple projects: the demolition of an old residential struction; remodeling an old barn into a maintenance facility; reconfiguring the entrance; providing new play areas, 47 new parking spaces, and three new picnic shelters; and extensive landscaping and natural area enhancement.



Perrigo Park, Redmond, Washington

Our engineers evaluated the infiltration capabilities for Phase II, performed subsurface explorations in the vicinity of planned retaining walls, and provided recommendations for potential over-excavations and foundation support of the planned walls. Infiltration areas for this Phase were difficult to find due to high groundwater sources. We also provided on-going consultation regarding design constraints imposed by the King County Manual and the City of Redmond Wellhead Protection Program, resulting in a dual stormwater system design using both detention and retention/infiltration. The infiltration facility was modeled using the computer program MODRET in order to evaluate the mounding effects below the facility.



### Pre-Remedial Residential Soil Sampling, ASARCO, Inc., Tacoma, Washington

Robinson Noble conducted the pre-remedial soil sampling of approximately 600 residential properties as part of ongoing residential area remedial activities associated with the ASARCO Tacoma Smelter Superfund (NPL) site. The sampling was conducted to identify

residential lots requiring remediation based on remedial action limits established in the Record of Decision for the NPL site.

This project was conducted over a fivemonth period in the summer of 2004 and again in 2005. Due to the scope and magnitude of the project, the project required the temporary hiring of a field crew of four plus a crew leader. A Robinson Noble project manager provided oversight for the entire crew.

The scope of work included coordination and scheduling with individual property owners; government and private utilities, and ASARCO, Inc.; maintenance of an electronic database to coordinate the site visits; and collection of hand-augered soil samples from various depths at each residential property. The project ultimately required the sampling of approximately 2,000 mapped subunits and the collection of nearly 14,000 soil samples. With the dedicated field crew, we completed the project ahead of schedule and within budget.



### Garden Grove Mixed-Use Development, Mietzner Group, Everett, Washington

Garden Grove is a mixed-use commercial development consisting of a senior-living center, an office building, and a large self-storage facility. Subsurface conditions at the site included bedded silts, glacial till, perched groundwater, loose fill, and buried topsoil. Construction on the buried topsoil and fill would result in loss of bearing capacity and unacceptable settlement of the structures. A combination of foundation alternatives were used to support the buildings and roadways. Some areas were overexcavated down to bearing soils and others were supported with a deep-foundation system consisting of concrete drilled piers.

These mitigation measures allowed the project to succeed in difficult conditions. Because our explorations identified difficult soil conditions early in the project planning, many of these conditions were easily incor-

porated into the planned development. Our engineers provided design recommendations for ecology block walls and rockeries, groundwater estimates collected by footing drains for storm pond design, geotechnical construction observation, and testing services.



#### Rattlesnake Mountain Communications Tower, PTS and Integrated Systems Group, King County, Washington

Located near the summit of Rattlesnake Mountain near Snoqualmie, this 3-legged, 275-foot-tall, steel-lattice communications tower was initially planned to be founded on three 8-foot-diameter drilled shafts which were to extend 50 feet into the underlying highly-weathered bedrock. We explored the subsurface conditions by drilling three borings to depths of up to 44 feet and then conducted a vertical capacity analysis and provided capacities for various-sized drilled shafts. Our analysis and resulting recommendations enabled the tower to be founded on substantially less expensive, 6-foot-diameter, 37-foot-deep drilled shafts. We also observed and documented the installation of the drilled shafts.



## First Place School, Catholic Housing Services, Seattle, Washington

Robinson Noble engineers completed a geotechnical design for the three-story multi-family residential structure with underground parking and other improvements. The planned project will extend about 15 feet below the existing grade. The critical design element of the project will be the temporary excavation cuts or required shoring system. To compound the excavation issues, there is one multi-family residential structure approximately two feet from one of the property lines. Our geotechnical investigation was organized and completed to address these project impacts.

We provided shoring options consisting of soil nailing and soldier pile walls to laterally brace the excavation cuts and adjacent

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structures. Design parameters and potential difficulties with installation were provided for both options.





#### **Urgent Response, Characterization, and** Remediation of an Intentional Release to an Existing Monitoring Well, Confidential Client, King County, Washington

While conducting routine groundwater monitoring activities for a client as part of a VCP monitoring effort, a previously "clean" monitoring well was found to contain nonagueous phase liquids (NAPL) contamination. Subsequent investigation yielded visual and physical evidence that an unknown material had been intentionally dumped into the well.

Initial response efforts included careful documentation of the release including chemical profiling, fingerprinting, and collection of samples for possible future evidentiary analysis. During NAPL recovery actions, contaminant transport modeling was conducted to determine contaminant plume boundaries and appropriate groundwater remediation methods. Subsequent soil and groundwater sampling provided data required to design a remedial strategy using oxygenation compounds to stimulate biodegradation of contaminants. An enhanced groundwater monitoring network was also placed, and site remediation is ongoing.





#### **On-Call Environmental and Emergency** Services, Tacoma Public Utilities, Tacoma, Washington

Robinson Noble, Inc. serves as the prime contractor and professional services provider for the Tacoma Public Utilities. This competitive contract is utilized for a variety of environmental consulting and environmental services activities.

The range of services for over 250 work orders under this contract have included leaking transformer cleanups, Phase I Environmental Site Assessments, remedial investigations for soil and groundwater contamination, regulatory negotiation, emergency response management, and TSCA (PCB investigations and corrective actions).

Notable projects under this contract include an assessment of Fort Lewis Central Substation located within JBLM (Joint Base Lewis McChord) military installation. The assessment consisted of sampling a concrete pad, salt wells, and adjacent soils for the presence of PCBs related to the historic operation of a large capacitor bank. Our initial assessment was used to provide bid level documentation of the estimated impacted concrete and soils to be removed during the subsequent removal of the capacitor bank and concrete pad. The project successfully identified impacted areas of both concrete and soil, requiring specialized removal and disposal of federal regulated wastes. Subsequent to the investigation, we prepared and received EPA approval of a cleanup sampling and analysis plan to complete a TSCA alternate risk-based cleanup of PCB contaminated materials and soil. Following EPA approval of the cleanup plan, we conducted management and oversight of the cleanup contractor and performed post cleanup confirmation sampling.

Other notable projects included completing a remedial investigation and clean up of residual contamination from a 50,000 gallon bunker oil tank failure and fire, and the evaluation of soil and surface water contamination from a open dump bordering on aquatic habitat being acquired by the utility.



#### Discovery Park/Fort Lawton Sewer Extension, Pacific Northwest Communities, LLC (Forest City), Seattle, Washington

Discovery Park is built on the historic grounds of Fort Lawton, an Army base established in the early 1900s. This project consists of upgrading the sewer and water systems to historic buildings. One of the unique features of the project is the sewer line being reinstalled with clay piping, similar to historic times.

Our engineers explored subsurface conditions in the area of the utility alignment and provided recommendations for site development. We also provided construction testing and consultation services for the construction phase of the project.



#### **SWPPP, Sampling Design, and Program** Mgt., NW Forest Products, Tacoma, Washington

Since 1994, Robinson Noble has provided diverse environmental services to this wood products manufacturer including stormwater pollution prevention program (SWPPP) development, as well as preparation, revision, and implementation of SWPPP documents. We have also completed an inspection of possible sources of zinc in the stormwater. We also trained personnel and coordinated corrective action responses and third-party inspections. We have also provided this client with technical assistance and litigation support in response to Clean Water Act civil actions.

"Since 1994, Robinson Noble, Inc. has helped us navigate the complex and frustrating environmental regulatory arena. From stormwater to general environmental issues, they have consistently provided candid professional advice tailored to meet the needs of our business. Although we are not their largest client, they treat us like we are."

> Terry Swanson, Northwest Forest Products



### **Barton Pump Station, King County** Wastewater Treatment Division, Seattle, Washington

King County Wastewater Treatment Division (WTD) plans a renovation of their Barton Pump Station, located adjacent to the Fauntleroy Ferry Dock in West Seattle. This sewer pump station has been in place since the 1950s and needs to be enlarged and updated.

Our engineers explored subsurface conditions and provided geotechnical design and construction consultation. The project reguires excavation 30 feet below the ground surface and 20 feet below the water table. next to the existing pump station and ferry terminal. The excavation will be only one foot away from large diameter pipes that will be in use during construction. Soft soils are believed to exist below the adjacent ferry terminal, which could settle during site dewatering and result in distress to ferry operations.



Barton Pump Station, Seattle, Washington

The trench lines containing the large diameter pipes have a potential for routing groundwater into the pump station area. We have installed monitoring wells with electronic instrumentation to continuously measure aroundwater levels through the winter. This data will allow us to evaluate whether surges in groundwater levels occur during or following rainfall events.

We worked closely with the project structural engineer to provide solutions to project issues. We have coordinated our field work and design recommendations with project stakeholders including Seattle Department of Transportation, Washington State Ferries, and King County WTD.



General Environmental Services, Muckleshoot Indian Tribe, Auburn, Washington

Robinson Noble is currently serving as the primary environmental consultant for the Muckleshoot Indian Tribe. Individual work

Page 14 Robinson Noble, Inc. orders have recently included approximately 60 projects, including Phase I and II ESAs, Environmental Assessments for fee-to-trust transfers, and sediment sampling. Property types for these projects have ranged from industrial/commercial to residential.



# West Point Treatment Plant Annex Building, King County Wastewater Treatment Division, Seattle, Washington

The West Point Treatment Plant, serving 1.5 million people in greater Seattle, is located about four miles northwest of downtown Seattle. The current staff at the plant is housed in left-over construction trailers that do not meet current code requirements. The planned improvements will provide additional code-compliant office space for the personnel at the treatment plant.

Our services consisted of evaluating the existing geotechnical documentation in the area of the Annex Building. We evaluated many geotechnical borings and reviewed the design parameters for the adjacent Administration Building. The site is capped with approximately 17 feet of fill over soft soil deposits consisting of silts and organics. These conditions resulted in the recommendations that the existing two-story Administration Building be built on deep piles extending to the bearing soils. The costs associated with installing a pile foundation under the one-story modular Annex Building, however, exceeded the building cost.

We provided settlement estimates for the Annex Building for different foundation alternatives which allowed the designers to evaluate risk. The result was to found the structure on shallow foundations and design for some anticipated settlement.



### Directional Drilling Sewer Bypass, Northshore Utility District, Bothell, Washington

Robinson Noble evaluated the existing sewer alignment and provided a risk assessment of the existing surfacial system to the District. We also reviewed existing geotechnical explorations in the near vicinity that identified fracture zones as deep as 80 to 100 feet below the surface. The depth of these fractures indicates that this may be a deep seated landslide; review of documents indicates the deep-seated slide is believed to be an ancient slide associated with the undercutting of the slope toe during the retreat of the Vashon Glacier.

The results of the study indicated that installing a directional drilled line below the landslide mass as preferred. The District authorized us to complete a more in-depth study of a potential by-pass line, which will be approximately 1,000 feet in length and will extend to over 100 feet below the ground surface. The proposed bypass is being considered to reduce the risk that a landslide will affect the sewer system.

We explored subsurface conditions and completed laboratory testing to characterize these conditions. Groundwater levels were recorded during our explorations and we reviewed existing information that was documented for nearby explorations.



## Lake Gaging, Lakewood Water District, Lakewood, Washington

Many lakes in Lakewood Water District's service area have been identified as surface expressions of the area's groundwater aguifers. However, few had ever been systematically measured. To better understand lake response to regional precipitation and interpret shallow aquifer response to lake water level changes, it was necessary to develop a long-term understanding of the changes in lake levels. In particular, the District hoped to identify means of using the lake level responses to help properly manage its shallow groundwater withdrawals. To accomplish this, a series of gages were installed on five local lakes and two streams. Monthly water level measurements have been collected by Robinson Noble, District personnel, and citizen volunteers (in cooperation with the Pierce County Stream Team) since 1999. The District uses the generated data as part of

its aquifer management program and as a regional data source for watershed planning.



### Lake Hills Village, Cosmos Development Company, Bellevue, Washington

Cosmos Development Company has completed Phase I of the new Lake Hills Village mixed-use development. Our services included the geotechnical consultation during the final portions of the design of Phase I and construction observation and testing. Some complications occurred during construction when a perched water table and some unsuitable soils were encountered during construction. These conditions were mitigated by providing options to the owner. A detailed collection drainage system was designed and constructed for the project. We also provided design pressures for a temporary soldier pile wall to support two mobile phone towers.



Lake Hills Village, Bellevue, Washington



### Assessment & Monitoring Program, Firgrove Mutual, Puyallup, Washington

Robinson Noble conducted a year-long hydrogeologic assessment of the Firgrove Mutual Water Company's well system. The Firgrove area (adjacent to the South Hill area of Puyallup) is one of the fastest developing areas in the State and is surrounded by a number of other large water purveyors, all reliant on the same aquifer systems.

The Mutual has a system consisting of 23 individual production wells, each completed in one of three separate aguifer systems

within an approximately 12-square mile service area. Our initial assessment of the condition of the Mutual's water resources was based on an analysis of manual data collected by the Mutual over the past decade and our experience in assisting the Mutual in installing most of their production wells. Although no major deficiencies were noted, the need to upgrade the Mutual's data collection system was clear. Since early 2001. Robinson Noble has been assisting the Mutual with a program to install electronic data-logging equipment at each of the system wells. The program included complete instrumentation of the well system over a period of five years with eventual inclusion of a telemetry system, training the Mutual's personnel in the operation of all equipment, and on-going periodic assessments of the electronic data by Robinson Noble. We also prepared a drilling strategy plan for the Mutual to use in their long-term water resource development and protection planning.

"Every project has gone well with Robinson Noble. We haven't had a need to contact other hydrogeology firms; we call RN because of their reliability, consistency and expertise.

Steve Wieneke, former Manager, Firgrove Mutual Water Company



### US 395, ACF West, Inc (WSDOT), Spokane, Washington

The North Spokane Corridor (NSC), a 60-mph, limited access highway with a direct connection to I-90, US 2, and US 395, is one of the larger Washington State Department of Transportation (WSDOT) projects during recent years. We completed shop drawings for over 40 of the bridge abutments on this project. Our engineers reviewed designs and created specification drawings for the contractor to construct the earth reinforcing walls, which ranged in height from a few feet to over 40 feet. Our drawings and specifications were reviewed and approved by WSDOT prior to construction.

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#### Howanut Road Realignment, DCI Engineers, Oakville, Washington

The project consists of the realignment of an approximately 1.10 mile stretch of Howanut Road, located within the Chehalis Indian Reservation. The roadway was realigned to shift the roadway away from a steep slope adjacent to an existing creek. The road realignment is to take place approximately 20 feet from the steep slope and will increase the radius of two 90 degree curves. Our engineers evaluated subsurface conditions and provided pavement recommendations for the project.



#### **Brownfields Assessments, Tacoma-Pierce** Co. Health Department, Tacoma, Washington

Robinson Noble completed Phase I and Phase II ESAs and performed Ecology VCP process management for the Brownfields Pilot Project for former gasoline station sites. The project included preparation of QAPP and SAP documents for EPA review and approval. The goal of this project is to assist property owners in removing barriers to redevelopment posed by past property use as a gasoline station.



#### Water Rights Assessment & Groundwater Development, Highline Water District, Kent, Washington

Robinson Noble was commissioned to perform an investigation of the District's service area to evaluate both the potential for development of potable groundwater resources and an evaluation of the water rights controlled by the District. The study area covered approximately 40 square miles and underlies the metropolitan areas of SeaTac, Des Moines, and Federal Way. Our study indicated excellent opportunities for the use of the District's water rights and the significant potential for the development of

groundwater resources. The assessment also addressed the potential for the hydrogeologic system to function in an Aquifer Storage and Recovery scenario as well as the potential impacts to the groundwater system from the development of a third runwav at SeaTac Airport. Following the assessment, the District, assisted by Robinson Noble, has undertaken the drilling of several test wells to define the specific quantity and quality parameters of the groundwater systems defined by the study.



#### 53rd Street Pump Station, King County Metro, Seattle, Washington

Robinson Noble engineers were retained to conduct subsurface explorations and provide shoring recommendations for a new pipe access port. Subsurface conditions were explored by advancing a 6-inch diameter plastic casing down 16 feet by use of hand-operated augering equipment. Groundwater and peat was observed near the invert elevation of the planned pipe. Ultimately, steel sheets were driven into the peat to greatly reduce the presence of groundwater within the excavation during construction.



53rdStreetPumpStation,Seattle,Washington

### **What Sets Robinson Noble Apart**

At Robinson Noble, we take pride in our attention to detail and dedication to provide quality services to our valued clients. The following sections provide an overview of our philosophy related to project management, quality assurance, cost control, and our unwavering commitment to client satisfaction that has allowed us to flourish for over 65 years in the Pacific Northwest.

#### **Project Management**

All Robinson Noble staff are cross-trained within the company's specialized service areas in order to provide the maximum flexibility in meeting our client's needs. We approach each project as one requiring the expertise of our senior staff but temper that by assigning the right mix of associate and project staff to ensure we meet the project scope, while remaining within our stated cost estimate. This also allows us to apply the expertise of specific staff on an as-needed basis in order to troubleshoot problems. resolve complex questions, or address unexpected conditions. Project management focuses on meeting project schedules and budgets and maintaining close communications with our clients. Regular communications are accomplished via email and phone consultations. Conferences or meetings occur as defined by each project scope or as needed, based upon the client's needs.

Each project is assigned a project manager based on the scope of work to be accomplished and the project location. Particular staff expertise is selected based on project team approach—assigning staff that can remain with the project from start to finish. All projects are coordinated and overseen by our company president and senior management staff, providing quality control and assurance as well as technical (peer) review of our project reports and correspondence.

#### **Quality Management Program**

Robinson Noble is dedicated to providing quality services and technically-savvy solutions to our client's needs. The best way to ensure that our products meet clients' high standards is to continually self-check our performance through a rigorous quality management program. For most contracts, our company president Joe Becker serves

as the quality management lead. The quality manager is responsible for providing that all products meet our internal quality standards and the contract requirements. For each assigned project, the quality management group will:

- Establish a clear understanding of the project scope and the contracted services;
- Communicate the projected work schedule and milestones;
- Assign appropriate staff to fulfill the technical and support needs of the project;
- Manage project progress and personnel based on our established communication and cost control procedures;
- Review technical products for content, accuracy, consistency, formatting, and technique according to industry standards and the requirements of the scope of work;
- Provide draft products for review and comment;
- Ensure final products fully account for any recommended comments or changes; and,
- Provide that each product or deliverable has an assigned responsible professional from the quality management team available for follow-up questions or concerns.

We take quality management extremely seriously at Robinson Noble. In a blind survey of client satisfaction, more than 80% of Robinson Noble's clients indicated that Robinson Noble "exceeded expectations" in response to the question, "Compared to others in their profession, how completely has this firm provided work of appropriate quality?" Nearly half of all respondents to this question characterized Robinson Noble's work as "excellent."

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#### **Cost Control**

As a normal part of our management procedures, all Robinson Noble project managers perform weekly and monthly accounting reviews of their assigned projects. All contracts are also reviewed monthly by the Principal-in-charge. This is to ensure full integration of our individual tasks into the invoicing and provide the client a clear accounting of the work performed in each billing period.

#### **Successful Project Completion**

Robinson Noble typically gives not-to-exceed budget estimates for projects. Change orders are <u>not</u> requested unless a change in conditions is encountered. In 2011-2012, out of \$5.1 million of work, approximately 2.8% was given out in not-to-exceed credits. Most projects completed by the company have flexible schedules; however, some

require a very short turnaround. Phase I Assessments, for example, are typically scheduled for completion in 15 or 20 days or a more expedited completion due to a rapidly approaching closing date for the subject property.

We routinely complete many of our projects within 30 days of authorization and can assemble a variety of personnel combinations to insure that projects are staffed to meet deadlines, goals, and budgets. With a full staff of 19, Robinson Noble can quickly respond to work requests. With our offices in Tacoma, Woodinville, and Bainbridge Island, our scientists can be on site in any part of Western Washington within several hours. Our close and long-standing working relationships with our contracting partners often allow us to move our projects to the "head of the line."

### **Company Personnel**

Robinson Noble's staff includes geologists and hydrogeologists, geotechnical engineers, environmental scientists, and administrative staff. Our key personnel have ten to over 40 years' experience and are registered professionals in Washington, Oregon, Idaho, Montana, Alaska, California, and Virginia. All of our professional staff have college degrees in geology, hydrogeology, engineering, microbiology, or environmental science and most have advanced degrees. Selected staff members are listed below. Full-page resumes are available upon request.

#### Joseph E. Becker, LHG, PG, RPG

Joe serves as President, General Manager, and Principal Hydrogeologist of Robinson Noble. Joe is responsible for the development of several complex numerical computer models to assist in the evaluation and understanding of groundwater flow parameters and wellhead protection programs. These models not only served to solve immediate problems for our clients, but have also been utilized as planning tools to assist them in the current and future evaluation, development, and protection of their groundwater resources. A Licensed Hydrogeologist in Washington and Professional Geologist in California and Idaho, Joe is also highly experienced at conducting hydrogeologic assessments and fulfilling regulatory needs for groundwater studies. He has particular experience in providing the hydrogeologic investigations necessary to locate and design wastewater infiltration facilities, having completed such work for King County METRO, LOTT, and others. With more than 25 years of experience as a hydrogeologist, Joe provides oversight and QA/QC functions for most of Robinson Noble's hydrogeologic and environmental projects.

#### Burt G. Clothier, LHG, RG, CWRE

Burt is a Principal Hydrogeologist with Robinson Noble and the Company's Hydrogeologic Services Division Manager. His specialties include regional water resource evaluations, water rights technical support, and expert witness services. Burt is a Licensed Hydrogeologist in Washington, a Registered Geologist in Oregon, and a

Certified Professional Geologist in Alaska. He is also a Certified Water Rights Examiner (CWRE) and one of Robinson Noble's water rights permit writers, performing all aspects of water rights work under contract to the Department of Ecology. With over 23 years of professional experience, Burt has both investigated and managed water resource projects throughout the state, with a special emphasis on Pierce County. He provided technical expertise to the U.S. Geological Survey's multi-year characterization and modeling of the Chambers-Clover Creek watershed, culminating in co-authorship of two USGS publications. He is currently serving a second term on the Department of Ecology's Well Drilling Technical Advisory Group, providing input and oversight of well-drilling industry regulations in Washington.

#### John F. Hildenbrand

John is an Associate Environmental Scientist for Robinson Noble and manages our Environmental Services Division. His expertise covers the wide array of environmental, health, and safety areas. He has served as a local environmental official in Montana and Washington, managing a wide range of environmental programs covering drinking water, waste water, solid waste, food/community safety, and disaster response issues. John helped establish and coordinated a groundwater protection district in addition to serving as a technical lead in underground storage tank and hazardous materials programs. He developed and implemented the first, local two-year community and technical college program directly focused on the environmental industry. A former Principal at Saltbush Environmental Services, he has been directly responsible for designing and managing over 500 environmental projects and is a voting member on three ASTM technical committees. John routinely manages all phases of environmental projects and performs all levels of project-related tasks.

#### Rick B. Powell, PE

Rick is a Principal Engineer and Manager of the firm's Geotechnical Division. He has an

academic background in both geotechnical and structural engineering, and has 20 years of professional engineering experience and collaborative work with the construction industry. Rick has worked on a variety of large residential developments, commercial, industrial and municipal projects throughout the Northwest, and has extensive experience in reinforced slope and wall design, the installation and use of slope inclinometers, and the back-calculation of critical slope parameters. He has supervised numerous landslide analysis and repair projects, which have included the use of fill buttresses, drilled piers, reinforced soil walls. and drainage improvements. This breadth of professional engineering and construction experience, along with early involvement in the project planning stages, allows Rick to provide practical, economical solutions to complex land use problems.

#### Charles P. Couvrette, PE

Chuck has been practicing geotechnical engineering, mainly in the greater Puget Sound region, since 1978. Using the skills established with his design and construction experience, Chuck has provided forensic evaluation of geotechnical-related damage to structures and hillsides. These services have been provided primarily to the insurance industry. Chuck's experience as a consultant includes participation in the design and construction of commercial, industrial and residential projects, including the design of numerous warehouse facilities, many of which required construction over soft ground and the need for surcharges or preloads with occasional pile support for specific sensitive areas.

#### F. Michael Krautkramer, LHG, RG, PG

Mike is Vice-President and a Principal Hydrogeologist of Robinson Noble, Inc. With over 37 years of experience, Mike has completed numerous groundwater projects in the Pacific Northwest. These projects include groundwater resource definition, well design, testing and drilling management, ground water/surface water basin analy-

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ses, and identification/abatement of aquifer contamination problems. Mike is a Licensed Hydrogeologist in Washington, a Registered Geologist in Oregon, and a Professional Geologist in Alaska. He is active in the regulatory and political aspects of water resource management. He provides expertise to many entities, including testimony before the Washington State Legislature. Mike currently serves on the Legislative Committee for the Washington State Ground Water Association and is the Chair of the Ground Water Availability Committee of the National Ground Water Association. Mike provides services in both domestic and international markets, where he has a reputation as a problem-solver using practical methods to efficiently accomplish project objectives.

#### Douglas C. Dow, LHG

Doug has worked in the groundwater industry as a professional hydrogeologist for over 30 years. He has used his knowledge to prepare technical specifications; supervise construction; and design, test, rehabilitate and evaluate hundreds of test wells and dozens of major production wells in the Pacific Northwest. Doug has designed and operated multiple well data collection programs for evaluation of aquifer characteristics, contaminant migration, saltwater intrusion, and artificial recharge. He is also part owner and operator of Well Scan, Inc., a water well video inspection service. Doug has assisted many clients with water right issues by conducting audits, evaluating current water resources, and recommending appropriate changes to allow maximum use of those rights. Doug is a Senior Associate Hydrogeologist with the firm and performs project management, hydrogeologic investigations, all phases of field project work, and specialized geophysical analyses.

#### Dave P. Laush, LEG, CESCL

Dave is a Senior Engineering Geologist with more than 20 years of experience in field observation and testing for numerous construction projects, including public works, commercial, industrial, and residen-

tial developments. He has supervised field staff in earthwork observation and testing services, and trained workers in laboratory testing procedures. Dave has extensive experience with quality control and assurance procedures on large earthwork construction projects. He has worked on many large underground parking structures requiring underpinning, soil nailing, and tieback shoring at such locations as: Seattle, Washington; Portland, Oregon; and the Microsoft campus in Redmond, Washington. Dave has worked on multiple projects with contaminated soils and has observed the repair of numerous unstable slopes and landslides.

#### James E. Hay, LHG, CPG

Jim is a Senior Hydrogeologist with over 18 years of professional experience. He is a Licensed Hydrogeologist in Washington State and a Certified Professional Geologist in Alaska. Jim's academic background in both biology and geology have aided complex evaluations of surface and groundwater interaction, including multidisciplinary projects involving thermally-impacted groundwater systems and the subsurface ecology of hyporheic zones (areas of groundwater and surface water interaction). His field expertise and management skills have been central to the success of many regional and local groundwater projects. Jim provides both technical and management roles for a variety of projects: drilling supervision and testing of wells for public, private, commercial, and industrial clients; regional groundwater resource evaluations; spreadsheet modeling; analytical and numerical groundwater flow modeling; technical report preparation and legal support; and all phases of wellhead protection plans.

#### Michael F. Piechowski, LHG

Mike is a Senior Hydrogeologist with Robinson Noble. Prior to joining the firm in 1996, Mike spent several years working in environmental hydrogeology, identifying, delineating, and remediating soil and groundwater contamination. Mike's experience includes

drilling observation and supervision of a number of wells placed via a variety of drilling methods. Mike has directed and conducted the testing of monitoring and production wells for public, commercial, and industrial clients. In addition, he has completed a number of regional groundwater resource evaluations; has experience with analytical, element, and numerical groundwater flow modeling; and performs all phases of wellhead protection plans. Mike has extensive experience with groundwater monitoring instrumentation and is proficient in the completion and interpretation of downhole geophysical surveys. As a Licensed Hydrogeologist in Washington, Mike has also applied his expertise to numerous environmental projects, including Phase I and II Environmental Site Assessments, site investigations, remedial investigations, and soil and groundwater remediation projects.

#### Max T. Wills, LHG, CWRE

Max is a Senior Hydrogeologist with Robinson Noble. He has over 19 years of professional experience and extensive knowledge of Pacific Northwest geology and both groundwater and surface water hydrology. He manages complex environmental remediation projects, oversees a variety of well drilling and testing projects, and has performed a range of analytical and numerical computer modeling efforts. Max is adept at identifying, delineating, and remediating both soil and groundwater contamination and his involvement has been critical to the success of numerous groundwater resource projects. Max is a Licensed Geologist and Hydrogeologist in Washington State. He is also a Certified Water Rights Examiner (CWRE) familiar with a wide variety of water rights issues, wellhead protection, and permitting.

#### Barbara A. Gallagher, PE, CESCL

Barb is a Senior Project Engineer with 11 years of professional experience working on commercial, industrial, municipal, and residential projects. She has provided design services for embankments, retaining walls,

pavements, and both shallow and deep foundations. Barb has developed and implemented numerous subsurface investigations and testing programs using test pits, hand augers, cone penetrometers, and various drilling techniques (air-rotary, mud-rotary, and hollow-stemmed augers). She is familiar with installation and maintenance of a wide range of geotechnical instrumentation and has provided construction observation and testing services for a variety of projects from landfills to high-rise buildings. Barb's background in engineering and construction projects has yielded practical solutions to a broad spectrum of geotechnical engineering challenges.

#### Michael P. Brady, LG

Mike is a Project Geologist with seven years of professional experience. He has been working predominantly on resource protection, remediation, monitoring, and resource development projects across the Pacific Northwest. Mike is a Licensed Geologist in Washington State and has performed numerous hydrogeologic investigations at Robinson Noble with applications of groundwater modeling, wellhead protection delineation, wellfield development and monitoring, and field testing and analysis. He is also an accomplished professional in environmental projects involving groundwater monitoring, soil remediation, remediation technology, and due-diligence and fee-to-trust applications within Phase I and Phase II Environmental Assessments. Mike is also an AHERA-certified asbestos building inspector.

#### Kari A. Thomas

Kari is a Project Geologist with over six years of experience in geotechnical engineering, industrial hygiene, materials, and environmental consulting fields. She is an experienced field team leader and field health and safety coordinator. Her work experience and formal education includes groundwater and soil sampling, Phase I and Phase II environmental site investigations, geotechnical and environmental drilling,

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asbestos and hazardous material building surveys, hazardous materials abatement oversight, indoor air quality and mold assessments, well installation, and construction monitoring. Kari also has experience working with wetlands management including groundwater elevation surveys, stream/channel flow, and sediment-loading studies.

#### Kevin H. Biersner, EIT, CESCL

Kevin is a Staff Engineer with experience in a wide variety of subsurface explorations and field evaluations. He performs geotechnical investigations and reconnaissance, as well as in situ and laboratory testing of soil. He is also licensed as a Certified Erosion and Sediment Control Lead (CESCL) to evaluate erosion control practices within a site.

#### Aaron C. Young

Aaron began his professional career with the Washington State Department of Natural Resources as a Natural Resources Scientist, where he developed skills in field reconnaissance and remote sensing techniques that were integral to a mapping effort of geologic hazards of coastal Thurston County. As a part of his undergraduate work, Aaron performed stream gaging, water quality sampling, and data compilation as a co-author of an ongoing multi-disciplinary investigation of the stream health of the Clover Creek watershed. Aaron joined Robinson Noble in 2007 as a Project Geologist and has an active role in all aspects of resource evaluation, well inspection and testing, water quality sampling, Phase I and Phase II Environmental Site assessments, and site remediation.

#### **Robinson Noble Clientele**

A selected list of Robinson Noble clients includes:

#### Federal/Tribal Agencies

US Army Corps of Engineers
US Fish and Wildlife Service
Bureau of Indian Affairs
Bureau of Reclamation
Environmental Protection Agency
Muckleshoot Indian Tribe
Puyallup Tribe of Indians
Makah Tribe

#### Washington State Agencies

Department of Ecology
Department of Health
Department of Corrections
Department of Fish & Wildlife
Department of Natural Resources

#### Local Governments/Municipalities

County Governments
City Governments
Wastewater Treatment Plants
Special-Purpose Districts
Public Utility Districts
County and City Health Departments

#### Corporations/Industries

Water Companies/Mutuals Special-Purpose Districts Port Authorities A&E Firms General Contractors Property Developers Banks

Robinson Noble has outstanding client references, and we welcome the opportunity to provide individual references from our projects.