GeoDesign Inc

CONSTRUCTION COMPLETION REPORT

Roshak Ridge
SW Roy Rogers Road and SW Bull Mountain Road
Tigard, Oregon
ECSI Site No. 5781

For
Polygon Northwest Company
May 2, 2019

GeoDesign Project: Polygon-113-03-03

GeoDesign INC

May 2, 2019

Oregon Department of Environment Quality
Northwest Region
700 NE Multnomah Street, Suite 600
Portland, OR 97232

Attention: Kevin Dana

Construction Completion Report
Roshak Ridge
SW Roy Rogers Road and SW Bull Mountain Road
Tigard, Oregon
ECSI Site No. 5781
GeoDesign Project: Polygon-113-03-03

GeoDesign, Inc. is pleased to submit this Construction Completion Report for the Roshak Ridge development located northeast of the intersection of SW Roy Rogers Road and SW Bull Mountain Road in Tigard, Oregon. This report summarizes earthwork within the context of previously documented impacts to soil and related conditions set forth in the DEQ-approved CMMP for the project site dated March 17, 2015. Specifically, this report details measures employed during handling and on-site management of impacted soil at the project site.

Sincerely,

GeoDesign, Inc.

Colby R. Hunt, C.H.M.M.
Principal

cc: Angela Grajewski, Polygon Northwest Company (via email only)
Fred Gast, Polygon Northwest Company (via email only)

KTH:CRH:kt
Attachments
One copy submitted
Document ID: Polygon-113-03-03-050219-envr-CCR.docx

TABLE OF CONTENTS **PAGE NO.**

ACRONYMS AND ABBREVIATIONS

BGS	below ground surface
CFSL	Clean Fill Screening Level
CMMP	Contaminated Media Management Plan
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethylene
DDT	dichlorodiphenyltrichloroethane
DEQ	Oregon Department of Environmental Quality
ECSI	Environmental Cleanup Site Information
ESA	Environmental Site Assessment
H:V	horizontal to vertical
mg/kg	milligrams per kilogram
NGVD	National Geodetic Vertical Datum
RBC	risk-based concentration
RCRA	Resource Conservation and Recovery Act
SLV	screening level value
UST	underground storage tank
VCP	Voluntary Cleanup Program

1.0 INTRODUCTION

This Construction Completion Report has been prepared by GeoDesign, Inc. on behalf of Polygon Northwest Company (Polygon) for the Roshak Ridge development located northeast of the intersection of SW Roy Rogers Road and SW Bull Mountain Road in Tigard, Oregon (project site). This report details measures employed for the handling and on-site management of impacted soil at the project site. The project site is shown relative to surrounding physical features on Figure 1. The project site layout and surrounding properties are shown on Figure 2. Elevations provided in this report are in NGVD 29 datum. Acronyms and abbreviations used herein are defined above, immediately following the Table of Contents.

2.0 PROJECT SITE DESCRIPTION

The project site encompasses approximately 36.4 acres northeast of the intersection of SW Roy Rogers Road and SW Bull Mountain Road in Tigard, Oregon. The project site was formerly developed with a single-story residential structure and associated driveway, a small outbuilding, a pump house, and agricultural land. An unnamed intermittent stream was present in a deeply incised channel on the north portion of the project site. The unnamed intermittent stream conveyed stormwater from a housing development adjacent east of the project site to a drainage ditch along the western boundary of the project site, on the east side of SW Roy Rogers Road.

Prior to the mass excavation, the topography of the project site sloped downwards towards the west, from 345 feet at the southeast portion of the project site to 274 feet near the western border of the project site. The project site includes Tax Lots 100, 101, 102, 103, 104, 105, and 106 in the northeast quarter of the northeast quarter of Section 7, Township 2 South, Range 1 West of the Willamette Meridian.

3.0 PROJECT SITE REDEVELOPMENT

Redevelopment of the project site includes construction of 166 single-family residences, 78 condominiums located adjacent to SW Roy Rogers Road, and associated utilities and roadways. The planned development also includes the creation of approximately 6 acres of parks and/or greenspaces, including a new stream bed and improved habitat for the intermittent stream that transects the project site and an approximately 2.4-acre public park near the center of the project site. The layout of the development is shown on Figure 2.

4.0 BACKGROUND

The findings and conclusions of the reports and documents listed below are summarized in the following sections:

- *Phase I Environmental Site Assessment and Limited Surface Soil Evaluation; Roshak Ridge; SW Roy Rogers Road and SW Bull Mountain Road; Tigard, Oregon*, prepared by GeoDesign, Inc., dated January 10, 2013
- Memorandum to DEQ *RE: Roshak Ridge, Request for DEQ Determination, Urban Residential Receptor*, prepared by GeoDesign, Inc., dated January 24, 2013

- *Report of Additional Surface Soil Sampling and Ecological Risk Screening; Roshak Ridge; SW Roy Rogers Road and SW Bull Mountain Road; Tigard, Oregon; DEQ ECSI Site No. 5781*, prepared by GeoDesign, Inc., dated November 20, 2013
- *Contaminated Media Management Plan; Roshak Ridge; SW Roy Rogers Road and SW Bull Mountain Road; Tigard, Oregon; DEQ ECSI Site No. 5781*, prepared by GeoDesign, Inc., dated March 17, 2015

4.1 GEODESIGN (JANUARY 10, 2013)

GeoDesign conducted a Phase I ESA and limited surface soil evaluation of the project site in January 2013. The results of the Phase I ESA indicated that the project site had been used for agricultural purposes from sometime between 1940 and 1963 through 2013. An incised drainage channel was present near the central portion of the project site. An ephemeral stream present in the drainage channel conveyed water from the eastern project site boundary to a drainage ditch adjacent to SW Roy Rogers Road along the western project site boundary.

Because residual pesticides and associated metals can accumulate in surface soil on agricultural land from routine pesticide applications, GeoDesign conducted a limited surface soil evaluation in general accordance with DEQ's *Guidance for Evaluating Residual Pesticides on Lands Formerly Used for Agricultural Production*, dated January 2006. The results of the limited surface soil evaluation indicated the following:

- Metals were not detected at concentrations greater than the corresponding DEQ CFSLs or the most conservative DEQ RBCs in surface soil samples collected from project site.
- Three organochlorine pesticides, including DDE, DDT, and dieldrin, were detected at concentrations greater than the corresponding DEQ CFSLs in soil samples collected between 0 and 3 feet BGS.
- Dieldrin was detected at concentrations greater than the corresponding DEQ *Soil Ingestion, Dermal Contact, and Inhalation* RBC for the residential receptor in 11 of 12 surface soil samples collected between 0 and 1 foot BGS. However, the detected concentrations of dieldrin in the surface soil samples collected between 0 and 1 foot BGS were less than the corresponding DEQ *Soil Ingestion, Dermal Contact, and Inhalation* RBC for the urban residential receptor.
- Organochlorine pesticides were not detected at concentrations greater than the most conservative DEQ RBCs in soil samples collected below 1 foot BGS.
- Organochlorine pesticides were not detected at concentrations greater than the most conservative DEQ RBCs in a sediment sample collected from the incised drainage channel present on the central portion of the project site.
- DDD, DDE, DDT, and/or dieldrin were detected in the sediment sample at concentrations greater than the corresponding DEQ Level II Ecological SLVs and/or DEQ CFSLs.

4.2 GEODESIGN (JANUARY 24, 2013)

GeoDesign submitted a memorandum to DEQ on January 24, 2013 requesting a determination from DEQ regarding the applicable exposure scenarios for the project site. The January 2013 memorandum was prepared following a collaborative meeting between representatives of Polygon, DEQ, and GeoDesign on January 14, 2013 and Polygon's submittal of a VCP Notice of Intent to Participate application to DEQ on January 21, 2013. As discussed during the

January 2013 meeting, the memorandum described that, in addition to increased development density, the condominium portions of the project site development would include urban development considerations as well as restrictions on the maintenance, use, and/or alterations of the condominium properties. Therefore, the condominium properties should be subject to an urban residential exposure scenario as opposed to a residential exposure scenario. DEQ indicated that the urban residential exposure scenario was appropriate for the condominium portion of the project site in a letter dated February 20, 2013.

4.3 GEODESIGN (NOVEMBER 2013)

GeoDesign conducted additional surface soil characterization and ecological risk screening at the project site in November 2013. The additional surface soil characterization and ecological risk screening were conducted in response to requests by DEQ during a September 2013 VCP kick-off meeting between representatives of DEQ, GeoDesign, and Polygon. Specifically, DEQ requested evaluating surface soil at the project site for the presence of organophosphorus pesticides, conducting an ecological risk screening of the project site by comparing existing sediment sample analytical results to DEQ Level II Ecological SLVs, evaluating beneficial surface water uses at the project site and west of the project site across SW Roy Rogers Road, and evaluating for the presence of potentially significant ecological habitat in the vicinity of the project site.

Organophosphorus pesticides were not detected at concentrations greater than the laboratory method reporting limits in surface soil samples collected from the project site. The results of the beneficial surface water use and significant ecological habitat evaluations indicated that beneficial surface water use in the study area was limited to irrigation of surrounding agricultural-use land and did not indicate the presence designated critical habitat or threatened, endangered, or candidate amphibian, reptile, or fish species in study area. While the ecological risk assessment indicated that the detected concentrations of some organochlorine pesticides in a sediment sample collected from the intermittent stream were greater than the corresponding DEQ Level II Ecological SLVs, the planned modifications to the stream channel and construction of the new stream bed as part of the planned development would mitigate potential risks to ecological receptors from on-site sediment exposure and the potential mobilization of impacted sediments.

4.4 GEODESIGN (2015)

GeoDesign prepared a CMMP for the project site in March 2015. The soil and sediment management procedures presented in the March 2015 CMMP described that because dieldrin was detected in soil at a concentration greater than the corresponding DEQ *Soil Ingestion, Dermal Contact, and Inhalation* RBC for residential receptors to a depth of up to 1 foot BGS, surface soil in the residential portions of the project site would be removed to a depth of 1 foot BGS. Surface soil in the common areas near the western and northern boundaries of the project site, where the applicable receptor scenario is urban residential, would be removed to a depth of 0.25 foot BGS, which was the planned depth of stripping during site preparation activities.

Because soil at the project site to a depth of 1 foot BGS contained residual organochlorine pesticides at concentrations greater than DEQ residential RBCs, soil excavated from between 0 and 1 foot BGS during site redevelopment would be interred in a cell beneath the park located near the center of the project site and capped with a minimum of 3 feet of clean fill. In addition, because soil to a depth of 3 feet BGS contained residual organochlorine pesticides at concentrations greater than DEQ CFSLs, soil between 1 foot and 3 feet BGS intended for off-site disposal would also be interred in the cell beneath the park located near the center of the project site and capped with a minimum of 3 feet of clean fill.

While the detected concentrations of DDD, DDE, DDT, and dieldrin in the sediment sample collected from the intermittent stream were greater than DEQ Level II Ecological SLVs and DEQ CFSLs, modifications to the stream channel and construction of the new stream bed as part of the planned development would mitigate potential risks to ecological receptors from on-site sediment exposure and the potential mobilization of impacted sediments. Because capping the marginally impacted sediments in place could be problematic from a geotechnical perspective, sediments in the existing stream channel would be excavated to a depth of 1 foot BGS, where present, and interred in the soil disposal cell beneath the park located near the center of the project site. DEQ approved the March 2015 CMMP in a letter dated April 2, 2015.

5.0 SUBSURFACE CONDITIONS

GeoDesign completed a geotechnical investigation of the project site in 2013 that included advancing 11 borings to depths up to 25.6 feet BGS, excavating 2 test pits to depths of up to 14.5 feet BGS, and advancing 6 hand auger borings to depths between 3.5 and 10.0 feet BGS. In general, subsurface conditions consist of native silt with varying amounts of sand to depths ranging between 7 and 19.5 feet BGS. The silt is underlain by silt and clay with varying amounts of sand and gravel, interpreted to be decomposed basalt, to depths ranging between 7 and 21.5 feet BGS. The decomposed basalt is underlain by sand, gravel, and cobbles, interpreted to be decomposed to weathered basalt, to the maximum depth explored of 25.6 feet BGS, where refusal was encountered in apparent competent basalt bedrock.

Groundwater seepage was encountered in three of the explorations at depths ranging between 4.5 and 16 feet BGS. The three explorations where groundwater was observed were located near the northwestern boundary of the project site in the vicinity of the existing intermittent stream, where topographical elevations are lowest.

6.0 SOIL MANAGEMENT

The following sections provide a summary of earthwork activities completed in general accordance with the CMMP. Photographs taken during earthwork activities are presented in Appendix A.

6.1 EARTHWORK ACTIVITIES

The earthwork activities described in the March 2015 CMMP were primarily completed between July 21, 2017 and September 27, 2018 and included stripping surface soil from the project site, excavating two on-site disposal cells, removing a minor amount of sediment from the incised

drainage channel, re-routing the intermittent stream, placing the surface soil and sediment in two on-site disposal cells, installing demarcation layers over the impacted soil and sediment in the disposal cells, and capping the disposal cells with a minimum of 3 feet of clean fill. Descriptions of the site earthwork activities are presented in the following sections.

6.1.1 Soil/Sediment Excavation and On-site Disposal

Soil and sediment excavation activities were generally completed between July 21 and August 24, 2017. Excavation of the park soil disposal cell and site stripping activities began on July 21, 2017. The earthwork contractor (Northwest Earthmovers, Inc.) began excavating the park soil disposal cell located in the center of the project site concurrent with stripping activities in the residential portion of the project site. Soil removed from the park disposal cell between 0 and 3 feet BGS and soil stripped from the residential portion of the project site was temporarily stockpiled west of the park disposal cell. Clean fill removed from the park disposal cell below 3 feet BGS was temporarily stockpiled in the previously stripped residential area east of the park disposal cell.

The park disposal cell is approximately 585 feet long and approximately 150 feet wide. Prior to excavation, the ground surface elevation at the location of the park disposal cell ranged from 290 to 320 feet. The elevation of the bottom of the park disposal cell ranges from approximately 280 to 310 feet. The planned elevation of the lowest portion of the park disposal cell was 275 feet; however, competent bedrock was encountered at an approximate elevation of 280 feet during excavation of the park disposal cell. In order to meet the requirements of the CMMP, the lowest portion of the park disposal cell was backfilled with 1.5 feet of clean fill that had been previously removed from the park disposal cell excavation.

Stripping of the residential portion of the project site and removal of a minor amount of sediment from the deeply incised stream channel were primarily completed by August 24, 2017. To minimize the likelihood of having to make multiple passes with the scraper during stripping activities, and as a conservative measure, the actual stripping depth in the residential portion ranged from 1.5 to 2 feet BGS. Soil stripped from the residential portion was either placed directly into the park disposal cell or was temporarily stockpiled on site in general accordance with the CMMP. Because the actual stripping depth in the residential portion was greater than the 1-foot planned depth, and because the park disposal cell was shallower than anticipated, the contractor anticipated that the park disposal cell would have insufficient volume to inter all of the soil stripped from the project site that contained residual pesticides at concentrations greater than DEQ CFSLs. Therefore, the earthwork contractor excavated a second disposal cell beneath the western-most track of condominiums to accommodate soil and sediment that could not be placed in the park disposal cell.

The condominium disposal cell is approximately 810 feet long and approximately 60 feet wide. Prior to excavation, the ground surface elevation at the location of the condominium disposal cell ranged from approximately 274 to 280 feet. The elevation of the bottom of the condominium disposal cell ranges from approximately 265 to 273 feet. During excavation of the condominium disposal cell, soil from between 0 and 3 feet BGS was placed in the park disposal cell and soil below 3 feet BGS was stockpiled on site for future use as cap material.

A total of approximately 25,000 and 12,000 bank cubic yards of soil were placed in the park disposal cell and the condominium disposal cell, respectively. The locations of the park disposal cell and condominium disposal cell are shown on Figure 2. Cross sections of the park disposal cell are presented on Figures 3 through 5. A cross section of the condominium disposal cell is presented on Figure 6.

6.1.2 Intermittent Stream

The intermittent stream was rerouted approximately 120 feet north of its former location by constructing a conveyance swale at the point where the intermittent stream enters the eastern boundary of the project site. The conveyance swale directs surface water north approximately 50 feet to a water quality swale intended to improve water quality entering the project site from the housing development to the east. From the water quality swale, the new channel for the intermittent stream extends approximately 60 feet further north before turning to the west and meandering through a new greenspace on the northern-most portion of the project site before discharging to the drainage ditch along the western boundary of the project site, on the east side of SW Roy Rogers Road.

The main channel of the new stream bed is approximately 7 feet wide and lined with gravel (river rock), with some larger cobbles, boulders, and logs placed at four locations to create ponding effects. The stretches of the main channel of the new stream bed immediately downstream of the logs are underlain with Class 200 riprap to minimize erosion during high water events. While the main channel of the new stream bed is designed to accommodate two-year storm events, 4H:1V slopes extend up to 59 feet in the greenspace on both sides of the main channel that are designed to accommodate more than a 100-year storm event. The new stream bed will be revegetated with native plants and shrubs, including coastal willow, honeysuckle, and pacific ninebark, as well as native trees including pacific willow, dogwood, Oregon ash, Oregon crabapple, Sitka spruce, and western red cedar.

The location of the new stream bed is shown on Figure 2 and photographs of the stream bed are presented in Appendix A. Profiles and cross sections of the new stream bed are depicted on Sheets 13.2 and 13.3, presented in Appendix B. The planting plan for the new stream bed is depicted on Sheet L8.01, also presented in Appendix B.

6.1.3 Demarcation Layer

Prior to placement of the clean fill caps, the earthwork contractor placed demarcation fabric over each of the disposal cells. The demarcation fabric consists of a gray, non-woven, polypropylene geotextile fabric (DuPont SF 20). Because the surface of the park disposal cell slopes steeply to moderately downwards from east to west, orange polypropylene safety fencing (Protex) was installed overlying the demarcation fabric in the park disposal cell to stabilize the overlying clean fill cap. Specification sheets for DuPont SF 20 and Protex are presented in Appendix C.

6.1.4 Clean Fill Cap

Between September 9 and 26, 2018, protective caps consisting of a minimum of 3 feet of clean fill were placed over the park disposal cell and the condominium disposal cell. The material for the clean fill caps included on-site soil excavated from below 3 feet BGS and imported clean fill material (discussed further in Section 6.2). Because the elevations of the demarcation fabric were

not surveyed prior to placement of the protective caps, GeoDesign advanced six hand auger borings on the park disposal cell (HA-1 through HA-6) and five hand auger borings on the condominium disposal cell (HA-7 through HA-11) to provide access to the demarcation layer for surveying purposes. A surveyor with Northwest Earthmovers, Inc. surveyed the demarcation fabric elevations at the locations of the 11 hand auger borings. The locations of hand auger borings HA-1 though HA-11 are shown on Figure 2. The final elevations of the clean fill caps, the surveyed elevations of the demarcation fabric, the cap thickness, and boring locations are presented in Table 1.

Table 1. Cap Thickness

Boring Number	Final Cap Surface Elevation	Demarcation Fabric Elevation	Cap Thickness (feet)	Boring Locations (Latitude, Longitude)
HA-1	327.26	323.34	3.92	45.41565, -122.84955
HA-2	309.54	302.04	7.50	45.41571, -122.84960
HA-3	313.21	308.04	5.17	45.41596, -122.84936
HA-4	321.84	317.59	4.25	45.41643, -122.84924
HA-5	304.11	298.78	5.33	45.41664, -122.84953
HA-6	299.92	292.71	7.21	45.41629, -122.84970
HA-7	276.22	271.93	4.29	45.41727, -122.85135
HA-8	278.35	273.12	5.23	45.45659, -122.85139
HA-9	279.30	274.18	5.12	45.41615, -122.85133
HA-10	280.24	275.84	4.40	45.41586, -122.85135
HA-11	282.01	276.26	5.75	45.41553, -122.85131

6.2 IMPORTED FILL MATERIAL

To obtain sufficient clean fill for the protective caps and to bring portions of the project site to planned grades, approximately 2,600 cubic yards of clean fill were imported to the project site from Polygon's "River Terrace East No. 2" project located approximately 0.5 mile north of the project site at the southeast corner of the intersection of SW Scholls Ferry Road and SW Roy Rogers Road. GeoDesign conducted a Phase I ESA and limited surface soil evaluation of the River Terrace East No. 2 site in 2015. At the time of the 2015 Phase I ESA and limited surface soil evaluation, the River Terrace East No. 2 site consisted of approximately 37 acres of agricultural land, including five associated residences, several outbuildings, and some forested areas.

The results of the Phase I ESA indicated that the River Terrace East No. 2 site had been used for agricultural purposes from at least 1934 through 2015. Except for the former agricultural use and the presence of two heating oil USTs associated with two of the five on-site residences, the results of the Phase I ESA did not indicate the presence of recognized environmental conditions at the River Terrace East No. 2 site.

The limited surface soil evaluation included analyzing surface soil samples (0 to 0.5 foot BGS) collected from 14 composite sampling areas in the agricultural-use portions of the River Terrace East No. 2 site. DDT and chlordane were detected at concentrations greater than the

corresponding DEQ CFSLs in 1 of the 14 composite surface soil samples analyzed [Comp-1(0.0-0.5)]. However, the average concentrations of DDT and chlordane in the 14 composite surface soil samples were less than the corresponding DEQ CFSLs. Three agricultural metals, including antimony, cadmium, and selenium, were detected at concentrations greater than the corresponding DEQ CFSLs in 1 of the 14 composite surface soil samples analyzed [Comp-10(0.0-0.5)]. While the average concentrations of cadmium and selenium in the 14 composite surface soil samples were less than the corresponding DEQ CFSLs, the average concentration of antimony (0.71 mg/kg) slightly exceeded the corresponding DEQ CFSL (0.56 mg/kg). The report stated that soil represented by composite surface soil sample Comp-10(0.0-0.5) should be disposed of at a RCRA Subtitle D landfill and that the remainder of the surface soil at the River Terrace East No. 2 site could be managed as clean fill. The 2015 Phase I ESA and Limited Surface Soil Evaluation report is presented in Appendix D.

7.0 FINAL COVER

In addition to small yards associated with the individual condominiums and homes, the completed development will include approximately 16 percent (6 acres) of softscapes, including the park located near the center of the project site and the open spaces associated with the new stream bed on the northern portion of the project site. The remaining 84 percent of the project site (30.4 acres), including the condominium disposal cell, will be covered with hardscapes, including residences, paved roadways, and concrete sidewalks.

8.0 INSTITUTIONAL CONTROLS

An institutional control in the form of an Easement and Equitable Servitude will be prepared and recorded in the real property records of the County. The Easement and Equitable Servitude will restrict disturbance to caps located at the two disposal cells. The Easement and Equitable Servitude will likely restrict future excavating, drilling, scraping, or erosion that may penetrate the caps or jeopardize the caps' protective functions as engineering controls. A Cap Inspection and Maintenance Plan should be prepared for the project site and annual inspection and maintenance should be conducted by Polygon or their environmental consultants.

9.0 CONCLUSIONS

The management of soil generated during redevelopment activities was completed in general accordance with the objectives set forth in the CMMP dated March 17, 2015. During mass excavation approximately 36,000 compacted cubic yards of surface soil containing organochlorine pesticides at concentrations greater than the corresponding DEQ CFSLs and/or DEQ residential RBCs for *Soil Ingestion, Dermal Contact, and Inhalation* were interred in two on-site disposal cells, including a disposal cell beneath a park located near the center of the project site and a disposal cell located beneath the western-most tract of condominiums near the western boundary of the project site. While the concentrations of organochlorine pesticides do not pose a risk to future urban residential occupants or to future park users, both cells were covered with a minimum of 3 feet of clean fill as a conservative measure.

In addition to the conservative soil management measures employed during redevelopment, the intermittent stream located in a deeply incised channel was rerouted to a new stream bed and associated greenspace on the northern-most portion of the project site. The new stream bed and associated greenspace include logs to create ponding effects and the planting of native vegetation in and around surrounding the stream.

Based on the redevelopment of the project site in general accordance with the DEQ-approved CMMP dated March 17, 2015, GeoDesign respectfully requests that DEQ issue a conditional No Further Action determination for ECSI No. 5781.

♦ ♦ ♦

We appreciate the opportunity to provide this information. Please call if you have questions regarding this report.

Sincerely,

GeoDesign, Inc.

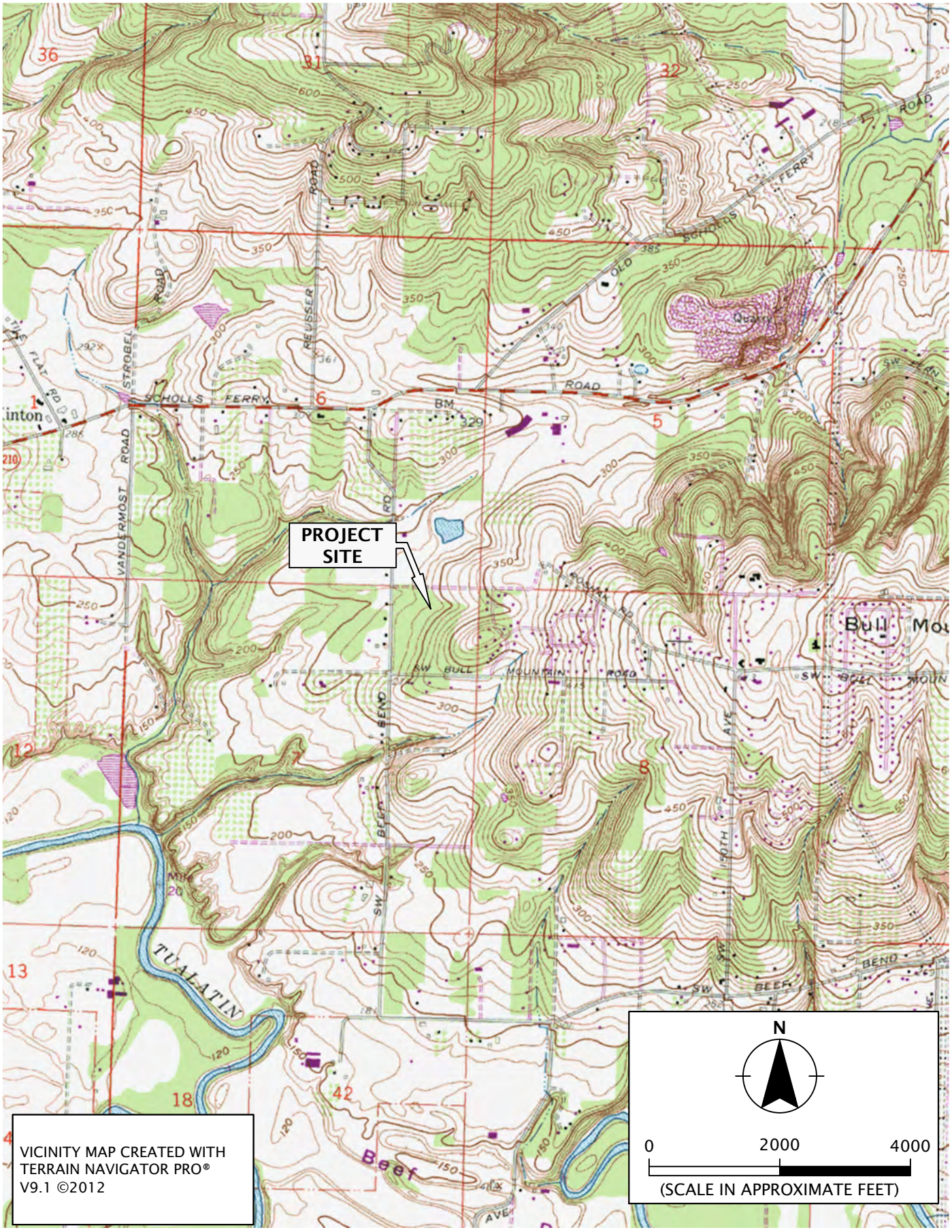
Kyle Haggart, G.I.T.
Environmental Staff

Colby R. Hunt, C.H.M.M.
Principal

Lon R. Yandell, R.G.
Principal Geologist

Expires 06/01/2019

FIGURES



GEODESIGN INC 9450 SW Commerce Circle - Suite 300 Wilsonville OR 97070 503.968.8787 www.geodesigninc.com	POLYGON-113-03-03	**VICINITY MAP**
	MAY 2019	ROSHAK RIDGE TIGARD, OR
		FIGURE 1

Printed By: mmiller | Print Date: 5/2/2019 7:58:23 AM
File Name: J:\M-R\Polygon\Polygon-113\Polygon-113-03\Polygon-113-03-03 CCR\Figures\CAD\Polygon-113-03-03-VM01.dwg | Layout: FIGURE 1

LEGEND:

- DISPOSAL CELL BOUNDARY
- HA-1 HAND AUGER BORING (GEODESIGN 2018)
- A A' CROSS SECTION

N

0 150 300

(SCALE IN FEET)

SITE PLAN BASED ON IMAGE OBTAINED FROM PACIFIC COMMUNITY DESIGN

SITE PLAN

ROSHAK RIDGE
TIGARD, OR

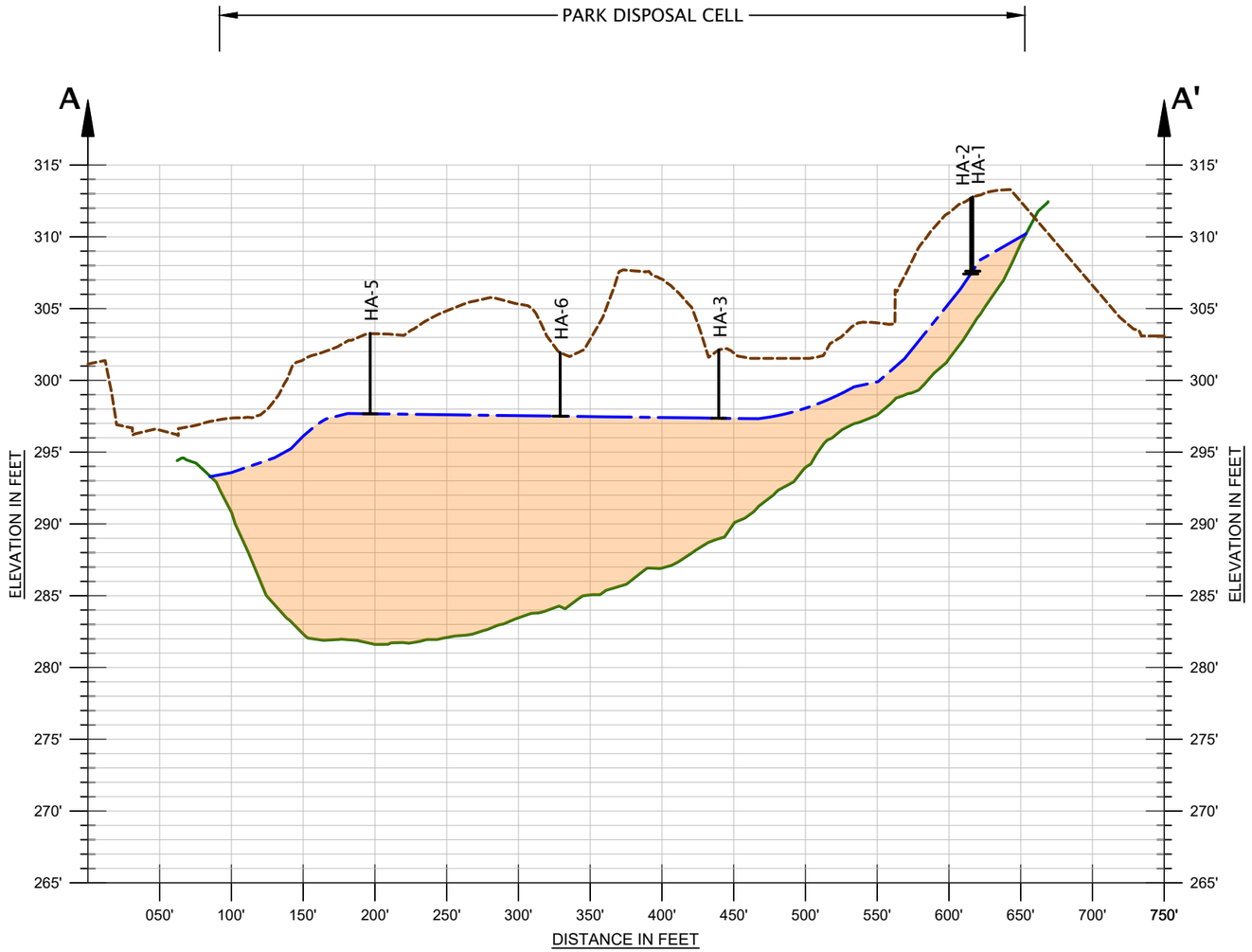
FIGURE 2

POLYGON-113-03-03

MAY 2019

GEODESIGN INC
9450 SW Commerce Circle - Suite 300
Wilsonville OR 97070
503.968.8787 www.geodesigninc.com

Printed By: mmiller | Print Date: 5/2/2019 7:58:30 AM
File Name: J:\M-R\Polygon\Polygon-113\Polygon-113-03\Polygon-113-03-03 CCR\Figures\CAD\Polygon-113-03-03-SP01.dwg | Layout: FIGURE 2



LEGEND:

- FINAL GRADE PROFILE
- APPROXIMATE LOCATION OF DEMARCATION LAYER
- APPROXIMATE LOCATION OF CONTAMINATED SOIL
- SUBGRADE PROFILE
- HAND AUGER BORING

0 10 20
(VERTICAL SCALE IN FEET)

0 100 200
(HORIZONTAL SCALE IN FEET)

CROSS SECTION A-A'

ROSHAK RIDGE
TIGARD, OR

FIGURE 3

POLYGON-113-03-03

MAY 2019

GEODESIGN INC
9450 SW Commerce Circle - Suite 300
Wilsonville OR 97070
503.968.8787 www.geodesigninc.com

Printed By: mmiller | Print Date: 5/2/2019 7:58:32 AM
File Name: J:\M-R\Polygon\Polygon-113\Polygon-113-03\Polygon-113-03-03 CCR\Figures\CAD\Polygon-113-03-03-CS06.dwg | Layout: FIGURE 3

PARK DISPOSAL CELL

B

B'

HA-5

HA-4

315'
310'
305'
300'
295'
290'
285'
280'
275'

ELEVATION IN FEET

050'
100'
150'
200'
250'
275'

DISTANCE IN FEET

LEGEND:

- FINAL GRADE PROFILE
- APPROXIMATE LOCATION OF DEMARCATION LAYER
- APPROXIMATE LOCATION OF CONTAMINATED SOIL
- SUBGRADE PROFILE
- HAND AUGER BORING

0 10 20
(VERTICAL SCALE IN FEET)

0 20 40
(HORIZONTAL SCALE IN FEET)

CROSS SECTION B-B'

FIGURE 4

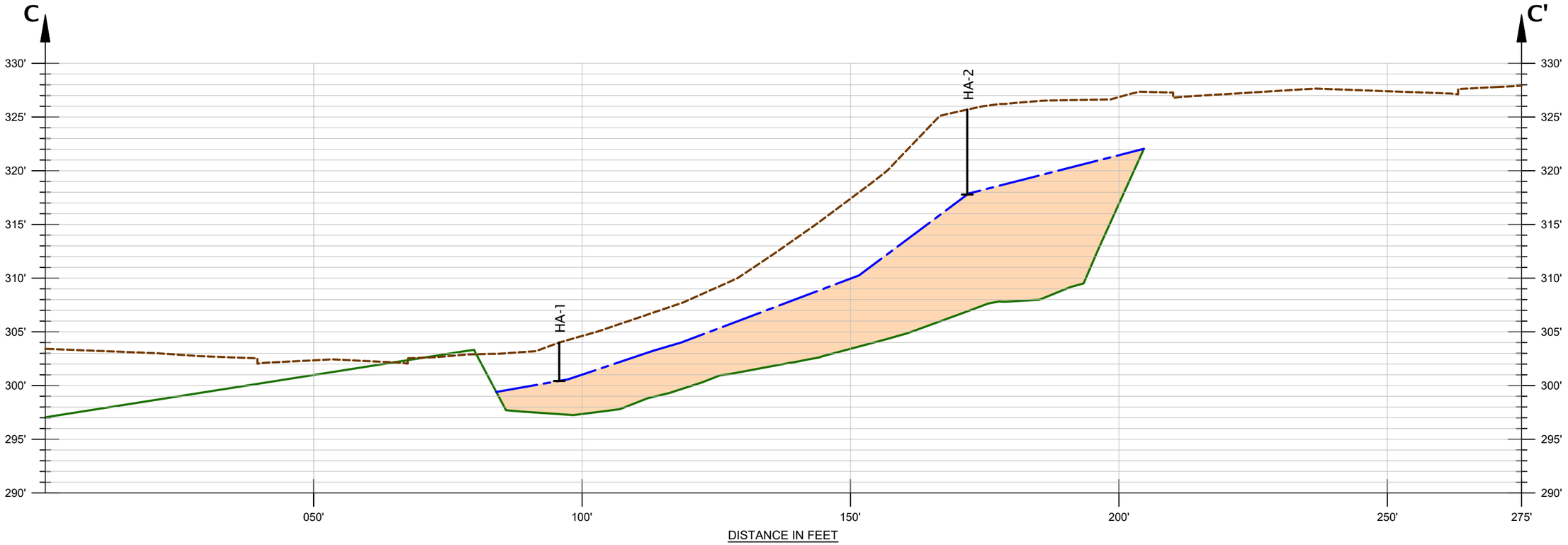
ROSHAK RIDGE
TIGARD, OR

POLYGON-113-03-03

MAY 2019

GEODESIGN INC
9450 SW Commerce Circle - Suite 300
Wilsonville OR 97070
503.968.8787 www.geodesigninc.com

Printed By: mmiller | Print Date: 5/2/2019 7:58:33 AM
File Name: J:\M-R\Polygon\Polygon-113\Polygon-113-03\Polygon-113-03-03 CCR\Figures\CAD\Polygon-113-03-03-CS06.dwg | Layout: FIGURE 4



LEGEND:

- FINAL GRADE PROFILE
- APPROXIMATE LOCATION OF DEMARCATION LAYER
- APPROXIMATE LOCATION OF CONTAMINATED SOIL
- SUBGRADE PROFILE
- HAND AUGER BORING

0 10 20
(VERTICAL SCALE IN FEET)

0 20 40
(HORIZONTAL SCALE IN FEET)

CROSS SECTION C-C'

FIGURE 5

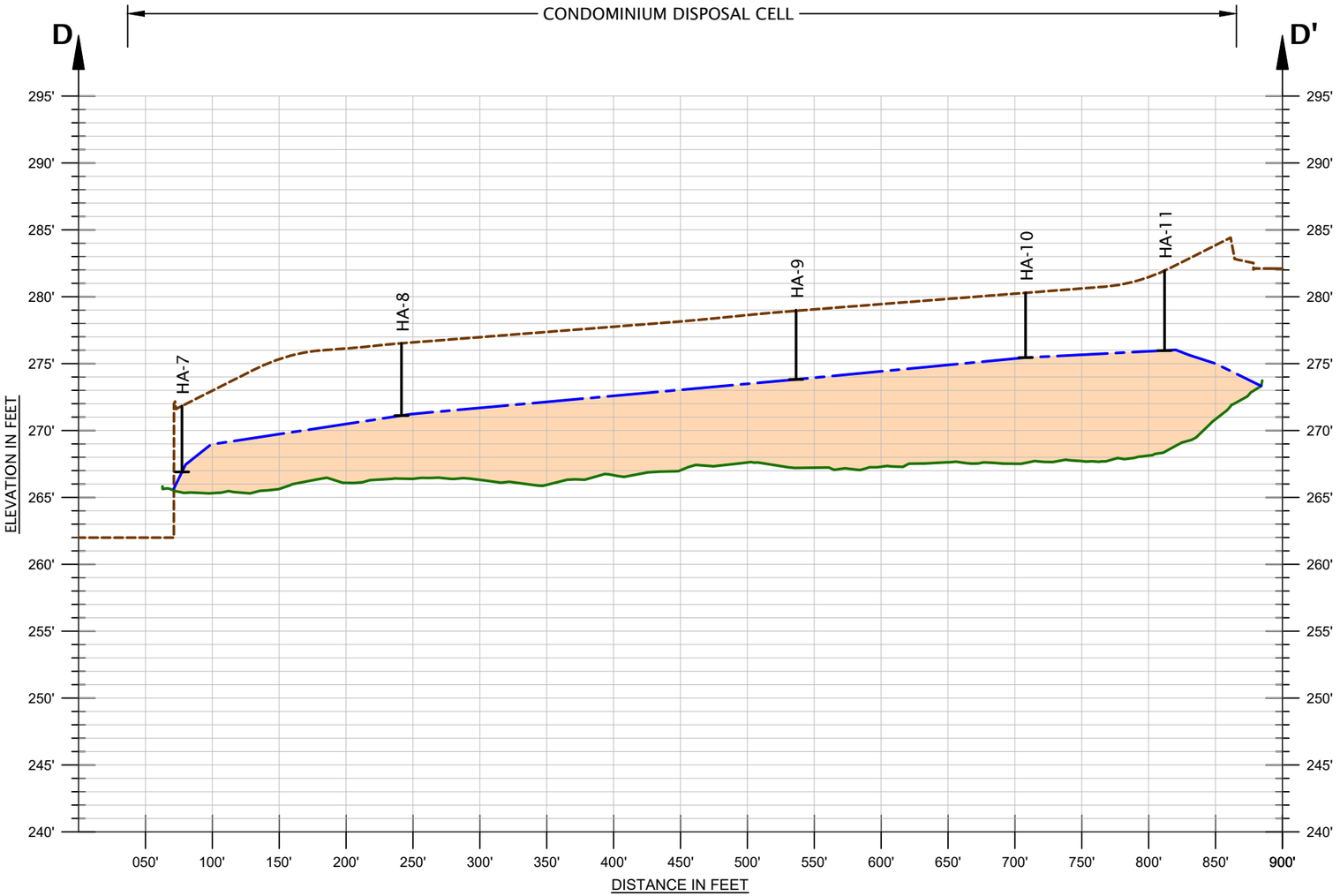
ROSHAK RIDGE
TIGARD, OR

POLYGON-113-03-03

MAY 2019

GeoDesign Inc
9450 SW Commerce Circle - Suite 300
Wilsonville OR 97070
503.968.8787 www.geodesigninc.com

Printed By: mmiller | Print Date: 5/2/2019 7:58:34 AM
File Name: J:\M-R\Polygon\Polygon-113\Polygon-113-03\Polygon-113-03-03 CCR\Figures\CAD\Polygon-113-03-03-CS06.dwg | Layout: FIGURE 5



LEGEND:

- FINAL GRADE PROFILE
- APPROXIMATE LOCATION OF DEMARCATION LAYER
- APPROXIMATE LOCATION OF CONTAMINATED SOIL
- SUBGRADE PROFILE
- HAND AUGER BORING

0 10 20
(VERTICAL SCALE IN FEET)

0 100 200
(HORIZONTAL SCALE IN FEET)

CROSS SECTION D-D'

FIGURE 6

ROSHAK RIDGE
TIGARD, OR

POLYGON-113-03-03

MAY 2019

GEODESIGN NW
9450 SW Commerce Circle - Suite 300
Wilsonville OR 97070
503.968.8787 www.geodesigninc.com

Printed By: mmiller | Print Date: 5/2/2019 7:58:35 AM
File Name: J:\M-R\Polygon\Polygon-113\Polygon-113-03\Polygon-113-03-03 CCR\Figures\CAD\Polygon-113-03-03-CS06.dwg | Layout: FIGURE 6

APPENDIX A

INITIAL GRADING OF THE WESTERN PORTION OF THE PROJECT SITE USING SCRAPPERS AND BULLDOZERS. PHOTOGRAPH TAKEN FACING WEST.

EXCAVATION OF THE PARK DISPOSAL CELL USING SCRAPPERS. PHOTOGRAPH TAKEN FACING SOUTHWEST.

GEODESIGN INC
9450 SW Commerce Circle - Suite 300
Wilsonville OR 97070
503.968.8787 www.geodesigninc.com

POLYGON-113-03-03	**PROJECT SITE PHOTOGRAPHS**	
MAY 2019	ROSHAK RIDGE TIGARD, OR	**FIGURE A-1**

GRADING OF THE NORTHERN PORTION OF THE PROJECT SITE. PHOTOGRAPH TAKEN FACING NORTH.

EXCAVATION OF THE CONDOMINIUM DISPOSAL CELL. PHOTOGRAPH TAKEN FACING SOUTHWEST.

GEODESIGN INC
9450 SW Commerce Circle - Suite 300
Wilsonville OR 97070
503.968.8787 www.geodesigninc.com

POLYGON-113-03-03	**PROJECT SITE PHOTOGRAPHS**	
MAY 2019	ROSHAK RIDGE TIGARD, OR	**FIGURE A-2**

DEMARCATION LAYER BEING INSTALLED ON THE SLOPES OF THE PARK DISPOSAL CELL. PHOTOGRAPH TAKEN FACING SOUTH.

DEMARCATION LAYER AT THE CONDOMINIUM DISPOSAL CELL. PHOTOGRAPH TAKEN EAST.

GEODESIGN INC
9450 SW Commerce Circle - Suite 300
Wilsonville OR 97070
503.968.8787 www.geodesigninc.com

POLYGON-113-03-03	**PROJECT SITE PHOTOGRAPHS**	
MAY 2019	ROSHAK RIDGE TIGARD, OR	**FIGURE A-3**

PARK DISPOSAL CELL DEMARCATION LAYERS. PHOTOGRAPH TAKEN FACING NORTH.

PLACING FILL ABOVE THE DEMARCATION LAYER OF THE PARK DISPOSAL CELL. PHOTOGRAPH TAKEN FACING NORTH.

GEODESIGN INC
9450 SW Commerce Circle - Suite 300
Wilsonville OR 97070
503.968.8787 www.geodesigninc.com

POLYGON-113-03-03	**PROJECT SITE PHOTOGRAPHS**	
MAY 2019	ROSHAK RIDGE TIGARD, OR	**FIGURE A-4**

FINAL GRADE OF THE CONDOMINIUM DISPOSAL CELL. PHOTOGRAPH TAKEN FACING SOUTH.

FINAL GRADE OF THE PARK DISPOSAL CELL. PHOTOGRAPH TAKEN FACING NORTHWEST.

GEODESIGN INC
9450 SW Commerce Circle - Suite 300
Wilsonville OR 97070
503.968.8787 www.geodesigninc.com

POLYGON-113-03-03	**PROJECT SITE PHOTOGRAPHS**	
MAY 2019	ROSHAK RIDGE TIGARD, OR	**FIGURE A-5**

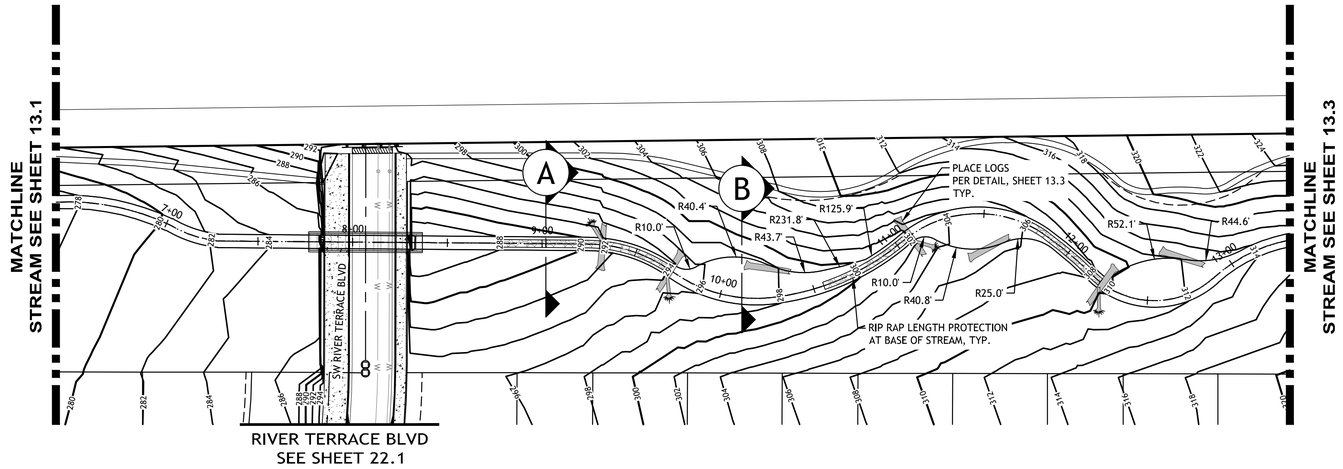
EASTERN PORTION OF REALIGNED STREAM BED. PHOTOGRAPH TAKEN FACING EAST.

WESTERN PORTION OF REALIGNED STREAM BED. PHOTOGRAPH TAKEN FACING WEST.

GEODESIGN INC
9450 SW Commerce Circle - Suite 300
Wilsonville OR 97070
503.968.8787 www.geodesigninc.com

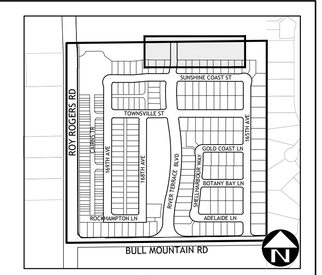
POLYGON-113-03-03	**PROJECT SITE PHOTOGRAPHS**	
MAY 2019	ROSHAK RIDGE TIGARD, OR	**FIGURE A-6**

APPENDIX B

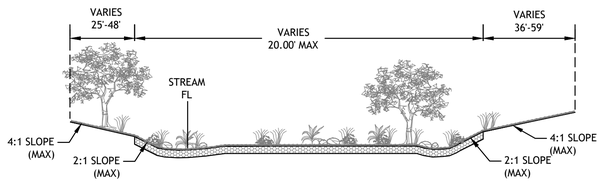


STREAM PLAN

HORIZ SCALE: 1" = 40'

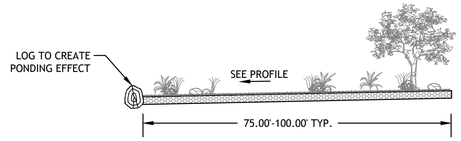


KEY MAP



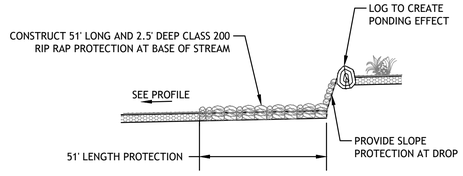
B TYPICAL MEANDER SECTION

NTS



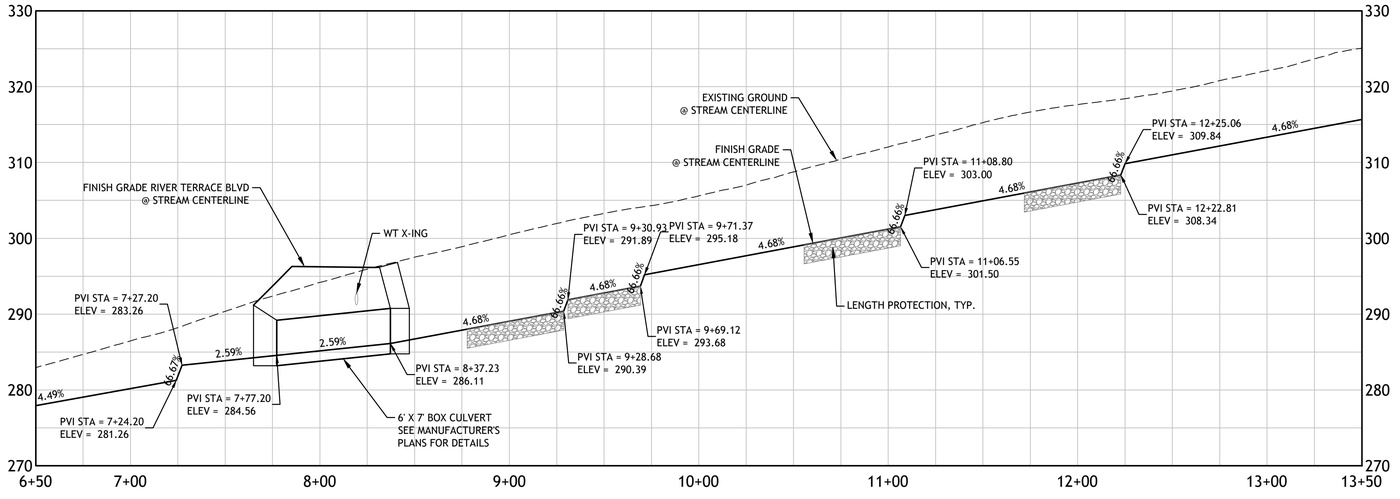
TYPICAL STILLING BASIN PROFILE

NTS



TYPICAL DROP & LENGTH PROTECTION PROFILE

NTS



STREAM PROFILE

HORIZ SCALE: 1" = 40', VERT SCALE: 1" = 10'

ELEVATION DATUM: NGVD 29

SCALE
40 0 20 40
1 INCH = 40 FEET

N:\proj\395-010\09 Drawings\04 Civil\Sheets - CD Submittal\395010_[13] SD-STREAM.dwg - SHEET: 13.2 Mar. 29, 18 - 11:06 AM rebecca

River Terrace

POLYGON NW COMPANY

Pacific Community Design

GEODESIGN, INC

REVISIONS

DATE	DESCRIPTION

REGISTERED PROFESSIONAL ENGINEER
83236PE
OREGON
June 7, 2012
JESSIE J. KING

EXPIRES: 06-30-19

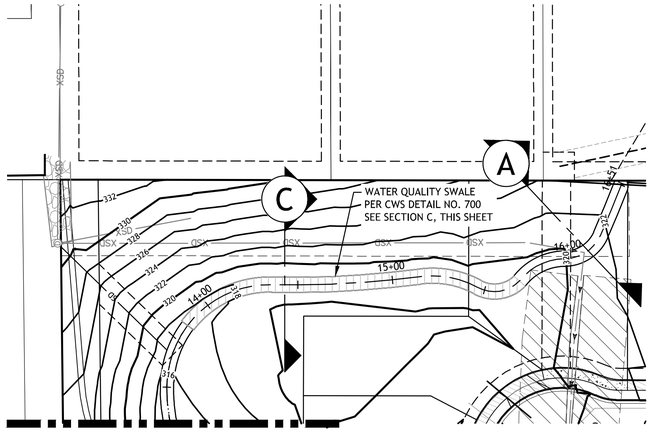
Polygon at Roshak Ridge

Construction Documents

PROPOSED STREAM PLAN & PROFILE

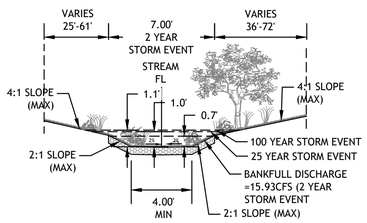
CITY SUBMITTAL	3/29/2018
WACO SG SUBMITTAL	1/11/2018
WACO FP SUBMITTAL	3/22/2018

13.2



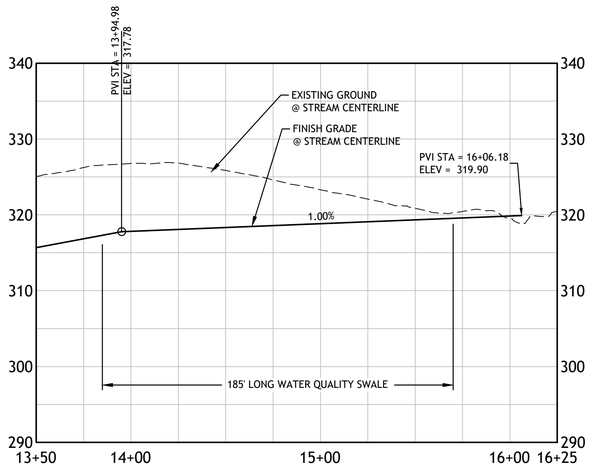
STREAM PLAN

HORIZ SCALE: 1" = 40'



A TYPICAL STREAM SECTION

NTS



STREAM PROFILE

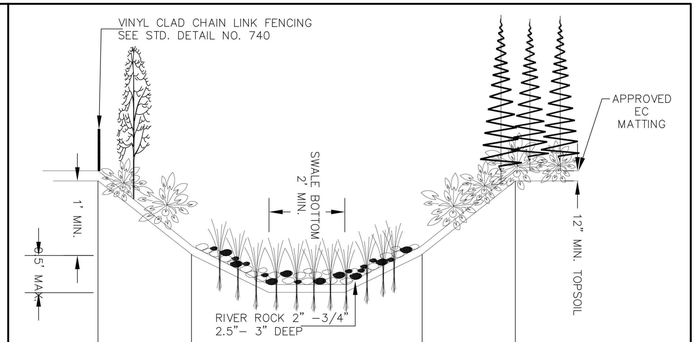
HORIZ SCALE: 1" = 40', VERT SCALE: 1" = 10'

DRAWING NO. 700

WATER QUALITY SWALE

REVISED 12-06

CleanWater Services



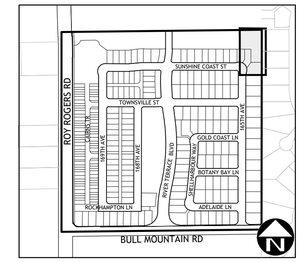
SWALE AREA	FREEBOARD AREA	TREATMENT AREA 6' MINIMUM WIDTH			FREEBOARD AREA	BUFFER/MITIGATION AREA
EC MATTING	ECONOJUTE*	COCONUT FIBER OR GEOJUTE PLUS*			ECONOJUTE*	ECONOJUTE* (S> 20%)
SEED MIX	LOW GROW MIX SEE NOTE #5	NONE			LOW GROW MIX SEE NOTE #5	AS APPROVED BY DISTRICT OR CITY
MAX. SLOPE	2.5:1	4:1	FLAT BOTTOM	4:1	2.5:1	NA

* OR AS APPROVED

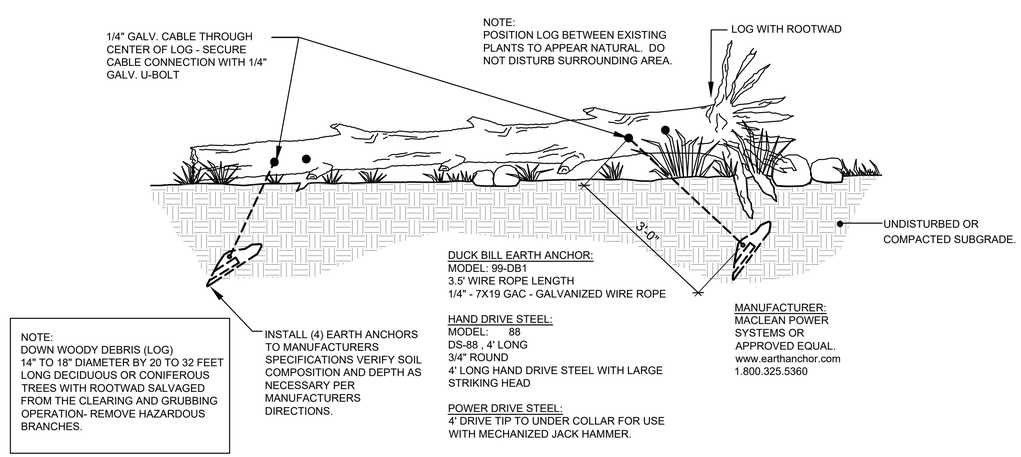
NOTES:
1. REFER TO APPENDIX A, CWS DESIGN & CONSTRUCTION STANDARDS, FOR LANDSCAPING REQUIREMENTS INCLUDING TREE PLACEMENT, TOPSOIL AND PLANTING SPECIFICATIONS.
2. PROVIDE IRRIGATION AS APPROVED BY CWS.
3. JUTE MATTING- GEOJUTE PLUS IN TREATMENT AREA, ECONOJUTE FOR ALL OTHER AREAS, OR SIMILIAR FABRICS. COCONUT FIBER IS ALSO ACCEPTABLE.
4. 12-INCHES OF TOPSOIL SHALL BE PLACED THROUGHOUT THE WATER QUALITY TRACT.
5. FREEBOARD AREA SEED MIX, DWARF TALL FESCUE 40%, DWARF PERENIAL RYE 30%, CREEPING RED FESCUE 25%, COLONIAL BENT GRASS 5%. APPLY AT A RATE OF 120# / ACRE.

C WATER QUALITY SWALE

NTS



KEY MAP



LOG PLACEMENT ON GROUND

NTS

SCALE
40 0 20 40
1 INCH = 40 FEET

ELEVATION DATUM: NGVD 29

N:\proj\395-010\09 Drawings\04 Civil\Sheets - CD Submittal\395010(13) SD-STREAM.dwg - SHEET: 13.3 Mar. 29, 18 - 11:06 AM rebecca

River Terrace

POLYGON NW COMPANY

Pacific Community Design

GEODESIGN, INC

REVISIONS
DATE DESCRIPTION

REGISTERED PROFESSIONAL ENGINEER
83236PE
OREGON
June 7, 2013
JESSIE J. KING
EXPIRES: 06-30-19

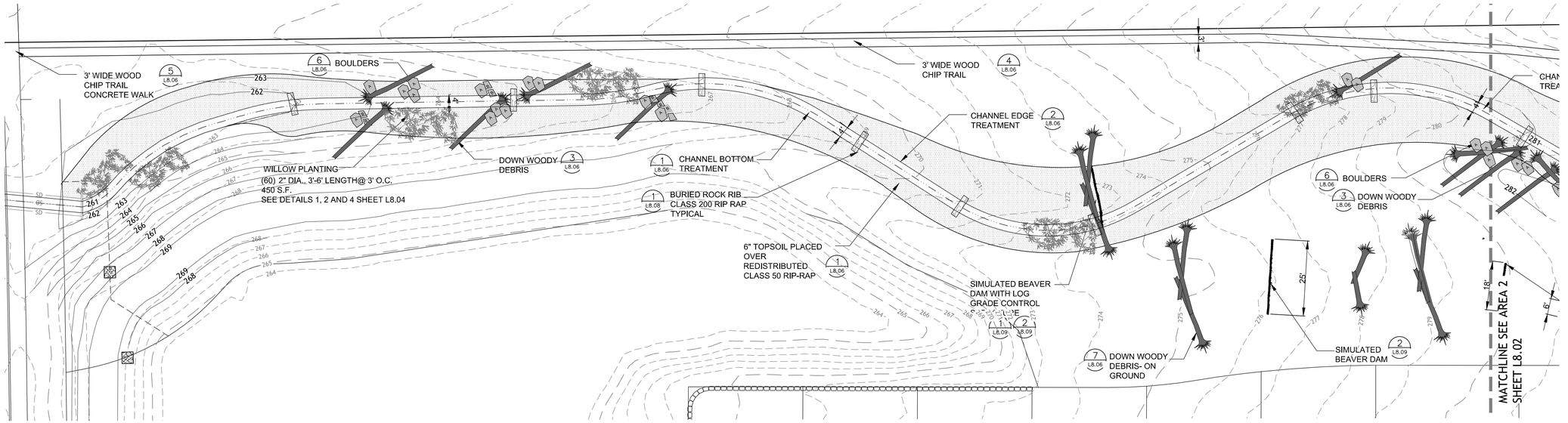
Polygon at Roshak Ridge

Construction Documents

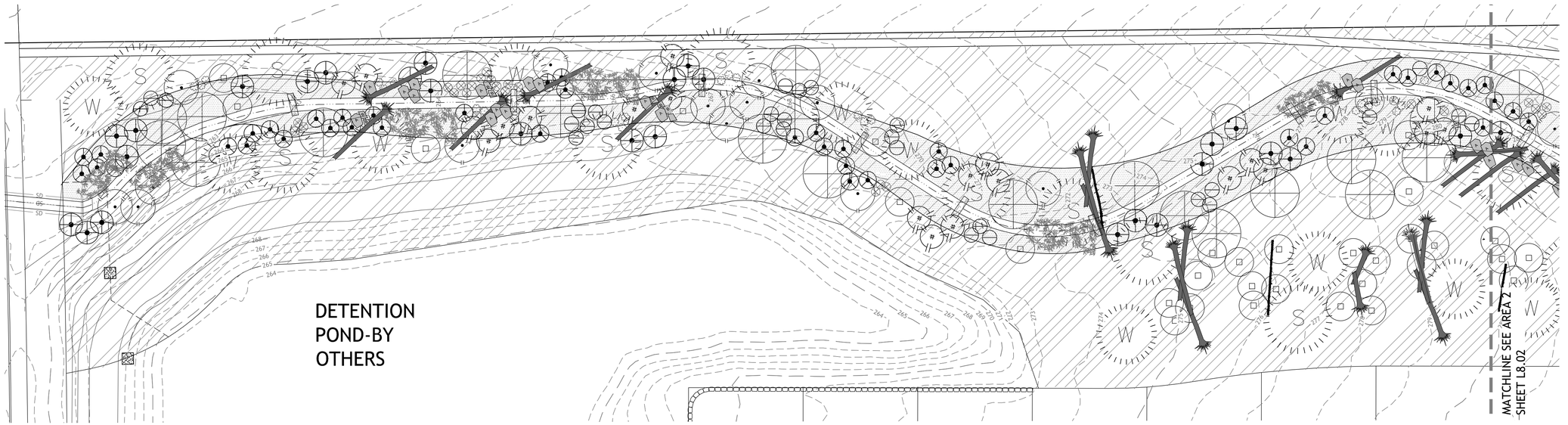
PROPOSED STREAM PLAN & PROFILE

CITY SUBMITTAL	3/29/2018
WACO SG SUBMITTAL	1/11/2018
WACO FP SUBMITTAL	3/22/2018

13.3



1 STREAM - LAYOUT PLAN AREA 1



2 STREAM - PLANTING PLAN AREA 1

LEGEND

- 1 L8.06 CLASS 50 RIP-RAP REDISTRIBUTE TO CREATE 4' WIDE BY 6" DEEP CHANNEL
- 1 L8.06 6" OF TOPSOIL COVERING CLASS 50 RIP RAP
- 2 L8.06 CLASS 200 RIP-RAP REDISTRICTED TO CREATE CHANNEL EDGE
- 1 L8.05 CLASS 200 ROCK REDISTRIBUTED AS BURIED ROCK RIBS
- 6 L8.06 BOULDERS- RANDOM PLACEMENT VERIFY PLACEMENT WITH LANDSCAPE ARCHITECT
- WILLOW CUTTINGS PACIFIC WILLOW (SALIX LUCIDA) OR APPROVED EQUAL 2" DIA., 3'-6' LENGTH@ 3' O.C. SEE DETAILS 1, 2 AND 4 SHEET L8.04
- 3 L8.06 7 L8.06 DOWN WOODY DEBRIS WITH ROOTWADS 14" TO 18" DIA. BY 20' - TO 32' LENGTH SALVAGED FROM CLEARING AND GRUBBING OPERATIONS. - COORDINATE PLACEMENT WITH LANDSCAPE ARCHITECT
- 1 L8.07 FLOW RESTRAINING WEIR
- 2 L8.07 DOWN WOODY DEBRIS 12" AND 24" DIA. MIN. BY 25' LENGTH SALVAGED FROM CLEARING AND GRUBBING OPERATIONS. - COORDINATE PLACEMENT WITH LANDSCAPE ARCHITECT
- 2 L8.09 1 L8.09 IN STREAM SIMULATED BEAVER DAM WITH LOG GRADE CONTROL STRUCTURE
- 2 L8.00 SIMULATED BEAVER DAM

WOODY DEBRIS AND WILLOW SCHEDULE

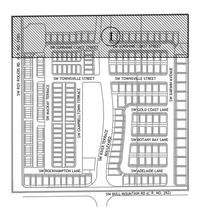
LOG WITH ROOTWAD QTY.	37
LOG QTY. FOR WEIR	4 TOTAL 2 @ 12" MIN. DIA. 2 @ 24" MIN. DIA.
WILLOW QTY. PACIFIC WILLOW SALIX LUCIDA OR APPROVED EQUAL	13 GROUPS OF 6O CUTTINGS EACH TOTAL 780 CUTTINGS
IN STREAM, BEAVER DAM QTY. PACIFIC WILLOW SALIX LUCIDA OR APPROVED EQUAL	1 IN STREAM WITH 3 LOGS AND WILLOW BUNDLE
BEAVER DAM QTY. PACIFIC WILLOW SALIX LUCIDA OR APPROVED EQUAL	3 WILLOW BUNDLE LENGTH VARIES

NOTE:

TEMPORARY IRRIGATION SYSTEM:
PLANT MATERIAL SHALL BE PROVIDED WITH A TEMPORARY AUTOMATIC ABOVE GROUND IRRIGATION SYSTEM DESIGNED BY THE CONTRACTOR. A 2" WATER SERVICE STUB HAS BEEN PROVIDED PER THE CIVIL DRAWINGS. COORDINATE WITH OWNER FOR TEMPORARY METER SIZE AND INSTALLATION. MAINTAIN SYSTEM FOR A MINIMUM OF THREE (3) GROWING SEASONS.

NOTES:

1. SEE SHEETS L8.06 AND L8.09 FOR STREAM CONSTRUCTION DETAILS.
2. SEE SHEET L8.09 FOR SIMULATED BEAVER DAM / LOG GRADE CONTROL STRUCTURE AND LIVE FASCINE CONSTRUCTION DETAILS.
3. SEE CIVIL DRAWINGS FOR VEGETATED CORRIDOR, STORM WATER FACILITY AND STREAM GRADING PLANS.
4. SEE SHEETS L8.04 AND L8.05 FOR VEGETATED CORRIDOR, STORM WATER FACILITY AND STREAM PLANTING LEGENDS, NOTES & DETAILS.



SCALE
20 0 10 20
1 INCH = 20 FEET

ELEVATION DATUM: NGVD 29

N:\proj\395-010\09 Drawings\08 landscape\Sheets\395010_L8 STREAM-LAYOUT.dwg - SHEET: L8.01 Mar. 23, 18 - 3:38 PM kel

River Terrace

POLYGON NW COMPANY

Pacific Community Design

GEODESIGN, INC

REVISIONS
DATE DESCRIPTION

REGISTERED 369 Karen E. Lankford OREGON 5/09/97 LANDSCAPE ARCHITECT

Polygon at Roshak Ridge

Construction Documents

STREAM LAYOUT PLANTING PLAN AREA 1

PARK SUBMITTAL 3/22/2018
STREAM SUBMITTAL 3/27/2018

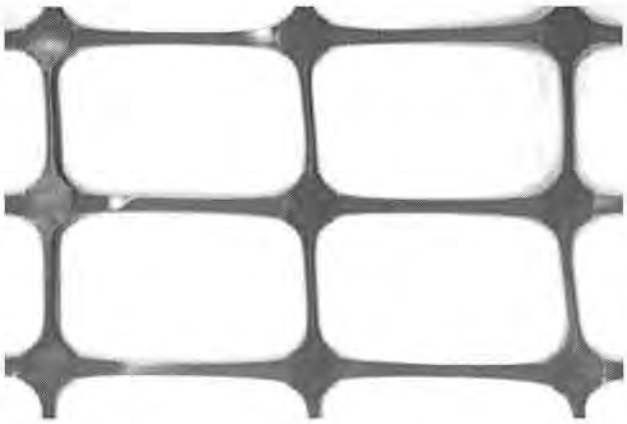
L8.01

APPENDIX C

PROTEX ®

SAFETY/BARRIER FENCE

SF27548L-8PS



Protex® Safety/ Barrier Fence is a superior quality construction fence used in and around jobsites to delineate the work zones. It is also an accepted product to visibly mark boundaries adjacent to environmentally protected areas. Protex® is made from 100% domestic resins and is manufactured in the U.S.A.

Roll Size	4' x 100'
Mesh Size	2.75' x 2'
Lbs. per roll	8 Lbs
Material	Polypropylene
Color	High Visibility Orange
Ultra Violet Resistance	Fully Stabilized
Tensile Strength YLD, min in each direction	4469 psi
Tensile Strength, Load BRK Lbs	130 Lbs per inch / 1560 Lbs per foot
Elongation YLD , min in each direction	6%
Elongation Load BRK , min in each direction	66%

NorPlex, Inc.
NORTHWEST PLASTIC EXTRUSION

111 3rd Street NW Bldg C
PO Box 814
Auburn, WA 98071-0814
O 253-735-3431
F 253-735-5056

KINTEX

Industries, LLC
102 Brownfield Drive
Summerville, South Carolina, 29483

January 31, 2012

Tammy Eastman
GeoTK, LLC
2313 East 2nd Street
Vancouver, WA 98661

This will certify that **DuPont SF 20** is a nonwoven, polypropylene geotextile that meets the following minimum average roll values:

Property	Test Method	Value
Grab Tensile Strength (lbs)	ASTM D 4632	60
Elongation (%)	ASTM D 4632	>50
Trapezoid Tear (lbs)	ASTM D 4533	25
Puncture (lbs)	ASTM D 4833	18
Mullen Burst (psi)	ASTM D 3786	60
AOS (mm)	ASTM D 4751	.60
Permittivity (sec^{-1})	ASTM D 4491	2.0
Permeability (cm/sec)	ASTM D 4491	.07
Water Flow Rate (gal/min/sf)	ASTM D 4491	150

Sean Kiniry

Sean Kiniry
President

Telephone: 843-832-6860, Fax: 843-832-5953, Toll Free: 800-626-0454
Email: kintex@knology.net, Cell: 843-343-3401, Website: www.kintex.net

APPENDIX D

GeoDesign Inc

PHASE I ENVIRONMENTAL SITE ASSESSMENT AND LIMITED SURFACE SOIL EVALUATION

River Terrace East
16550 - 17012 SW Friendly Lane
Tigard, Oregon

For
Polygon Northwest Company
June 16, 2015

GeoDesign Project: Polygon-129-02

GeoDesign Inc

June 16, 2015

Polygon Northwest Company
109 East 13th Street
Vancouver, WA 98660

Attention: Mr. Fred Gast

Phase I Environmental Site Assessment and
Limited Surface Soil Evaluation
River Terrace East
16550 - 17012 SW Friendly Lane
Tigard, Oregon
GeoDesign Project: Polygon-129-02

GeoDesign, Inc. is pleased to submit our Phase I ESA and limited surface soil evaluation of the River Terrace East site located at 16550 - 17012 SW Friendly Lane in Tigard, Oregon. Our Phase I ESA was completed in conformance with the standards and practices for all appropriate inquiries specified in Title 40, Chapter I of CFR Part 312 and ASTM Practice E 1527-13.

We appreciate the opportunity to be of service to Polygon Northwest Company. Please contact us if you have questions regarding this report.

Sincerely,

GeoDesign, Inc.

Robert E. Belding, R.G.
Principal Geologist

cc: Mr. Chris Walther, Polygon Northwest Company (via email only)

JMZ:CRH:REB:kt
Attachments
One copy submitted (via email only)
Document ID: Polygon-129-02-061615-envr.docx

TABLE OF CONTENTS **PAGE NO.**

TABLE OF CONTENTS **PAGE NO.**

1.0 INTRODUCTION

This report summarizes the results of a Phase I ESA and limited surface soil evaluation of the River Terrace East site located at 16550-17012 SW Friendly Lane in Tigard, Oregon (project site). The project site includes Tax Lots 1000, 1100, 1101, 3400, and 3800 of Washington County Tax Map 2S106 and Tax Lot 100 of Washington County Tax Map 2S106AD. The project site is currently occupied by five residences, associated outbuildings, a cellular tower, forested areas, vacant agricultural land, and unused land. The project site is shown relative to surrounding physical features on Figure 1. The project site layout and surrounding properties are shown on Figure 2. GeoDesign's firm profile and resumes of project personnel are presented in Appendix A. Acronyms used herein are defined at the end of this document.

2.0 PURPOSE

2.1 PROTECTION FROM CERCLA LIABILITY

One purpose for conducting a Phase I ESA is to undertake all appropriate inquiries into prior ownership and uses of a property so that a prospective purchaser may potentially claim protection from CERCLA and/or state liability as an innocent landowner, a bona fide prospective purchaser, or a contiguous property owner. The standards and practices for all appropriate inquiries are specified in Title 40, Chapter I of CFR Part 312 and ORS 465. The inquiry must be conducted by an environmental professional to identify conditions indicative of releases and threatened releases of hazardous substances as defined in CERCLA Section 101(22). If the prospective purchaser is the recipient of an EPA Brownfields Grant, the inquiry must also identify conditions indicative of releases and threatened releases of petroleum and petroleum products and controlled substances as defined in 21 U.S. Code 802. These standards and practices do not require the identification of quantities of hazardous substances, petroleum and petroleum products, and controlled substances that, because of said quantity, generally would not pose a threat to human health or the environment.

2.2 IDENTIFICATION OF RECOGNIZED ENVIRONMENTAL CONDITIONS

Another purpose for conducting a Phase I ESA is to identify recognized environmental conditions in connection with a property as they pertain to ASTM Practice E 1527-13. This practice is intended for use by parties who wish to assess the environmental condition of a property by taking into account commonly known and reasonably ascertainable information. Although use of ASTM Practice E 1527-13 constitutes all appropriate inquiry as described in Section 2.1 of this report, the standard is intended primarily as an approach to identify recognized environmental conditions in connection with a property. A recognized environmental condition is defined by the presence or likely presence of hazardous substances or petroleum products on the project site under circumstances that designate an existing, previously existing, or potential release of hazardous substance or petroleum products into the structures or landscape of the project site. Recognized environmental conditions do not include de minimis conditions that do not generally present a risk to public health or to the environment and would not be the subject of legal enforcement if brought to the attention of appropriate governmental agencies.

3.0 SCOPE OF SERVICES

The scope of services completed for this project was conducted in conformance with the standards and practices for all appropriate inquiries specified in 40 CFR Part 312 and the scope and limitations of ASTM Practice E 1527-13. The specific completed scope of services included the following:

3.1 PHASE I ESA

- Reviewed a current USGS topographic map to identify the physical setting of the project site.
- Reviewed federal, tribal, state, and local environmental records for listings of known or suspected environmental conditions at the project site or nearby properties as specified in 40 CFR Part 312 and ASTM Practice E 1527-13.
- Reviewed reasonably ascertainable standard historical sources, including aerial photographs, USGS topographic maps, reverse city directories, online property information (including property tax information and zoning/land use records), and other historical sources, as appropriate to identify development history on and adjacent to the project site relative to the possible use, generation, storage, release, or disposal of hazardous substances.
- Interviewed the current owner representative of the project site (as provided by Polygon Northwest Company), an owner/occupant of the project site, and three local government officials regarding their knowledge of the project site.
- Conducted a visual reconnaissance of the project site and adjacent properties to obtain information indicating the likelihood of identifying recognized environmental conditions concerning the properties.
- Prepared this report that presents our findings and provides conclusions and recommendations.

3.2 LIMITED SURFACE SOIL EVALUATION

The purpose of the limited surface soil evaluation was to evaluate possible residual pesticide and metals concentrations in surface soil from possible pesticide applications associated with historical agricultural activities identified during the Phase I ESA. The scope of services for the limited surface soil evaluation was developed in general accordance with DEQ's *Guidance for Evaluating Residual Pesticides on Lands Formerly Used for Agricultural Purposes*, dated January 2006. The completed scope of services included the following:

- Collected 13 four-point and 1 five-point composite surface soil samples (0.0 to 0.5 foot BGS) from throughout the project site.
- Submitted the 14 composite surface soil samples to Apex Laboratories, LLC of Tigard, Oregon, for analysis of organochlorine pesticides by EPA Method 8081B and agricultural-use (total) metals by EPA Method 6020.
- Summarized the results of the limited surface soil evaluation in this report.

The scope of services was limited to only those items listed above. This project did not include completion of an environmental compliance audit; an evaluation for the presence of PCBs in light ballasts; a survey for asbestos, lead-based paint, radon gas, toxic mold, biological pollutants, or urea-formaldehyde insulation; or a wetlands determination or delineation.

4.0 PROJECT SITE AND VICINITY DESCRIPTION

Information concerning the physical setting of the project site and vicinity is based on a review of the USGS 7.5-minute Beaverton, Oregon, topographic quadrangle map; information provided by EDR of Shelton, Connecticut; and observations made during a site reconnaissance conducted on June 5 and June 11, 2015.

The project site encompasses approximately 36.99 acres at 16550 – 17012 SW Friendly Lane in Tigard, Oregon. The project site includes Tax Lots 100, 1000, 1100, 1101, 3400, and 3800 in the southeast quarter of the northeast quarter and the northeast quarter of the southeast quarter of Section 6, Township 2 South, Range 1 West of the Willamette Meridian. Tax Lot 100 (16705 SW Friendly Lane) comprises 6.28 acres owned by Christopher and Sherri Ralston and is developed with a residence, a shed, a domestic water well pump house, a cellular tower, and forested land. Tax Lot 1000 (16808 SW Friendly Lane) comprises 15.65 acres owned by Arbor Road LLC and consists of unused land and forested land. Tax Lot 1100 (17000 SW Friendly Lane) comprises 1.13 acres owned by Rick Harold Ferris and Elizabeth Jean Ferris and developed with a residence, a detached garage, a machine shop, a garage/storage building, and a shed. Tax Lot 1101 (17012 SW Friendly Lane) comprises 3.55 acres owned by Arbor Road LLC and consists of a residence, unused land, and forested land. Tax Lot 3400 (16720 SW Friendly Lane) comprises 5.02 acres owned by James J. and Michelle Beardsley and developed with a residence, a garage/barn building, a shed, a domestic water well pump house, and vacant agricultural land. Tax Lot 3800 (16550 SW Friendly Lane) comprises 5.36 acres owned by Scott and Nancy Edmonds Living Trust and developed with a residence, a barn, a shed, a domestic water well pump house, and unused land.

The project site is situated at an approximate elevation of between 260 and 350 feet above MSL. The topography of a majority of the project site slopes moderately to steeply downwards to the south. However, the topography of Tax Lot 100 and the northern portion of Tax Lot 3800 were observed to slope moderately to the north-northeast. Based on a review of topographic maps for the area, shallow groundwater beneath the majority of the project site is expected to flow to the south towards an unnamed tributary of the Tualatin River. However, shallow groundwater beneath the northern-most portion of the project site is expected to flow north-northeast towards and unnamed tributary of Summer Creek.

Land use in the vicinity of the project site is primarily residential and agricultural. According to the City of Tigard Planning Department, the project site is zoned R-7 (Residential, 7 units per acre), R-25 (Residential, 25 units per acre), and R-4.5 (Residential, 4.5 units per acre). Properties surrounding the project site are zoned R-25 (Residential, 25 units per acre), R-4.5 (Residential, 4.5 units per acre), R-15 (Residential, 15 units per acre), R-9 (Residential, 9 units per acre), R4 (Urban Medium Density 4,000 sq. ft. – Single Family), and WA cnty (Interim Washington County Zoning).

5.0 USER-PROVIDED INFORMATION

The purpose of this section is to describe information provided by the user of this report (Polygon Northwest Company) that was considered in the evaluation of potential recognized

environmental conditions in connection with the project site. Information provided by the user regarding the project site is summarized in the following sections. The user was not provided with title and judicial records for environmental liens or activity and land use restrictions, specialized or actual knowledge or experience, valuation reduction for environmental issues, or commonly known or reasonably ascertainable information. Therefore, these materials were not reviewed as part of this assessment.

5.1 PREVIOUS REPORTS

GeoDesign was provided with five previous environmental reports regarding the project site. The findings and conclusions of the following reports are summarized in Sections 5.1.1 through 5.1.5.

- *Phase I Environmental Site Assessment; Roy Rogers Road Property; Washington County, Oregon,* prepared by GeoPacific Engineering, Inc. (GeoPacific), dated December 19, 2003
- *Phase I Environmental Assessment; Beardsley Property; 16720 SW Friendly Lane; Washington County, Oregon,* prepared by GeoPacific, dated March 4, 2013
- *Phase I Environmental Assessment; Edmonds Property; 16550 SW Friendly Lane; Washington County, Oregon,* prepared by GeoPacific, dated June 24, 2014
- *Phase I Environmental Assessment; Ferris Property; 17012 SW Friendly Lane; Washington County, Oregon,* prepared by HGSI, dated September 14, 2014
- *Phase I Environmental Assessment; Ferris Property North; 17000 SW Friendly Lane; Washington County, Oregon,* prepared by HGSI, dated May 11, 2015

5.1.1 GeoPacific (2003)

The 2003 GeoPacific Phase I ESA was completed for five Tax Lots, including Tax Lots 1000, 1400, 1401, 1500, and 1600. Tax Lots 1400, 1401, 1500, and 1600 are located adjacent to the west and are not part of the project site. At the time of the GeoPacific assessment, the northern portion of Tax Lot 1000 was occupied by a residence and a guesthouse/pump house building, with the remaining portions occupied by a partially overgrown filbert orchard. Access was reportedly not granted into the residence during their reconnaissance. GeoPacific identified the presence of a heating oil UST, a septic system, and a domestic water well associated with the residence. The report indicated that they had collected two soil samples from below the UST for laboratory analysis. However, the results of the sampling were not available at the time the report was prepared. Historical use of Tax Lot 1000 was identified as agricultural and residential. GeoPacific identified the potential for historical agricultural pesticide use on Tax Lot 1000; however, they stated that evidence of past or present pesticide mixing or storage areas was not observed during their reconnaissance. They further stated that it was not expected that on-site pesticide levels would be found that would likely require remedial action under DEQ or EPA regulations.

GeoPacific concluded that their assessment identified the heating oil UST on Tax Lot 1000 as a recognized environmental condition. In addition, they recommended that the septic system associated with the residence be decommissioned. Further, their report recommended testing of potential ACBMs in the residential structure and, if present, proper disposal prior to demolition.

5.1.2 GeoPacific (2013)

The 2013 GeoPacific Phase I ESA was completed for Tax Lot 3400 of the project site. At the time of the GeoPacific assessment, Tax Lot 3400 was developed with the existing residential structure, associated outbuildings, and former orchard area. A domestic water well house and a septic system associated with the residence were identified to the northwest and south of the residence, respectively. The report identified the presence of an AST to fuel on-site vehicles and several 55-gallon drums of used motor oil within an on-site shed; however, signs of leaks or spillage were not observed. In addition, the Phase I ESA indicated that a heating oil UST had been present on the east side of the residence but had been decommissioned approximately 15 years prior. Additional information regarding the decommissioning of the former heating oil UST was not included. Historical use of Tax Lot 3400 was identified as residential and agricultural. GeoPacific identified the potential for historical agricultural pesticide use on Tax Lot 3400; however, they stated that evidence of past or present pesticide mixing or storage areas was not observed during their reconnaissance. They further stated that it was not expected that on-site pesticide levels would be found that would likely require remedial action under DEQ or EPA regulations.

GeoPacific concluded that their assessment did not identify recognized environmental conditions associated with Tax Lot 3400; however, they recommended the following in connection with the property:

- Verifying that the former heating oil UST had been properly decommissioned in accordance with DEQ requirements and that no residual contamination remains at the site.
- Verifying that the identified drums filled with used motor oil had been disposed of off site. In addition, they recommended pumping the remaining liquid out of the identified AST and cleaning and disposing of the tank in accordance with DEQ requirements.
- Properly abandoning the existing domestic water well and septic system in accordance with state regulations.
- Performing surveys for potential ACBMs and lead paint in the existing structures prior to demolition.

5.1.3 GeoPacific (2014)

The 2014 GeoPacific Phase I ESA was completed for Tax Lot 3800 of the project site. At the time of the GeoPacific assessment, Tax Lot 3800 was developed with the existing residential structure and associated outbuildings. A domestic water well house and a septic system associated with the residence were identified to the east and south of the residence, respectively. During their reconnaissance, GeoPacific did not observe any USTs or significant hazardous materials storage on the property. Historical use of Tax Lot 3800 was identified as residential and agricultural. GeoPacific concluded that their assessment identified historical agricultural pesticide use on the property as a recognized environmental condition. They recommended that additional testing be performed to assess the site for the presence of residual concentrations of pesticides or herbicides that may be present above acceptable risk levels. In addition, they recommended that the domestic water well and septic system associated with the residence be properly abandoned in accordance with state regulations.

5.1.4 HGSI (2014)

The 2014 HGSI Phase I ESA was completed for Tax Lot 1101 of the project site. At the time of the HGSI assessment, Tax Lot 1101 was developed with the existing residential structure. A heating oil UST and a septic system associated with the residence were identified to the north and southeast of the residence, respectively. Historical use of Tax Lot 1101 was identified as residential and agricultural. HGSI concluded that their assessment identified the heating oil UST on the site and the historical agricultural pesticide use on the property as recognized environmental conditions. They recommended that heating oil UST be decommissioned in accordance with DEQ regulations. In addition, they recommended that the septic system associated with the residence be decommissioned. Further, their report recommended that prior to demolition of the existing residence, surveys for potential ACBMs and lead paint be performed in accordance with applicable federal and state requirements.

5.1.5 HGSI (2015)

The 2015 HGSI Phase I ESA was completed for Tax Lot 1100 of the project site. At the time of the HGSI assessment, Tax Lot 1100 was developed with the existing residence, three shops/barns, and associated outbuildings. A heating oil UST and domestic water well were identified to the northeast and north of the residence, respectively. A septic system associated with the residence was also identified; however, HGSI was unable to identify its location on the property. During their reconnaissance, HGSI identified the presence of machining equipment in one of the shop buildings located on the project site. However, they indicated that the machines were all self-contained and that they did not observe any stains on the underlying concrete slab or other indications of oil or solvent contamination. Historical use of Tax Lot 1100 was identified as residential and agricultural. HGSI concluded that their assessment identified the heating oil UST on the site and the historical agricultural pesticide use on the property as recognized environmental conditions. They recommended that the heating oil UST be decommissioned in accordance with DEQ regulations. In addition, they recommended that the domestic water well and septic system associated with the residence be properly abandoned in accordance with state regulations. Further, their report recommended that prior to demolition of the existing residence, surveys for potential ACBMs and lead paint be performed in accordance with applicable federal and state requirements.

6.0 ENVIRONMENTAL RECORDS REVIEW

Federal, tribal, state, and local environmental records and databases were compiled according to 40 CFR Part 312 and ASTM Practice E 1527-13 for the project site and those facilities that currently or previously have occupied properties within the specified search distance from the project site. Information contained in the records and databases was reviewed by GeoDesign to evaluate the potential for environmental impacts to the project site. The EDR report is presented in Appendix B.

6.1 PROJECT SITE

The project site was not listed on any of the government records or databases searched by EDR.

6.2 SURROUNDING SITES

The EDR report identified nine surrounding sites listed on one or more regulatory databases within the ASTM search distances. Based on local topography, the inferred direction of shallow groundwater flow, the regulatory status of the listed sites, the media impacted at the listed sites, and information contained in the regulatory databases, it is our professional opinion that none of the nine sites should pose a risk of a recognized environmental condition at the project site. However, due to its close proximity to the project site, one of the listed sites is discussed in the following section.

6.2.1 AT&T Mobility

The AT&T Mobility site is located at 17026 SW Friendly Lane adjacent to the west of the project site in an inferred cross-gradient groundwater flow direction from the project site. According to information in the EDR report, the AT&T Mobility site was listed on the DEQ LUST database and the Oregon State Fire Marshal's HSIS database. The Oregon State Fire Marshal's HSIS database contains a list of companies in Oregon submitting the HSIS and either reporting or not reporting hazardous substances. According to the information in the EDR report, the inclusion of the AT&T Mobility site on the HSIS database is related to small quantities of sulfuric acid stored at the facility.

The AT&T Mobility site was listed on the DEQ LUST database (DEQ LUST File No. 34-09-0884). According to information in the DEQ LUST database, a release of heating oil to soil was encountered during decommissioning of a heating oil UST in September 2009. Impacts were limited to soil only, and DEQ accepted the heating oil UST decommissioning certification and closed the associated LUST file in November 2009. Based on the regulatory status of the AT&T Mobility site and the limited extent of impacts, it is our professional opinion that the risk of a recognized environmental condition at the project site from the release at the AT&T Mobility site is low.

7.0 PROJECT SITE HISTORY AND BACKGROUND

Reasonably ascertainable information concerning the history and background of the project site begins in 1916 and includes aerial photographs, USGS topographic maps, reverse city directories, online property information (including property tax information and zoning/land use records), and personal knowledge of individuals familiar with the project site. Fire insurance maps for the project site were not available as reported by EDR. The "No Coverage" report provided by EDR is presented in Appendix C.

Historical aerial photographs for the project site were obtained from EDR and the University of Oregon in Eugene, Oregon, and were reviewed by GeoDesign. The scale of the photographs reviewed allowed for the interpretation of general site development/configuration but did not allow for the identification of specific project site features. Aerial photographs were reviewed for the following years: 1934, 1936, 1947, 1955, 1964, 1973, 1980, 1990, 1998, 2009, and 2012. The historical aerial photographs are presented in Appendix C.

Historical topographic maps of the project site were obtained from EDR to evaluate past uses of the project site. Topographic maps were reviewed for the following years: 1916, 1939, 1954, 1961, 1970, 1975, and 1984. The historical topographic maps are presented in Appendix C.

Reverse city directories for the project site and adjacent properties were obtained from EDR. The city directories were reviewed (if available) at approximately five-year intervals for the years spanning 1964 through 2013. The EDR City Directory Abstract is presented in Appendix C.

Historical information for the project site and adjoining properties was also obtained from five previous environmental reports for the project site obtained from the user, as discussed in Sections 5.1.1 through 5.1.5 of this report.

Online property information for the project site and select adjacent properties was reviewed by GeoDesign. The online property information is presented in Appendix C.

7.1 PROJECT SITE

Based on the review of historical sources cited in Section 7.0 of this report, we have identified the following developmental history of the project site:

Year	Observations	Source
1916	The project site was vacant land with an unnamed tributary to the Tualatin River located on the southern portion of the project site.	• Topographic Map
1934 through 1998	By 1934, SW Friendly Lane appeared similar to its current configuration and the northern portion of the project site was developed with agricultural land, including an associated residence and outbuildings on Tax Lot 1100. By 1955, the majority of the project site was developed with agricultural land (primarily orchards) and structures were present on the northern portion of Tax Lot 3400. By 1980, a mobile home was present on the central portion of Tax Lot 1101. By 1990, the mobile home was removed and the machine shop on Tax Lot 1100 began operating as R&L Quality Machining. By 1998, the majority of the project site was developed similar to its current configuration.	• Aerial Photograph • Topographic Map • City Directory • Interview
2003 through 2015	Tax Lot 100 was developed similar to its current configuration between 1998 and 2009. Between 2003 and 2008, Jim Beardsley Trucking Inc. operated on Tax Lot 3400. By 2009, the former residence and associated outbuilding were removed from the northern portion of Tax Lot 1000. Between 2009 and 2012, the orchard was removed from Tax Lot 1000. By 2013, R&L Quality Machining ceased operation. The project site has remained relatively unchanged through 2015.	• City Directory • Aerial Photograph • Interview • Site Reconnaissance

Our review of historical sources from 1916 through 2015 indicated that the project site has been primarily agricultural-use land, with some associated residences, since at least 1934. Between 1990 and 2013, the machine shop on Tax Lot 1100 operated as R&L Quality Machining. Between 2003 and 2008, Jim Beardsley Trucking Inc. operated on Tax Lot 3400.

7.2 ADJOINING SITES

Based on the review of historical sources cited in Section 7.0 of this report, we have identified the following developmental history of properties adjoining the project site:

Year	Observations	Source
1916 through 1990	SW Scholls Ferry Road was constructed to the north of the project site prior to 1916. The properties adjoining the project site were primarily vacant agricultural or forested land, with two residences located north and east of the project site. By 1934, the properties adjoining the project site were primarily developed for agricultural use, including a small orchard. However, the adjoining property to the south-southwest appeared as forested land. Between 1936 and 1947, an orchard was developed adjacent to the west of the project site. Between 1947 and 1955, a residence was constructed on the adjoining property to the west. With the exception of a large pond present further to the south of the project site, the remaining adjoining properties appeared relatively unchanged between 1955 and 1964. With the exception of additional residences present adjacent to the west and construction of a large commercial-type structure located to the east of the project site vicinity, the properties adjoining the project site remained relatively unchanged between 1964 and 1973. Between 1973 and 1980, the adjoining property to the south-southwest was developed with a residence. Between 1980 and 1990, properties adjoining the project site appeared relatively unchanged.	• Aerial Photograph • Topographic Map
1998 through 2015	By 1998, the existing residential subdivision was constructed adjacent to the east of the project site. Properties adjoining the project site remained relatively unchanged between 1998 and 2009. By 2012, all of the adjoining properties appear primarily as observed during the site reconnaissance.	• Aerial Photograph • Site Reconnaissance

Our review of historical sources from 1916 through 2015 indicated that the properties adjoining the project site were used primarily for agricultural purposes, with some associated residential use, from before 1916 through 2015. The residential subdivision east of the project site was constructed between 1990 and 1998.

8.0 SITE RECONNAISSANCE

GeoDesign conducted a reconnaissance of the project site on June 5 and June 11, 2015. The observations noted in this section apply to the project site as it appeared on those days. The site reconnaissance was performed to observe the current condition of the project site and to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the project site. We were unable to access the interiors of the project site residences and some of the outbuildings on Tax Lot 1100, 3400, and 3800 as they were obscured by clutter or due to locked doors. In addition, the ground surface in some portions of the project site was not visible due to the presence of dense vegetation. The adjoining properties were also observed from the boundaries of the project site as part of the site reconnaissance. A site plan is provided on Figure 2. Photographs of the project site were taken to document observations made during the reconnaissance and are presented on Figures 3 through 6.

8.1 GENERAL PROJECT SITE USE

The project site consists of approximately 36.99 acres of rural residential property. At the time of the site reconnaissance, Tax Lot 100 was developed with a residence, a shed, a domestic water well pump house, and a cellular tower, with the remaining portions consisting of forested land. Tax Lot 1000 consisted of unused land and forested land. Tax Lot 1100 was developed with a residence, a detached garage, a machine shop, a garage/storage building, and a shed. Tax Lot 1101 was developed with a residence, with remaining portions consisting of unused land and forested land. Tax Lot 3400 was developed with a residence, a garage/barn building, a shed, a domestic water well pump house, and vacant agricultural land. Tax Lot 3800 was developed with a residence, a barn, a shed, a domestic water well pump house, with the remaining portions consisting of unused land.

8.1.1 Site Drainage

Surface water on the majority of the project site is expected to either infiltrate into the ground surface or surface flow towards the small unnamed tributary of the Tualatin River located on the southwestern portion of the project site. However, surface water on the northern-most portion of the project site is expected to either infiltrate into the ground surface or surface flow towards an unnamed tributary of Summer Creek located to the northeast of the project site vicinity. GeoDesign personnel did not observe surface water at the project site at the time of our site reconnaissance.

8.1.2 Project Site Structures

The project site structures observed during the site reconnaissance are discussed below.

Tax Lot 100

GeoDesign personnel observed a single-story manufactured home situated on a concrete block foundation that encompasses approximately 1,800 square feet. GeoDesign personnel also observed a wood-framed shed with a wooden floor and a wood-framed domestic water well pump house on a concrete slab that encompass approximately 80 and 10 square feet, respectively. The manufactured home, shed, and domestic water well pump house were constructed or placed on Tax Lot 100 between 1998 and 2009.

Tax Lot 1000
GeoDesign personnel did not observe structures on Tax Lot 1000.

Tax Lot 1100
GeoDesign personnel observed five structures on Tax Lot 1100, including the following:

- A single-story, wood-framed residence with a concrete foundation that encompasses approximately 2,656 square feet. The residence was reportedly constructed in 1920. However, according to the owner/occupant (Mr. Ferris), the home was moved to this property in the late 1940s from a location near Washington Square Mall in Tigard.
- A single-story, wood-framed detached garage with a concrete foundation that encompasses approximately 360 square feet. The detached garage was constructed between 1964 and 1973.
- A single-story wood-framed, metal-sided machine shop building with a concrete foundation that encompasses approximately 440 square feet. The machine shop building was constructed between 1964 and 1973.
- A single-story, wood-framed, metal-sided garage/storage building with a concrete foundation that encompasses approximately 1,730 square feet. The garage/storage building was constructed between 1998 and 2009.
- A wood-framed shed on a concrete slab that encompasses approximately 120 square feet. The shed was constructed between 1998 and 2009.

Tax Lot 1101
GeoDesign personnel observed a single-story, wood-framed residence with a daylight basement and concrete foundation that encompasses approximately 3,076 square feet. The residence was constructed in 1970.

Tax Lot 3400
GeoDesign personnel observed four structures on Tax Lot 3400, including the following:

- A single-story, wood-framed residence with a concrete foundation that encompasses approximately 2,440 square feet. The residence was constructed in 1950.
- A single-story, wood-framed, metal-sided garage/barn building that encompasses approximately 6,600 square feet. The garage portion of the building consists of two bays, and a concrete floor is reportedly present in the garage. However, the door of the garage was locked at the time of our reconnaissance. The remaining barn portion of the building had a dirt floor. The garage/barn building was constructed between 1980 and 1990.
- A single-story, wood-framed shed with a gravel floor that encompasses approximately 1,400 square feet. The shed was constructed between 1947 and 1955.
- A concrete block domestic water well pump house on a concrete slab that encompasses approximately 35 square feet. The domestic water well pump house was constructed between 1947 and 1955.

Tax Lot 3800
GeoDesign personnel observed four structures on Tax Lot 3800, including the following:

- A two-story, wood-framed residence with a concrete foundation that encompasses approximately 3,678 square feet. The residence was constructed in 1994.
- A single-story, wood-framed, metal-sided barn with a concrete foundation that encompasses approximately 1,750 square feet. The barn was constructed between 1990 and 1998.
- A single-story, wood-framed shed that encompasses approximately 250 square feet. The door of the shed was locked at the time of our reconnaissance. The date of construction for the shed is unknown. However, the shed was reportedly moved to this property in the early 1990s from the adjacent property to the east.
- A wood-framed domestic water well pump house on a concrete slab that encompasses approximately 16 square feet. The domestic water well pump house was constructed between 1990 and 1998.

8.1.3 Potable Water Supply
Domestic water wells were observed on Tax Lots 100, 1100, 3400, and 3800. According to Mr. Ferris, potable water is supplied to the residence on Tax Lot 1101 by the water well located on his property (Tax Lot 1100). Evidence of a potable water supply was not observed on Tax Lot 1000.

8.1.4 Sewage Disposal System
Sewage generated on Tax Lots 100, 1100, 1101, 3400, and 3800 is reportedly discharged to individual septic systems. GeoDesign personnel did not observe the septic systems at the time of the site reconnaissance.

8.1.5 Hazardous Substances and Petroleum Products
Tax Lot 100: GeoDesign personnel observed one empty 1-gallon gasoline container, one empty 5-gallon gasoline container, six 5-gallon containers of paint, and one motorcycle battery in or adjacent to the shed. Staining or evidence of releases was not observed near these containers or battery.

Tax Lot 1100: GeoDesign personnel observed paints, pesticides, fertilizers, gasoline, antifreeze, solvents, and oils and lubricants in individual containers ranging in size from less than 1 gallon to 5 gallons. The containers were located in the detached garage, machine shop, and garage/storage building on Tax Lot 1100. Staining or evidence of releases was not observed near these containers. In addition to the observed hazardous substances and petroleum products, the detached garage and garage/storage building contained a significant amount of clutter consisting of boxes, tarps, buckets, tires, lumber, plastic bottles and containers, broken tools, cars, trucks, tractors, and other items. The clutter limited access to the majority of the interior of the structure, and it is possible that additional items are present among or beneath the clutter.

Tax Lot 3400: GeoDesign personnel observed two 5-gallon containers of used antifreeze, two 5-gallon containers of tractor hydraulic and transmission fluid, five 5-gallon containers of used oil, and fifteen 5-gallon containers of motor oil. Staining or evidence of spills or releases was not observed near these containers.

Tax Lot 3800: GeoDesign personnel observed oils, antifreeze, paint thinner, and windshield cleaner in individual containers ranging in size from less than 1 gallon to 1 gallon. The containers were located in the barn on this property. Staining or evidence of spills or releases was not observed near these containers.

8.1.6 Storage Tanks

GeoDesign personnel observed a fill port and vent pipe adjacent to the northeast of the residence located on Tax Lot 1100. According to Mr. Ferris, the fill port and vent pipe are associated with an approximately 600-gallon heating oil UST installed at the property in the late 1940s, which is currently in use. During the site reconnaissance, GeoDesign personnel also noted an area to the east in the machine shop where one 1-inch-diameter and one 2-inch-diameter pipes were observed to be protruding from the concrete floor of the structure. | Mr. Ferris stated that he was not aware if the observed pipes were associated with potential plumbing for the shop or a historical UST.

Tax Lot 1101: GeoDesign personnel observed a fill port and vent pipe adjacent to the north of the residence on this property. According to Mr. Ferris, the fill port and vent pipe are associated with an approximately 550-gallon heating oil UST installed at the property in 1971, which is currently in use.

GeoDesign personnel also observed one approximately 500-gallon steel AST and one approximately 100-gallon portable steel AST located in the shed on the northeastern corner of Tax Lot 3400. The approximately 500-gallon steel AST was stored in a plastic tub and appeared to be empty; however, the AST was labeled as previously containing motor oil. The approximately 100-gallon portable AST was not labeled; however, the AST was suspected of being partially full of used oil as oily staining was noted on the top and the side of the tank. This AST was stored on the gravel floor of the shed. Evidence of leaks or spills was not observed on the gravel floor in the vicinities of these ASTs. In addition, GeoDesign personnel observed one approximately 100-gallon portable steel AST and one approximately 500-gallon steel AST located to the southeast and south of the shed on Tax Lot 3400. Both of these ASTs appeared to be empty. Evidence of leaks or spills was not observed on the ground surface in the vicinities of these ASTs.

8.1.7 Drums

In addition to the 5-gallon containers previously discussed in Section 8.1.5 of this report, GeoDesign personnel also observed two steel 55-gallon drums located southeast of the detached garage on Tax Lot 1100. The drums appeared to be empty. Evidence of leaks or spills was not observed in the vicinity of these drums.

GeoDesign personnel also observed four steel 55-gallon drums and one steel 55-gallon drum that had been cut in half in the shed located on the northeastern corner of Tax Lot 3400. The

drums appeared to be full of used oil. Evidence of leaks or spills was not observed in the vicinities of these drums. In addition, two steel 55-gallon drums were observed on the northeastern portion of Tax Lot 3400 and one steel 55-gallon drum was observed to the west of the residence on Tax Lot 100. All of these drums appeared to have been used as burn drums and were primarily empty, with the exception of some unburned refuse and ashes.

8.1.8 Unidentified Substance Containers

Unidentified substance containers suspected of containing hazardous substances or petroleum products were not observed on the project site.

8.1.9 Odors

Strong, pungent, or noxious odors were not observed on the project site.

8.1.10 Pools of Liquid

Pools of liquid were not observed on the project site.

8.1.11 PCB-Containing Equipment

GeoDesign personnel observed one pad-mounted transformer on the eastern portion of Tax Lot 100. The transformer was labeled with a blue sticker identifying it as "Non-PCB." The transformer appeared to be in good condition, with no evidence of spills or leakage.

8.1.12 Pits, Ponds, and Lagoons

Pits, ponds, or lagoons were not observed on the project site.

8.1.13 Stained Soil or Stained Pavement

Stained soil or stained pavement was not observed on the project site.

8.1.14 Stressed Vegetation

Stressed vegetation was not observed on the project site.

8.1.15 Solid Waste

GeoDesign personnel observed solid waste, including boxes, old paint cans, tarps, buckets, tires, lumber, milk crates, plastic bottles and containers, broken tools, abandoned cars and trucks, tractors, motorcycles, yard equipment, and other materials, throughout the accessible outbuildings and scattered throughout the ground surface on the southern portion of Tax | Lot 1100. The majority of these materials were observed in the detached garage and garage/storage building, which were almost completely full of solid waste and other materials. Some evidence of deleterious materials, including waste oil containers, gasoline containers, paint cans, pesticide containers, and automotive batteries, was observed among the solid waste.

During the site reconnaissance, GeoDesign personnel also observed evidence of a burn pile located to the west of the residence on Tax Lot 100. Evidence of solid waste was observed in the burn pile. However, evidence of deleterious materials was not observed among the debris.

8.1.16 Waste Water
With the exception of sewage that is disposed of in the on-site septic systems, waste water was not observed on the project site.

8.1.17 Wells
GeoDesign personnel observed domestic water supply wells to the west of the residence on Tax Lot 100, to the northeast of the residence on Tax Lot 1100, to the northwest of the residence on Tax Lot 3400, and to the east of the residence on Tax Lot 3800.

With the exception of the potential drywells associated with the residence located on Tax Lot 100, discussed in Section 8.1.1 of this report, drywells, monitoring wells, injection wells, or other wells were not observed on the project site.

8.1.18 Septic Systems
While evidence of septic systems was not observed during the site reconnaissance, septic systems associated with the existing residences are reportedly present on Tax Lots 1100, 1101, 3400, and 3800. In addition, according to the owner/occupant of Tax Lot 1100 (Mr. Ferris), a septic system associated with a former mobile home may be present on the approximate central portion of on Tax Lot 1101. GeoDesign was unable to determine if a septic system associated with the existing residence on Tax Lot 100 is present.

8.1.19 Fill
Evidence of fill was not observed on the project site.

8.1.20 Heating and Cooling Systems
GeoDesign personnel were unable to access the interiors of the project site residences. Heating and cooling systems associated with the residences on Tax Lots 100, 3400, and 3800 are reportedly powered by natural gas and/or electricity. However, the residence on Tax Lot 3400 was reportedly originally heated by a heating oil-powered system that utilized a UST to store the heating oil. The residences on Tax Lots 1100 and 1101 are reportedly heated by heating oil-powered heating systems. Heating oil for these system are stored in USTs, as discussed in Section 8.1.6 of this report.

8.1.21 Interior Stains or Corrosion
GeoDesign personnel observed an area of dark, oily staining on the concrete floor of the machine shop on Tax Lot 1100. The staining appeared to be de minimis in nature and related to minor spills or leaks of way oil from a milling machine. The concrete floor in the machine shop appeared to be in good condition, with no cracks, drains, or other pathways for migration observed.

8.1.22 Interior Drains or Sumps
Interior drains or sumps were not observed in the project site structures. GeoDesign personnel were unable to access the interiors of the on-site residences. Further, the interiors of some of the outbuildings on Tax Lots 1100 and 3400 could not be observed as they were obscured by clutter or due to locked doors.

8.2 SURROUNDING PROPERTY USE

The project site is directly bound to the north by SW Scholls Ferry Road and vacant land; to the east by residential land; to the south by residential and agricultural land and an unnamed tributary to the Tualatin River; and to the west by vacant land, a PGE substation, and residential and agricultural land. Evidence of adverse environmental conditions was not observed on adjacent properties.

9.0 INTERVIEWS

Tax Lot 100 is owned by Christopher and Sherri Ralston, Tax Lots 1000 and 1101 are owned by Arbor Road LLC, Tax Lot 1100 is owned by Rick Harold Ferris and Elizabeth Jean Ferris, Tax Lot 3400 is owned by James J. and Michelle Beardsley, and Tax Lot 3800 is owned by Scott and Nancy Edmonds Living Trust. GeoDesign interviewed a representative of an owner of the project site, an owner/occupant of the project site, and local government officials during the course of this study. Information obtained from these interviews is presented in the following sections.

9.1 CURRENT OWNER'S REPRESENTATIVE

Mr. Dan Grimberg (director of land development with Arbor Custom Homes) completed a Phase I ESA property owner questionnaire regarding the project site on June 10, 2015. Mr. Grimberg has been familiar with the project site for approximately ten years. Mr. Grimberg indicated that he was aware of the presence of former and active heating oil USTs, domestic water wells, and/or septic systems associated with the project site residences and the possible historical agricultural pesticide use on the project site as identified in the five previous environmental reports prepared for the project site, discussed in Sections 5.1.1 through 5.1.5 of this report.

9.2 CURRENT OWNER/OCCUPANT – TAX LOT 1100

Mr. Rick Ferris (owner/occupant of Tax Lot 1100) was interviewed on June 5, 2015. Mr. Ferris has been familiar with Tax Lot 1100 for approximately 30 years. According to Mr. Ferris, he operated R&L Quality Machining in the machine shop on his property from approximately 1990 until 2013. He stated that oil or solvents related to his machining operation were not disposed of on site. Mr. Ferris identified that he was the former owner of Tax Lot 1101 and that the residence on this tax lot was previously occupied by his mother. Mr. Ferris provided site information relating to Tax Lots 1100 and 1101, as discussed in Section 8.0 of this report. Mr. Ferris stated that he was not aware of any environmental issues associated with Tax Lots 1100 and 1101.

9.3 LOCAL GOVERNMENT OFFICIALS

Erica (no last name given), accounting assistant II with Washington County Assessment and Taxation, was interviewed on June 8, 2015 regarding her knowledge of ownership of the project site. According to the representative, Tax Lot 100 is owned by Christopher and Sherri Ralston, Tax Lots 1000 and 1101 are owned by Arbor Road LLC, Tax Lot 1100 is owned by Rick Harold Ferris and Elizabeth Jean Ferris, Tax Lot 3400 is owned by James J. and Michelle Beardsley, and Tax Lot 3800 is owned by Scott and Nancy Edmonds Living Trust.

Ms. Rachel Lueptow (permit technician with Washington County Building Services) was interviewed on June 8, 2015 regarding the presence of piping connected to the rain gutters of

the residence on Tax Lot 100, which enter the ground surface primarily at the corners of the structure. According to Ms. Lueptow, the observed piping is common in these portions of Washington County due to the lack of a storm sewer system and common presence of septic systems. However, she stated that she was not sure whether the piping terminates as it enters the ground surface or if it is connected to a drywell.

Ms. Ingrid Gaffney (DEQ Heating Oil Tank Program) was interviewed on June 11, 2015 regarding the former heating oil USTs present on Tax Lots 1000 and 3400. According to Ms. Gaffney, DEQ has no record of heating oil UST certifications for either property.

10.0 DATA GAPS

The ground surface in some portions of the project site could not be observed due to the presence of dense vegetation, and the interiors of the project site residences were not observed during the site reconnaissance. Further, the interiors of some of the outbuildings on Tax Lots 1100, 3400, and 3800 could not be observed as they were obscured by clutter or due to locked doors. It is our professional opinion that these data gaps are of low significance relative to our ability to identify recognized environmental conditions at the project site.

11.0 LIMITED SURFACE SOIL EVALUATION

The results of the Phase I ESA indicated that the project site has been used for agricultural purposes since at least 1934 through the present. In order to evaluate the project site for residual pesticide and/or heavy metal concentrations associated with the agricultural use, GeoDesign completed a limited surface soil evaluation of the project site in general accordance with DEQ's *Guidance for Evaluating Residual Pesticides on Lands Formerly Used for Agricultural Production,* dated January 2006.

11.1 FIELD ACTIVITIES

Field activities were completed on June 5 and June 11, 2015 and included collecting 14 composite surface soil samples (0.0 to 0.5 foot BGS) from throughout the agricultural-use portions of the project site. The composite surface soil sampling areas are shown on Figure 5.

11.2 CHEMICAL ANALYTICAL RESULTS

Composite surface soil samples Comp-1(0.0-0.5) through Comp-14(0.0-0.5) were submitted to Apex Laboratories, LLC of Tigard, Oregon, for analysis of organochlorine pesticides by EPA Method 8081B and total metals by EPA Method 6020. Up to five organochlorine pesticides (including cis-Chlordane, trans-Chlordane, Chlordane, DDE, and DDT) were detected in 10 of the 14 composite surface soil samples analyzed. The detected concentrations ranged from 2.21 to 1,650 µg/kg. Up to 16 total metals were detected in each of the 14 composite surface soil samples analyzed. The detected concentrations ranged from 0.265 to 366 mg/kg. The surface soil sample analytical results are shown in Tables 1 and 2. The laboratory analytical report is presented in Appendix D.

With the exception of Chlordane in composite surface soil sample Comp-1(0.0-0.5), the detected concentrations of organochlorine pesticides were less than the most conservative applicable DEQ

RBCs. The concentration of chlordane in composite surface soil sample Comp-1(0.0-0.5) of 1,650 µg/kg slightly exceeds the corresponding DEQ residential RBC for *Soil Ingestion, Inhalation, and Dermal Contact* of 1,600 µg/kg*;* however, Chlordane was not detected at concentrations greater than the laboratory MRLs in the remaining composite surface soil samples analyzed to date.

In order to evaluate potential risks to future residential occupants of the project site from Chlordane in surface soil, GeoDesign calculated the 95% UCL of the average concentration of Chlordane in surface soil at the project site using EPA's ProUCL version 5.0. ProUCL is a statistical software package provided by EPA for analysis of environmental data sets to address many environmental sampling and statistical issues. Using the full value of the MRL for samples where Chlordane was not detected, ProUCL calculated the 95% UCL of the average concentration of Chlordane in surface soil at the project site at 673.2 µg/kg. The 95% UCL of the average concentration of Chlordane in surface soil at the project site is less than the corresponding DEQ residential RBC for *Soil Ingestion, Inhalation, and Dermal Contact*. Therefore, it is our professional opinion that the detected concentration of chlordane in surface soil at the project site does not represent a recognized environmental condition at the project site and that there is no need for regulatory oversight of the project site during construction. A copy of the ProUCL statistical analysis is included in Appendix E.

With the exception of the detected concentrations of DDT and Chlordane in composite surface soil sample Comp-1(0.0-0.5), the detected concentrations of organochlorine pesticides were less than corresponding DEQ CFSLs. DEQ's Internal Management Directive entitled *Clean Fill Determinations*, dated July 23, 2014, specifically allows for the use of average concentrations of contaminants in soil when making clean fill determinations. GeoDesign calculated the average concentrations of DDT and Chlordane in composite surface soil samples using the full value of the MRLs for samples where DDT and Chlordane were not detected, the average concentrations of DDT and Chlordane in the composite surface soil samples collected from the project site were 6.75 and 200 µg/kg, respectively. The average concentrations of DDT and Chlordane are less than the corresponding DEQ CFSLs for these compounds.

With the exception of antimony, cadmium, and selenium in composite surface soil sample Comp-10(0.0-0.5), the detected concentrations of total metals in the 14 composite surface soil samples analyzed were either less than the most conservative DEQ RBCs, less than DEQ CFSLs, or were within the range of naturally occurring metals in Oregon soil. The average concentration of antimony in the 14 composite soil samples was 0.71 mg/kg, greater than the corresponding DEQ CFSL for antimony of 0.56 mg/kg. Unless additional sample analysis indicates that the average concentration of antimony in surface soil at the project site is less than the corresponding DEQ CFSL, surface soil from the area represented by composite surface soil sample Comp-10(0.0-0.5) intended for off-site disposal during future site development will require disposal at a RCRA Subtitle D landfill or other DEQ-approved landfill. The remainder of the surface soil at the project site meets DEQ CFSLs and can be managed as clean fill.

12.0 CONCLUSIONS AND RECOMMENDATIONS

GeoDesign performed a Phase I ESA and limited surface soil evaluation in conformance with the scope and limitations of ASTM Practice E 1527-13 and all appropriate inquiries specified in 40 CFR Part 312 for the project site located at 16550 – 17012 SW Friendly Lane in Tigard, Oregon. Any exceptions to or deletions from this practice are described in Sections 3.0 and 14.0 of this report. The results of is assessment has revealed the following:

- The project site was used for agricultural purposes from at least 1934 through the present. Residual pesticides and associated metals can accumulate in surface soil on agricultural-use land. GeoDesign completed a limited surface soil evaluation of the project site to evaluate for potential impacts from historical pesticide use. With the exception of DDT and Chlordane in 1 of the 14 composite surface soil samples analyzed, organochlorine pesticides and total metals were not detected at concentrations greater than the most conservative DEQ RBCs or DEQ CFSLs.

  The detected concentration of Chlordane in 1 of the 14 composite surface soil samples analyzed slightly exceeded the corresponding DEQ residential RBC for *Soil Ingestion, Dermal Contact, and Inhalation*. However, statistical analysis of the composite surface soil sample analytical results indicated that the 95% UCL of the average Chlordane concentration at the project site was less than the DEQ residential RBC for *Soil Ingestion, Inhalation, and Dermal Contact*. Therefore, it is our professional opinion that the detected concentration of Chlordane in surface soil at the project site does not represent a recognized environmental condition at the project site. Unlike the nearby Roshak Ridge site, where DEQ RBCs were exceeded in shallow soil, the project site does not contain pesticide or metals concentrations that would require regulatory oversight during upcoming construction activities.

  The average concentration of antimony in the 14 composite soil samples was 0.71 mg/kg, greater than the corresponding DEQ CFSL for antimony of 0.56 mg/kg. Unless additional sample analysis indicates that the average concentration of antimony in surface soil at the project site is less than the corresponding DEQ CFSL, surface soil from the area represented by composite surface soil sample Comp-10(0.0-0.5) intended for off-site disposal during future site development will require disposal at a RCRA Subtitle D landfill or other DEQ-approved landfill. The remainder of the surface soil at the project site meets DEQ CFSLs and can be managed as clean fill.

- Evidence of heating oil USTs was observed on Tax Lots 1100 and 1101, and an additional UST may be present beneath the machine shop building on Tax Lot 1101. During site development, the on-site USTs should be decommissioned and certifications obtained by a licensed Heating Oil Supervisor in accordance with state and local regulations, including the analysis of soil samples collected from beneath the USTs.
- A heating oil UST was reportedly present on Tax Lot 1000 at the time of a 2003 Phase I ESA of that property, and soil samples were reportedly collected from beneath the heating oil UST in 2003. The soil sample analytical results were not included in the 2003 Phase I ESA. The heating oil UST on Tax Lot 1000 appears to have been removed sometime after 2003. In addition, a 2013 Phase I ESA of Tax Lot 3400 stated that a heating oil UST was removed from

Tax Lot 3400 sometime around 1998. However, representatives of DEQ's Heating Oil Tank Program indicated that the heating oil UST removals on Tax Lots 1000 and 3400 have not been certified by a heating oil UST supervisor. If encountered during future site development, petroleum-contaminated soil that may be present in the vicinities of these former USTs should be managed in accordance with state and local regulations.

- Septic systems are present on Tax Lots 100, 1100, 1101, 3400, and 3800, and it is possible that an additional septic system is present in the vicinity of the former mobile home on Tax Lot 1101. Two businesses operated at the project site, including R&L Quality Machining on Tax Lot 1100 and Jim Beardsley Trucking on Tax Lot 3400. Waste water associated with both of these businesses was discharged to the on-site septic systems. The septic systems at the project site should be decommissioned in accordance with state and local regulations. If evidence of chemical or hazardous material disposal is observed, soil samples should be collected from beneath the septic systems.
- The potential deleterious materials observed among the solid waste, including waste oil containers, gasoline containers, paint cans, pesticide containers, and automobile batteries, should be segregated from the solid waste, characterized, and properly disposed of. The remainder of the solid waste present at the project site should be collected and properly disposed of.
- The petroleum products, waste oil, antifreeze, pesticides, fertilizers, and other materials stored in small-quantity containers and drums generally appeared to be properly stored, and evidence of surface staining or other releases was not observed in the vicinities of these containers. Therefore, the presence of these materials did not appear to represent a recognized environmental condition at the project site. These materials should be collected, characterized, and properly disposed of prior to or during site development.
- Domestic water supply wells were observed on Tax Lots 100, 1100, 3400, and 3800, and it is possible that additional historical water supply wells may be present at the project site. These domestic water supply wells should be decommissioned in accordance with state and local regulations.

While the presence of drums, small-quantity containers, and ASTs containing petroleum products and other materials did not appear to represent a recognized environmental condition at the project site, given the large volume of materials present it is possible that some surface-stained soil may be present beneath some of these containers. In addition, it is possible that petroleum-contaminated soil and/or groundwater could be present in the vicinities of the former heating oil USTs present on Tax Lots 1000 and 3400. Therefore, it may be prudent to prepare a Soil Management Plan prior to site development to assist the earthwork contractor on the proper identification, handling, stockpiling, and disposal of petroleum-contaminated soil.

This scope of work did not include the completion of surveys for lead-based paint, asbestos-containing materials, or other hazardous building materials in the on-site structures. Prior to site demolition, the on-site structures should be surveyed for hazardous building materials. If hazardous building materials are present in the on-site structures, they should be removed and disposed in accordance with federal, state, and local regulations prior to site demolition.

13.0 DECLARATIONS

We declare that, to the best of our professional knowledge and belief, we meet the definition of Environmental Professional as defined in 40 CFR Part 312.10. We have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the project site. We developed and performed all the appropriate inquiries in accordance with the standards and practices set forth in 40 CFR Part 312.

14.0 LIMITATIONS

This Phase I ESA has been prepared for use by Polygon Northwest Company. GeoDesign makes no warranties or guarantees regarding the accuracy or completeness of information provided or compiled by others. The information presented in this report is based on the above-described research and two recent site visit. Information provided by others was relied on in our description of historical conditions and review of regulatory databases and files. The available data do not provide definitive information with regard to all past uses, operations, or incidents at the project site or adjacent properties. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a property. There is always a potential that areas with contamination that were not identified during this Phase I ESA exist at the project site or in the study areas. Further evaluation of such potential would require additional research, subsurface exploration, sampling, and/or testing.

Some substances may be present in the project site vicinity in quantities or under conditions that may have led or may lead to contamination of the project site but are not included in current local, state, or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoDesign cannot be responsible if the standards of all appropriate inquiry or regulatory definitions of hazardous substance change or if you are required to meet more stringent standards in the future.

This report is not intended for use by others, and the information contained herein is not applicable to other sites. Reliance on this report by other parties is strictly at the risk of those parties, and GeoDesign will grant no third party reliance unless specifically requested in writing by our client for whom this report was prepared.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with the generally accepted environmental science practices for Phase I ESAs in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

♦ ♦ ♦

We appreciate the opportunity to be of service to Polygon Northwest Company. Please call if you have questions regarding this report.

Sincerely,

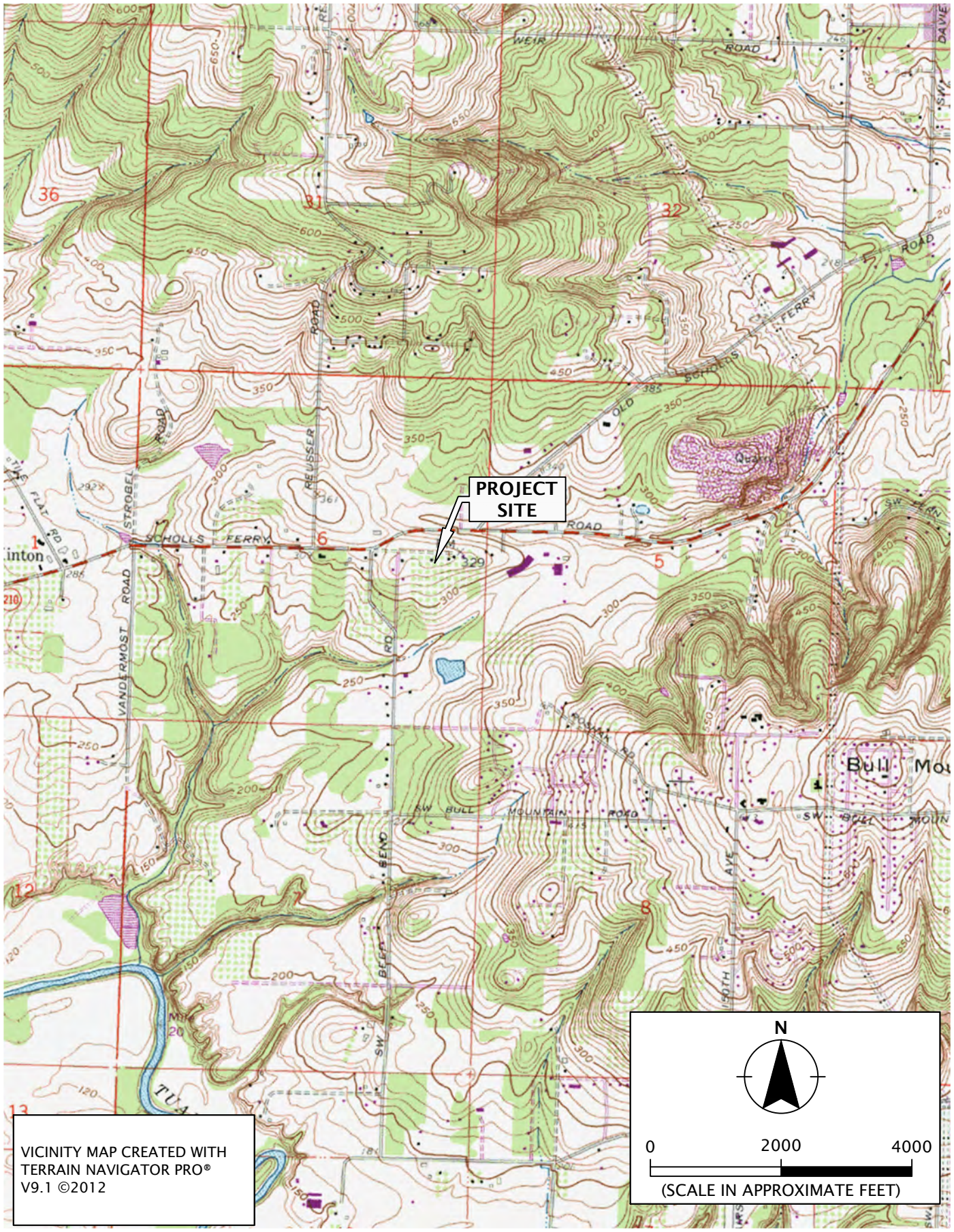
GeoDesign, Inc.

Jeremy Zimber
Environmental Staff

Colby R. Hunt, C.H.M.M.
Senior Project Manager

Robert E. Belding, R.G.
Principal Geologist

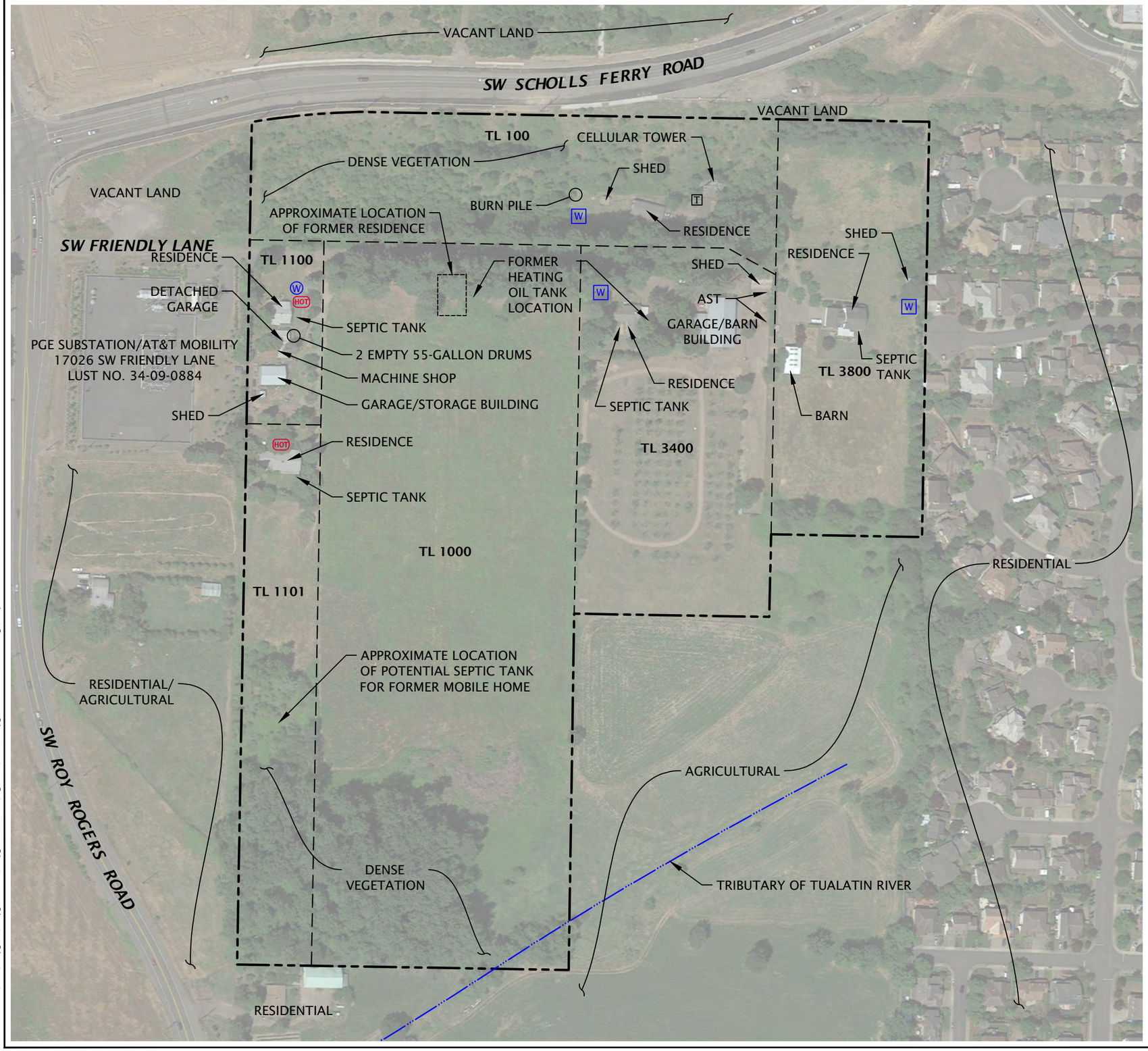
FIGURES



GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

POLYGON-129-02	**VICINITY MAP**	
JUNE 2015	RIVER TERRACE EAST TIGARD, OR	**FIGURE 1**

Printed By: aday | Print Date: 6/11/2015 11:34:45 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-VM01.dwg | Layout: FIGURE 1



LEGEND:

- PROJECT SITE BOUNDARY
- TAX LOT BOUNDARY
- **TL 3800** TAX LOT (WASHINGTON COUNTY TAX MAPS 2S106 AND 2S106AD)
- T PAD-MOUNTED TRANSFORMER
- W DOMESTIC WATER WELL
- W DOMESTIC WATER WELL PUMP HOUSE
- HOT HEATING OIL UST

N

0 200 400

(SCALE IN FEET)

SITE PLAN BASED ON AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH PRO®, JUNE 4, 2015

SITE PLAN

RIVER TERRACE EAST
TIGARD, OR

FIGURE 2

POLYGON-129-02

JUNE 2015

GeoDesign NW
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

Printed By: aday | Print Date: 6/12/2015 1:12:13 PM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02 SP01.dwg | Layout: FIGURE 2

VIEW OF THE EASTERN PORTION OF THE PROJECT SITE. PHOTOGRAPH TAKEN FACING NORTHEAST ACROSS THE ADJACENT AGRICULTURAL LAND.

VIEW OF THE WESTERN PORTION OF THE PROJECT SITE. PHOTOGRAPH TAKEN FACING NORTHWEST ACROSS THE ADJACENT AGRICULTURAL LAND.

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

POLYGON-129-02	**PROJECT SITE PHOTOGRAPHS**	
JUNE 2015	RIVER TERRACE EAST TIGARD, OR	**FIGURE 3**

VIEW OF THE FILL PORT AND VENT PIPE ASSOCIATED WITH THE HEATING OIL UST LOCATED DIRECTLY NORTHEAST OF THE RESIDENCE ON TAX LOT 1100. PHOTOGRAPH TAKEN FACING SOUTH.

VIEW OF THE SUSPECT PIPING OBSERVED TO THE EAST IN THE MACHINE SHOP LOCATED ON TAX LOT 1100 AND DARK, OILY STAINING OBSERVED ON THE CONCRETE FLOOR BENEATH THE MILLING MACHINE.

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

POLYGON-129-02	**PROJECT SITE PHOTOGRAPHS**	
JUNE 2015	RIVER TERRACE EAST TIGARD, OR	**FIGURE 4**

VIEW OF THE FILL PORT, LOCATED IN THE FOREGROUND, ASSOCIATED WITH THE HEATING OIL UST LOCATED DIRECTLY NORTH OF THE RESIDENCE ON TAX LOT 1101. PHOTOGRAPH TAKEN FACING SOUTH.

VIEW OF THE BURN PILE OBSERVED TO THE WEST OF THE RESIDENCE LOCATED ON TAX LOT 100. PHOTOGRAPH TAKEN FACING WEST.

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

POLYGON-129-02	**PROJECT SITE PHOTOGRAPHS**	
JUNE 2015	RIVER TERRACE EAST TIGARD, OR	**FIGURE 5**

VIEW OF THE SHED LOCATED ON TAX LOT 3400, WHICH CONTAINED MULTIPLE ASTs AND DRUMS. PHOTOGRAPH TAKEN FACING NORTH.

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

POLYGON-129-02	**PROJECT SITE PHOTOGRAPHS**	
JUNE 2015	RIVER TERRACE EAST TIGARD, OR	**FIGURE 6**

LEGEND:

PROJECT SITE BOUNDARY

COMP-1 COMPOSITE SAMPLE AREA

COMPOSITE SAMPLE AREA BOUNDARY

N

0 200 400

(SCALE IN FEET)

SITE PLAN BASED ON AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH PRO®, JUNE 4, 2015

SITE PLAN - SAMPLE LOCATIONS

FIGURE 7

RIVER TERRACE EAST
TIGARD, OR

POLYGON-129-02

JUNE 2015

GeoDesign NW
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

Printed By: aday | Print Date: 6/11/2015 11:34:56 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02 SP02.dwg | Layout: FIGURE 7

TABLES

TABLE 1
Summary of Surface Soil Sample Chemical Analytical Results [1]
Organochlorine Pesticides
River Terrace East
16550 - 17012 SW Friendly Lane
Tigard, Oregon

Sample I.D.	Sample Date	Organochlorine Pesticides by EPA Method 8081B (µg/kg)																					
		Aldrin	alpha-BHC	beta-BHC	delta-BHC	gamma-BHC (Lindane)	cis-Chlordane	trans-Chlordane	DDD	DDE	DDT	Dieldrin	Endosulfan I	Endosulfan II	Endosulfan Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	Heptachlor	Heptachlor Epoxide	Methoxychlor	Chlordane (Technical)	Toxaphene
Comp-1(0.0-0.5)	06/05/15	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	**185**	**176**	10.5 U	14.7 U	**23.2**	15.8 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	10.5 U	6.32 U	**1,650**	316 U
Comp-2(0.0-0.5)	06/05/15	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	**4.95**	**6.10**	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	6.97 U	69.7 U	69.7 U
Comp-3(0.0-0.5)	06/05/15	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	**3.51**	**3.98**	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	7.07 U	70.7 U	70.7 U
Comp-4(0.0-0.5)	06/05/15	2.40 U	2.40 U	3.60 U	2.40 U	2.40 U	2.40 U	2.40 U	2.88 U	**6.36**	**5.11**	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	2.40 U	7.20 U	72.0 U	72.0 U
Comp-5(0.0-0.5)	06/05/15	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	**4.70**	**5.47**	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	6.64 U	66.4 U	66.4 U
Comp-6(0.0-0.5)	06/05/15	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	**5.39**	**4.82**	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	2.36 U	7.08 U	70.8 U	70.8 U
Comp-7(0.0-0.5)	06/05/15	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	**28.9**	**16.8**	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	2.10 U	6.31 U	63.1 U	63.1 U
Comp-8(0.0-0.5)	06/05/15	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	**2.91**	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	6.62 U	66.2 U	66.2 U
Comp-9(0.0-0.5)	06/05/15	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	**3.33**	**3.75**	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	2.32 U	6.96 U	69.6 U	69.6 U
Comp-10(0.0-0.5)	06/11/15	2.08 U	2.08 U	2.08 U	2.08 U	2.08 U	2.08 U	2.08 U	2.08 U	2.08 U	**2.72**	2.08 U	2.08 U	2.08 U	2.08 U	2.08 U	2.08 U	2.08 U	2.08 U	2.08 U	6.25 U	62.5 U	62.5 U
Comp-11(0.0-0.5)	06/11/15	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	2.21 U	6.62 U	66.2 U	66.2 U
Comp-12(0.0-0.5)	06/05/15	2.15 U	2.15 U	2.15 U	2.15 U	2.15 U	2.15 U	2.15 U	2.15 U	2.15 U	2.15 U	2.15 U	2.15 U	2.15 U	2.15 U	2.15 U	2.15 U	2.15 U	2.15 U	2.15 U	6.44 U	64.4 U	64.4 U
Comp-13(0.0-0.5)	06/05/15	2.25 U	2.25 U	2.25 U	2.25 U	2.25 U	2.25 U	2.25 U	2.25 U	2.25 U	2.25 U	2.25 U	2.25 U	2.25 U	2.25 U	2.25 U	2.25 U	2.25 U	2.25 U	2.25 U	6.76 U	67.6 U	67.6 U
Comp-14(0.0-0.5)	06/05/15	2.26 U	2.26 U	2.26 U	2.26 U	2.26 U	2.26 U	2.26 U	2.26 U	2.26 U	2.26 U	2.26 U	2.26 U	2.26 U	2.26 U	2.26 U	2.26 U	2.26 U	2.26 U	2.26 U	6.77 U	67.7 U	67.7 U
95% UCL [2]																						*673*	
Average Concentration [3]											*5.98*											*180*	
DEQ Generic RBCs [4]																							
Soil Ingestion, Dermal Contact, and Inhalation																							
Residential		25	NE	NE	NE	380	NE	NE	2,400	1,700	1,700	29	370,000	NE	18,000	NE	NE	100	53	NE	1,600	440	
Construction Worker		72	NE	NE	NE	15,000	NE	NE	83,000	58,000	58,000	1,000	1,400,000	NE	71,000	NE	NE	3,700	1,800	NE	55,000	15,000	
Excavation Worker		110	NE	NE	NE	40,000	NE	NE	2,300,000	1,600,000	1,600,000	29,000	40,000,000	NE	2,000,000	NE	NE	100,000	51,000	NE	1,500,000	420,000	
Volatilization to Outdoor Air																							
Residential		NV	NE	NE	NE	>Csat	NE	NE	NV	NV	NV	NV	NV	NE	NV	NE	NE	280,000	NV	NE	NV	NV	
Vapor Intrusion into Buildings																							
Residential		NV	NE	NE	NE	>Csat	NE	NE	NV	NV	NV	NV	NV	NE	NV	NE	NE	280,000	NV	NE	NV	NV	
DEQ CFSLs [5]		11	70	270	NE	380	NE	NE	21	21	21	4.9	20,000	NE	40	NE	NE	100	53	310,000	1,300	440	

Notes:
1. Chemical analyses performed by Apex Laboratories, LLC of Tigard, Oregon.
2. 95% UCL of the average concentration calculated using EPA's ProUCL Version 5.0. The laboratory MRL was used for non-detect values.
3. Average concentration calculated using the laboratory MRL for non-detect values.
4. DEQ Generic RBCs, dated June 7, 2012
5. DEQ Internal Mangement Directive, Clean Fill Determinations, dated July 23, 2014

>Csat: Concentrations in excess of Csat indicate free product may be present.
NA: Not available. As of the date of this report, the analytical results for these soil samples were not available. The analytical results for these samples will be presented in a forthcoming addendum.
NE: Not established. DEQ has not established RBCs for this compound.
NV: Chemical is considered non-volatile.
U: not detected at concentrations greater than the laboratory MRL (shown)
Bolding indicates analyte detected at a concentration greater than the analytical laboratory MRL.
Shading indicats compound detected at concentration greater than applicable DEQ RBCs and/or DEQ CFSLs.

TABLE 2
Summary of Surface Soil Sample Chemical Analytical Results[1]
Total Metals
River Terrace East
16550 - 17012 SW Friendly Lane
Tigard, Oregon

Sample I.D.	Sample Date	Total Metals by EPA Method 6020 (ICPMS) (mg/kg)																
		Antimony	Arsenic	Barium	Berylium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
Comp-1(0.0-0.5)	06/05/15	1.21 U	**5.49**	**289**	**0.617**	**0.338**	**14.9**	**14.5**	**12.5**	**22.6**	0.0967	1.21 U	**11.6**	1.21 U	0.242 U	0.242 U	**53.6**	**72.8**
Comp-2(0.0-0.5)	06/05/15	1.34 U	**6.40**	**205**	**0.444**	0.269 U	**15.2**	**10.4**	**12.4**	**21.5**	0.108 U	1.34 U	**11.1**	1.34 U	0.269 U	0.269 U	**48.8**	**63.5**
Comp-3(0.0-0.5)	06/05/15	1.27 U	**4.59**	**227**	**0.482**	0.254 U	**15.2**	**10.2**	**11.9**	**18.9**	0.101 U	1.27 U	**11.4**	1.27 U	0.254 U	0.254 U	**47.6**	**63.7**
Comp-4(0.0-0.5)	06/05/15	1.33 U	**4.92**	**206**	**0.477**	0.265 U	**16.4**	**10.4**	**12.9**	**17.5**	0.016 U	1.33 U	**11.3**	1.33 U	0.265 U	0.265 U	**57.4**	**60.6**
Comp-5(0.0-0.5)	06/05/15	1.30 U	**5.58**	**203**	**0.494**	0.260 U	**15.7**	**11.5**	**11.8**	**17.8**	0.104 U	1.30 U	**11.7**	1.30 U	0.260 U	0.260 U	**48.8**	**66.5**
Comp-6(0.0-0.5)	06/05/15	1.40 U	**7.79**	**290**	**0.561**	**0.351**	**15.4**	**14.4**	**12.8**	**23.8**	0.112 U	1.40 U	**11.3**	1.40 U	0.281 U	0.281 U	**57.0**	**58.8**
Comp-7(0.0-0.5)	06/05/15	1.31 U	**4.36**	**237**	**0.444**	0.261 U	**15.3**	**10.5**	**14.0**	**16.1**	0.105 U	1.31 U	**10.9**	1.31 U	0.261 U	0.261 U	**45.6**	**65.4**
Comp-8(0.0-0.5)	06/05/15	1.28 U	**5.33**	**237**	**0.474**	0.256 U	**13.9**	**9.38**	**14.0**	**17.7**	0.103 U	1.28 U	**9.98**	1.28 U	0.256 U	0.256 U	**46.3**	**54.4**
Comp-9(0.0-0.5)	06/05/15	1.28 U	**5.24**	**299**	**0.473**	0.256 U	**15.4**	**11.3**	**15.8**	**17.5**	0.102 U	1.28 U	**11.4**	1.28 U	0.256 U	0.256 U	**50.5**	**76.2**
Comp-10(0.0-0.5)	06/11/15	**1.50**	**11.4**	**204**	**1.77**	**7.37**	**24.3**	**17.5**	**22.2**	**20.5**	0.0978 U	**1.69**	**20.0**	**1.59**	**1.36**	**1.37**	**64.8**	**73.3**
Comp-11(0.0-0.5)	06/11/15	1.22 U	**3.23**	**209**	**1.85**	0.244 U	**16.2**	**10.3**	**15.4**	**10.3**	0.0976 U	1.22 U	**10.1**	1.22 U	0.244 U	0.244 U	**56.3**	**59.6**
Comp-12(0.0-0.5)	06/05/15	1.29 U	**2.56**	**366**	**0.543**	**0.285**	**16.2**	**10.9**	**12.6**	**9.96**	0.104 U	1.29 U	**12.6**	1.29 U	0.259 U	0.259 U	**45.4**	**66.9**
Comp-13(0.0-0.5)	06/05/15	1.20 U	**3.44**	**304**	**0.565**	**0.265**	**18.4**	**13.6**	**14.9**	**10.0**	0.0962 U	1.20 U	**14.6**	1.20 U	0.241 U	0.241 U	**56.1**	**68.5**
Comp-14(0.0-0.5)	06/05/15	1.35 U	**2.56**	**193**	**0.445**	0.270 U	**17.5**	**9.80**	**12.6**	**13.2**	0.108 U	1.35 U	**11.0**	1.35 U	0.270 U	0.270 U	**51.1**	**60.5**
Average Concentration[3]		*0.71*				*0.278*								*0.71*				
DEQ Generic RBCs[2]																		
Soil Ingestion, Dermal Contact, and Inhalation																		
Residential		NE	0.39[3]	15,000	160	39	120,000	NE	3,100	400	23	NE	1,500	NE	390	NE	NE	NE
Construction Worker		NE	13	60,000	610	150	460,000	NE	12,000	800	93	NE	6,100	NE	1,500	NE	NE	NE
Excavation Worker		NE	370	>Max	17,000	4,300	>Max	NE	340,000	800	2,600	NE	17,000	NE	43,000	NE	NE	NE
Volatization to Outdoor Air																		
Residential		NE	NV	NV	NV	NV	NV	NE	NV	NV	NV	NE	NV	NE	NV	NE	NE	NE
Vapor Intrusion into Buildings																		
Residential		NE	NV	NV	NV	NV	NV	NE	NV	NV	NV	NE	NV	NE	NV	NE	NE	NE
DEQ CFSLs[4]		0.56	8.8	790	21	0.63	76	43	34	28	0.23	2.1	47	0.71	4.2	5.2	180	180

Notes:
1. Chemical analyses performed by Apex Laboratories, LLC of Tigard, Oregon.
2. DEQ Generic RBCs, dated June 7, 2012
3. While the detected concentrations of arsenic are greater than this RBC, they are within the range of naturally occuring arsenic concentrations in Oregon soil.
4. DEQ Internal Mangement Directive, Clean Fill Determinations, dated July 23, 2014

>Max: The constituent RBC for this pathway is calculated as greater than 1,000,000 mg/kg or 1,000,000 mg/L. Therefore, this substance is deemed not to pose risks in this scenario.
NA: Not available. As of the date of this report, the analytical results for these soil samples were not available. The analytical results for these samples will be presented in a forthcoming addendum.
NE: Not established. DEQ has not established RBCs for this compound.
NV: Chemical is considered non-volatile.
U: not detected at concentrations greater than the laboratory MRL (shown)
Bolding indicates analyte detected at a concentration greater than the analytical laboratory MRL.
Shading indicates compound detected at concentration greater than applicable DEQ RBCs and/or DEQ CFSLs.

APPENDIX A

GEODESIGN INC

FIRM PROFILE

Employee-owned and founded in 1997, GeoDesign provides geotechnical engineering, environmental, geological, hydrogeological, and pavement design consulting services from offices in Portland, Oregon; Vancouver and Seattle, Washington; and Anaheim, California. Our team consists of more than 100 engineers, geologists, engineering geologists, hydrogeologists, technical personnel, and administrative staff. More than 75 percent of our technical staff have advanced degrees in geology, geotechnical engineering, environmental engineering, and other related sciences. Forty percent are professional engineers, registered geologists, and certified engineering geologists and hydrogeologists.

We value our client relationships and are dedicated to offering exemplary service. Our focus on communication and collaboration enables us to develop a targeted approach for our clients' project needs and objectives. In providing recommendations, we clearly present the issues, alternatives, and risks in order to assist our clients in making informed decisions. As a result, more than 90 percent of our business comes from repeat clients and referrals.

From planning and design through construction, we offer consulting services in support of commercial and residential developments, industrial facilities, major transportation projects, property transactions, regulatory compliance, and infrastructure systems.

GEODESIGN INC

ROBERT E. BELDING, RG, LG

Principal Geologist

Bob Belding is an environmental and geological expert with nearly 30 years of experience managing a diverse range of projects throughout the Pacific Northwest. His project experience includes numerous Phase I and II ESAs, site characterizations, Remedial Investigations/Feasibility Studies, design and implementation of remedial actions, and working closely with regulatory agencies. In addition, Bob serves as an expert witness and provides senior technical review of peer and other consultants' work.

Key Projects

- Bellevue Towers; Bellevue, WA
- Ross Island Sand & Gravel Reclamation; Portland, OR
- Former Beacon Truck Stop; Albany, OR
- Birtcher Commercial Development Group, Environmental Consulting Services; Vancouver, WA
- Former Koch's Cleaners; Beaverton, OR
- The Civic Redevelopment; Portland, OR
- Townsend Farms Business Park; Portland, OR
- Oregon Military Department, Salem Field Maintenance Shop; Salem, OR
- 121st Avenue Business Park - Phase II; Vancouver, WA
- North Creek Place Office Building; Bothell, WA
- Pacific Gas Transmission, Site Investigation and Remediation; Portland, OR
- OGI School of Science and Engineering; Portland OR
- SW Hall and Highway 99W Intersection; Tigard, OR
- Columbia Tech Center; Vancouver, WA
- U.S. Bank, Master Service Agreement, Various Locations
- Evergreen School District, Columbia Tech Center Elementary School; Vancouver, WA
- Evergreen School District, Scovill Property; Vancouver, WA
- Boise Paper Solutions; Wallula, WA
- Hyland Hills Shopping Center (Former Alpine Dry Cleaners); Beaverton, OR
- Brewery Blocks Development (Former Blitz Weinhard Brewery Site); Portland, OR
- Old Mill Marina (Former Oregon-Washington Plywood Company Mill Site); Garibaldi, OR
- Former Oregon Fir Supply Site; Portland, OR
- Lowe's Home Improvement Warehouse; Longview, WA
- Sulzer Pumps Site Adjacent to the Willamette River; Portland, OR
- Former Tube Specialties Site; Portland, OR
- Confederated Tribes of the Umatilla Indian Reservation, Former Landfill Area; Pendleton, OR
- Eaton Corporation, Former Manufacturing Facility; Beaverton, OR
- Sexton Mountain Development (Cobbs Quarry); Beaverton, OR
- Bridgeport Village Development (Durham Quarry); Tigard/Tualatin, OR
- The Landing at Evergreen; Vancouver, WA
- Washington County Facilities Management, Professional Services Contract; Washington County, OR

Credentials/Affiliations

BS, Geology, California State University, Humboldt, 1979
Registered Geologist, OR
Licensed Geologist, WA
Association of Engineering Geologists
Oregon Association of Environmental Professionals

GEODESIGN INC

COLBY R. HUNT, CHMM, MBA

Senior Project Manager

Colby Hunt has 10 years of experience conducting Phase I and II ESAs, Remedial Investigations/Feasibility Studies, land and water use determinations, risk-based analyses, and groundwater monitoring and remediation projects for a variety of clients in Oregon and Washington. He has conducted both environmental and geotechnical field investigations.

Key Projects

- McDonalds Corporation; Tigard, Scappoose, and Portland, OR
- Mountain Park Shopping Center; Lake Oswego, OR
- RReef, Multiple Phase I ESAs, Various Locations, OR
- Beaver Lake Development – Lot 36; Oregon City, OR
- McKever Property; Washougal, WA
- The Lakes at Fisher Landing Residential Development; Vancouver, WA
- Parr Lumber, Albany Yard; Albany, OR
- Parr Lumber; Pierce County, WA
- Ross Island Sand & Gravel, Feasibility Study/Reclamation Support Services; Portland, OR
- R.S. Davis Recycling Facility; Clackamas, OR
- Former Tube Specialties Site; Portland, OR
- South Waterfront Development; Portland, OR
- 85-Acre Clackamas Quarry Site; Clackamas, OR
- Washington County Facilities Management, Former Shadybrook Landfill; North Plains, OR
- Washington County, NW Cornell Road from NW 179th to Bethany Boulevard; Beaverton, OR
- Washington County, SW Hall Boulevard and Highway 99W Intersection; Tigard, OR
- Statewide Environmental Services, Farmers Supply Co-Op; Ontario, OR
- Stein Oil, Various Facilities; Clackamas, West Linn, Lake Oswego, and Portland, OR
- Haggen Store (Cobbs Quarry); Beaverton, OR
- Bellevue Towers; Bellevue, WA
- Ridgecrest Development; Ridgefield, WA
- Former Vancouver Plywood Site – Lot 37; Vancouver, WA
- The Landing at Evergreen; Vancouver, WA
- OSF International Property; Portland, OR

Credentials/Certifications

BS, Environmental Health and Safety, Oregon State University, 1993
Hazardous Waste Operations Health and Safety Program (40 Hour)
AHERA Building Inspector and Management Planner
Certified Hazardous Materials Manager (Senior Level)

GEODESIGN INC

JEREMY M. ZIMBER

Environmental Staff

Jeremy Zimber has more than 10 years of consulting experience focused primarily on environmental due diligence and remediation, environmental compliance, environmental laboratory analysis, asbestos and lead identification, and abatement. Jeremy has conducted hazardous building materials assessments and overseen abatement efforts. He has also conducted pre-demolition surveys of buildings for both asbestos-containing materials and lead-based paint. In addition, Jeremy has conducted hundreds of Phase I ESAs nationwide for real estate and financial industries ranging from residential to manufacturing and industrial facilities. Jeremy is a certified AHERA Asbestos Inspector, and he joined GeoDesign in August 2010.

Key Projects

- Capitol Mall Road Site; Olympia, WA
- Columbia Gorge Family Medicine; Hood River, OR
- Lake Oswego Water Supply System; Lake Oswego, OR
- Proposed New Westside Christian High School; Tigard, OR
- City of Lake Oswego, Foothills District Framework Plan; Lake Oswego, OR
- Yeon Building; Portland, OR
- Block 296 Site (NW 22nd Avenue and NW Raleigh Street); Portland, OR
- GSA Building – Hazardous Building Materials Survey; Portland, OR
- Proposed Lowe's – Comprehensive Design-Level Hazardous Material Survey; Albany, OR
- Manufacturing/Distribution Facility; Salem, OR
- Washington County Facilities Management, Bridgeport Village Development; Tigard/Tualatin, OR
- Broadway Retail Building – ACM Survey; Portland, OR
- Proposed Development – 1951 SW 6th Avenue; Portland, OR
- West Bearing Housing Project; Portland, OR
- General Electric Phase I ESAs, Nationwide*
- City Bank Phase I ESAs, Nationwide*

**Individual experience*

Credentials/Affiliations

BS, Environmental Management, Rochester Institute of Technology, 1999
Certified EPA AHERA Asbestos Inspector
OSHA Hazardous Materials Training (40-Hour, Refresher)
First Aid/CPR Certified

APPENDIX B

River Terrace East
16550-17012 SW Friendly Lane
Beaverton, OR 97007

Inquiry Number: 4308611.2s
June 02, 2015

The EDR Radius Map™ Report with GeoCheck®

EDR® Environmental Data Resources Inc

6 Armstrong Road, 4th floor
Shelton, CT 06484
Toll Free: 800.352.0050
www.edrnet.com

TABLE OF CONTENTS

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

EXECUTIVE SUMMARY

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 1527-13) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

16550-17012 SW FRIENDLY LANE
BEAVERTON, OR 97007

COORDINATES

Latitude (North):	45.4247000 - 45° 25' 28.92''
Longitude (West):	122.8501000 - 122° 51' 0.36''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	511727.2
UTM Y (Meters):	5029924.5
Elevation:	330 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	45122-D7 BEAVERTON, OR
Most Recent Revision:	1984

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20120615
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
16550-17012 SW FRIENDLY LANE
BEAVERTON, OR 97007

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION
1	AT&T MOBILITY	17026 SW FRIENDLY LN	LUST, HSIS	Higher	64, 0.012, NW
2		16437 SW CROMWELL CT	EDR US Hist Auto Stat	Lower	206, 0.039, East
3	HEATING OIL TANK	16655 SW SCHOLLS FER	LUST, NPDES	Lower	312, 0.059, NE
4		16364 SW GEARIN CT	EDR US Hist Auto Stat	Lower	483, 0.091, ESE
5	NEW LOOK REFINISHING	16331 SW HOOPS CT	RCRA NonGen / NLR, FINDS	Lower	717, 0.136, ESE
6	ARBOR ROAD LLC	17448 SW SCHOLLS FER	LUST	Lower	1254, 0.237, WNW
7	ROSHAK RIDGE	NE OF ROY ROGERS RD.	VCP, ECSI	Lower	1948, 0.369, South
8	HEATING OIL TANK	15960 W ROSHAK ROAD	LUST	Higher	2457, 0.465, SE
9	HEATING OIL TANK	15862 SW OLD SCHOLLS	LUST	Higher	2485, 0.471, NE

EXECUTIVE SUMMARY

TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

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

CERCLIS ---------- Comprehensive Environmental Response, Compensation, and Liability Information System
FEDERAL FACILITY ---------- Federal Facility Site Information listing

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 controls 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 - equivalent CERCLIS

CRL ---------- Confirmed Release List and Inventory

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

SWF/LF ---------- Solid Waste Facilities List

State and tribal leaking storage tank lists

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

State and tribal registered storage tank lists

UST ---------- Underground Storage Tank Database
AST ---------- Aboveground Storage Tanks
INDIAN UST ---------- Underground Storage Tanks on Indian Land
FEMA UST ---------- Underground Storage Tank Listing

State and tribal institutional control / engineering control registries

ENG CONTROLS ---------- Engineering Controls Recorded at ESCI Sites
INST CONTROL ---------- Institutional Controls Recorded at ESCI Sites

State and tribal voluntary cleanup sites

INDIAN VCP ---------- Voluntary Cleanup Priority Listing

State and tribal Brownfields sites

BROWNFIELDS ---------- Brownfields Projects

ADDITIONAL ENVIRONMENTAL RECORDS

Local Brownfield lists

US BROWNFIELDS ---------- A Listing of Brownfields Sites

Local Lists of Landfill / Solid Waste Disposal Sites

ODI ---------- Open Dump Inventory
DEBRIS REGION 9 ---------- Torres Martinez Reservation Illegal Dump Site Locations
HIST LF ---------- Old Closed SW Disposal Sites
SWRCY ---------- Recycling Facility Location Listing
INDIAN ODI ---------- Report on the Status of Open Dumps on Indian Lands

Local Lists of Hazardous waste / Contaminated Sites

US CDL ---------- Clandestine Drug Labs

AOCONCERN	Columbia Slough
CDL	Uninhabitable Drug Lab Properties
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	Spill Database
OR HAZMAT	Hazmat/Incidents
SPILLS 90	SPILLS 90 data from FirstSearch

Other Ascertainable Records

DOT OPS	Incident and Accident Data
DOD	Department of Defense Sites
FUDS	Formerly Used Defense Sites
CONSENT	Superfund (CERCLA) Consent Decrees
ROD	Records Of Decision
UMTRA	Uranium Mill Tailings Sites
US MINES	Mines Master Index File
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
PADS	PCB Activity Database System
MLTS	Material Licensing Tracking System
RADINFO	Radiation Information Database
FINDS	Facility Index System/Facility Registry System
RAATS	RCRA Administrative Action Tracking System
RMP	Risk Management Plans
UIC	Underground Injection Control Program Database
MANIFEST	Manifest Information
DRYCLEANERS	Drycleaning Facilities
NPDES	Wastewater Permits Database
AIRS	Oregon Title V Facility Listing
HSIS	Hazardous Substance Information Survey
INDIAN RESERV	Indian Reservations
SCRD DRYCLEANERS	State Coalition for Remediation of Drycleaners Listing
COAL ASH	Coal Ash Disposal Sites Listing
Financial Assurance	Financial Assurance Information Listing
LEAD SMELTERS	Lead Smelter Sites
US AIRS	Aerometric Information Retrieval System Facility Subsystem
EPA WATCH LIST	EPA WATCH LIST
US FIN ASSUR	Financial Assurance Information
COAL ASH EPA	Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER	PCB Transformer Registration Database
COAL ASH DOE	Steam-Electric Plant Operation Data
2020 COR ACTION	2020 Corrective Action Program List

EXECUTIVE SUMMARY

PRP ---------- Potentially Responsible Parties

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP ---------- EDR Proprietary Manufactured Gas Plants
EDR US Hist Cleaners ---------- EDR Exclusive Historic Dry Cleaners

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA HWS ---------- Recovered Government Archive State Hazardous Waste Facilities List
RGA LF ---------- Recovered Government Archive Solid Waste Facilities List
RGA LUST ---------- Recovered Government Archive Leaking Underground Storage Tank

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 CERCLIS

ECSI: The Environmental Cleanup Site Information System records information about sites in Oregon that may be of environmental interest. The data come from the Department of Environmental Quality.

A review of the ECSI list, as provided by EDR, and dated 04/01/2015 has revealed that there is 1 ECSI site within approximately 1 mile of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ROSHAK RIDGE Investigation: Suspect State ID Number: 5781	***NE OF ROY ROGERS RD.***	***S 1/4 - 1/2 (0.369 mi.)***	***7***	***14***

State and tribal leaking storage tank lists

LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the Department of Environmental Quality's LUST Database List.

A review of the LUST list, as provided by EDR, and dated 01/06/2015 has revealed that there are 5 LUST sites within approximately 0.5 miles of the target property.

Equal/Higher Elevation	Address	Direction / Distance	Map ID	Page
AT&T MOBILITY Cleanup Complete: 11/16/2009 Facility ID: 34-09-0884	***17026 SW FRIENDLY LN***	***NW 0 - 1/8 (0.012 mi.)***	***1***	***8***
HEATING OIL TANK Facility ID: 34-03-1916	15960 W ROSHAK ROAD	SE 1/4 - 1/2 (0.465 mi.)	8	18
HEATING OIL TANK Facility ID: 26-93-6032	15862 SW OLD SCHOLLS	NE 1/4 - 1/2 (0.471 mi.)	9	18

Lower Elevation	Address	Direction / Distance	Map ID	Page
HEATING OIL TANK Cleanup Complete: 12/17/2012 Facility ID: 34-12-1366	***16655 SW SCHOLLS FER***	***NE 0 - 1/8 (0.059 mi.)***	***3***	***11***
ARBOR ROAD LLC Cleanup Complete: 02/07/2007 Facility ID: 34-06-0185	17448 SW SCHOLLS FER	WNW 1/8 - 1/4 (0.237 mi.)	6	14

State and tribal voluntary cleanup sites

VCP: Responsible parties have entered into an agreement with DEQ to voluntarily address contamination associated with their property.

A review of the VCP list, as provided by EDR, and dated 03/31/2015 has revealed that there is 1 VCP site within approximately 0.5 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
ROSHAK RIDGE ECS Site ID: 5781	***NE OF ROY ROGERS RD.***	***S 1/4 - 1/2 (0.369 mi.)***	***7***	***14***

ADDITIONAL ENVIRONMENTAL RECORDS

Other Ascertainable Records

RCRA NonGen / NLR: 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.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 12/09/2014 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
NEW LOOK REFINISHING	***16331 SW HOOPS CT***	***ESE 1/8 - 1/4 (0.136 mi.)***	***5***	***12***

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR US Hist Auto Stat: 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.

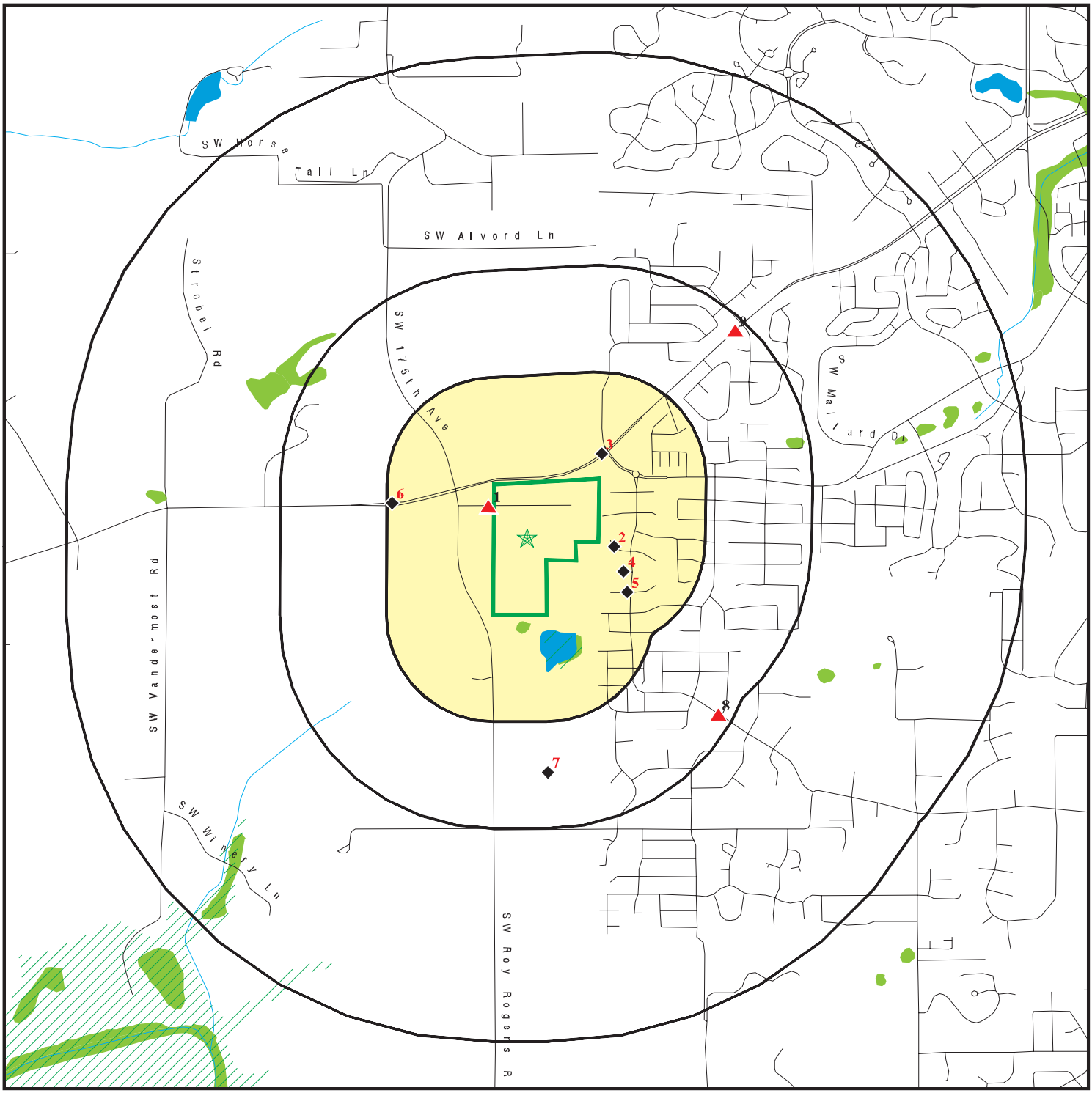
A review of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there are 2 EDR US Hist Auto Stat sites within approximately 0.25 miles of the target property.

Lower Elevation	Address	Direction / Distance	Map ID	Page
Not reported	16437 SW CROMWELL CT	E 0 - 1/8 (0.039 mi.)	2	11
Not reported	16364 SW GEARIN CT	ESE 0 - 1/8 (0.091 mi.)	4	12

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 4308611.2S

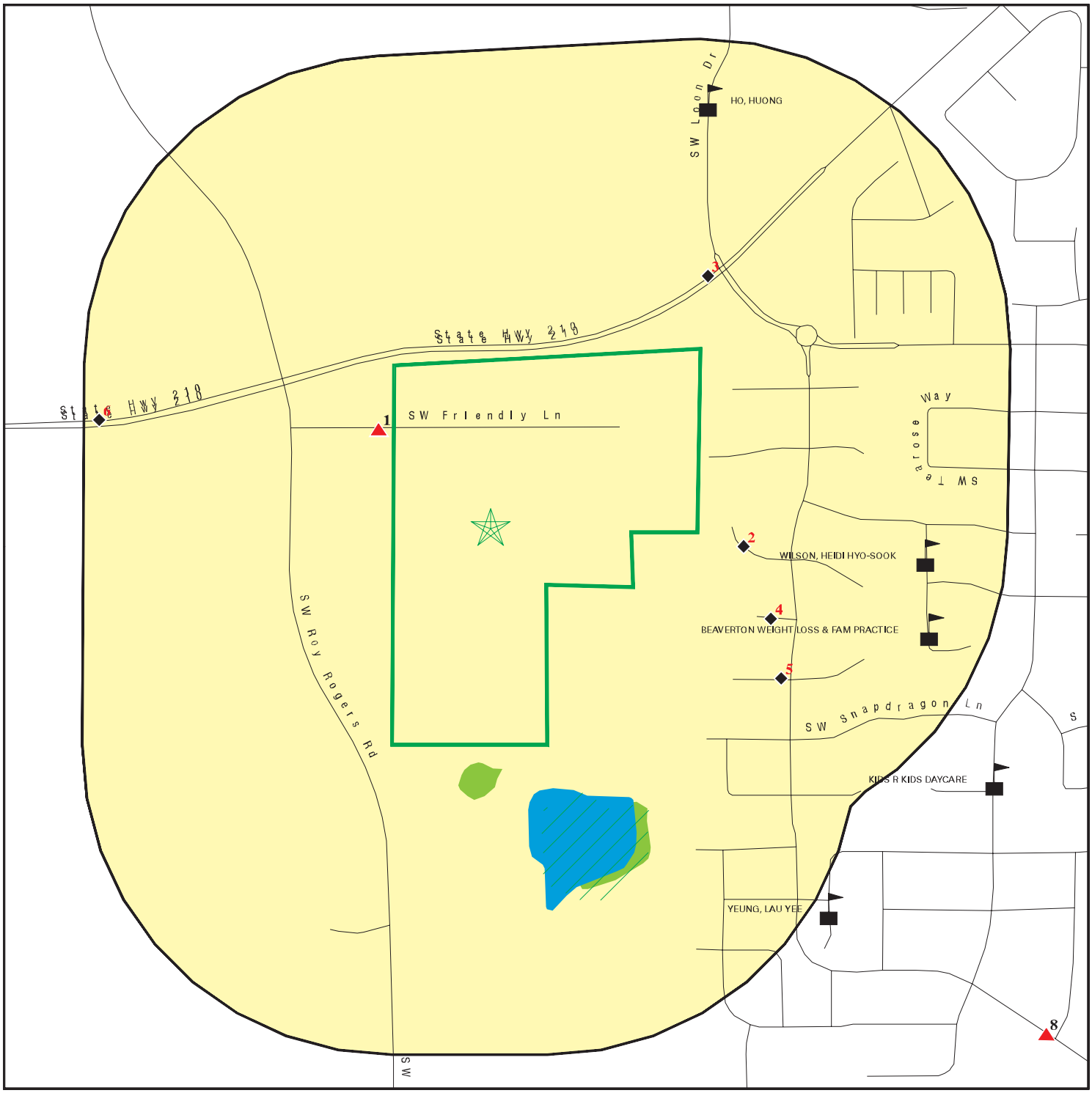


- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Oil & Gas pipelines from USGS
- 100-year flood zone
- 500-year flood zone
- National Wetland Inventory
- State Wetlands
- Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: River Terrace East ADDRESS: 16550-17012 SW Friendly Lane Beaverton OR 97007 LAT/LONG: 45.4247 / 122.8501	CLIENT: GeoDesign Inc. CONTACT: Jeremy Zimber INQUIRY #: 4308611.2s DATE: June 02, 2015 8:51 am

DETAIL MAP - 4308611.2S



Target Property

Sites at elevations higher than or equal to the target property

Sites at elevations lower than the target property

Manufactured Gas Plants

Sensitive Receptors

National Priority List Sites

Dept. Defense Sites

0 1/16 1/8 1/4 Miles

Indian Reservations BIA

Oil & Gas pipelines from USGS

100-year flood zone

500-year flood zone

National Wetland Inventory

State Wetlands

Areas of Concern

N

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: River Terrace East	CLIENT: GeoDesign Inc.
ADDRESS: 16550-17012 SW Friendly Lane Beaverton OR 97007	CONTACT: Jeremy Zimber
LAT/LONG: 45.4247 / 122.8501	INQUIRY #: 4308611.2s DATE: June 02, 2015 8:51 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 ENVIRONMENTAL RECORDS								
Federal NPL site list								
NPL	1.000		0	0	0	0	NR	0
Proposed NPL	1.000		0	0	0	0	NR	0
NPL LIENS	0.001		0	NR	NR	NR	NR	0
Federal Delisted NPL site list								
Delisted NPL	1.000		0	0	0	0	NR	0
Federal CERCLIS list								
CERCLIS	0.500		0	0	0	NR	NR	0
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site List								
CERC-NFRAP	0.500		0	0	0	NR	NR	0
Federal RCRA CORRACTS facilities list								
CORRACTS	1.000		0	0	0	0	NR	0
Federal RCRA non-CORRACTS TSD facilities list								
RCRA-TSDF	0.500		0	0	0	NR	NR	0
Federal RCRA generators list								
RCRA-LQG	0.250		0	0	NR	NR	NR	0
RCRA-SQG	0.250		0	0	NR	NR	NR	0
RCRA-CESQG	0.250		0	0	NR	NR	NR	0
Federal institutional controls / engineering controls registries								
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	0.500		0	0	0	NR	NR	0
LUCIS	0.500		0	0	0	NR	NR	0
Federal ERNS list								
ERNS	0.001		0	NR	NR	NR	NR	0
State- and tribal - equivalent CERCLIS								
ECSI	1.000		0	0	1	0	NR	1
CRL	1.000		0	0	0	0	NR	0
State and tribal landfill and/or solid waste disposal site lists								
SWF/LF	0.500		0	0	0	NR	NR	0
State and tribal leaking storage tank lists								
LUST	0.500		2	1	2	NR	NR	5
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
UST	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
AST	0.250		0	0	NR	NR	NR	0
INDIAN UST	0.250		0	0	NR	NR	NR	0
FEMA UST	0.250		0	0	NR	NR	NR	0
State and tribal institutional control / engineering control registries								
ENG CONTROLS	0.500		0	0	0	NR	NR	0
INST CONTROL	0.500		0	0	0	NR	NR	0
State and tribal voluntary cleanup sites								
INDIAN VCP	0.500		0	0	0	NR	NR	0
VCP	0.500		0	0	1	NR	NR	1
State and tribal Brownfields sites								
BROWNFIELDS	0.500		0	0	0	NR	NR	0
ADDITIONAL ENVIRONMENTAL RECORDS								
Local Brownfield lists								
US BROWNFIELDS	0.500		0	0	0	NR	NR	0
Local Lists of Landfill / Solid Waste Disposal Sites								
ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
HIST LF	0.500		0	0	0	NR	NR	0
SWRCY	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US CDL	0.001		0	NR	NR	NR	NR	0
AOCONCERN	1.000		0	0	0	0	NR	0
CDL	0.001		0	NR	NR	NR	NR	0
US HIST CDL	0.001		0	NR	NR	NR	NR	0
Local Land Records								
LIENS 2	0.001		0	NR	NR	NR	NR	0
Records of Emergency Release Reports								
HMIRS	0.001		0	NR	NR	NR	NR	0
SPILLS	0.001		0	NR	NR	NR	NR	0
OR HAZMAT	0.001		0	NR	NR	NR	NR	0
SPILLS 90	0.001		0	NR	NR	NR	NR	0
Other Ascertainable Records								
RCRA NonGen / NLR	0.250		0	1	NR	NR	NR	1
DOT OPS	0.001		0	NR	NR	NR	NR	0
DOD	1.000		0	0	0	0	NR	0
FUDS	1.000		0	0	0	0	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
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	0.001		0	NR	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
RADINFO	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
UIC	0.001		0	NR	NR	NR	NR	0
MANIFEST	0.250		0	0	NR	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
AIRS	0.001		0	NR	NR	NR	NR	0
HSIS	0.001		0	NR	NR	NR	NR	0
INDIAN RESERV	1.000		0	0	0	0	NR	0
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
COAL ASH EPA	0.500		0	0	0	NR	NR	0
PCB TRANSFORMER	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
EDR HIGH RISK HISTORICAL RECORDS								
EDR Exclusive Records								
EDR MGP	1.000		0	0	0	0	NR	0
EDR US Hist Auto Stat	0.250		2	0	NR	NR	NR	2
EDR US Hist Cleaners	0.250		0	0	NR	NR	NR	0
EDR RECOVERED GOVERNMENT ARCHIVES								
Exclusive Recovered Govt. Archives								
RGA HWS	0.001		0	NR	NR	NR	NR	0
RGA LF	0.001		0	NR	NR	NR	NR	0
RGA LUST	0.001		0	NR	NR	NR	NR	0
- Totals --		0	4	2	4	0	0	10

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

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

1
NW
< 1/8
0.012 mi.
64 ft.

AT&T MOBILITY — **LUST** **S109114662**
17026 SW FRIENDLY LN — **HSIS** **N/A**
BEAVERTON, OR 97007

Relative:
Higher

Actual:
341 ft.

LUST:

Region:	North Western Region
Facility ID:	34-09-0884
Cleanup Received Date:	09/10/2009
Cleanup Start Date:	Not reported
Cleanup Complete Date:	**11/16/2009**

HSIS:

Facility Id:	090495
Chemical Is Extremely Hazardous Substance (EHS):	No
Department Or Division Of Company:	BEEF BEND & SCHOLLS
Facility Has Written Emergency Plan:	No
Contains 112R:	No
NAICS Code 1:	517212
NAICS Desc 1:	CELLULAR & OTHER WIRELESS TELECOMMUNICATIO
NAICS Code 2:	000000
NAICS Desc 2:	Not reported
Manager Name:	RANDALL STEPHENSON CEO
Business Phone:	4255801548
Mailing Address:	308 S AKARD ST RM 1708
Mailing City,St,Zip:	DALLAS, TX 75202
No. of Employees:	0
Day Phone:	5038803008
Placard:	Yes
Fire Dept Code:	0485
Sprinkler System:	No
Emergency Contact:	BRENDA LEFEBVRE
Emergency Procedure:	Not reported
Business Type:	WIRELESS TELECOMMUNICATIONS

Facility:

Facility Id:	090495
Physical State Of The Substance:	1
Physical State:	SOLID
Average Amount Possessed During The Year Code:	20
Maximum Amount Possessed During The Year Code:	20
Applicable Unit Of Measure Code:	1
Description Of The Unit Of Measure:	POUNDS
Type Code:	R
Description:	OTHER
Type Code:	Not reported
Temperature Description:	Not reported
Pressure of Code:	1
Pressure Description:	NORMAL PRESSURE
Pressure of Code:	Not reported
Pressure Description:	Not reported
Temperature Description:	NORMAL TEMPERATURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	Not reported
Temperature of The Hazardous Substance Code:	Not reported
Days Hazardous Substance On Site During Year:	365
Is The Substance Protected A Trade Secret:	False
Description Of The Max Qnty Code:	1,000-4,999

AT&T MOBILITY (Continued) **S109114662**

Description Of The Avg Qnty Code:	1,000-4,999
Most Hazardous Ingridient:	SULFURIC ACID
United Nations/north America 4 Digit Class Number:	2794
Hazard Rank:	4
EHS Ingredient:	SULFURIC ACID
Substance Pure:	False
Substance Mix:	True
First Hazardous Class Code For Chemical:	Acute Health Hazard
Second Hazardous Class Code For Chemical:	Corrosive Material
Third Hazardous Class Code For Chemical:	Chronic Health Hazard
Hazard Class 1 Of The Chemical:	6.3
Hazard Class 2 Of The Chemical:	8.0
Hazard Class 3 Of The Chemical:	6.4

Chemical:

United Nations/north America 4 Digit Class Number:	2794
Chemical Abstract Service Identifier Number:	7664939
Chemical Is Extremely Hazardous Substance (EHS):	No
First Hazardous Class Code For Chemical:	Acute Health Hazard
Second Hazardous Class Code For Chemical:	Corrosive Material
Third Hazardous Class Code For Chemical:	Chronic Health Hazard
Hazard Class 1 Of The Chemical:	6.3
Hazard Class 2 Of The Chemical:	8.0
Hazard Class 3 Of The Chemical:	6.4
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Contains 112R:	No
Contains EHS:	Yes
Fertilizer:	No
Pesticide:	No
Contains 313:	Yes

Facility Id:	111852
Chemical Is Extremely Hazardous Substance (EHS):	No
Department Or Division Of Company:	BARROWS
Facility Has Written Emergency Plan:	No
Contains 112R:	No
NAICS Code 1:	517212
NAICS Desc 1:	CELLULAR & OTHER WIRELESS TELECOMMUNICATIO
NAICS Code 2:	000000
NAICS Desc 2:	Not reported
Manager Name:	DANIEL MEAD
Business Phone:	9086266230
Mailing Address:	20 INDEPENDENCE BLVD MC#4149
Mailing City,St,Zip:	WARREN, NJ 07059
No. of Employees:	0
Day Phone:	5034083460
Placard:	No
Fire Dept Code:	0402
Sprinkler System:	No
Emergency Contact:	JAMES JOHNSTON
Emergency Procedure:	Not reported
Business Type:	WIRELESS COMMUNICATIONS - CELL SITE

Facility:

Facility Id:	111852

AT&T MOBILITY (Continued) **S109114662**

Physical State Of The Substance:	1
Physical State:	SOLID
Average Amount Possessed During The Year Code:	20
Maximum Amount Possessed During The Year Code:	20
Applicable Unit Of Measure Code:	1
Description Of The Unit Of Measure:	POUNDS
Type Code:	R
Description:	OTHER
Type Code:	Not reported
Temperature Description:	Not reported
Pressure of Code:	1
Pressure Description:	NORMAL PRESSURE
Pressure of Code:	Not reported
Pressure Description:	Not reported
Temperature Description:	NORMAL TEMPERATURE
Temperature of The Hazardous Substance Code:	4
Temperature Description:	Not reported
Temperature of The Hazardous Substance Code:	Not reported
Days Hazardous Substance On Site During Year:	365
Is The Substance Protected A Trade Secret:	False
Description Of The Max Qnty Code:	1,000-4,999
Description Of The Avg Qnty Code:	1,000-4,999
Most Hazardous Ingridient:	SULFURIC ACID
United Nations/north America 4 Digit Class Number:	2794
Hazard Rank:	4
EHS Ingredient:	SULFURIC ACID
Substance Pure:	False
Substance Mix:	True
First Hazardous Class Code For Chemical:	Acute Health Hazard
Second Hazardous Class Code For Chemical:	Corrosive Material
Third Hazardous Class Code For Chemical:	Chronic Health Hazard
Hazard Class 1 Of The Chemical:	6.3
Hazard Class 2 Of The Chemical:	8.0
Hazard Class 3 Of The Chemical:	6.4

Chemical:

United Nations/north America 4 Digit Class Number:	2794
Chemical Abstract Service Identifier Number:	7664939
Chemical Is Extremely Hazardous Substance (EHS):	No
First Hazardous Class Code For Chemical:	Acute Health Hazard
Second Hazardous Class Code For Chemical:	Corrosive Material
Third Hazardous Class Code For Chemical:	Chronic Health Hazard
Hazard Class 1 Of The Chemical:	6.3
Hazard Class 2 Of The Chemical:	8.0
Hazard Class 3 Of The Chemical:	6.4
Chemical Is A Toxic 313 Chemical:	No
EPA Pesticide Registration Number:	Not reported
Contains 112R:	No
Contains EHS:	Yes
Fertilizer:	No
Pesticide:	No
Contains 313:	Yes

2
East
< 1/8
0.039 mi.
206 ft.

16437 SW CROMWELL CT
PORTLAND, OR 97223

EDR US Hist Auto Stat **1015259650**
N/A

Relative:
Lower

Actual:
281 ft.

EDR Historical Auto Stations:

Name:	AUTO BODY TECHNOLOGY
Year:	2006
Address:	16437 SW CROMWELL CT
Name:	AUTO BODY TECHNOLOGY
Year:	2007
Address:	16437 SW CROMWELL CT

3
NE
< 1/8
0.059 mi.
312 ft.

HEATING OIL TANK
16655 SW SCHOLLS FERRY RD
BEAVERTON, OR 97007

LUST **S112504725**
NPDES **N/A**

Relative:
Lower

Actual:
308 ft.

LUST:

Region:	North Western Region
Facility ID:	34-12-1366
Cleanup Received Date:	10/30/2012
Cleanup Start Date:	Not reported
Cleanup Complete Date:	**12/17/2012**

NPDES:

WQ File Nbr:	122600
Legal Name:	LENNAR NW, INC.
Region:	Not reported
Pri SIC:	1521
Facility Type:	Not reported
Latitude:	Not reported
Longitude:	Not reported
Category:	Not reported
Permit Type:	GEN12C(AGENT)
Permit Active:	Not reported
Is Active?:	FALSE
Permit Description:	Not reported
Expiration Date:	Not reported
EPA Number:	Not reported
UIC Facility:	Not reported
Admin Agent:	Not reported
Last Action Date:	Not reported
Permit Writer:	Not reported
Compliance Inspector:	Not reported
DMR Reviewer:	Not reported
Application Number:	Not reported
Class:	Not reported
Start Date:	Not reported

4
ESE
< 1/8
0.091 mi.
483 ft.

16364 SW GEARIN CT
PORTLAND, OR 97223

EDR US Hist Auto Stat **1015258818**
N/A

Relative:
Lower

Actual:
280 ft.

EDR Historical Auto Stations:

Name:	AUTO DENTIST INC
Year:	2001
Address:	16364 SW GEARIN CT
Name:	AUTO DENT IST
Year:	2007
Address:	16364 SW GEARIN CT
Name:	AUTO DENT IST
Year:	2008
Address:	16364 SW GEARIN CT
Name:	AUTO DENT1ST
Year:	2011
Address:	16364 SW GEARIN CT

5
ESE
1/8-1/4
0.136 mi.
717 ft.

NEW LOOK REFINISHING INC
16331 SW HOOPS CT
TIGARD, OR 97223

RCRA NonGen / NLR **1004771309**
FINDS **ORQ000005637**

Relative:
Lower

Actual:
285 ft.

RCRA NonGen / NLR:

Date form received by agency:	03/15/2001
Facility name:	NEW LOOK REFINISHING INC
Facility address:	16331 SW HOOPS CT TIGARD, OR 97223
EPA ID:	ORQ000005637
Contact:	DON BROWN
Contact address:	16331 SW HOOPS CT TIGARD, OR 97223
Contact country:	US
Contact telephone:	(503) 579-4391
Contact email:	Not reported
EPA Region:	10
Classification:	Non-Generator
Description:	Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name:	NEW LOOK REFINISHING INC
Owner/operator address:	16331 SW HOOPS CT TIGARD, OR 97223
Owner/operator country:	US
Owner/operator telephone:	(503) 579-4391
Legal status:	Private
Owner/Operator Type:	Owner
Owner/Op start date:	03/15/2001
Owner/Op end date:	Not reported

Handler Activities Summary:

U.S. importer of hazardous waste:	No
Mixed waste (haz. and radioactive):	No

NEW LOOK REFINISHING INC (Continued) **1004771309**

Recycler of hazardous waste: No
Transporter of hazardous waste: No
Treater, storer or disposer of HW: No
Underground injection activity: No
On-site burner exemption: No
Furnace exemption: No
Used oil fuel burner: No
Used oil processor: No
User oil refiner: No
Used oil fuel marketer to burner: No
Used oil Specification marketer: No
Used oil transfer facility: No
Used oil transporter: No

Historical Generators:
Date form received by agency: 03/01/2000
Site name: NEW LOOK REFINISHING INC
Classification: Not a generator, verified

Date form received by agency: 02/26/1999
Site name: NEW LOOK REFINISHING INC
Classification: Not a generator, verified

Date form received by agency: 02/05/1998
Site name: NEW LOOK REFINISHING INC
Classification: Not a generator, verified

Date form received by agency: 03/12/1997
Site name: NEW LOOK REFINISHING INC
Classification: Not a generator, verified

. Waste code: NONE
. Waste name: None

Violation Status: No violations found

FINDS:

Registry ID: 110004812944

Environmental Interest/Information System

OR-DEQ (Oregon - Department Of Environmental Quality) is a regulatory agency whose job is to protect the quality of Oregon's Environment. DEQ uses a combination of technical assistance, inspections and permitting to help public and private facilities and citizens understand and comply with state and federal environmental regulations.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

6
WNW
1/8-1/4
0.237 mi.
1254 ft.

ARBOR ROAD LLC — **LUST** — **S107845261**
17448 SW SCHOLLS FERRY RD — **N/A**
BEAVERTON, OR 97007

Relative:
Lower

Actual:
314 ft.

LUST:

Region:	North Western Region
Facility ID:	34-06-0185
Cleanup Received Date:	02/01/2006
Cleanup Start Date:	02/02/2006
Cleanup Complete Date:	**02/07/2007**

7
South
1/4-1/2
0.369 mi.
1948 ft.

ROSHAK RIDGE — **VCP** — **S112504475**
NE OF ROY ROGERS RD. & BULL MOUNTAIN RD. — **ECSI** — **N/A**
TIGARD, OR 97224

Relative:
Lower

Actual:
313 ft.

VCS:

ECS Site ID:	5781
Facility Size:	36.38 acre
Action:	Independent Cleanup Program
Start Date:	07/18/2013
End Date:	Not reported
Program:	ICP
Latitude:	45.4168
Longitude:	-122.8491

ECSI:

State ID Number:	5781	Brown ID:	0
Study Area:	False	Region ID:	2
Legislatve ID:	831	Investigation:	Suspect
FACA ID:	126396	Further Action:	0
Lat/Long (dms):	45 25 .50 / -122 50 56.80	County Code:	34.00
Score Value:	Not reported	Cerclis ID:	Not reported
Township Coord.:	2.00	Township Zone:	S
Range Coord:	1.00	Range Zone:	W
Section Coord:	7	Qtr Section:	Not reported
Tax Lots:	100 - 106	Size:	36.38 acres
NPL:	False	Orphan:	False
Updated By:	KDANA	Update Date:	12/15/2014
Alias Name:	Polygon Homes - Roshak Ridge		

Hazardous Release:

Substance ID.:	121516
Haz Release ID:	388225
Qty Released:	unknown
Date Released:	unknown
Update Date:	12/15/2014
Update By:	KDANA
Substance Code:	60-57-1
Substance Name:	DIELDRIN
Substance Abbrev.:	Not reported
Substance Alias ID:	318927
Sub Alias Name:	HEOD
Substance Alias ID:	318928
Sub Alias Name:	OCTALOX
Comment ID:	305662
Release Code:	General Comments

ROSHAK RIDGE (Continued) **S112504475**

Release Comments: Highest concentration encountered in composite sample 9 (Comp-9).
Sampling Result ID: 350729
Feature Id: 0
Hazard Release Id: 388225
Medium: 703
Substance Abbrev.: 0
Unit Code: 7
Observation: False
Owner Operator: False
Lab Data: True
Sample Depth: 0-0.5 ft bgs
Start Date: 11/07/2012
End Date: 11/07/2012
Min Concentration: Not reported
Max Concentration: .08
Sample Comment: up to 0.0787 ppm
Last Update By: KDANA
Update Date: 12/15/2014

Narrative:

NARR ID: 5755630
NARR Code: Contamination
Created By: KDANA
Created Date: 03/31/2015
Updated By: KDANA
Updated Date: 03/31/2015
NARR Comments: (03/31/2015 KPD/ICP) Ten composite soil samples from the top six inches of soil were collected from across the site in November 2012 and analyzed for pesticides and metals. The pesticides DDE, DDT and dieldrin were detected in all 10 samples, while endosulfan sulfate was detected in seven of the 10 samples. In December 2012, eight composite soil samples were collected from deeper intervals (down to three feet below ground surface), again finding DDE, DDT, and dieldrin. However, only dieldrin was present at concentrations exceeding DEQ's risk-based concentrations for residential exposures.

NARR ID: 5755249
NARR Code: Data Sources
Created By: DHAFLEY
Created Date: 08/15/2014
Updated By: KDANA
Updated Date: 03/31/2015
NARR Comments: 1) GeoDesign ***Phase I Environmental Site Assessment and Limited Surface Soil Evaluation*** [January 10, 2013].2) GeoDesign ***Request for DEQ Determination*** [January 24, 2013].3) GeoDesign ***Report of Additional Surface Soil Sampling and Ecological Risk Screening*** [November 20, 2013].

NARR ID: 5755629
NARR Code: General Site Description
Created By: KDANA
Created Date: 03/31/2015
Updated By: KDANA
Updated Date: 03/31/2015
NARR Comments: Polygon Northwest Company is planning on constructing 166 single-family homes and 78 condominiums at the site, along with a 2.46-acre public park. An existing intermittent stream will be re-routed into an open space at the north end of the development.

ROSHAK RIDGE (Continued) **S112504475**

NARR ID: 5755490
NARR Code: Hazardous Substance/Waste Types
Created By: KDANA
Created Date: 12/15/2014
Updated By: KDANA
Updated Date: 12/15/2014
NARR Comments: Pesticides (dieldrin and DDx)

NARR ID: 5755627
NARR Code: Manner of Release
Created By: KDANA
Created Date: 03/31/2015
Updated By: KDANA
Updated Date: 03/31/2015
NARR Comments: Application of pesticides on farmland

NARR ID: 5755626
NARR Code: Site Ownership
Created By: KDANA
Created Date: 03/31/2015
Updated By: KDANA
Updated Date: 03/31/2015
NARR Comments: The site was owned by members of the Roshak family since the early 1920s.

NARR ID: 5755628
NARR Code: Site History
Created By: KDANA
Created Date: 03/31/2015
Updated By: KDANA
Updated Date: 03/31/2015
NARR Comments: Based on aerial photographs the site was a cleared woodland in the late 1930s. The Roshak family reportedly converted the land to farming in the 1950s, and by 1963 the site was growing potatoes and grains. A residential development was constructed to the east of the site in the early 1970s, and denser residential developments were constructed to the northeast and southeast in the 1990s. The site was brought inside the Urban Growth Boundary in 2002 and annexed by the City of Tigard in 2011.

NARR ID: 5755250
NARR Code: 1922
Created By: DHAFLEY
Created Date: 08/15/2014
Updated By: DHAFLEY
Updated Date: 08/15/2014
NARR Comments: Former agricultural property has modestly-elevated concentrations of a few pesticides (DDX, dieldrin) presumably associated with legal application. Under pending redevelopment plan (mixed residential development and parks), some detections would exceed DEQ RBCs and require action. Initial proposal for relocation of impacted surface soil to park areas is likely acceptable to DEQ. Oversight activities on hold (August 2014) pending developer progress on permitting.

Administrative Action:

Admin ID:	740793	Action ID:	9424
Agency:	Dept Of Environmental Quality	Region:	Not reported
Start Date:	01/16/2013	Complete Date:	01/16/2013

ROSHAK RIDGE (Continued) **S112504475**

Substance Code: Not reported
Employee Id: 301
Created By: KDANA
Action Code: ENTRY
Action Flag: True
Action: Site added to database
Further Action: Not reported
Comments: Not reported
Rank Value: Not reported
Cleanup Flag: False
Created Date: 01/16/2013
Category: Administrative Action
Action Code Flag: False

Admin ID: 740794
Agency: Dept Of Environmental Quality
Start Date: 01/16/2013
Substance Code: VCS
Employee Id: 301
Created By: KDANA
Action Code: VWL
Action Flag: True
Action: VCS Waiting List
Further Action: 0
Comments: Not reported
Action ID: 9519
Region: Northwestern Region
Complete Date: 07/18/2013
Rank Value: Not reported
Cleanup Flag: False
Created Date: 01/16/2013
Category: Remedial Action
Action Code Flag: False

Admin ID: 741307
Agency: Dept Of Environmental Quality
Start Date: 07/18/2013
Substance Code: VCP
Employee Id: 301
Created By: KDANA
Action Code: EV
Action Flag: True
Action: SITE EVALUATION
Further Action: 0
Comments: Not reported
Action ID: 9425
Region: Northwestern Region
Complete Date: Not reported
Rank Value: Not reported
Cleanup Flag: False
Created Date: 07/24/2013
Category: Remedial Action
Action Code Flag: False

Admin ID: 741348
Agency: Dept Of Environmental Quality
Start Date: 02/28/2013
Substance Code: ICP
Employee Id: 301
Created By: KDANA
Action Code: LTAG
Action Flag: True
Action: Letter Agreement
Further Action: 0
Comments: Independent Cleanup Agreement
Action ID: 9440
Region: Northwestern Region
Complete Date: 03/07/2013
Rank Value: Not reported
Cleanup Flag: False
Created Date: 08/13/2013
Category: Remedial Action
Action Code Flag: False

Admin ID: 742884
Agency: Dept Of Environmental Quality
Start Date: 07/18/2013
Substance Code: ICP
Employee Id: 301
Created By: KDANA
Action Code: ICP
Action Flag: True
Action: Independent Cleanup Program
Further Action: 0
Comments: Not reported
Action ID: 9435
Region: Northwestern Region
Complete Date: Not reported
Rank Value: Not reported
Cleanup Flag: False
Created Date: 03/31/2015
Category: Remedial Action
Action Code Flag: False

8
SE
1/4-1/2
0.465 mi.
2457 ft.

HEATING OIL TANK
15960 W ROSHAK ROAD
TIGARD, OR 97224

LUST **S105981841**
N/A

Relative:
Higher

Actual:
430 ft.

LUST:
Region: North Western Region
Facility ID: 34-03-1916
Cleanup Received Date: 09/11/2003
Cleanup Start Date: 09/15/2003
Cleanup Complete Date: Not reported

9
NE
1/4-1/2
0.471 mi.
2485 ft.

HEATING OIL TANK
15862 SW OLD SCHOLLS FERRY RD
BEAVERTON, OR 97005

LUST **S100496067**
N/A

Relative:
Higher

Actual:
379 ft.

LUST:
Region: North Western Region
Facility ID: 26-93-6032
Cleanup Received Date: 05/25/1993
Cleanup Start Date: 05/24/1993
Cleanup Complete Date: Not reported

Count: 0 records.

ORPHAN SUMMARY

City	EDR ID	Site Name	Site Address	Zip	Database(s)
		NO SITES FOUND			

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: 12/16/2014
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: EPA
Telephone: N/A
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

NPL Site Boundaries

Sources:

EPA's Environmental Photographic Interpretation Center (EPIC)
Telephone: 202-564-7333

EPA Region 1
Telephone 617-918-1143

EPA Region 6
Telephone: 214-655-6659

EPA Region 3
Telephone 215-814-5418

EPA Region 7
Telephone: 913-551-7247

EPA Region 4
Telephone 404-562-8033

EPA Region 8
Telephone: 303-312-6774

EPA Region 5
Telephone 312-886-6686

EPA Region 9
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: 12/16/2014
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: EPA
Telephone: N/A
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
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: 12/16/2014
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: EPA
Telephone: N/A
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
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: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/07/2015
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: 07/21/2014
Date Data Arrived at EDR: 10/07/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 13

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 04/08/2015
Next Scheduled EDR Contact: 07/20/2015
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: 10/25/2013
Date Data Arrived at EDR: 11/11/2013
Date Made Active in Reports: 02/13/2014
Number of Days to Update: 94

Source: EPA
Telephone: 703-412-9810
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/07/2015
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: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
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: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
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: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
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: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
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: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 09/18/2014
Date Data Arrived at EDR: 09/19/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/26/2015
Next Scheduled EDR Contact: 06/15/2015
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: 09/18/2014
Date Data Arrived at EDR: 09/19/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 02/26/2015
Next Scheduled EDR Contact: 06/15/2015
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: 12/03/2014
Date Data Arrived at EDR: 12/12/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 48

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 05/18/2015
Next Scheduled EDR Contact: 08/31/2015
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: 09/29/2014
Date Data Arrived at EDR: 09/30/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 37

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Annually

State- and tribal - equivalent CERCLIS

ECSI: Environmental Cleanup Site Information System

Sites that are or may be contaminated and may require cleanup.

Date of Government Version: 04/01/2015
Date Data Arrived at EDR: 04/09/2015
Date Made Active in Reports: 04/23/2015
Number of Days to Update: 14

Source: Department of Environmental Quality
Telephone: 503-229-6629
Last EDR Contact: 04/09/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

CRL: Confirmed Release List and Inventory

All facilities with a confirmed release.

Date of Government Version: 02/17/2015
Date Data Arrived at EDR: 02/18/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 23

Source: Department of Environmental Quality
Telephone: 503-229-6170
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Quarterly

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

SWF/LF: Solid Waste Facilities List

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: 04/17/2015
Date Data Arrived at EDR: 04/23/2015
Date Made Active in Reports: 05/19/2015
Number of Days to Update: 26

Source: Department of Environmental Quality
Telephone: 503-229-6299
Last EDR Contact: 04/16/2015
Next Scheduled EDR Contact: 08/03/2015
Data Release Frequency: Semi-Annually

State and tribal leaking storage tank lists

LUST: Leaking Underground Storage Tank Database

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: 01/06/2015
Date Data Arrived at EDR: 02/18/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 19

Source: Department of Environmental Quality
Telephone: 503-229-5790
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 08/31/2015
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: 01/08/2015
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 02/09/2015
Number of Days to Update: 32

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 01/08/2015
Next Scheduled EDR Contact: 05/11/2015
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: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
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: 02/03/2015
Date Data Arrived at EDR: 02/12/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 29

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
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: 01/28/2015
Date Data Arrived at EDR: 01/30/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 42
Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Quarterly

INDIAN LUST R5: Leaking Underground Storage Tanks on Indian Land
Leaking underground storage tanks located on Indian Land in Michigan, Minnesota and Wisconsin.

Date of Government Version: 01/30/2015
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 32
Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

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: 04/03/2015
Next Scheduled EDR Contact: 08/10/2015
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: 09/30/2014
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 10
Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
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: 01/23/2015
Date Data Arrived at EDR: 02/10/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 31
Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
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: 01/06/2015
Date Data Arrived at EDR: 02/18/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 19
Source: Department of Environmental Quality
Telephone: 503-229-5815
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Quarterly

AST: Aboveground Storage Tanks
Aboveground storage tank locations reported to the Office of State Fire Marshal.

Date of Government Version: 03/16/2015
Date Data Arrived at EDR: 04/10/2015
Date Made Active in Reports: 04/22/2015
Number of Days to Update: 12

Source: Office of State Fire Marshal
Telephone: 503-378-3473
Last EDR Contact: 04/10/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Semi-Annually

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: 02/01/2013
Date Data Arrived at EDR: 05/01/2013
Date Made Active in Reports: 01/27/2014
Number of Days to Update: 271

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 04/28/2015
Next Scheduled EDR Contact: 08/10/2015
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: 09/30/2014
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 10

Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
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: 01/30/2015
Date Data Arrived at EDR: 02/05/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 36

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
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: 01/23/2015
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 28

Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
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: 09/23/2014
Date Data Arrived at EDR: 11/25/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 65

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
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: 01/29/2015
Date Data Arrived at EDR: 01/30/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 42

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
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: 12/14/2014
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 28

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 01/26/2015
Next Scheduled EDR Contact: 05/11/2015
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: 02/03/2015
Date Data Arrived at EDR: 02/12/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 29

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
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: 04/13/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: Varies

State and tribal institutional control / engineering control registries

ENG CONTROLS: Engineering Controls Recorded at ESCI Sites

Engineering controls are physical measures selected or approved by the Director for the purpose of preventing or minimizing exposure to hazardous substances. Engineering controls may include, but are not limited to, fencing, capping, horizontal or vertical barriers, hydraulic controls, and alternative water supplies.

Date of Government Version: 04/01/2015
Date Data Arrived at EDR: 04/09/2015
Date Made Active in Reports: 04/23/2015
Number of Days to Update: 14

Source: Department of Environmental Quality
Telephone: 503-229-5193
Last EDR Contact: 04/09/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

INST CONTROL: Institutional Controls Recorded at ESCI Sites

An institutional control is a legal or administrative tool or action taken to reduce the potential for exposure to hazardous substances. Institutional controls may include, but are not limited to, use restrictions, environmental monitoring requirements, and site access and security measures.

Date of Government Version: 04/01/2015
Date Data Arrived at EDR: 04/09/2015
Date Made Active in Reports: 04/23/2015
Number of Days to Update: 14

Source: Department of Environmental Quality
Telephone: 503-229-5193
Last EDR Contact: 04/09/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

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: 09/29/2014
Date Data Arrived at EDR: 10/01/2014
Date Made Active in Reports: 11/06/2014
Number of Days to Update: 36
Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 04/02/2015
Next Scheduled EDR Contact: 07/13/2015
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

VCS: Voluntary Cleanup Program Sites
Responsible parties have entered into an agreement with DEQ to voluntarily address contamination associated with their property.

Date of Government Version: 03/31/2015
Date Data Arrived at EDR: 04/14/2015
Date Made Active in Reports: 04/23/2015
Number of Days to Update: 9
Source: DEQ
Telephone: 503-229-5256
Last EDR Contact: 04/02/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Quarterly

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Projects
Brownfields investigations and/or cleanups that have been conducted in Oregon.

Date of Government Version: 02/06/2015
Date Data Arrived at EDR: 02/18/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 23
Source: Department of Environmental Quality
Telephone: 503-229-6801
Last EDR Contact: 05/21/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Semi-Annually

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: 12/22/2014
Date Data Arrived at EDR: 12/22/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 38
Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 03/24/2015
Next Scheduled EDR Contact: 07/06/2015
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

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

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: 04/23/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: No Update Planned

SWRCY: Recycling Facility Location Listing
A listing of recycling facility locations.

Date of Government Version: 03/03/2015
Date Data Arrived at EDR: 03/04/2015
Date Made Active in Reports: 03/13/2015
Number of Days to Update: 9
Source: Department of Environmental Quality
Telephone: 503-229-5353
Last EDR Contact: 03/04/2015
Next Scheduled EDR Contact: 06/15/2015
Data Release Frequency: Quarterly

HIST LF: Old Closed SW Disposal Sites
A list of solid waste disposal sites that have been closed for a long while.

Date of Government Version: 04/01/2000
Date Data Arrived at EDR: 07/08/2003
Date Made Active in Reports: 07/18/2003
Number of Days to Update: 10
Source: Department of Environmental Quality
Telephone: 503-229-5409
Last EDR Contact: 07/08/2003
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

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: 05/01/2015
Next Scheduled EDR Contact: 08/17/2015
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: 02/25/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 15
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/14/2015
Data Release Frequency: Quarterly

AOC COL: Columbia Slough
Columbia Slough waterway boundaries.

Date of Government Version: 08/10/2005
Date Data Arrived at EDR: 05/17/2006
Date Made Active in Reports: 06/16/2006
Number of Days to Update: 30

Source: City of Portland Environmental Services
Telephone: 503-823-5310
Last EDR Contact: 03/13/2007
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

AOC MU: East Multnomah County Area
Approximate extent of TSA VOC plume February , 2002

Date of Government Version: N/A
Date Data Arrived at EDR: 10/07/2002
Date Made Active in Reports: 10/22/2002
Number of Days to Update: 15

Source: City of Portland Environmental Services
Telephone: 503-823-5310
Last EDR Contact: 03/13/2007
Next Scheduled EDR Contact: N/A
Data Release Frequency: No Update Planned

CDL 2: Clandestine Drug Lab Site Listing
A listing of clandestine drug lab site locations included in the Incident database.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 05/07/2014
Date Made Active in Reports: 05/22/2014
Number of Days to Update: 15

Source: Oregon State Police
Telephone: 503-373-1540
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

CDL: Uninhabitable Drug Lab Properties
The properties listed on these county pages have been declared by a law enforcement agency to be unfit for use due to meth lab and/or storage activities. The properties are considered uninhabitable until cleaned up by a state certified decontamination contractor and a certificate of fitness is issued by the Oregon Health Division.

Date of Government Version: 04/21/2015
Date Data Arrived at EDR: 05/12/2015
Date Made Active in Reports: 05/19/2015
Number of Days to Update: 7

Source: Department of Consumer & Business Services
Telephone: 503-378-4133
Last EDR Contact: 05/07/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Varies

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: 02/25/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 15

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 05/29/2015
Next Scheduled EDR Contact: 09/14/2015
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: 02/18/2014
Date Data Arrived at EDR: 03/18/2014
Date Made Active in Reports: 04/24/2014
Number of Days to Update: 37

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
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: 12/29/2014
Date Data Arrived at EDR: 12/30/2014
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 69

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Annually

SPILLS: Spill Data
Oil and hazardous material spills reported to the Environmental Response Program.

Date of Government Version: 04/09/2015
Date Data Arrived at EDR: 04/14/2015
Date Made Active in Reports: 04/24/2015
Number of Days to Update: 10

Source: Department of Environmental Quality
Telephone: 503-229-5815
Last EDR Contact: 04/02/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Semi-Annually

HAZMAT: Hazmat/Incidents
Hazardous material incidents reported to the State Fire Marshal by emergency responders. The hazardous material may or may not have been released.

Date of Government Version: 03/02/2015
Date Data Arrived at EDR: 05/06/2015
Date Made Active in Reports: 05/19/2015
Number of Days to Update: 13

Source: State Fire Marshal's Office
Telephone: 503-373-1540
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/17/2015
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: 05/01/2006
Date Data Arrived at EDR: 01/03/2013
Date Made Active in Reports: 02/22/2013
Number of Days to Update: 50

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 / No Longer Regulated
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: 12/09/2014
Date Data Arrived at EDR: 12/29/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 03/31/2015
Next Scheduled EDR Contact: 07/13/2015
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: 05/05/2015
Next Scheduled EDR Contact: 08/17/2015
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: 04/14/2015
Next Scheduled EDR Contact: 07/27/2015
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: 06/06/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 09/18/2014
Number of Days to Update: 8

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 03/13/2015
Next Scheduled EDR Contact: 06/22/2015
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: 01/23/2015
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 24

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 03/30/2015
Next Scheduled EDR Contact: 07/13/2015
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: 11/25/2013
Date Data Arrived at EDR: 12/12/2013
Date Made Active in Reports: 02/24/2014
Number of Days to Update: 74

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 03/10/2015
Next Scheduled EDR Contact: 06/22/2015
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: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 12/30/2014
Date Data Arrived at EDR: 12/31/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 29

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 03/06/2015
Next Scheduled EDR Contact: 06/15/2015
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: 01/29/2015
Next Scheduled EDR Contact: 06/08/2015
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: 12/31/2012
Date Data Arrived at EDR: 01/15/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 14

Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 03/27/2015
Next Scheduled EDR Contact: 07/06/2015
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: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
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: 05/20/2015
Next Scheduled EDR Contact: 09/07/2015
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: 04/10/2015
Next Scheduled EDR Contact: 08/10/2015
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: 01/23/2015
Date Data Arrived at EDR: 02/06/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 31

Source: Environmental Protection Agency
Telephone: 202-564-5088
Last EDR Contact: 04/09/2015
Next Scheduled EDR Contact: 07/27/2015
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: 07/01/2014
Date Data Arrived at EDR: 10/15/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 33

Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 04/17/2015
Next Scheduled EDR Contact: 07/27/2015
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: 12/29/2014
Date Data Arrived at EDR: 01/08/2015
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 21

Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 03/09/2015
Next Scheduled EDR Contact: 06/22/2015
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: 02/27/2015
Date Data Arrived at EDR: 02/27/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 26

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 04/09/2015
Next Scheduled EDR Contact: 07/20/2015
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: 01/18/2015
Date Data Arrived at EDR: 02/27/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 26

Source: EPA
Telephone: (206) 553-1200
Last EDR Contact: 03/09/2015
Next Scheduled EDR Contact: 06/22/2015
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: 02/01/2015
Date Data Arrived at EDR: 02/13/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 40

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 04/27/2015
Next Scheduled EDR Contact: 08/10/2015
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: 05/29/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Biennially

UIC: Underground Injection Control Program Database

DEQ's Underground Injection Control Program is authorized by the Environmental Protection Agency (EPA) to regulate all underground injection in Oregon to protect groundwater resources.

Date of Government Version: 03/30/2015
Date Data Arrived at EDR: 04/01/2015
Date Made Active in Reports: 04/22/2015
Number of Days to Update: 21

Source: Department of Environmental Quality
Telephone: 503-229-5945
Last EDR Contact: 03/30/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Varies

OR MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 02/02/2015
Number of Days to Update: 68

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 05/07/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Annually

DRYCLEANERS: Drycleaning Facilities

A listing of registered drycleaning facilities in Oregon.

Date of Government Version: 05/05/2015
Date Data Arrived at EDR: 05/05/2015
Date Made Active in Reports: 05/19/2015
Number of Days to Update: 14

Source: Department of Environmental Quality
Telephone: 503-229-6783
Last EDR Contact: 05/04/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Varies

NPDES: Wastewater Permits Database

A listing of permitted wastewater facilities.

Date of Government Version: 05/07/2015
Date Data Arrived at EDR: 05/08/2015
Date Made Active in Reports: 05/19/2015
Number of Days to Update: 11

Source: Department of Environmental Quality
Telephone: 503-229-5657
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

AIRS: Oregon Title V Facility Listing

A listing of Title V facility source and emissions information.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 01/16/2015
Date Made Active in Reports: 02/27/2015
Number of Days to Update: 42

Source: Department of Environmental Quality
Telephone: 503-229-6459
Last EDR Contact: 04/02/2015
Next Scheduled EDR Contact: 07/20/2015
Data Release Frequency: Varies

HSIS: Hazardous Substance Information Survey

Companies in Oregon submitting the Hazardous Substance Information Survey and either reporting or not reporting hazardous substances.

Date of Government Version: 03/16/2015
Date Data Arrived at EDR: 04/10/2015
Date Made Active in Reports: 04/22/2015
Number of Days to Update: 12

Source: State Fire Marshal's Office
Telephone: 503-373-1540
Last EDR Contact: 04/10/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Semi-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: 04/14/2015
Next Scheduled EDR Contact: 07/27/2015
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: 05/21/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Varies

Financial Assurance 1: Financial Assurance Information Listing

Financial assurance information for hazardous waste facilities.

Date of Government Version: 11/21/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 01/15/2015
Number of Days to Update: 50

Source: Department of Environmental Quality
Telephone: 541-633-2011
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
Data Release Frequency: Varies

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: 04/22/2013
Date Data Arrived at EDR: 03/03/2015
Date Made Active in Reports: 03/09/2015
Number of Days to Update: 6

Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 05/14/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 11/25/2014
Date Data Arrived at EDR: 11/26/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 64

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 04/10/2015
Next Scheduled EDR Contact: 07/20/2015
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

PRP: Potentially Responsible Parties
A listing of verified Potentially Responsible Parties

Date of Government Version: 10/25/2013
Date Data Arrived at EDR: 10/17/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 3
Source: EPA
Telephone: 202-564-6023
Last EDR Contact: 05/14/2015
Next Scheduled EDR Contact: 08/24/2015
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: 04/14/2015
Next Scheduled EDR Contact: 07/27/2015
Data Release Frequency: N/A

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: 03/09/2015
Date Data Arrived at EDR: 03/10/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 15
Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 05/14/2015
Next Scheduled EDR Contact: 08/31/2015
Data Release Frequency: Quarterly

Financial Assurance 2: Financial Assurance Information Listing
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: 03/09/2015
Date Data Arrived at EDR: 03/12/2015
Date Made Active in Reports: 03/25/2015
Number of Days to Update: 13
Source: Department of Environmental Quality
Telephone: 503-229-5521
Last EDR Contact: 05/26/2015
Next Scheduled EDR Contact: 09/07/2015
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: 05/01/2015
Next Scheduled EDR Contact: 08/10/2015
Data Release Frequency: Varies

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: 07/01/2014
Date Data Arrived at EDR: 09/10/2014
Date Made Active in Reports: 10/20/2014
Number of Days to Update: 40
Source: Environmental Protection Agency
Telephone: N/A
Last EDR Contact: 03/13/2015
Next Scheduled EDR Contact: 06/22/2015
Data Release Frequency: Varies

COAL ASH DOE: Steam-Electric Plant 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: 04/15/2015
Next Scheduled EDR Contact: 07/27/2015
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: 10/16/2014
Date Data Arrived at EDR: 10/31/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 17
Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/30/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data
A listing of minor source facilities.

Date of Government Version: 10/16/2014
Date Data Arrived at EDR: 10/31/2014
Date Made Active in Reports: 11/17/2014
Number of Days to Update: 17
Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 03/30/2015
Next Scheduled EDR Contact: 07/13/2015
Data Release Frequency: Annually

COAL ASH: Coal Ash Disposal Sites Listing
A listing of coal ash disposal sites.

Date of Government Version: 12/31/2013
Date Data Arrived at EDR: 12/19/2014
Date Made Active in Reports: 02/02/2015
Number of Days to Update: 45
Source: Department of Environmental Quality
Telephone: 541-298-7255
Last EDR Contact: 03/09/2015
Next Scheduled EDR Contact: 06/22/2015
Data Release Frequency: Varies

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: 08/30/2013
Date Data Arrived at EDR: 03/21/2014
Date Made Active in Reports: 06/17/2014
Number of Days to Update: 88
Source: Environmental Protection Agency
Telephone: 617-520-3000
Last EDR Contact: 05/07/2015
Next Scheduled EDR Contact: 08/24/2015
Data Release Frequency: Quarterly

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
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: 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
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: 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
Date Data Arrived at EDR: N/A
Date Made Active in Reports: N/A
Number of Days to Update: N/A

Source: EDR, Inc.
Telephone: N/A
Last EDR Contact: N/A
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

EDR RECOVERED GOVERNMENT ARCHIVES

Exclusive Recovered Govt. Archives

RGA LF: Recovered Government Archive Solid Waste Facilities List

The EDR Recovered Government Archive Landfill database provides a list of landfills derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oregon.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/13/2014
Number of Days to Update: 196

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA HWS: Recovered Government Archive State Hazardous Waste Facilities List

The EDR Recovered Government Archive State Hazardous Waste database provides a list of SHWS incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oregon.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 01/03/2014
Number of Days to Update: 186

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

RGA LUST: Recovered Government Archive Leaking Underground Storage Tank

The EDR Recovered Government Archive Leaking Underground Storage Tank database provides a list of LUST incidents derived from historical databases and includes many records that no longer appear in current government lists. Compiled from Records formerly available from the Department of Environmental Quality in Oregon.

Date of Government Version: N/A
Date Data Arrived at EDR: 07/01/2013
Date Made Active in Reports: 12/27/2013
Number of Days to Update: 179

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 06/01/2012
Next Scheduled EDR Contact: N/A
Data Release Frequency: Varies

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.

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: 05/01/2015
Date Data Arrived at EDR: 05/06/2015
Date Made Active in Reports: 05/20/2015
Number of Days to Update: 14

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 05/06/2015
Next Scheduled EDR Contact: 08/17/2015
Data Release Frequency: Annually

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2014
Date Data Arrived at EDR: 03/19/2015
Date Made Active in Reports: 04/07/2015
Number of Days to Update: 19

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 03/13/2015
Next Scheduled EDR Contact: 06/29/2015
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.

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: Child Care Listings
Source: Employment Department
Telephone: 503-947-1420

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, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory Data
Source: Oregon Geospatial Enterprise Office
Telephone: 503-378-2166

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

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

RIVER TERRACE EAST
16550-17012 SW FRIENDLY LANE
BEAVERTON, OR 97007

TARGET PROPERTY COORDINATES

Latitude (North):	45.4247 - 45° 25' 28.92''
Longitude (West):	122.8501 - 122° 51' 0.36''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	511727.2
UTM Y (Meters):	5029924.5
Elevation:	330 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	45122-D7 BEAVERTON, OR
Most Recent Revision:	1984

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.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

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).

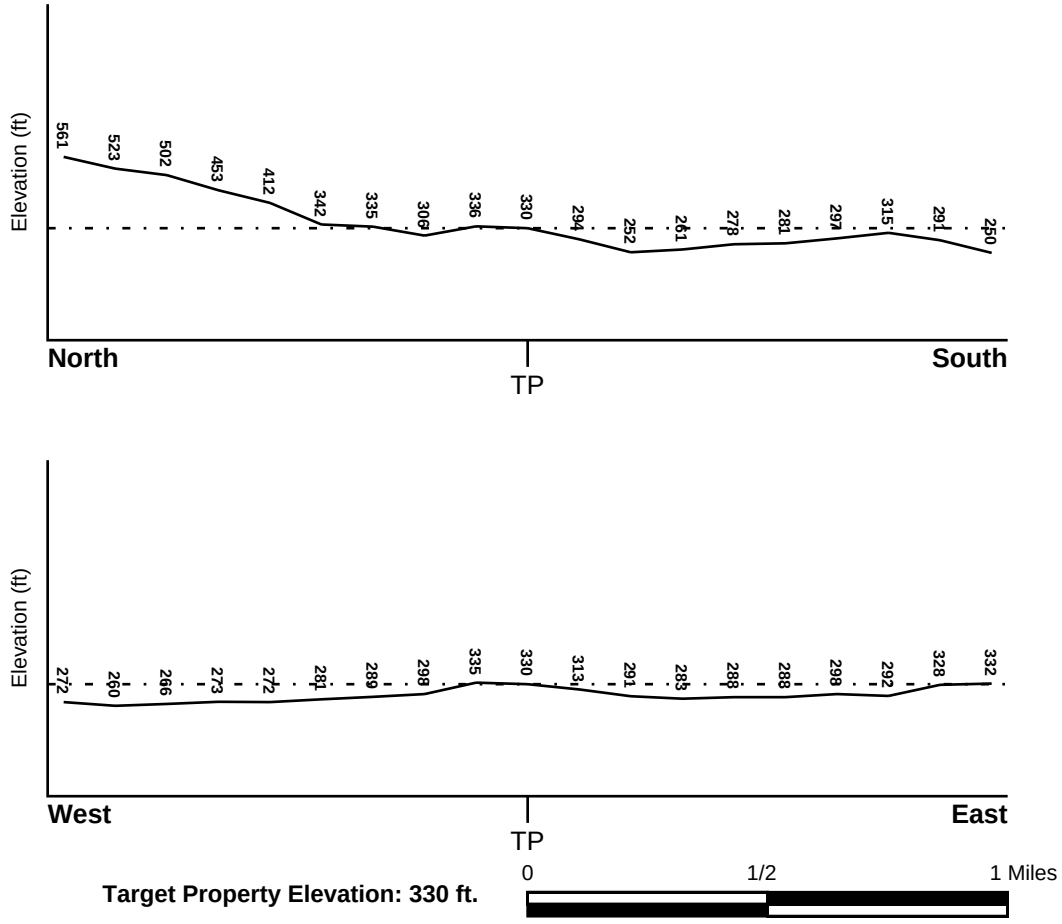
TOPOGRAPHIC INFORMATION

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 South

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.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

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

Target Property County	FEMA Flood Electronic Data
WASHINGTON, OR	YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property:	4102380511C - FEMA Q3 Flood data
Additional Panels in search area:	4102380503B - FEMA Q3 Flood data 4102380504C - FEMA Q3 Flood data 4102400006C - FEMA Q3 Flood data 4102400005C - FEMA Q3 Flood data 4102400008C - FEMA Q3 Flood data 4102400000A - FEMA Q3 Flood data 4102380512B - FEMA Q3 Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
BEAVERTON	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.

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.

MAP ID	LOCATION FROM TP	GENERAL DIRECTION GROUNDWATER FLOW
Not Reported		

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

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

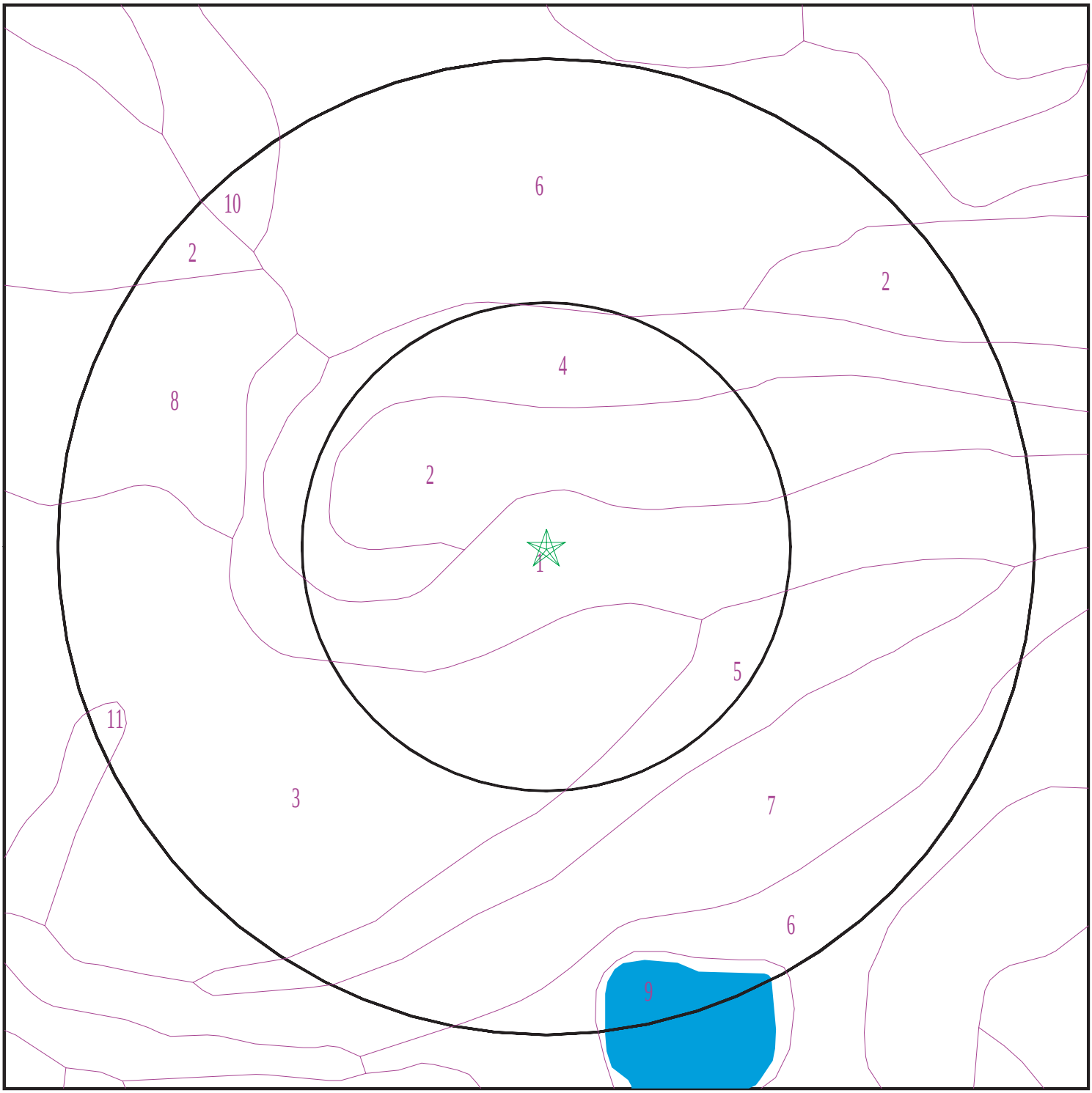
Era:	Cenozoic
System:	Tertiary
Series:	Miocene volcanic rocks
Code:	Tmv *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Volcanic Rocks

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 - 4308611.2s



Target Property
SSURGO Soil
Water

SITE NAME:	River Terrace East	CLIENT:	GeoDesign Inc.
ADDRESS:	16550-17012 SW Friendly Lane Beaverton OR 97007	CONTACT:	Jeremy Zimber
LAT/LONG:	45.4247 / 122.8501	INQUIRY #:	4308611.2s
		DATE:	June 02, 2015 8:52 am

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

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: Cornelius

Soil Surface Texture: silt loam

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: > 99 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 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 Min: 5.6
2	16 inches	37 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 5.6
3	37 inches	59 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: 1.4 Min: 0.42	Max: 5.5 Min: 5.1

Soil Map ID: 2

Soil Component Name: Cornelius

Soil Surface Texture: silt loam

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: > 99 inches

Soil Layer Information

	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 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 Min: 5.6
2	16 inches	37 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 5.6
3	37 inches	59 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: 1.4 Min: 0.42	Max: 5.5 Min: 5.1

Soil Map ID: 3

Soil Component Name: Aloha

Soil Surface Texture: silt loam

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: Somewhat poorly drained

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 54 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
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 Min: 5.6
2	7 inches	46 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: 4 Min: 1.4	Max: 6.5 Min: 5.6
3	46 inches	64 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: 4 Min: 1.4	Max: 6.5 Min: 5.6

Soil Map ID: 4

Soil Component Name: Cornelius

Soil Surface Texture: silt loam

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: > 99 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	16 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 Min: 5.6
2	16 inches	37 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6 Min: 5.6
3	37 inches	59 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: 1.4 Min: 0.42	Max: 5.5 Min: 5.1

Soil Map ID: 5

Soil Component Name: McBee

Soil Surface Texture: silty clay loam

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: > 76 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt.	Max: 14 Min: 4	Max: 6.5 Min: 5.6
2	11 inches	44 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 7.3 Min: 6.1
3	44 inches	64 inches	clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 4 Min: 1.4	Max: 7.3 Min: 6.1

Soil Map ID: 6

Soil Component Name: Delena

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: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 23 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	9 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: 5.6
2	9 inches	22 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 14 Min: 4	Max: 6.5 Min: 5.6
3	22 inches	59 inches	silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay	Max: 0.42 Min: 0.01	Max: 7.3 Min: 6.1

Soil Map ID: 7

Soil Component Name: Cove

Soil Surface Texture: clay

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: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 15 inches

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	7 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.42 Min: 0.01	Max: 7.3 Min: 6.1
2	7 inches	59 inches	clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	FINE-GRAINED SOILS, Silts and Clays (liquid limit 50% or more), Fat Clay.	Max: 0.42 Min: 0.01	Max: 7.3 Min: 6.1

Soil Map ID: 8

Soil Component Name: Cascade

Soil Surface Texture: silt loam

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: Somewhat poorly 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 conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 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 Min: 5.1

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
2	11 inches	26 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 Min: 5.1
3	26 inches	59 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: 1.4 Min: 0.42	Max: 6 Min: 5.1

Soil Map ID: 9

Soil Component Name: Water

Soil Surface Texture: silt loam

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: Unknown

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: 10

Soil Component Name: Cascade

Soil Surface Texture: silt loam

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: Somewhat poorly 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 conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
1	0 inches	11 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 Min: 5.1
2	11 inches	26 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 Min: 5.1
3	26 inches	59 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: 1.4 Min: 0.42	Max: 6 Min: 5.1

Soil Map ID: 11

Soil Component Name: Huberly

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: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 23 inches

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Soil Layer Information							
	Boundary			Classification		Saturated hydraulic conductivity micro m/sec	Soil Reaction (pH)
Layer	Upper	Lower	Soil Texture Class	AASHTO Group	Unified Soil		
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 Min: 5.6
2	7 inches	25 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: 4 Min: 1.4	Max: 6 Min: 5.6
3	25 inches	59 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: 1.4 Min: 0.42	Max: 6 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 0.001 miles
State Database	1.000

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	USGS40000993145	1/4 - 1/2 Mile NNE
A4	USGS40000993144	1/4 - 1/2 Mile NE
B8	USGS40000993127	1/4 - 1/2 Mile West
C10	USGS40000993135	1/2 - 1 Mile West
D13	USGS40000993040	1/2 - 1 Mile South

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

FEDERAL USGS WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP

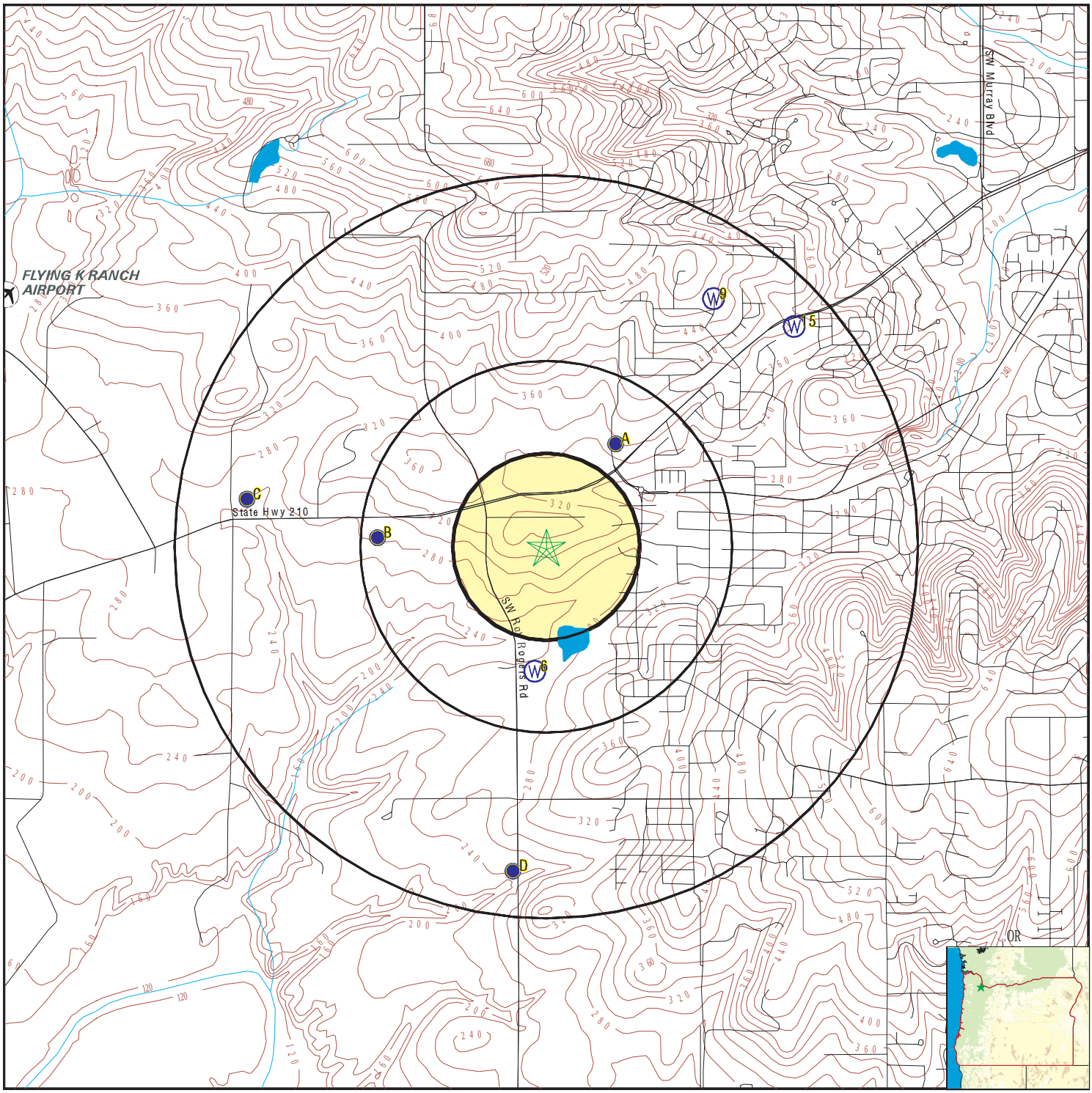
No PWS System Found

Note: PWS System location is not always the same as well location.

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A1	ORW400000010216	1/4 - 1/2 Mile NE
A3	ORI400000012472	1/4 - 1/2 Mile NNE
A5	ORW400000010217	1/4 - 1/2 Mile NE
6	ORW400000010165	1/4 - 1/2 Mile South
B7	ORW400000010199	1/4 - 1/2 Mile West
9	ORW400000010258	1/2 - 1 Mile NE
C11	ORW400000010207	1/2 - 1 Mile West
D12	ORW400000010083	1/2 - 1 Mile South
D14	ORW400000010080	1/2 - 1 Mile South
15	ORW400000010249	1/2 - 1 Mile NE

PHYSICAL SETTING SOURCE MAP - 4308611.2s



- County Boundary
- Major Roads
- Contour Lines
- Airports
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons
- Groundwater Flow Direction
- GI Indeterminate Groundwater Flow at Location
- GV Groundwater Flow Varies at Location

SITE NAME:	River Terrace East	CLIENT:	GeoDesign Inc.
ADDRESS:	16550-17012 SW Friendly Lane Beaverton OR 97007	CONTACT:	Jeremy Zimber
LAT/LONG:	45.4247 / 122.8501	INQUIRY #:	4308611.2s
		DATE:	June 02, 2015 8:51 am

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A1
NE
1/4 - 1/2 Mile
Higher

OR WELLS **ORW400000010216**

Logid:	WASH 57952	Lstupdate:	08/28/2006
Establby:	KARL WOZNIAK	Xysource:	AIR PHOTO
Horizerr:	25	Sourceorg:	CONSULTANT
Sourceowrd:	GWATER		
Welltag:	51450		
Sownum:	0	Obswell:	9
Recwell:	9	Obsflagall:	Not Reported
Lsdelev:	323.5	Site id:	ORW400000010216

A2
NNE
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000993145**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-452544122504202		
Monloc name:	02.00S/01.00W-05BCB02		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17090010	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	45.4287289
Longitude:	-122.8462938	Sourcemap scale:	24000
Horiz Acc measure:	.5	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	316
Vert measure units:	feet	Vertacc measure val:	5
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:	20010806	Welldepth:	1000
Welldepth units:	ft	Wellholedepth:	1000
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

A3
NNE
1/4 - 1/2 Mile
Higher

OR WELLS **ORI400000012472**

Well inspe:	33813		
Physical l:	Not Reported	Inspection:	26-MAR-02
Startcard :	Not Reported	Wl county :	Not Reported
Wl nbr:	Not Reported	Startcard1:	Not Reported
Well tag n:	Not Reported	No log:	0
Property o:	Not Reported	Inspecti 1:	Not Reported
Special st:	0	Title:	Not Reported
Inspecti 2:	Not Reported	Witnesses:	Not Reported
Name owner:	CITY OF BEAVERTON; 500 FT N OF SCHOLLS FERRY RD AND LOON DR; SEE MAP		
Street:	Not Reported	City:	Not Reported

State:	Not Reported	Zip:	Not Reported
Phone home:	Not Reported	Phone comp:	Not Reported
Gps on wel:	0	Distance t:	Not Reported
Bearing to:	Not Reported	Drilling m:	Not Reported
Use of wel:	Not Reported	Drilling 1:	0
Rough log :	0	Inspected :	Not Reported
Well tag r:	Not Reported		
Monitoring:	Not Reported	Monitori 1:	0
Protective:	0	Well locke:	0
Consultant:	0	Water in v:	0
Seal test :	Not Reported	Samples ta:	0
Casing dia:	Not Reported	Csg above :	Not Reported
Csg gauge:	Not Reported	Borehole d:	Not Reported
Dedicated :	0	Access por:	0
Access p 1:	Not Reported	Measuring :	Not Reported
Measuring1:	0	Depth belo:	Not Reported
Depth be 1:	Not Reported	Tape hold:	Not Reported
Tape missi:	Not Reported	Tape cut:	Not Reported
Water leve:	Not Reported	Water le 1:	Not Reported
Cascading :	0	Pump type:	Not Reported
Pump make:	Not Reported	Pump hp:	Not Reported
Flowmeter :	Not Reported	Flowmeter1:	Not Reported
Flowmete 1:	Not Reported	Flowmete 2:	Not Reported
Associated:	Not Reported	Nbr of hou:	Not Reported
Deficiency:	Not Reported		
Inspecti 3:	ASR PROJECT WELL; NO PUMP INSTALLED YET		
Work new:	-1	Work deepe:	0
Work conve:	0	Work alter:	0
Work aband:	0	Work exist:	0
Work other:	Not Reported	Drill rota:	0
Drill ro 1:	0	Drill cabl:	0
Drill ca 1:	0	Drill reve:	0
Drill re 1:	0	Drill auge:	0
Drill push:	0	Drill hand:	0
Drill holl:	0	Drill soni:	0
Drill othe:	Not Reported	Use domest:	0
Use irriga:	0	Use commun:	0
Use indust:	0	Use livest:	0
Use dewate:	0	Use monito:	0
Use therma:	0	Use inject:	0
Use piezom:	0	Use observ:	0
Use recove:	0	Use other:	Not Reported
Bentonite :	0	Conductivi:	Not Reported
Conducti 1:	Not Reported		
Measuremen:	Not Reported		
Well tag 1:	Not Reported	Bonded lic:	Not Reported
Unbonded l:	Not Reported	Bonded dri:	Not Reported
Unbonded d:	Not Reported	County cod:	WASH
Tax lot:	175		
Township:	2		
Township c:	S		
Range:	1		
Range char:	W		
Sctn:	6		
Qtr40:	SE	Qtr160:	NE
Latitude d:	45.42873		
Longitude :	122.84628		
Gps horizo:	Not Reported		
Year const:	2001		
Date const:	Not Reported	Date con 1:	Not Reported

Deficienci:	N	Previous i:	0
Inspected1:	KRB	Wm region:	NW
Well tag a:	BANDED		
Well tag 2:	Not Reported	Depth:	Not Reported
Static wat:	Not Reported	Status of :	CMP
Location r:	Not Reported		
Site visit:	0	Type of lo:	Not Reported
Casing cap:	Not Reported	Pictures t:	0
Street of :	Not Reported		
Street of1:	Not Reported		
Last updt :	01-JAN-00	Last updt1:	byrdkr
Rec creati:	01-JUN-09	Rec crea 1:	OWRD\migrate
Newlat:	45.42873		
Newlong:	-122.84628		
Site id:	ORI400000012472		

A4
NE
1/4 - 1/2 Mile
Higher

FED USGS **USGS40000993144**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-452544122504201		
Monloc name:	02S/01W-05BCB		
Monloc type:	Well		
Monloc desc:	Not Reported		
Huc code:	17090010	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	45.4287206
Longitude:	-122.846191	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	320
Vert measure units:	feet	Vertacc measure val:	5
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:	20000104	Welldepth:	992
Welldepth units:	ft	Wellholedepth:	992
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 0

A5
NE
1/4 - 1/2 Mile
Higher

OR WELLS **ORW400000010217**

Logid:	WASH 55816	Lstupdate:	09/21/2005
Establby:	KARL WOZNIAK	Xysource:	TAX LOT MAP
Horizerr:	100	Sourceorg:	OWRD
Sourceowrd:	GWATER		
Welltag:	33782		
Sownum:	0	Obswell:	9
Recwell:	9	Obsflagall:	Not Reported
Lsdelev:	332	Site id:	ORW400000010217

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation

	Database	EDR ID Number
6		
South	**OR WELLS**	**ORW400000010165**
1/4 - 1/2 Mile		
Lower		

Logid:	WASH 11513	Lstupdate:	Not Reported
Establby:	KARL WOZNIAK	Xysource:	UNKNOWN
Horizerr:	9999	Sourceorg:	USGS
Sourceowrd:	WILLGW		
Welltag:	0		
Sownum:	1045	Obswell:	N
Recwell:	9	Obsflagall:	SN
Lsdelev:	250	Site id:	ORW400000010165

B7		
West	**OR WELLS**	**ORW400000010199**
1/4 - 1/2 Mile		
Lower		

Logid:	WASH 11504	Lstupdate:	Not Reported
Establby:	KARL WOZNIAK	Xysource:	UNKNOWN
Horizerr:	9999	Sourceorg:	USGS
Sourceowrd:	WILLGW		
Welltag:	0		
Sownum:	948	Obswell:	N
Recwell:	9	Obsflagall:	SN
Lsdelev:	280	Site id:	ORW400000010199

B8		
West	**FED USGS**	**USGS40000993127**
1/4 - 1/2 Mile		
Lower		

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-452531122513001		
Monloc name:	02S/01W-06CAB		
Monloc type:	Well		
Monloc desc:	'OWRD STATE OBS WELL 948'		
Huc code:	17090010	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	45.4250567
Longitude:	-122.859433	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	279
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Columbia Plateau basaltic-rock aquifers		
Formation type:	Columbia River Basalt Group		

Aquifer type:	Not Reported		
Construction date:	19651005	Welldepth:	227
Welldepth units:	ft	Wellholedepth:	227
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 54

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1997-02-05	124.9		1995-02-07	127.5	
1994-10-05	128.8		1992-10-26	126.6	
1992-04-08	123.7		1991-05-13	123.7	
1990-08-14	125.6		1990-04-26	124.7	
1990-01-24	126.3		1989-09-11	125.7	
1989-05-26	123.6		1989-01-31	125.6	
1988-09-07	126.1		1988-07-28	125.2	
1988-04-25	124.6		1987-11-16	126.2	
1987-09-10	126.0		1987-04-22	122.9	
1986-10-23	125.0		1986-05-07	117.0	
1985-11-20	122.3		1985-05-08	118	
1984-11-09	120.8		1984-05-26	120	
1983-03-21	121.9		1982-10-19	126	
1982-04-19	125.4		1981-04-22	128.1	
1980-04-11	131.4		1978-10-10	132.9	
1978-08-02	132.8		1978-04-12	132	
1978-01-26	134.5		1977-10-11	134	
1977-07-20	133.5		1977-04-19	132.3	
1977-01-19	132		1976-10-12	131.6	
1976-07-27	130.8		1976-04-21	129.3	
1976-01-20	133.7				
Note: The site had been pumped recently.					
1975-10-22	132		1975-10-12	132	
1975-07-27	131		1975-07-15	129	
1975-04-21	129		1975-04-15	128.4	
1975-01-20	132.4				
Note: The site was being pumped.					
1974-10-14	129		1974-04-29	126	
1973-11-26	132		1973-03-20	127	
1972-09-19	155		1965-11-01	110	

9
NE
1/2 - 1 Mile
Higher

OR WELLS **ORW400000010258**

Logid:	WASH 9179	Lstupdate:	Not Reported
Establby:	KARL WOZNIAK	Xysource:	UNKNOWN
Horizerr:	9999	Sourceorg:	USGS
Sourceowrd:	WILLGW		
Welltag:	0		
Sownum:	1073	Obswell:	N
Recwell:	9	Obsflagall:	SN
Lsdelev:	430	Site id:	ORW400000010258

C10
West
1/2 - 1 Mile
Lower

FED USGS **USGS40000993135**

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-452536122515501		
Monloc name:	02S/01W-06BCC		
Monloc type:	Well		
Monloc desc:	'STATE OBS WELL 958'		
Huc code:	17090010	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	45.4265621
Longitude:	-122.8666582	Sourcemap scale:	24000
Horiz Acc measure:	.5	Horiz Acc measure units:	seconds
Horiz Collection method:	Global positioning system (GPS), uncorrected		
Horiz coord refsys:	NAD83	Vert measure val:	262
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Columbia Plateau basaltic-rock aquifers		
Formation type:	Columbia River Basalt Group		
Aquifer type:	Not Reported		
Construction date:	1953	Welldepth:	544
Welldepth units:	ft	Wellholedepth:	544
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 57

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1998-04-24	107.0		1997-09-17	110.2	
1997-02-05	110.7		1996-10-30	111.8	
1996-07-10	110		1995-10-31	112.1	
1995-07-25	117.4		1995-02-08	111.8	
1994-10-05	113.6		1993-07-12	111.4	
1992-10-26	110.5		1992-04-08	107.2	
1991-05-13	106.9		1990-04-26	108.5	
1990-01-24	109.1		1989-09-12	117.5	
1989-05-30	114.3		1988-10-13	110.8	
1988-09-07	123.0		1988-08-02	111.1	
1988-07-28	116.4				
Note: The site was being pumped.					
1988-04-25	108.2		1987-11-16	109.4	
1987-09-10	110.9		1987-04-22	107.2	
1986-10-23	108.2		1986-05-07	105.7	
1985-11-20	105		1985-05-08	102	
1984-11-07	103.8		1984-05-26	104	
1983-11-02	107.0		1983-03-21	109	
1982-10-18	138		1982-04-27	111.8	
1981-04-22	115		1980-10-21	123	
1980-04-11	138		1978-10-10	104	
1978-08-02	117				
Note: The site was being pumped.					
1978-04-12	104		1978-01-26	105	
1977-10-11	106		1977-07-20	108	
1977-04-19	102		1977-01-19	103	
1976-10-12	102		1976-07-27	109	
1976-04-21	120		1976-01-20	121	
1975-10-22	122		1975-04-15	120	
1975-01-22	122		1974-10-11	123	
1973-11-26	121		1973-03-22	119	

Ground-water levels, continued.

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1953-01-01	88				

C11
West
1/2 - 1 Mile
Lower

OR WELLS **ORW400000010207**

Logid:	WASH 11510	Lstupdate:	Not Reported
Establby:	MARC NORTON	Xysource:	GPS
Horizerr:	10	Sourceorg:	OWRD
Sourceowrd:	GWATER		
Welltag:	0		
Sownum:	958	Obswell:	N
Recwell:	9	Obsflagall:	SN
Lsdelev:	265	Site id:	ORW400000010207

D12
South
1/2 - 1 Mile
Lower

OR WELLS **ORW400000010083**

Logid:	WASH 51759	Lstupdate:	Not Reported
Establby:	KARL WOZNIAK	Xysource:	UNKNOWN
Horizerr:	9999	Sourceorg:	USGS
Sourceowrd:	WILLGW		
Welltag:	0		
Sownum:	0	Obswell:	9
Recwell:	9	Obsflagall:	Not Reported
Lsdelev:	248	Site id:	ORW400000010083

D13
South
1/2 - 1 Mile
Lower

FED USGS **USGS40000993040**

Org. Identifier:	USGS-OR		
Formal name:	USGS Oregon Water Science Center		
Monloc Identifier:	USGS-452443122510301		
Monloc name:	02S/01W-07ACD1		
Monloc type:	Well		
Monloc desc:	'OWRD STATE OBS WELL 949'		
Huc code:	17090010	Drainagearea value:	Not Reported
Drainagearea Units:	Not Reported	Contrib drainagearea:	Not Reported
Contrib drainagearea units:	Not Reported	Latitude:	45.4118374
Longitude:	-122.8519409	Sourcemap scale:	24000
Horiz Acc measure:	1	Horiz Acc measure units:	seconds
Horiz Collection method:	Interpolated from map		
Horiz coord refsys:	NAD83	Vert measure val:	232
Vert measure units:	feet	Vertacc measure val:	5
Vert accmeasure units:	feet		
Vertcollection method:	Interpolated from topographic map		
Vert coord refsys:	NGVD29	Countrycode:	US
Aquifername:	Columbia Plateau basaltic-rock aquifers		
Formation type:	Columbia River Basalt Group		

Aquifer type:	Not Reported		
Construction date:	196404	Welldepth:	200
Welldepth units:	ft	Wellholedepth:	206
Wellholedepth units:	ft		

Ground-water levels, Number of Measurements: 76

Date	Feet below Surface	Feet to Sealevel	Date	Feet below Surface	Feet to Sealevel
1998-04-24	95.8		1997-09-16	100.0	
1997-02-04	98.8		1996-10-30	100.0	
1996-07-10	97.2		1995-10-30	99.9	
1995-07-25	99.2		1995-02-07	101.2	
1994-10-05	104.0		1994-04-26	98.5	
1993-07-12	98.6		1992-10-26	101.0	
1992-04-08	98.0		1991-12-30	98.8	
1991-05-13	98.0		1990-08-14	99.2	
1990-04-26	99.5		1990-01-24	101.9	
1989-09-12	99.9		1989-05-26	98.0	
1988-10-04	100.8		1988-09-07	101.0	
1988-07-28	100.2		1988-04-25	98.8	
1987-11-16	100.2		1987-09-10	99.5	
1987-04-22	97.2		1986-10-23	99.3	
1986-05-27	96.5		1985-12-05	97	
1985-05-12	93.3		1984-11-09	95.5	
1984-05-26	93		1983-11-03	97	
1983-03-21	98		1982-10-19	101.1	
1982-04-19	100		1981-04-22	103	
1980-10-21	105.0				
Note: The site had been pumped recently.					
1980-04-11	103.8		1978-10-10	105	
1978-08-02	105.0		1978-04-12	105	
1978-01-26	107		1977-10-11	106	
1977-10-10	105.9		1977-07-20	105.5	
1977-04-19	104		1977-03-02	105.0	
1977-01-19	104.1		1976-10-12	104	
1976-07-27	103		1976-04-21	102.4	
1976-01-20	104		1975-10-22	104	
1975-07-15	102.0		1975-04-15	101.5	
1975-01-22	103.4		1974-10-11	104	
1974-07-16	101		1974-04-18	100	
1973-11-26	104.1		1973-06-04	101	
1973-03-20	100		1973-01-25	101	
1972-05-05	96.5		1972-02-08	99	
1971-10-15	97.6		1971-07-22	95	
1971-04-20	97.2		1971-01-25	99.4	
1970-10-23	96.9		1970-07-28	97	
1970-04-14	92.6		1970-03-19	93	
1964-05-01	85				

D14
South
1/2 - 1 Mile
Lower

OR WELLS **ORW400000010080**

Logid:	WASH 11516	Lstupdate:	Not Reported
Establby:	KARL WOZNIAK	Xysource:	UNKNOWN
Horizerr:	9999	Sourceorg:	USGS
Sourceowrd:	WILLGW		
Welltag:	0		
Sownum:	949	Obswell:	N
Recwell:	9	Obsflagall:	SN
Lsdelev:	230	Site id:	ORW400000010080

15
NE
1/2 - 1 Mile
Higher

OR WELLS **ORW400000010249**

Logid:	WASH 682	Lstupdate:	Not Reported
Establby:	KARL WOZNIAK	Xysource:	UNKNOWN
Horizerr:	9999	Sourceorg:	USGS
Sourceowrd:	WILLGW		
Welltag:	0		
Sownum:	1078	Obswell:	N
Recwell:	9	Obsflagall:	SN
Lsdelev:	375	Site id:	ORW400000010249

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS
RADON

AREA RADON INFORMATION

State Database: OR Radon

Radon Test Results

Zipcode	Num Tests	Maximum	Minimum	Average	# > 4 pCi/L
97007	29	15.4	0.2	2.6	4

Federal EPA Radon Zone for WASHINGTON County: 2

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 WASHINGTON COUNTY, OR

Number of sites tested: 22

Area	Average Activity	% <4 pCi/L	% 4-20 pCi/L	% >20 pCi/L
Living Area	1.190 pCi/L	95%	5%	0%
Basement	1.260 pCi/L	100%	0%	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, 2005 and 2010 from the U.S. Fish and Wildlife Service.

State Wetlands Data: Wetlands Inventory Data
Source: Oregon Geospatial Enterprise Office
Telephone: 503-378-2166

HYDROGEOLOGIC INFORMATION

AQUIFLOW^{R} 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 Well Data
Source: Department of Water Resources
Telephone: 503-986-0843

OTHER STATE DATABASE INFORMATION

Oil and Gas Well Locations
Source: Department of Geology and Mineral Industries
Telephone: 971-673-1540
A listing of oil and gas well locations in the state.

RADON

State Database: OR Radon
Source: Oregon Health Services
Telephone: 503-731-4272
Radon Levels in Orgeon

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

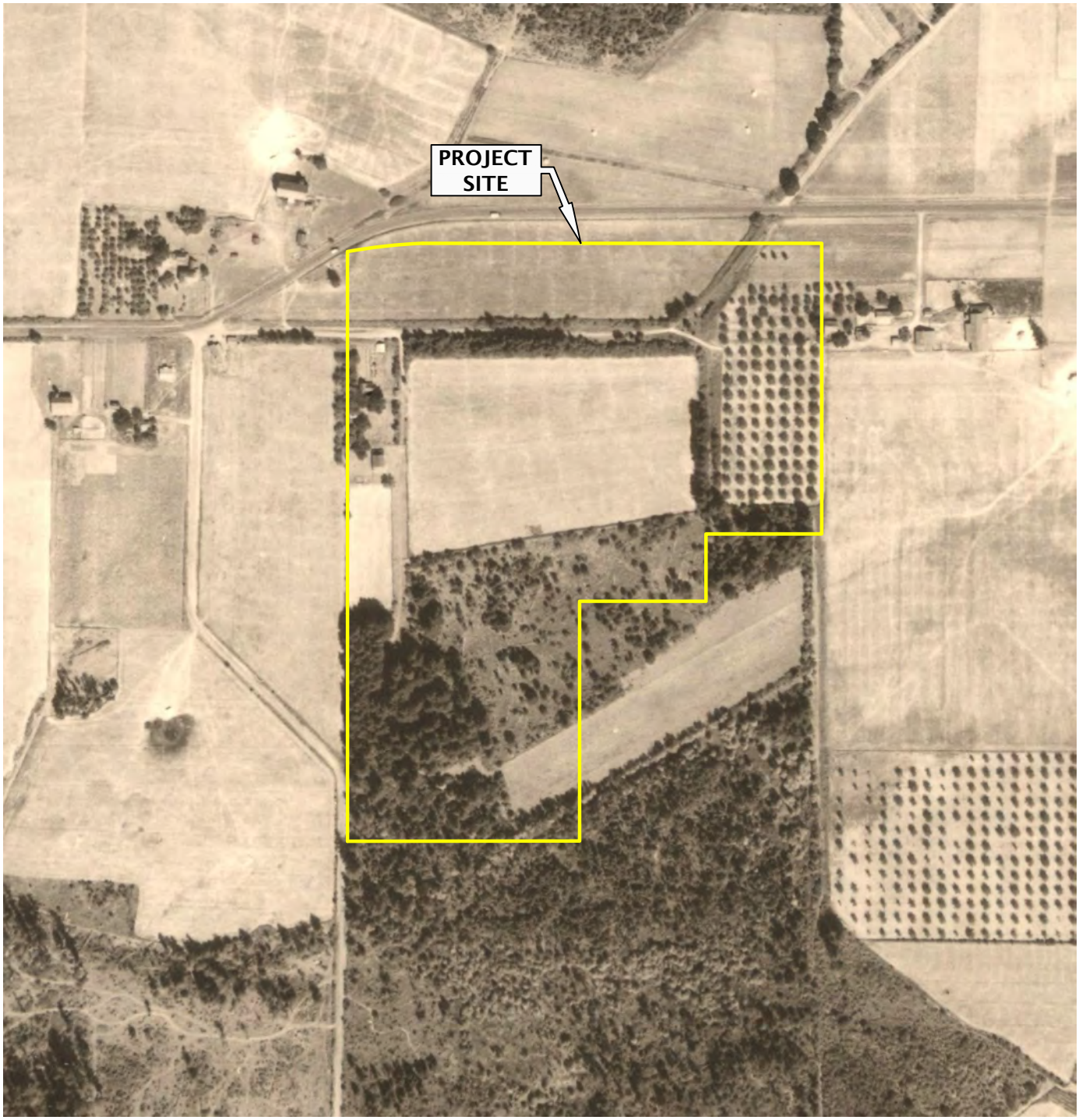
Epicenters: World earthquake epicenters, Richter 5 or greater
Source: Department of Commerce, National Oceanic and Atmospheric Administration

Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary faultlines, prepared in 1975 by the United State Geological Survey

PHYSICAL SETTING SOURCE RECORDS SEARCHED

STREET AND ADDRESS INFORMATION

APPENDIX C



PROJECT SITE BOUNDARIES ARE APPROXIMATE.

N

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

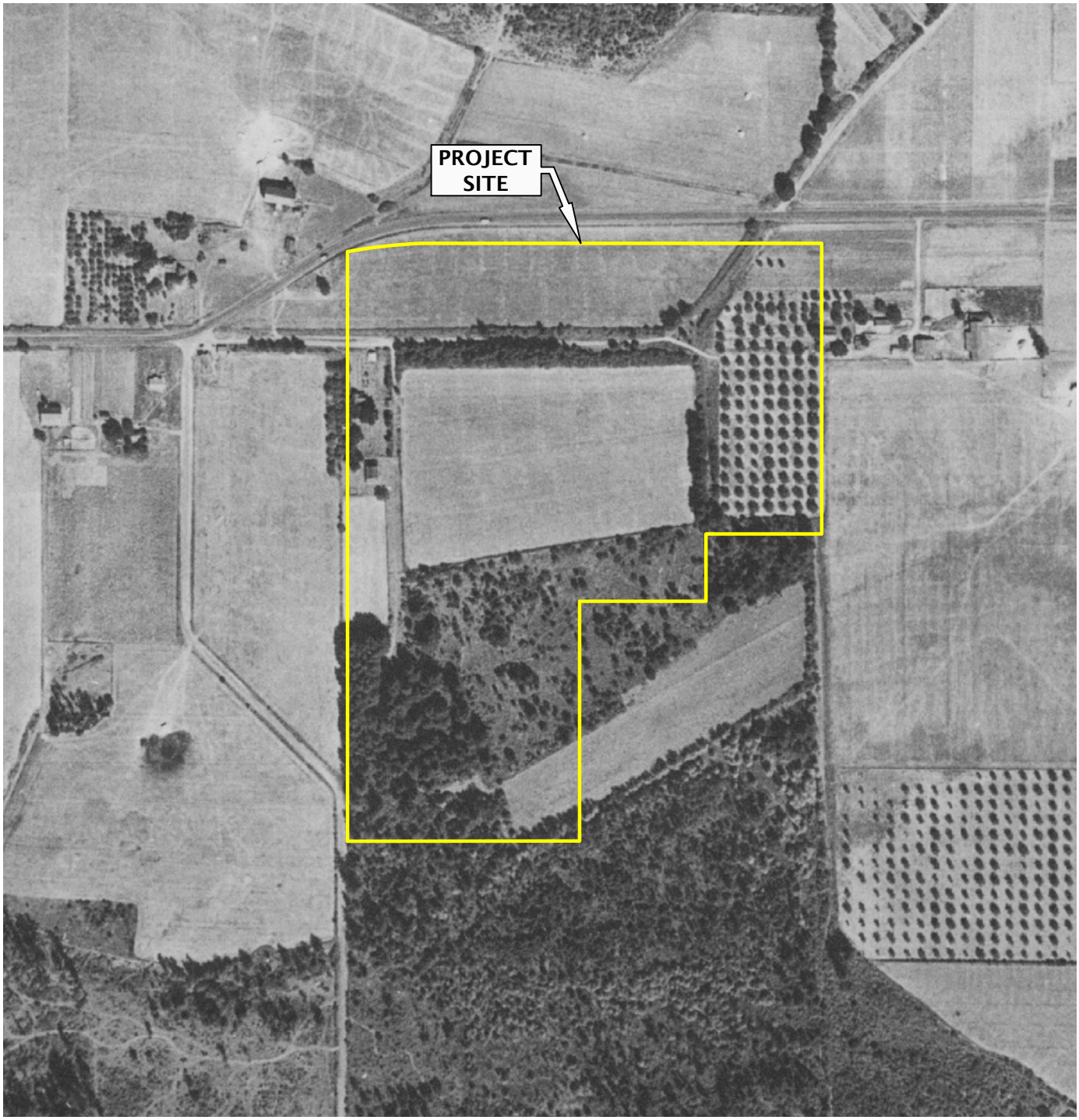
POLYGON-129-02

JUNE 2015

HISTORICAL AERIAL PHOTOGRAPH
1934

RIVER TERRACE EAST
TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:36:10 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HA01.dwg | Layout: 1934



PROJECT SITE BOUNDARIES ARE APPROXIMATE.

N

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

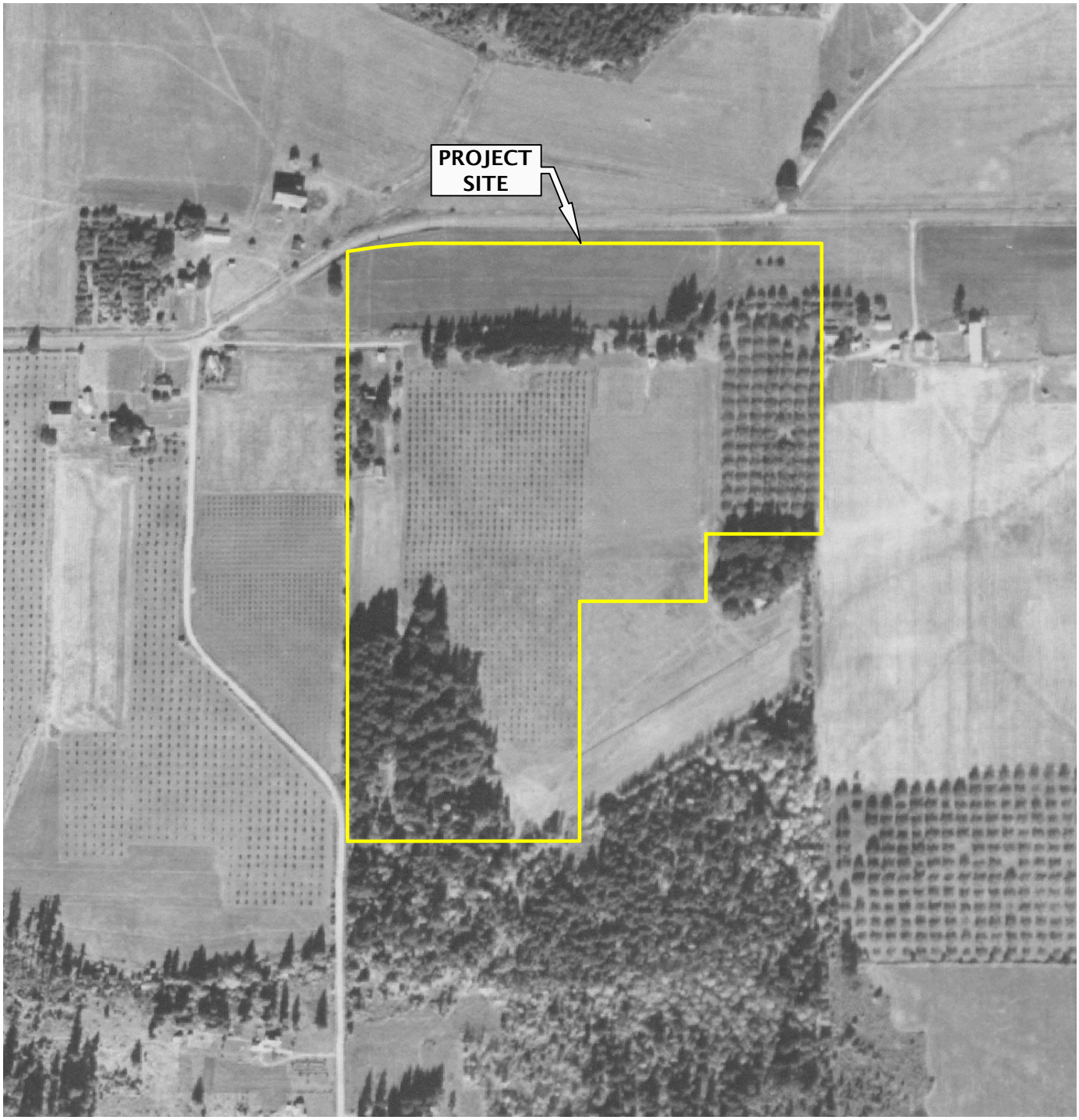
POLYGON-129-02

JUNE 2015

HISTORICAL AERIAL PHOTOGRAPH
1936

RIVER TERRACE EAST
TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:36:12 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HA01.dwg | Layout: 1936



PROJECT SITE BOUNDARIES ARE APPROXIMATE.

N

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

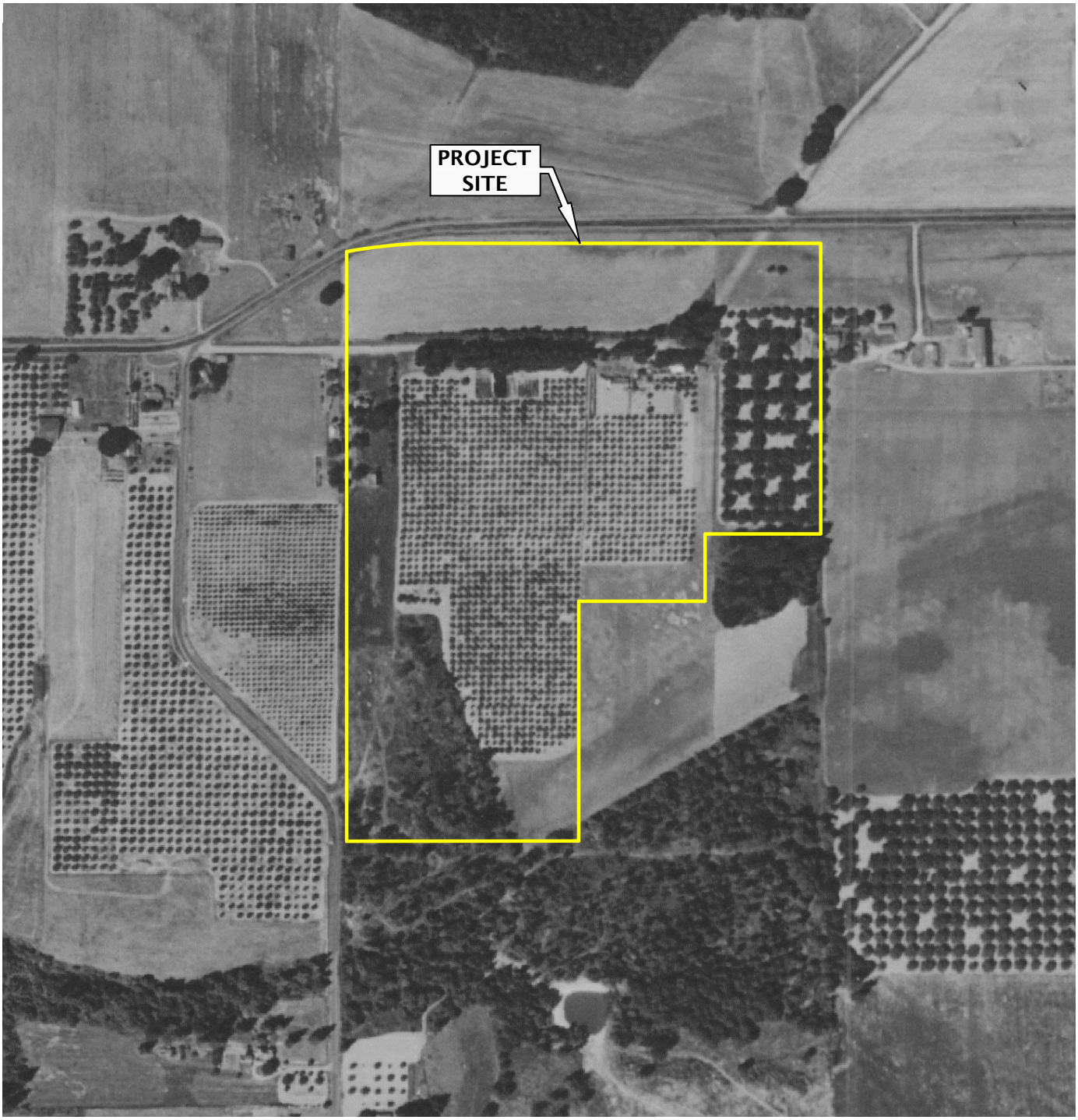
POLYGON-129-02

JUNE 2015

HISTORICAL AERIAL PHOTOGRAPH
1947

RIVER TERRACE EAST
TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:36:12 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HA01.dwg | Layout: 1947



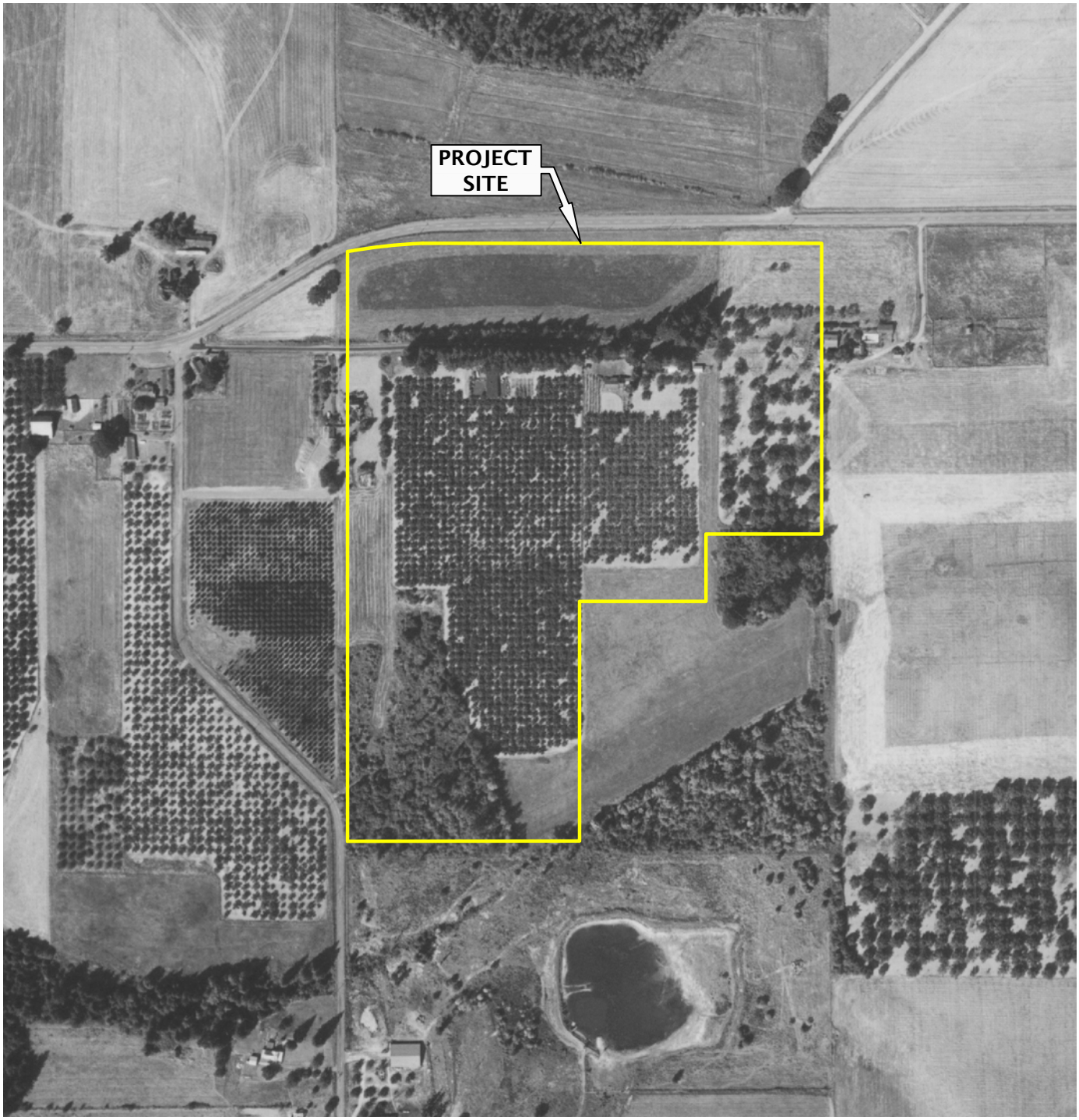
PROJECT SITE BOUNDARIES ARE APPROXIMATE.

N

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

POLYGON-129-02	**HISTORICAL AERIAL PHOTOGRAPH 1955**
JUNE 2015	RIVER TERRACE EAST TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:36:13 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HA01.dwg | Layout: 1955



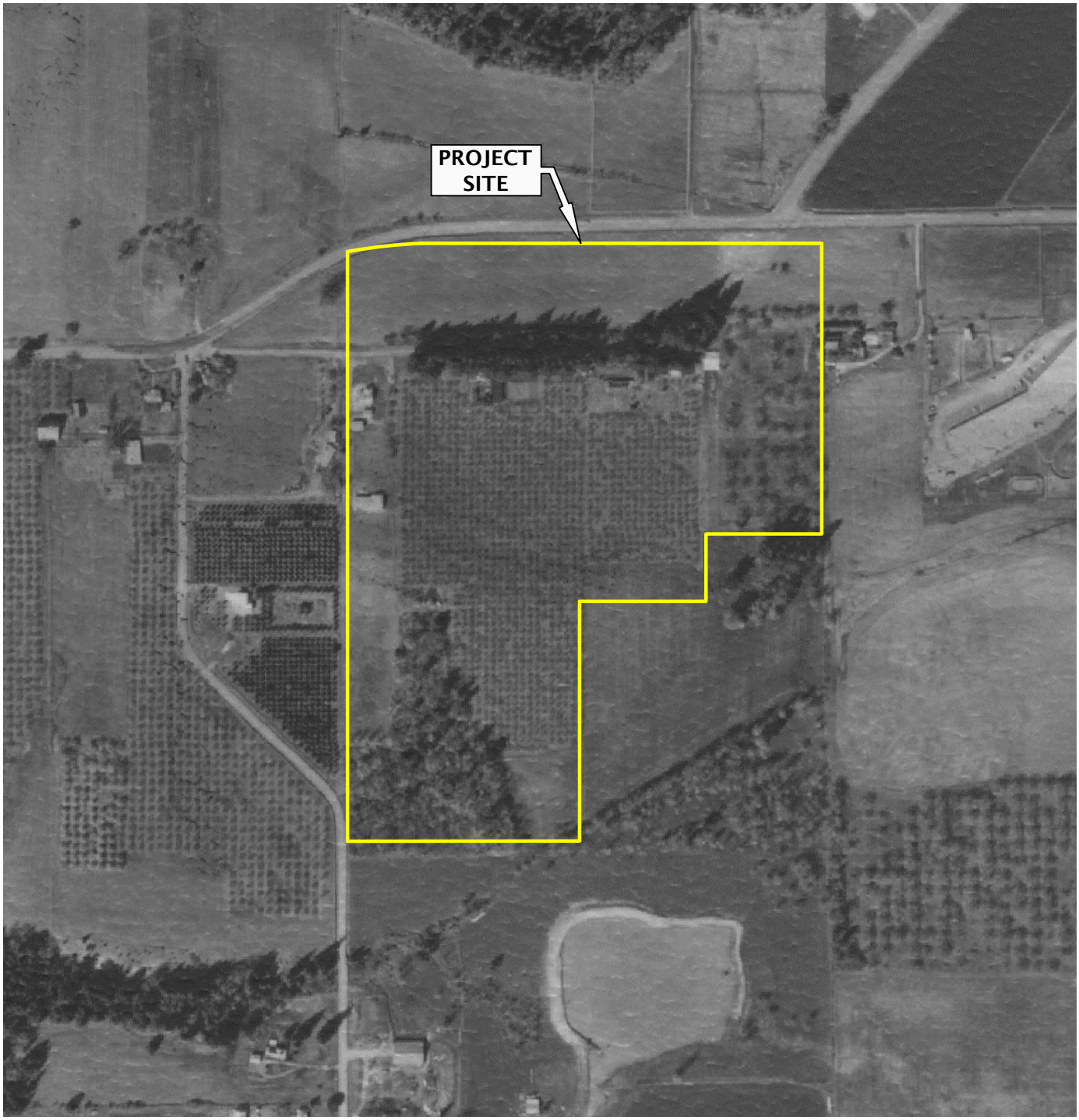
PROJECT SITE BOUNDARIES ARE APPROXIMATE.

N

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

POLYGON-129-02	**HISTORICAL AERIAL PHOTOGRAPH 1964**
JUNE 2015	RIVER TERRACE EAST TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:36:15 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HA01.dwg | Layout: 1964



PROJECT SITE BOUNDARIES ARE APPROXIMATE.

N

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

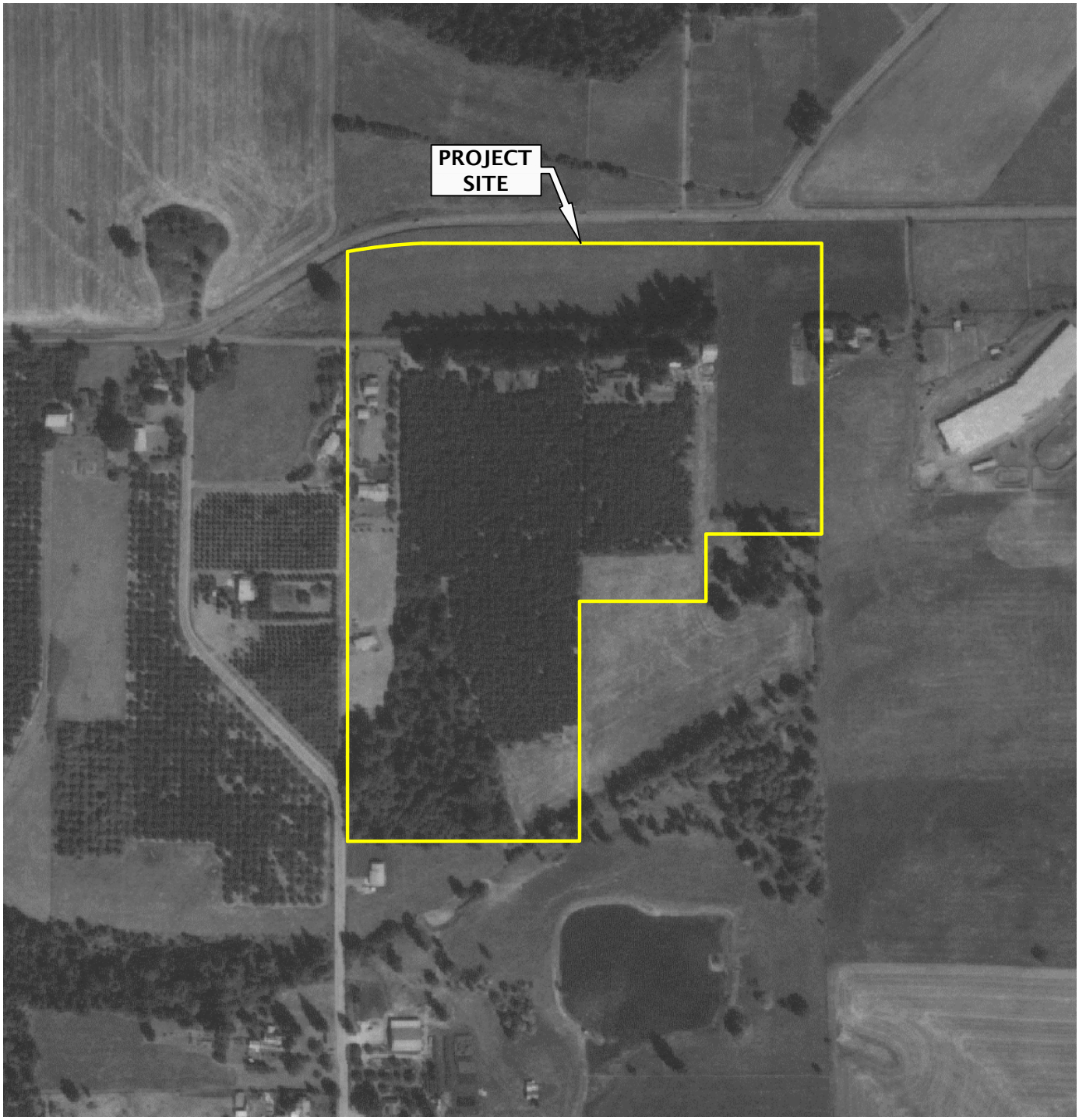
POLYGON-129-02

JUNE 2015

HISTORICAL AERIAL PHOTOGRAPH
1973

RIVER TERRACE EAST
TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:36:16 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HA01.dwg | Layout: 1973



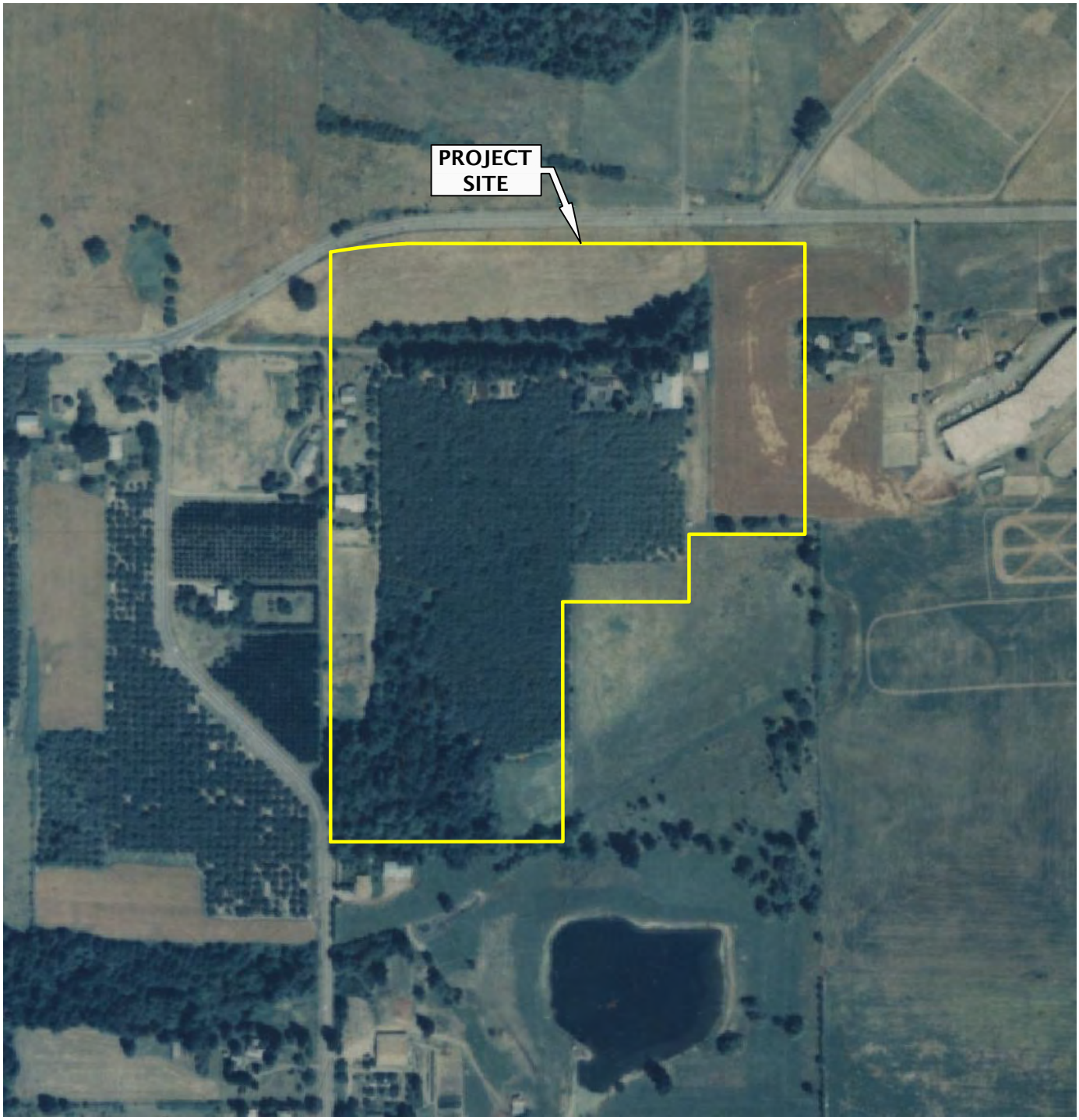
PROJECT SITE BOUNDARIES ARE APPROXIMATE.

N

GeoDesign Inc
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

POLYGON-129-02	**HISTORICAL AERIAL PHOTOGRAPH 1980**
JUNE 2015	RIVER TERRACE EAST TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:36:16 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HA01.dwg | Layout: 1980

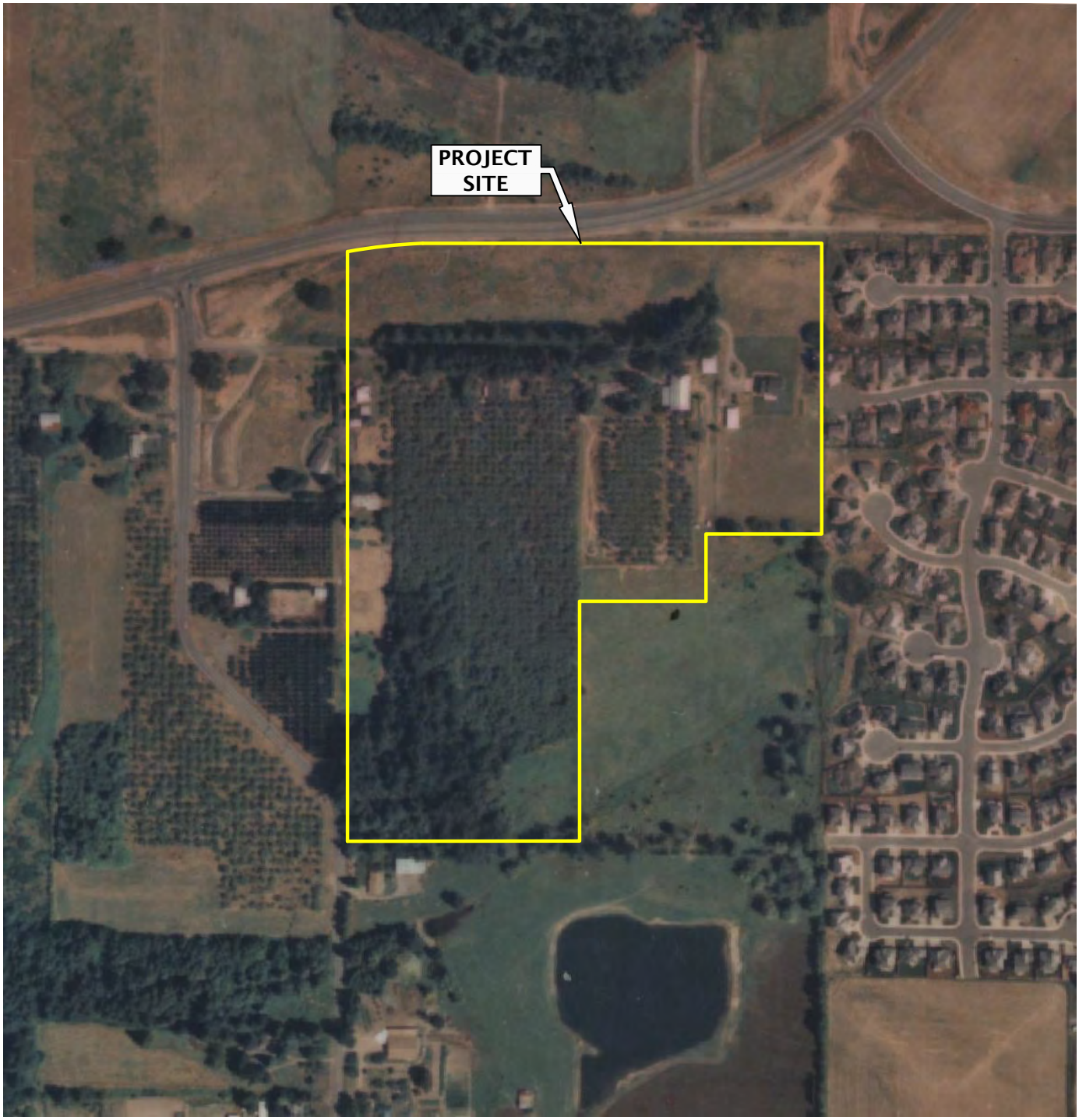


PROJECT SITE BOUNDARIES ARE APPROXIMATE.

N

GEODESIGN INC 15575 SW Sequoia Parkway - Suite 100 Portland OR 97224 Off 503.968.8787 Fax 503.968.3068	POLYGON-129-02	**HISTORICAL AERIAL PHOTOGRAPH** **1990**
	JUNE 2015	RIVER TERRACE EAST TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:36:17 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HA01.dwg | Layout: 1990



PROJECT SITE BOUNDARIES ARE APPROXIMATE.

N

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

POLYGON-129-02	**HISTORICAL AERIAL PHOTOGRAPH 1998**
JUNE 2015	RIVER TERRACE EAST TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:36:17 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HA01.dwg | Layout: 1998

PROJECT SITE BOUNDARIES ARE APPROXIMATE.

N

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

POLYGON-129-02

JUNE 2015

HISTORICAL AERIAL PHOTOGRAPH
2009

RIVER TERRACE EAST
TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:36:18 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HA01.dwg | Layout: 2009

PROJECT SITE BOUNDARIES ARE APPROXIMATE.

N

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

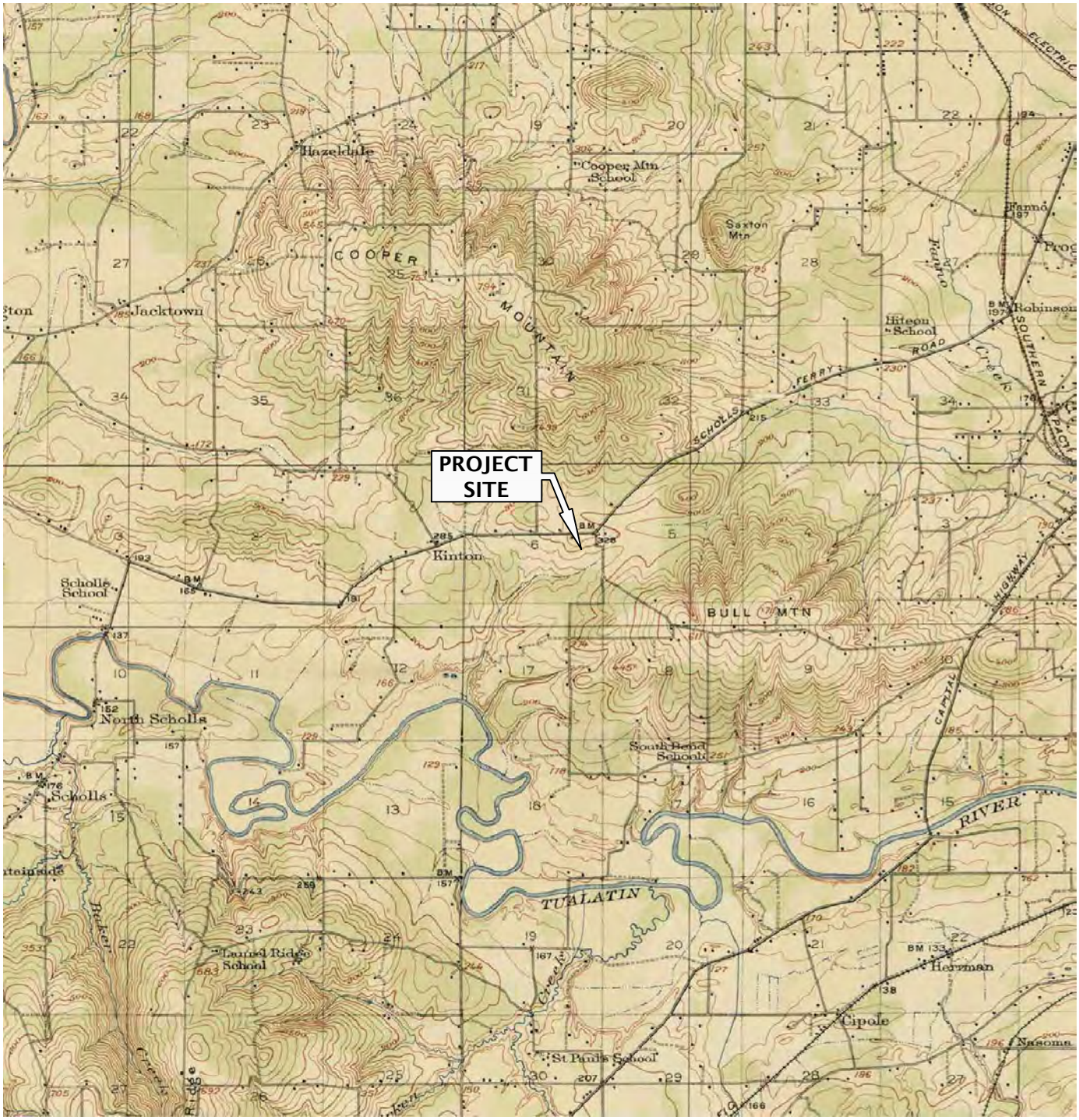
POLYGON-129-02

JUNE 2015

HISTORICAL AERIAL PHOTOGRAPH
2012

RIVER TERRACE EAST
TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:36:19 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HA01.dwg | Layout: 2012

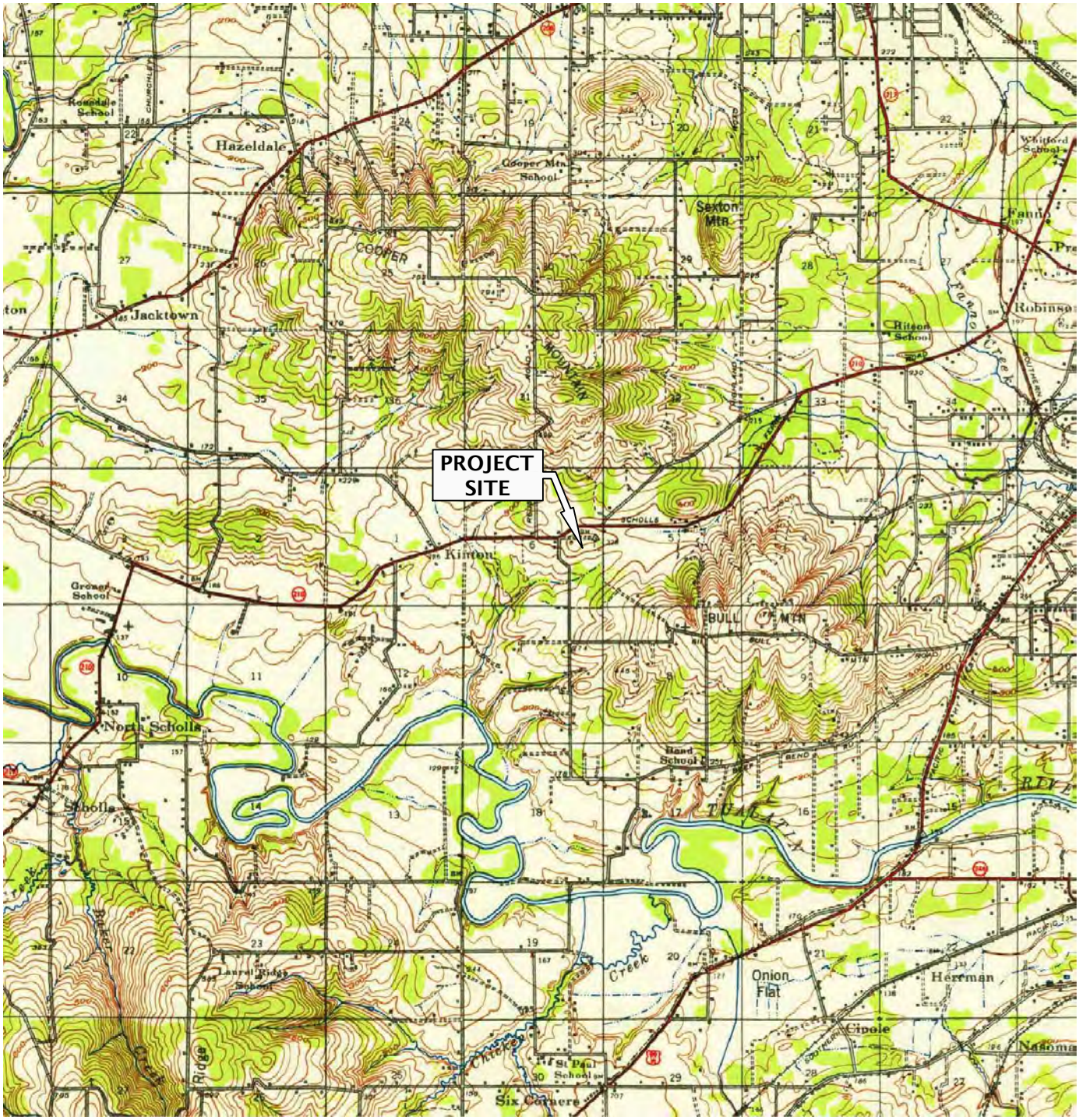


PROJECT SITE LOCATION IS APPROXIMATE.

N

GEODESIGN INC 15575 SW Sequoia Parkway - Suite 100 Portland OR 97224 Off 503.968.8787 Fax 503.968.3068	POLYGON-129-02	**HISTORICAL TOPOGRAPHIC MAP 1916**
	JUNE 2015	RIVER TERRACE EAST TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:37:02 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HT01.dwg | Layout: 1916



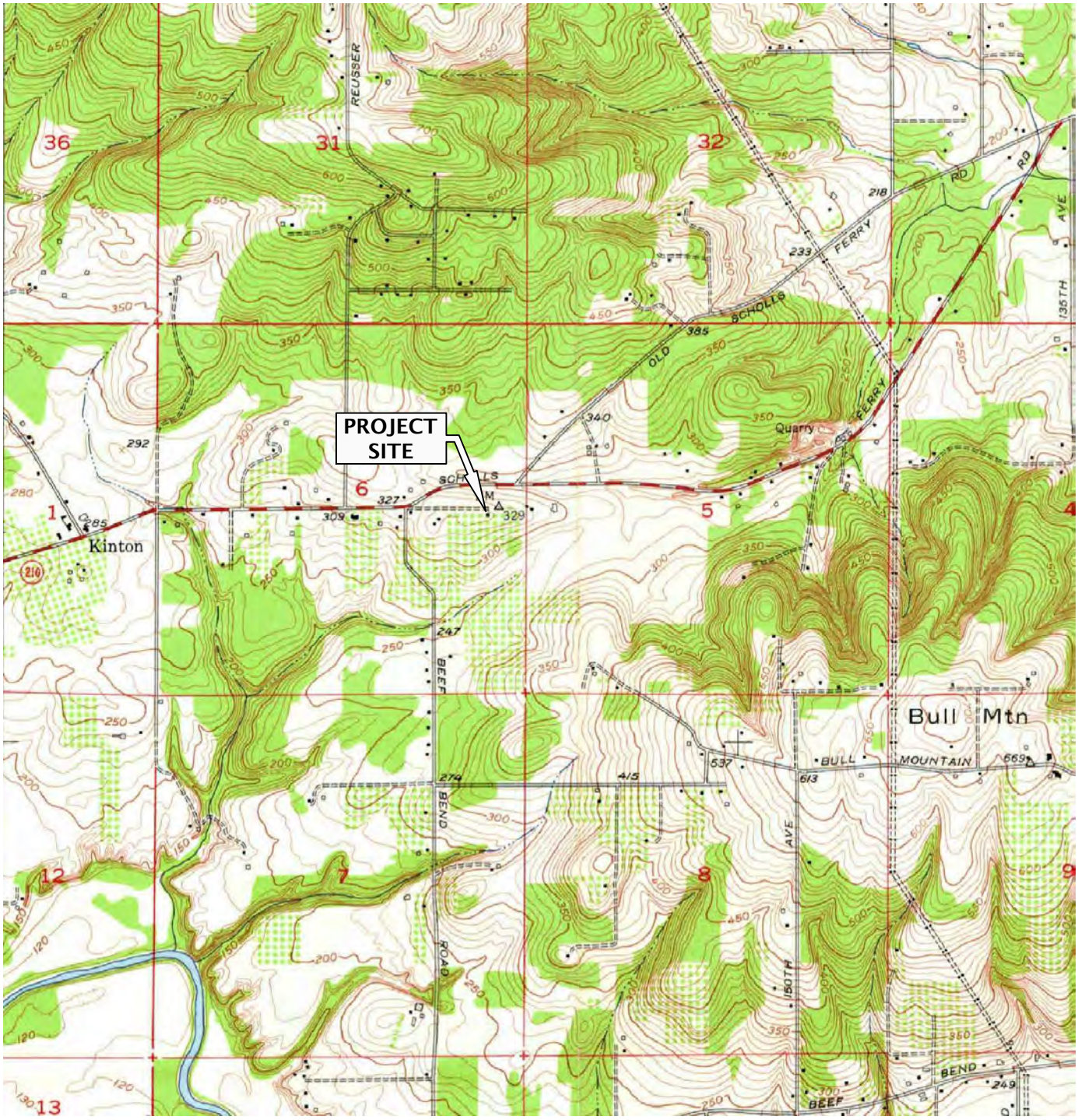
PROJECT SITE LOCATION IS APPROXIMATE.

N

GeoDesign Inc
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

POLYGON-129-02	**HISTORICAL TOPOGRAPHIC MAP 1939**
JUNE 2015	RIVER TERRACE EAST TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:37:02 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HT01.dwg | Layout: 1939

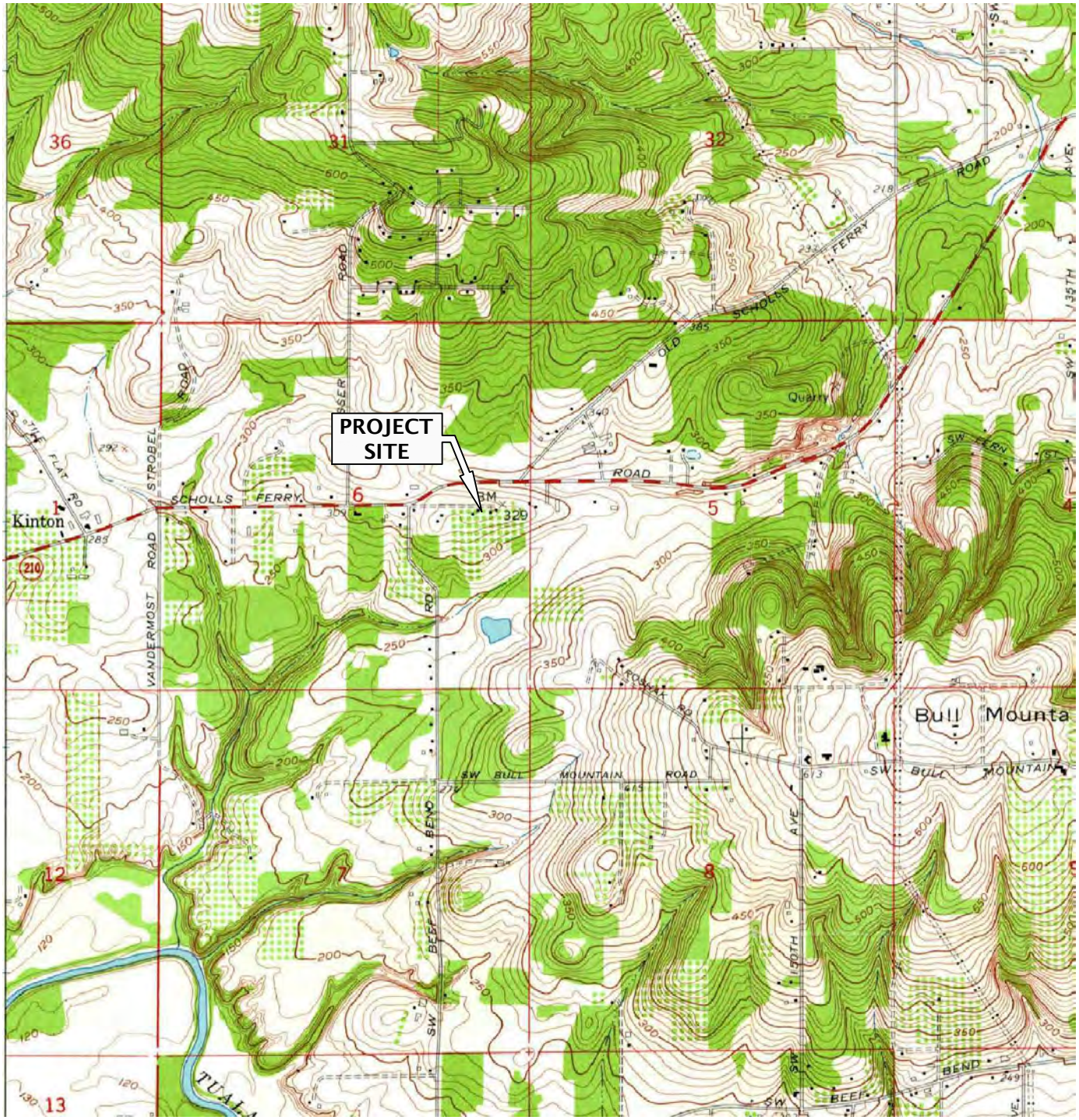


PROJECT SITE LOCATION IS APPROXIMATE.

N

GeoDesign Inc 15575 SW Sequoia Parkway - Suite 100 Portland OR 97224 Off 503.968.8787 Fax 503.968.3068	POLYGON-129-02	**HISTORICAL TOPOGRAPHIC MAP 1954**
	JUNE 2015	RIVER TERRACE EAST TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:37:02 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HT01.dwg | Layout: 1954

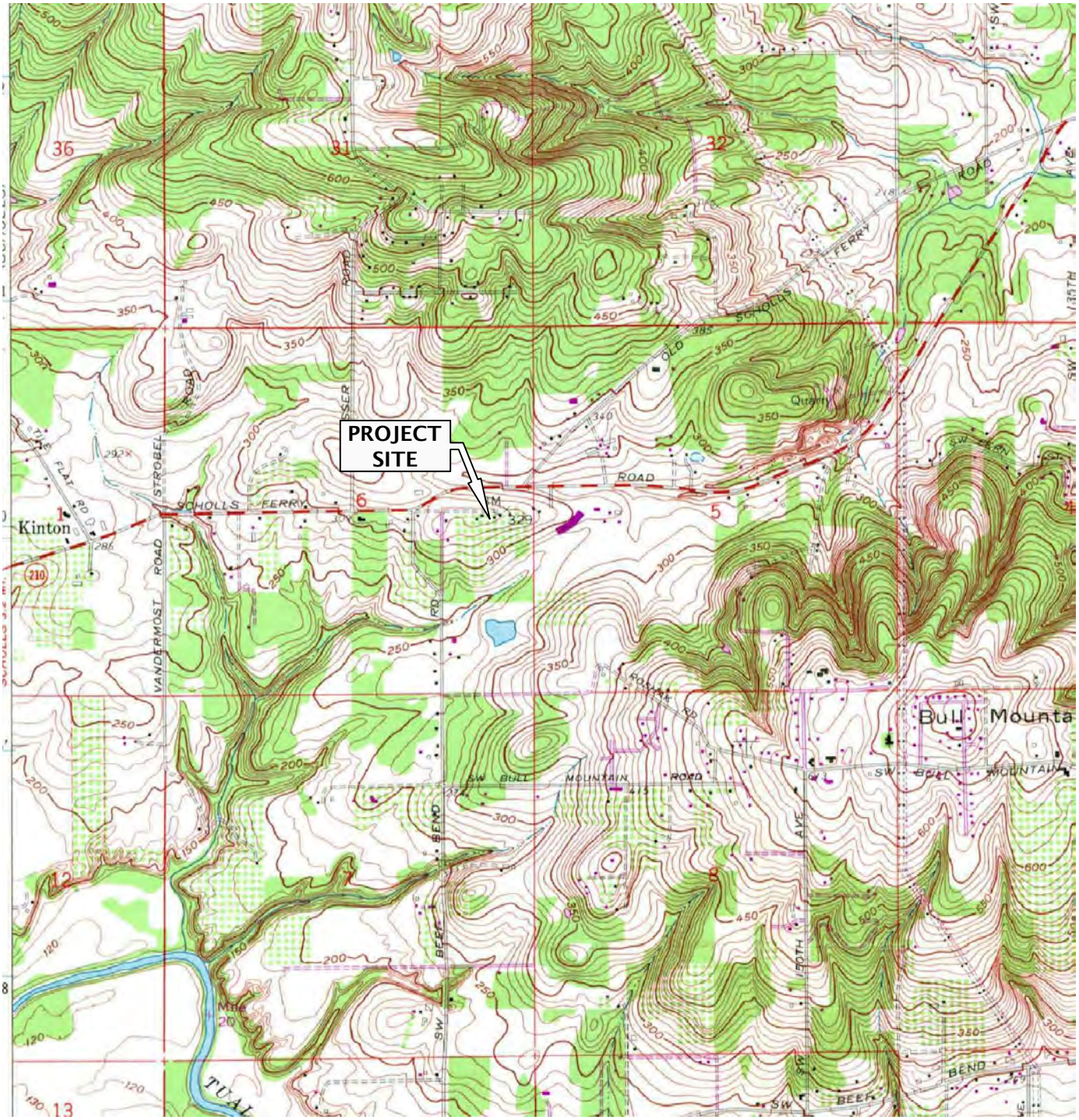


PROJECT SITE LOCATION IS APPROXIMATE.

N

GeoDesign Inc 15575 SW Sequoia Parkway - Suite 100 Portland OR 97224 Off 503.968.8787 Fax 503.968.3068	POLYGON-129-02	**HISTORICAL TOPOGRAPHIC MAP** **1961**
	JUNE 2015	RIVER TERRACE EAST TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:37:03 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HT01.dwg | Layout: 1961

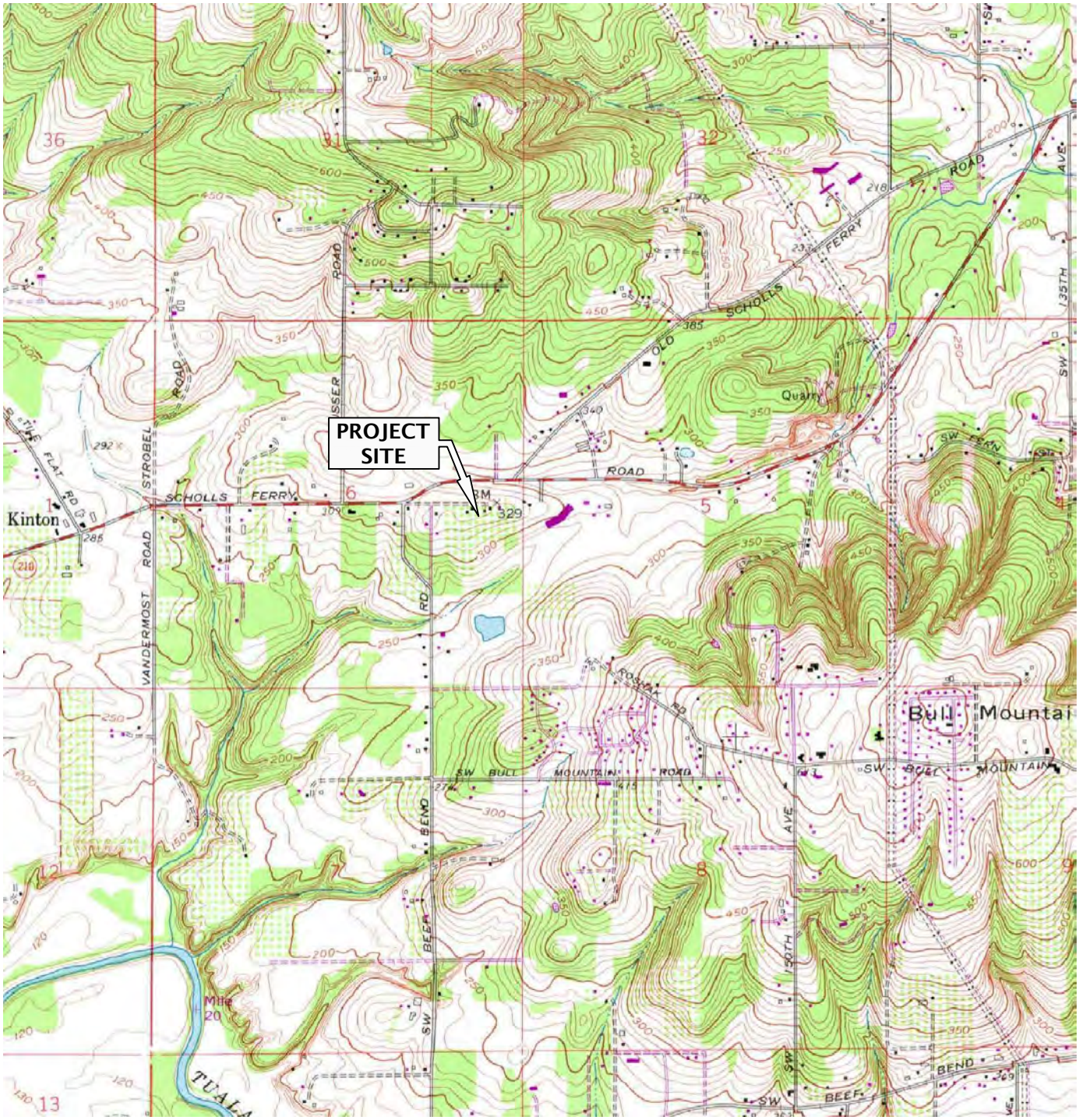


PROJECT SITE LOCATION IS APPROXIMATE.

N

GeoDesign Inc 15575 SW Sequoia Parkway - Suite 100 Portland OR 97224 Off 503.968.8787 Fax 503.968.3068	POLYGON-129-02	**HISTORICAL TOPOGRAPHIC MAP** **1970**
	JUNE 2015	RIVER TERRACE EAST TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:37:03 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HT01.dwg | Layout: 1970



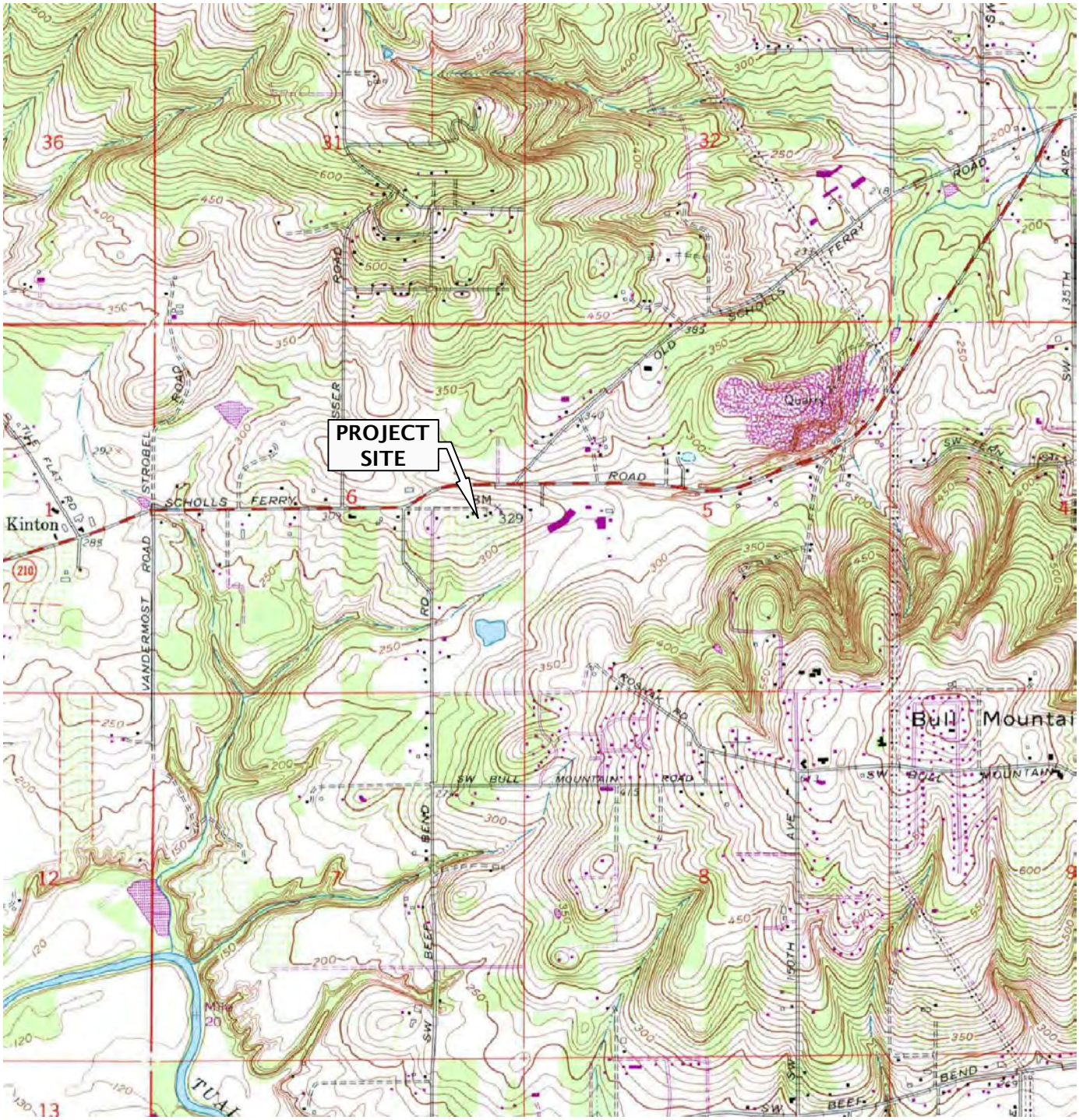
PROJECT SITE LOCATION IS APPROXIMATE.

N

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

POLYGON-129-02	**HISTORICAL TOPOGRAPHIC MAP 1975**
JUNE 2015	RIVER TERRACE EAST TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:37:04 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HT01.dwg | Layout: 1975



PROJECT SITE LOCATION IS APPROXIMATE.

GEODESIGN INC 15575 SW Sequoia Parkway - Suite 100 Portland OR 97224 Off 503.968.8787 Fax 503.968.3068	POLYGON-129-02	**HISTORICAL TOPOGRAPHIC MAP** **1984**
	JUNE 2015	RIVER TERRACE EAST TIGARD, OR

Printed By: aday | Print Date: 6/11/2015 11:37:04 AM
File Name: J:\M-R\Polygon\Polygon-129\Polygon-129-02\Figures\CAD\Polygon-129-02-HT01.dwg | Layout: 1984

River Terrace East
16550-17012 SW Friendly Lane
Beaverton, OR 97007

Inquiry Number: 4308611.5
June 01, 2015

The EDR-City Directory Image Report

Environmental Data Resources Inc

6 Armstrong Road
Shelton, CT 06484
800.352.0050
www.edrnet.com

TABLE OF CONTENTS

SECTION

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

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.

Year	*Target Street*	*Cross Street*	*Source*
2013	☑	☑	Cole Information Services
2008	☑	☑	Cole Information Services
2003	☑	☑	Cole Information Services
1999	☑	☐	Cole Information Services
1995	☑	☐	Cole Information Services
1992	☐	☐	Cole Information Services
1986	☐	☐	Polk's City Directory
1981	☐	☐	Polk's City Directory
1975	☐	☐	Polk's City Directory
1970	☐	☐	Polk's City Directory
1964	☐	☐	Polk's City Directory

RECORD SOURCES

EDR is licensed to reproduce certain City Directory works by the copyright holders of those works. The purchaser of this EDR City Directory Report may include it in report(s) delivered to a customer. Reproduction of City Directories without permission of the publisher or licensed vendor may be a violation of copyright.

FINDINGS

TARGET PROPERTY STREET

16550-17012 SW Friendly Lane
Beaverton, OR 97007

Year	*CD Image*	*Source*	
SW FRIENDLY LN			
2013	pg A1	Cole Information Services	
2008	pg A4	Cole Information Services	
2003	pg A7	Cole Information Services	
1999	pg A9	Cole Information Services	
1995	pg A10	Cole Information Services	
1992	-	Cole Information Services	Target and Adjoining not listed in Source
1986	-	Polk's City Directory	Street not listed in Source
1981	-	Polk's City Directory	Street not listed in Source
1975	-	Polk's City Directory	Street not listed in Source
1970	-	Polk's City Directory	Street not listed in Source
1964	-	Polk's City Directory	Street not listed in Source

FINDINGS

CROSS STREETS

Year	*CD Image*	*Source*	
SW ROY ROGERS RD			
2013	pg. A2	Cole Information Services	
2008	pg. A5	Cole Information Services	
2003	pg. A8	Cole Information Services	
1999	-	Cole Information Services	Target and Adjoining not listed in Source
1995	-	Cole Information Services	Target and Adjoining not listed in Source
1992	-	Cole Information Services	Target and Adjoining not listed in Source
1986	-	Polk's City Directory	Street not listed in Source
1981	-	Polk's City Directory	Street not listed in Source
1975	-	Polk's City Directory	Street not listed in Source
1970	-	Polk's City Directory	Street not listed in Source
1964	-	Polk's City Directory	Street not listed in Source

City Directory Images

Target Street	Cross Street	Source
✓	-	Cole Information Services

SW FRIENDLY LN 2013

16550 RICK WHITE
16705 KARL RANSOM
16720 JAMES BEARDSLEY
16808 N SEDEH
17000 RICK FERRIS
17012 OCCUPANT UNKNOWN
17026 HIDEO HISHIDA

Target Street	Cross Street	Source
-	✓	Cole Information Services

SW ROY ROGERS RD 2013

13015	ED BARTHOLEMY
13127	OCCUPANT UNKNOWN
13240	OCCUPANT UNKNOWN
13580	DON ROSHAK
13794	GERTIE ROSHAK
13819	ROLLIE CHAMPE
13855	MARIANNE MCMAHON
13921	STEVEN PRICE
14011	LAWRENCE JACOBS
14089	NICK LUTZ
14191	OCCUPANT UNKNOWN
14293	KENNETH BLACKMON
14337	JAMES RANDOLPH
14385	LARRY NUCIFORO
14787	AUSTIN MATTHIAS
14809	OCCUPANT UNKNOWN
14853	FRED MATTHIAS
14992	GERALD UPCHURCH
15247	MARK YURKOVICH
15252	OCCUPANT UNKNOWN
15696	CONSTANCE BURNELL
15801	BAGGENSTOS E C
	EDWARD BAGGENSTOS
15990	WAYNE AMSTAD
16000	CHARLES SHUTTS
16093	OCCUPANT UNKNOWN
16147	OREGON AZALEAS INC
16920	ALS GARDEN CENTER
17985	GARY BOZEMAN
18950	ERHARDT STEINBORN
19014	OCCUPANT UNKNOWN
19020	GLEN WETZEL
19803	ROBERT SABBE
20159	DENNIS FARWELL
20277	EDWARD KOHLMEYER
20379	OCCUPANT UNKNOWN
20471	CHRISTINA JONES
20476	OCCUPANT UNKNOWN
20508	BERTHA GUDAL
	BRIAN COOK
	BRIAN TAVARES
	CHAD VALLELY
	DANIEL COVACIU
	FRANCIS YORK
	JEFFREY NEWVILLE
	JENNIFER NIENABER
	KAREN HATCH
	KARYN GHARIB
	LUIS SANTIAGO
	MOHAMMAD KHARROUBI

Target Street	Cross Street	Source
-	✓	Cole Information Services

SW ROY ROGERS RD 2013 (Cont'd)

20508	SHERWOOD FAMILY CHIROPRACTIC CLINIC
20510	AMANDA DROUGAS
	AQUA SALON
	ASHLEY ELLIOTT
	BETHANY MICHEL
	DEBBIE GILL
	DEBRA UNRUH
	GILL DEBBIE
	GROUNDFLOOR MARKETING
	HALEY BALOGH
	RUTH TALBOTT
	STEVE OLSON
	TREES RESTAURANT & CATERING
	WILLIAM HART
20512	ALVIN BERGER
	ANNE SWEENY
	BILL WEBB
	CASA
	CHARLES DOUGHERTY
	DAVID ROBINS
	DELORES ERDMAN
	ERIC LEHMAN
	JORDAN PHILIPS
	JOSHUA BARLESS
	MARK BINGHAM
	MIKE COOK PROPERTIES LLC
	PATRICIA AUSTIN
	SANDRA VIAS
20649	1 & 1 ANYTIME LOCKSMITH
	EMP LOCKSMITH
	FOUR SEASONS NAILS
	H&R BLOCK
	PETCO 5204
	THE BARBERS
	THE ULTIMATE TAN & SPA SHERWOOD
20661	DOOR TO DOOR LOCKSMITH
	PIZZA SCHMIZZASHERWOOD
	QUIZNOS
	STARBUCKS COFFEE
20673	GREAT CLIPS
20685	SAFEWAY
	STARBUCKS COFFEE
20730	RYAN HANSON

Target Street	Cross Street	Source
✓	-	Cole Information Services

SW FRIENDLY LN 2008

16550 FREDERICK SUTTON
16705 BRITTANY ADAMS
16720 JAMES BEARDSLEY
JIM BEARDSLEY TRUCKING INC
16808 N SEDEH
17000 R & L QUALITY MACHINING INC
RICK FERRIS
17012 HAROLD FERRIS
17026 HIDEO HISHIDA
OUR COUNTRY GARDENS

Target Street	Cross Street	Source
-	✓	Cole Information Services

SW ROY ROGERS RD 2008

13015	ABBY GHIASSY
13127	TINA WOOD
13580	DON ROSHAK
	DON ROSHAK
13705	TANYA TULLOCH
13794	CRYSTAL ROSHAK
	ED ROSHAK
13819	ROLLIE CHAMPE
13855	MARIANNE MCMAHON
13921	ALL BEST GLOVE CO
	PRICES RAINBOW LLC
	STEVEN PRICE
14011	JACOBS CONSTRUCTION
	LAWRENCE JACOBS
14089	NICK LUTZ
14191	CHARLES SCHULZ
14293	D HARMON
14337	JAMES RANDOLPH
14385	LARRY NUCIFORO
14787	JASON BURGESS
14809	SHERRI BIRMINGHAM
14853	FRED MATTHIAS
	TREELAND
14992	GERALD UPCHURCH
15243	OCCUPANT UNKNOWN
15247	MARK YURKOVICH
15252	OCCUPANT UNKNOWN
15688	PAMELA PRETTYMAN
15696	CONSTANCE BURNELL
15801	BAGGENSTOS E C
	BAGGENSTOS FARM INC
	OCCUPANT UNKNOWN
15990	WAYNE AMSTAD
16093	FAZILAH ADAM
16147	OREGON AZALEAS INC
16507	US FISH & WILDLIFE SERVICE
16920	ALS GARDEN CENTER
17985	LYNN HENRIKSEN
	LYNN HENRIKSEN CONSTRUCTION INC
18950	ERHARDT STEINBORN
19014	OCCUPANT UNKNOWN
19020	GLEN WETZEL
	GLEN WETZEL
19803	ROBERT SABBE
20159	DENNIS FARWELL
20277	EDWARD KOHLMEYER
20379	OCCUPANT UNKNOWN
20471	JR JONES
20476	OCCUPANT UNKNOWN
20508	JOEL BRINK

Target Street	Cross Street	Source
-	✓	Cole Information Services

SW ROY ROGERS RD 2008 (Cont'd)

20508	MAXINE PRATT
	PALMER GLAICER INSURANCE & RISK MGMT
	RANDY IP
	RYAN KLIEWER
	SHERWOOD ACUPUNCTURE LLC
20510	ASHLEY ALLEN
	BINDU
	BOOKWORKS & MORE
	CARWELL JOHN
	DEAN EPPERLY
	DEBBIE GILL
	DEBRA UNRUH
	DESIRANT DAY SPA & SALON
	GILL DEBBIE
	JOHN CARSWELL
	NATURES OVERLOOK
	PRUDENTIAL NORTHWEST PROPERTIES INC
	SHERWOOD FAMILY CHIROPRACTIC CLINIC
20512	GREGORY MILLER
	HAZEL BOWE
	JOSHUA BARLESS
	JPL INVESTMENT CO LLC
	MARILYN WOLFE
20518	SHERWOOD FAMILY CHIROPRACTIC CLINIC
20649	4 SEASON NAILS
	JOHN L SCOTT REAL ESTATE INC
	ROLY POLY
	TASTE TERIYAKI
	TASTY SUSHI & TERIYAKI
20655	OREGON COMMUNITY CREDIT UNION
20661	FAYE FONG LLC
	NEXTEL COMMUNICATIONS SPRINT INTER
	PIZZA SCHMIZZA
	QUIZNOS SUBS
	SPRINT
	STARBUCKS CORP
20673	CHAPMAN GARY E DDS
	CROSSROADS CLEANERS
	DDS
	GENTLE DENTAL
	GOIN POSTAL SHERWOOD
	JMA ENTERPRISES INC
	RONALD GRANTHAM
	SHERWOOD CENTER ORTHODONTICS
	UNITED STUDIOS OF SELF DEFENSE
20685	SAFEWAY FOOD & DRUG
20730	GINA VUYLSTEKE

Target Street	Cross Street	Source
✓	-	Cole Information Services

SW FRIENDLY LN 2003

16550 SCOTT EDMONDS
16720 JIM BEARDSLEY
JIM BEARDSLEY TRUCKING INC
16808 OCCUPANT UNKNOWN
17000 RICK FERRIS
17012 HAROLD FERRIS
17026 HIDEO HISHIDA

Target Street	Cross Street	Source
-	✓	Cole Information Services

SW ROY ROGERS RD 2003

13015	SAMUEL CHAN
13705	TANYA TULLOCH
13855	LYLA PLATH
14089	NICHOLAS LUTZ
14191	CHARLES SCHULZ
14337	OCCUPANT UNKNOWN
14787	OCCUPANT UNKNOWN
14809	SHERRI BIRMINGHAM
14853	OCCUPANT UNKNOWN
14992	SAMUEL UPCHURCH
15243	MARK YURKOVICH
15696	CONSTANCE BURNELL
15801	BAGGENSTOS FARM STORE
	JAMES BAGGENSTOS
15990	OCCUPANT UNKNOWN
16093	FRED WHITE
16147	ALBERTO ROMERO
16507	ANDREA WOODWORTH
	TUALATIN RIVERKEEPERS
17985	OCCUPANT UNKNOWN
20159	IAIN WALLACE
20192	GUY DIXON
20379	VERN SANDERSFELD
20418	OCCUPANT UNKNOWN
20471	DOROTHY JONES
20661	PIZZA SCHMIZZA STORE LOCATIONS
	QUIZNOS SUBS
	STARBUCKS COFFEE CO
20673	CROSSROAD CLEANERS
	GARY CHAPMAN
	GENTLE DENTAL
	GREAT CLIPS FOR HAIR
	HAIR MASTERS
	SHERWOOD CTR FOR ORTHODONTICS
20685	SAFEWAY FOOD & DRUG STORES
20730	KRISTEN STEELMAN

Target Street	Cross Street	Source
✓	-	Cole Information Services

SW FRIENDLY LN 1999

16720 JIM BEARDSLEY
16808 OCCUPANT UNKNOWN
17000 RICK FERRIS
17012 HAROLD FERRIS
17026 HIDEO HISHIDA

Target Street	Cross Street	Source
✓	-	Cole Information Services

SW FRIENDLY LN 1995

17000 FERRIS, RICK
17012 FERRIS, HAROLD M
17026 HISHIDA, HIDEO

River Terrace East
16550-17012 SW Friendly Lane
Beaverton, OR 97007

Inquiry Number: 4308611.3
June 02, 2015

Certified Sanborn® Map Report

6 Armstrong Road, 4th Floor
Shelton, Connecticut 06484
Toll Free: 800.352.0050
www.edrnet.com

Certified Sanborn® Map Report

6/02/15

Site Name:
River Terrace East
16550-17012 SW Friendly Lane
Beaverton, OR 97007

Client Name:
GeoDesign Inc.
15575 SW Sequoia Parkway
Portland, OR 97224

EDR Inquiry # 4308611.3

Contact: Jeremy Zimber

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by GeoDesign Inc. were identified for the years listed below. The Sanborn Library is the largest, most complete collection of fire insurance maps. The collection includes maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow, and others. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by the Sanborn Library LLC, the copyright holder for the collection. Results can be authenticated by visiting www.edrnet.com/sanborn.

The Sanborn Library is continually enhanced with newly identified map archives. This report accesses all maps in the collection as of the day this report was generated.

Certified Sanborn Results:

Site Name: River Terrace East
Address: 16550-17012 SW Friendly Lane
City, State, Zip: Beaverton, OR 97007
Cross Street:
P.O. # NA
Project: Polygon-129-02
Certification # 829A-45F0-B46B

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 # 829A-45F0-B46B

The Sanborn Library includes more than 1.2 million fire insurance maps from Sanborn, Bromley, Perris & Browne, Hopkins, Barlow and others 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

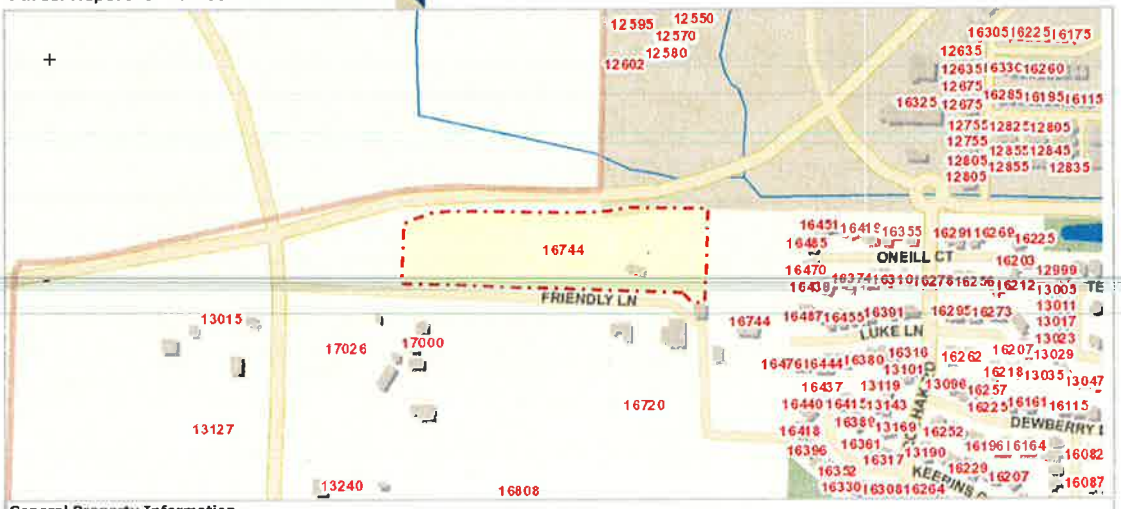
The Sanborn Library LLC Since 1866™

Limited Permission To Make Copies

GeoDesign Inc. (the client) is permitted to make up to FIVE photocopies of this Sanborn Map transmittal and each fire insurance map accompanying this report solely for the limited use of its customer. No one other than the client is authorized to make copies. Upon request made directly to an EDR Account Executive, the client may be permitted to make a limited number of additional photocopies. This permission is conditioned upon compliance by the client, its customer and their agents with EDR's copyright policy; a copy of which is available upon request.

Geographic Information Systems

Parcel Report for Taxlot: 2S106AD00100



General Property Information

Map & Taxlot ID #:	2S106AD00100
Real Property Account #:	R482141 R2144290
Site Address:	16705 SW FRIENDLY LN. Tigard OR, 97007
City/State/Zip:	
Legal:	
Sub Reports:	District Overlay Information Assessment & Taxation Information Scanned Tax Maps Permits & Projects
Ownership Information:	Information Withheld - why?
Interactive Mapping:	InterMap
Other Resources:	Link to External Sites: Virtual Earth Viewer Google Maps Street Viewer

Geographic Information Systems

Navigation: Washington County » GIS » Reports: Parcel Report 2S106AD00100 | GeoSearch District Overlay 2S106AD00100 |

General Information
- interactive maps
- map gallery
- data catalog
- contacts
- other gis links
- gis introduction
- frequently asked questions

Property Search
- property / taxlot
- tax maps

Survey Search

Land Services

Building Services

Overlay Information 2S106AD00100

Jurisdiction:	Tigard
City Zoning (updated 2/2014):	R-25 (confirm with Tigard City Planning department)
Within Urban Growth Boundary:	Yes
In Urban Road Maintenance District (*Updated 06/30/2012):	No
In Urban Road Maintenance District (*Updated 06/30/2012):	No
In ESPD (*Updated 06/30/2012):	No
Ground Water Resouce Area:	COOPER MTN-BULL MTN
SDL Assement Area/zone:	Not in an Assesment Area.
Fire District (*Updated 06/30/2012):	TVFR
Fire Management Zone:	6085
Park District:	Not In Park District
Park District:	Not in North Bethany Sub Area
School District (*Updated 06/30/2012):	BEAVERTON
Elementary School Attendance Area:	Scholls Heights
Middle School Attendance Area:	Conestoga
High School Attendance Area:	Southridge
Election Precinct:	398
Commissioner District:	3- Roy Rogers
Assessor Area:	3
Citizen Participation Org:	CPO4B
Community Plan Map:	BULL MOUNTAIN
Historic & Cultural Resource Inventory:	Not located within a Historic and Cultural Resource Inventory Area
POD Date Zoned:	POD:1-9/9/59
ODOT District:	2B
Plat:	Property is not part of a subdivision
Census Tract:	031909
Census Block:	2003
Census Blockgroup:	2
Census Geoid:	410670319092003
Zipcode:	97007
Garbage Hauler:	No Info
Garbage Dropbox:	No Info
Thomas Brothers Guide:	Page: 654 - Grid: G4

*** The data layers used to derive items in the report are assembled from multiple sources. Report items flagged with an asterisk (*) are derived from the taxcode layer maintained by Washington County's Department of Assessment and Taxation Cartography Division. The taxcode layer is updated once a year on June 30th and may not reflect final/proposed annexations or boundary adjustments. All information should be verified with individual service districts.**

questions regarding information privacy, liability, accessibility, and public records policies, please review the statements document.

This page maintained by Washington County Technology Services. Need assistance with this page? email us

Geographic Information Systems

Navigation: Washington County » GIS » Reports: GeoSearch District Overlay 2S106AD00100 | Parcel Report 2S106AD00100 | A&T Report 2S106AD00100 |

General Information
- interactive maps
- map gallery
- data catalog
- contacts
- other gis links
- gis introduction
- frequently asked questions

Property Search
- property / taxlot
- tax maps

Survey Search

Land Services

Building Services

Assessment & Taxation Report

Mobile Home(s) on this Property:	M2116073,
General Property Information	
Site Address:	16705 SW FRIENDLY LN. Tigard OR, 97007
Tax Lot ID:	2S106AD00100
Property Account ID's:	R482141, R2144290,
Property Classification:	1910 - URBAN DEVELOPABLE TRACT IMPROVED - See full list of Codes
Neighborhood Code:	4TL0
Latitude / Longitude:	45.4262934 / 122.849683
2009-2010 Tax Statement:	R482141.pdf R2144290.pdf
2010-2011 Tax Statement:	R482141.pdf R2144290.pdf
2011-2012 Tax Statement:	R482141.pdf R2144290.pdf
2012-2013 Tax Statement:	R482141.pdf R2144290.pdf
2013-2014 Tax Statement:	R482141.pdf R2144290.pdf
2014-2015 Tax Statement:	R482141.pdf R2144290.pdf

Sales / Deed Information

Sale Date	Sale Instrument	Deed Type	Sale Price
			$
			$
			$

Assessed Values for Account R482141	
Roll Date:	09/24/2014
Taxcode:	051.36
Market Land Value:	$525,190
Market Bldg Value:	$4,930
Special Market Value:	$0
Market Total Value:	$530,120
Taxable Assessed Value:	$231,840
Legal:	Lot:
Lot Size:	A&T Acres: 6.18
Bldg Sq Ft:	0
Year Built:	N/A
Assessed Values for Account R2144290	
Roll Date:	09/24/2014
Taxcode:	051.32
Market Land Value:	$2,400
Market Bldg Value:	$0
Special Market Value:	$0
Market Total Value:	$2,400
Taxable Assessed Value:	$1,010
Legal:	Lot:
Lot Size:	A&T Acres: 0.10
Bldg Sq Ft:	0
Year Built:	N/A
Improvement Information	
Total Improvement Value:	$4,930
Plumbing	
Bedrooms	

Improvement Details

Description	Value	Square Feet
ASPHALT	$4,930	3400

2015 **Information Advisory**

All property assessment information presented about the 2015 tax year is unedited and uncertified. This information is subject to

change, furnished as reference data only and should not be used to calculate or prorate taxes.

****Disclaimer****

Every effort has been made to offer the most current and correct information possible on these pages. The information included on these pages has been compiled by County staff from a variety of sources, and is subject to change without notice. Washington County makes no warranties or representations whatsoever regarding the quality, content, completeness, accuracy or adequacy of such information and data. Washington County reserves the right to make changes at any time without notice. Original records may differ from the information on these pages. Verification of information on source documents is recommended. By using this application, you assume all risks arising out of or associated with access to these pages, including but not limited to risks of damage to your computer, peripherals, software and data from any virus, software, file or other cause associated with access to this application. Washington County shall not be liable for any damages whatsoever arising out of any cause relating to use of this application, including but not limited to mistakes, omissions, deletions, errors, or defects in any information contained in these pages, or any failure to receive or delay in receiving information.

Geographic Information Systems

Parcel Report for Taxlot: 2S1060001000

General Property Information

Map & Taxlot ID #:	2S1060001000
Real Property Account #:	R482285
Site Address:	16808 SW FRIENDLY LN. PORTLAND OR, 97223
City/State/Zip:	
Legal:	
Sub Reports:	District Overlay Information Assessment & Taxation Information Scanned Tax Maps Permits & Projects
Ownership Information:	Information Withheld - why?
Interactive Mapping:	InterMap
Other Resources:	Link to External Sites: Virtual Earth Viewer Google Maps Street Viewer

Geographic Information Systems

Navigation: Washington County » GIS » Reports: Parcel Report 2S1060001000 | GeoSearch District Overlay 2S1060001000 |

General Information
interactive maps
map gallery
data catalog
contacts
other gis links
gis introduction
frequently asked questions
Property Search
property / taxlot
tax maps
Survey Search
Land Services
Building Services

Overlay Information 2S1060001000

Jurisdiction:	**Tigard**
City Zoning (updated 2/2014):	**R-7 (confirm with Tigard City Planning department)**
Within Urban Growth Boundary:	Yes
In Urban Road Maintenance District (*Updated 06/30/2012):	No
In Urban Road Maintenance District (*Updated 06/30/2012):	No
In ESPD (*Updated 06/30/2012):	No
Ground Water Resouce Area:	COOPER MTN-BULL MTN
SDL Assement Area/zone:	Not in an Assesment Area.
Fire District (*Updated 06/30/2012):	TVFR
Fire Management Zone:	6085
Park District:	Not In Park District
Park District:	Not in North Bethany Sub Area
School District (*Updated 06/30/2012):	BEAVERTON
Elementary School Attendance Area:	Scholls Heights
Middle School Attendance Area:	Conestoga
High School Attendance Area:	Southridge
Election Precinct:	410
Commissioner District:	3- Roy Rogers
Assessor Area:	3
Citizen Participation Org:	CPO4B
Community Plan Map:	BULL MOUNTAIN
Historic & Cultural Resource Inventory:	Not located within a Historic and Cultural Resource Inventory Area
POD Date Zoned:	POD:1-9/9/59
ODOT District:	2B
Plat:	Property is not part of a subdivision
Census Tract:	031909
Census Block:	2003
Census Blockgroup:	2
Census Geoid:	410670319092003
Zipcode:	97140
Garbage Hauler:	No Info
Garbage Dropbox:	No Info
Thomas Brothers Guide:	Page: 654 - Grid: G4

*** The data layers used to derive items in the report are assembled from multiple sources. Report items flagged with an asterisk (*) are derived from the taxcode layer maintained by Washington County's Department of Assessment and Taxation Cartography Division. The taxcode layer is updated once a year on June 30th and may not reflect final/proposed annexations or boundary adjustments. All information should be verified with individual service districts.**

questions regarding information privacy, liability, accessibility, and public records policies, please review the statements document.

This page maintained by Washington County Technology Services. Need assistance with this page? email us

Geographic Information Systems

Navigation: Washington County » GIS » Reports: GeoSearch District Overlay 2S1060001000 | Parcel Report 2S1060001000 | A&T Report 2S1060001000 |

General Information
- interactive maps
- map gallery
- data catalog
- contacts
- other gis links
- gis introduction
- frequently asked questions

Property Search
- property / taxlot
- tax maps

Survey Search

Land Services

Building Services

Assessment & Taxation Report

General Property Information	
Site Address:	16808 SW FRIENDLY LN. PORTLAND OR, 97223
Tax Lot ID:	2S1060001000
Property Account ID:	R482285,
Property Classification:	1900 - URBAN DEVELOPABLE TRACT - VACANT - See full list of Codes
Neighborhood Code:	4TL9
Latitude / Longitude:	45.4239646 / 122.850171
2009-2010 Tax Statement:	R482285.pdf
2010-2011 Tax Statement:	R482285.pdf
2011-2012 Tax Statement:	R482285.pdf
2012-2013 Tax Statement:	R482285.pdf
2013-2014 Tax Statement:	R482285.pdf
2014-2015 Tax Statement:	R482285.pdf

Sales / Deed Information			
Sale Date	Sale Instrument	Deed Type	Sale Price
			$
			$
			$

Assessed Values for Account R482285	
Roll Date:	09/24/2014
Taxcode:	051.36
Market Land Value:	$1,862,980
Market Bldg Value:	$0
Special Market Value:	$0
Market Total Value:	$1,862,980
Taxable Assessed Value:	$355,550
Legal:	Lot:
Lot Size:	A&T Acres: 15.65
Bldg Sq Ft:	0
Year Built:	N/A
Improvement Information	
Total Improvement Value:	$0
Plumbing	
Bedrooms	

Improvement Details		
Description	Value	Square Feet

2015 **Information Advisory**

All property assessment information presented about the 2015 tax year is unedited and uncertified. This information is subject to change, furnished as reference data only and should not be used to calculate or prorate taxes.

****Disclaimer****

Every effort has been made to offer the most current and correct information possible on these pages. The information included on these pages has been compiled by County staff from a variety of sources, and is subject to change without notice. Washington County makes no warranties or representations whatsoever regarding the quality, content, completeness, accuracy or adequacy of such information and data. Washington County reserves the right to make changes at any time without notice. Original records may differ from the

information on these pages. Verification of information on source documents is recommended. By using this application, you assume all risks arising out of or associated with access to these pages, including but not limited to risks of damage to your computer, peripherals, software and data from any virus, software, file or other cause associated with access to this application. Washington County shall not be liable for any damages whatsoever arising out of any cause relating to use of this application, including but not limited to mistakes, omissions, deletions, errors, or defects in any information contained in these pages, or any failure to receive or delay in receiving information.

Geographic Information Systems

Navigation: Washington County » GIS » Reports: Parcel Report 2S1060001100 |

General Information
- Interactive maps
- map gallery
- data catalog
- contacts
- other gis links
- gis introduction
- frequently asked questions

Property Search
- property / taxlot
- tax maps

Survey Search

Land Services

Building Services

Parcel Report for Taxlot: 2S1060001100

General Property Information

Map & Taxlot ID #:	2S1060001100
Real Property Account #:	R482294
Site Address:	17000 SW FRIENDLY LN. PORTLAND OR, 97223
City/State/Zip:	
Legal:	
Sub Reports:	District Overlay Information Assessment & Taxation Information Scanned Tax Maps Permits & Projects
Ownership Information:	Information Withheld - why?
Interactive Mapping:	InterMap
Other Resources:	Link to External Sites: Virtual Earth Viewer Google Maps Street Viewer

This page maintained by Washington County Technology Services. Need assistance with this page? email us

Geographic Information Systems

Navigation: Washington County » GIS » Reports: Parcel Report 2S1060001100 | GeoSearch District Overlay 2S1060001100 |

General Information
interactive maps
map gallery
data catalog
contacts
other gis links
gis introduction
frequently asked questions
Property Search
property / taxlot
tax maps
Survey Search
Land Services
Building Services

Overlay Information 2S1060001100

Jurisdiction:	Tigard
City Zoning (updated 2/2014):	R-7 (confirm with Tigard City Planning department)
Within Urban Growth Boundary:	Yes
In Urban Road Maintenance District (*Updated 06/30/2012):	No
In Urban Road Maintenance District (*Updated 06/30/2012):	No
In ESPD (*Updated 06/30/2012):	No
Ground Water Resouce Area:	COOPER MTN-BULL MTN
SDL Assement Area/zone:	Not in an Assesment Area.
Fire District (*Updated 06/30/2012):	TVFR
Fire Management Zone:	6085
Park District:	Not In Park District
Park District:	Not in North Bethany Sub Area
School District (*Updated 06/30/2012):	BEAVERTON
Elementary School Attendance Area:	Scholls Heights
Middle School Attendance Area:	Conestoga
High School Attendance Area:	Southridge
Election Precinct:	410
Commissioner District:	3- Roy Rogers
Assessor Area:	3
Citizen Participation Org:	CPO4B
Community Plan Map:	BULL MOUNTAIN
Historic & Cultural Resource Inventory:	Not located within a Historic and Cultural Resource Inventory Area
POD Date Zoned:	POD:1-9/9/59
ODOT District:	2B
Plat:	Property is not part of a subdivision
Census Tract:	031909
Census Block:	2003
Census Blockgroup:	2
Census Geoid:	410670319092003
Zipcode:	97007
Garbage Hauler:	No Info
Garbage Dropbox:	No Info
Thomas Brothers Guide:	Page: 654 - Grid: G4

*** The data layers used to derive items in the report are assembled from multiple sources. Report items flagged with an asterisk (*) are derived from the taxcode layer maintained by Washington County's Department of Assessment and Taxation Cartography Division. The taxcode layer is updated once a year on June 30th and may not reflect final/proposed annexations or boundary adjustments. All information should be verified with individual service districts.**

questions regarding information privacy, liability, accessibility, and public records policies, please review the statements document.

This page maintained by Washington County Technology Services. Need assistance with this page? email us

Geographic Information Systems

Navigation: Washington County » GIS » Reports: GeoSearch District Overlay 2S1060001100 | Parcel Report 2S1060001100 | A&T Report 2S1060001100 |

General Information
- interactive maps
- map gallery
- data catalog
- contacts
- other gis links
- gis introduction
- frequently asked questions

Property Search
- property / taxlot
- tax maps

Survey Search

Land Services

Building Services

Assessment & Taxation Report

General Property Information	
Site Address:	17000 SW FRIENDLY LN. PORTLAND OR, 97223
Tax Lot ID:	2S1060001100
Property Account ID:	R482294,
Property Classification:	1910 - URBAN DEVELOPABLE TRACT IMPROVED - See full list of Codes
Neighborhood Code:	4TL9
Latitude / Longitude:	45.4253894 / 122.851494
2009-2010 Tax Statement:	R482294.pdf
2010-2011 Tax Statement:	R482294.pdf
2011-2012 Tax Statement:	R482294.pdf
2012-2013 Tax Statement:	R482294.pdf
2013-2014 Tax Statement:	R482294.pdf
2014-2015 Tax Statement:	R482294.pdf

Sales / Deed Information

Sale Date	Sale Instrument	Deed Type	Sale Price
			$
			$
			$

Assessed Values for Account R482294	
Roll Date:	09/24/2014
Taxcode:	051.36
Market Land Value:	$271,540
Market Bldg Value:	$81,540
Special Market Value:	$0
Market Total Value:	$353,080
Taxable Assessed Value:	$251,490
Legal:	Lot:
Lot Size:	A&T Acres: 1.13
Bldg Sq Ft:	2656
Year Built:	1920
Improvement Information	
Total Improvement Value:	$81,540
Plumbing	BATH=1
Bedrooms	

Improvement Details

Description	Value	Square Feet
ATTIC LOW COST FINISH	$6,420	640
BASEMENT UNFINISHED	$9,050	1008
DRIVEWAY ASPHALT	$6,220	7406
GARAGE DETACHED UNFINISHED	$5,980	360
MAIN AREA	$33,790	1008
MULTIPURPOSE BUILDING	$15,960	1728
MULTIPURPOSE BUILDING	$2,850	560
OPEN PORCH ROOFED	$1,270	140

2015 **Information Advisory**

All property assessment information presented about the 2015 tax year is unedited and uncertified. This information is subject to change, furnished as reference data only and should not be used to calculate or prorate taxes.

****Disclaimer****

Every effort has been made to offer the most current and correct information possible on these pages. The information included on these

pages has been compiled by County staff from a variety of sources, and is subject to change without notice. Washington County makes no warranties or representations whatsoever regarding the quality, content, completeness, accuracy or adequacy of such information and data. Washington County reserves the right to make changes at any time without notice. Original records may differ from the information on these pages. Verification of information on source documents is recommended. By using this application, you assume all risks arising out of or associated with access to these pages, including but not limited to risks of damage to your computer, peripherals, software and data from any virus, software, file or other cause associated with access to this application. Washington County shall not be liable for any damages whatsoever arising out of any cause relating to use of this application, including but not limited to mistakes, omissions, deletions, errors, or defects in any information contained in these pages, or any failure to receive or delay in receiving information.

Geographic Information Systems

Navigation: Washington County » GIS » Reports: A&T Report 2S1060001100 | Tax Maps Report 2S1060001100 | Permit Project & Activity 2S1060001100 | Parcel Report 2S1060001100 | Parcel Repor

General Information
- Interactive maps
- map gallery
- data catalog
- contacts
- other gis links
- gis introduction
- frequently asked questions

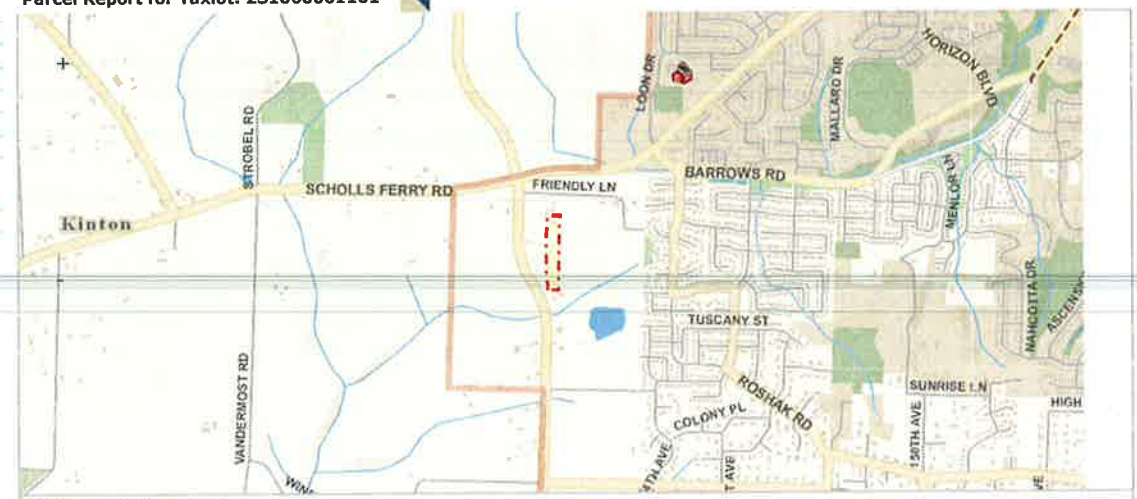
Property Search
- property / taxlot
- tax maps

Survey Search

Land Services

Building Services

Parcel Report for Taxlot: 2S1060001101



General Property Information

Map & Taxlot ID #:	2S1060001101
Real Property Account #:	R482301
Site Address:	17012 SW FRIENDLY LN. PORTLAND OR, 97223
City/State/Zip:	
Legal:	
Sub Reports:	District Overlay Information Assessment & Taxation Information Scanned Tax Maps Permits & Projects
Ownership Information:	Information Withheld - why?
Interactive Mapping:	InterMap
Other Resources:	Link to External Sites: Virtual Earth Viewer Google Maps Street Viewer

This page maintained by Washington County Technology Services. Need assistance with this page? email us

Geographic Information Systems

Navigation: Washington County » GIS » Reports: Tax Maps Report 2S1060001100 | Permit Project & Activity 2S1060001100 | Parcel Report 2S1060001100 | Parcel Report 2S1060001101 | GeoSearch

General Information
- interactive maps
- map gallery
- data catalog
- contacts
- other gis links
- gis introduction
- frequently asked questions

Property Search
- property / taxlot
- tax maps

Survey Search

Land Services

Building Services

Overlay Information 2S1060001101

Jurisdiction:	Tigard
City Zoning (updated 2/2014):	R-25 (confirm with Tigard City Planning department)
Within Urban Growth Boundary:	Yes
In Urban Road Maintenance District (*Updated 06/30/2012):	No
In Urban Road Maintenance District (*Updated 06/30/2012):	No
In ESPD (*Updated 06/30/2012):	No
Ground Water Resouce Area:	COOPER MTN-BULL MTN
SDL Assement Area/zone:	Not in an Assesment Area.
Fire District (*Updated 06/30/2012):	TVFR
Fire Management Zone:	6085
Park District:	Not In Park District
Park District:	Not in North Bethany Sub Area
School District (*Updated 06/30/2012):	BEAVERTON
Elementary School Attendance Area:	Scholls Heights
Middle School Attendance Area:	Conestoga
High School Attendance Area:	Southridge
Election Precinct:	410
Commissioner District:	3- Roy Rogers
Assessor Area:	3
Citizen Participation Org:	CPO4B
Community Plan Map:	BULL MOUNTAIN
Historic & Cultural Resource Inventory:	Not located within a Historic and Cultural Resource Inventory Area
POD Date Zoned:	POD:1-9/9/59
ODOT District:	2B
Plat:	Property is not part of a subdivision
Census Tract:	031909
Census Block:	2003
Census Blockgroup:	2
Census Geoid:	410670319092003
Zipcode:	97140
Garbage Hauler:	No Info
Garbage Dropbox:	No Info
Thomas Brothers Guide:	Page: 654 - Grid: G5

*** The data layers used to derive items in the report are assembled from multiple sources. Report items flagged with an asterisk (*) are derived from the taxcode layer maintained by Washington County's Department of Assessment and Taxation Cartography Division. The taxcode layer is updated once a year on June 30th and may not reflect final/proposed annexations or boundary adjustments. All information should be verified with individual service districts.**

This page maintained by Washington County Technology Services. Need assistance with this page? email us

Geographic Information Systems

Navigation: Washington County » GIS » Reports: Permit Project & Activity 2S1060001100 | Parcel Report 2S1060001100 | GeoSearch District Overlay 2S1060001101 | Parcel Report 2S1060001101 |

General Information
- interactive maps
- map gallery
- data catalog
- contacts
- other gis links
- gis introduction
- frequently asked questions

Property Search
- property / taxlot
- tax maps

Survey Search

Land Services

Building Services

Assessment & Taxation Report

General Property Information	
Site Address:	17012 SW FRIENDLY LN. PORTLAND OR, 97223
Tax Lot ID:	2S1060001101
Property Account ID:	R482301,
Property Classification:	1910 - URBAN DEVELOPABLE TRACT IMPROVED - See full list of Codes
Neighborhood Code:	4TL9
Latitude / Longitude:	45.4236144 / 122.851460
2009-2010 Tax Statement:	R482301.pdf
2010-2011 Tax Statement:	R482301.pdf
2011-2012 Tax Statement:	R482301.pdf
2012-2013 Tax Statement:	R482301.pdf
2013-2014 Tax Statement:	R482301.pdf
2014-2015 Tax Statement:	R482301.pdf

Sales / Deed Information

Sale Date	Sale Instrument	Deed Type	Sale Price
			$
			$
			$

Assessed Values for Account R482301	
Roll Date:	09/24/2014
Taxcode:	051.36
Market Land Value:	$505,900
Market Bldg Value:	$140,520
Special Market Value:	$0
Market Total Value:	$646,420
Taxable Assessed Value:	$411,410
Legal:	Lot:
Lot Size:	A&T Acres: 3.55
Bldg Sq Ft:	3076
Year Built:	1970
Improvement Information	
Total Improvement Value:	$140,520
Plumbing	BATH=3
Bedrooms	

Improvement Details

Description	Value	Square Feet
BASEMENT LOW COST FINISH	$26,480	1538
DRIVEWAY ASPHALT	$10,680	10520
DRIVEWAY CONCRETE	$380	220
GARAGE BASEMENT UNFINISHED	$8,770	676
GARAGE UNFINISHED	$13,840	676
MAIN AREA	$71,960	1538
OPEN PORCH ROOFED	$2,430	150
PATIO CONCRETE	$630	360
ROOF METAL	$1,880	360
WOOD DECK	$1,070	200
WOOD DECK FIR W/RAIL	$2,400	360

2015 **Information Advisory**

All property assessment information presented about the 2015 tax year is unedited and uncertified. This information is subject to change, furnished as reference data only and should not be used to calculate or prorate taxes.

Geographic Information Systems

Navigation: Washington County » GIS » Reports: GeoSearch District Overlay 2S1060001101 | A&T Report 2S1060001101 | Permit Project & Activity 2S1060001101 | Parcel Report 2S1060001101 | Pa

General Information
- interactive maps
- map gallery
- data catalog
- contacts
- other gis links
- gis introduction
- frequently asked questions

Property Search
- property / taxlot
- tax maps

Survey Search

Land Services

Building Services

Parcel Report for Taxlot: 2S1060003400

General Property Information	
Map & Taxlot ID #:	2S1060003400
Real Property Account #:	R2046404
Site Address:	16720 SW FRIENDLY LN. PORTLAND OR, 97223
City/State/Zip:	
Legal:	
Sub Reports:	District Overlay Information Assessment & Taxation Information Scanned Tax Maps Permits & Projects
Ownership Information:	Information Withheld - why?
Interactive Mapping:	InterMap
Other Resources:	Link to External Sites: Virtual Earth Viewer Google Maps Street Viewer

Geographic Information Systems

Navigation: Washington County » GIS » Reports: A&T Report 2S1060001101 | Permit Project & Activity 2S1060001101 | Parcel Report 2S1060001101 | Parcel Report 2S1060003400 | GeoSearch Distr

General Information
- Interactive maps
- map gallery
- data catalog
- contacts
- other gis links
- gis introduction
- frequently asked questions

Property Search
- property / taxlot
- tax maps

Survey Search

Land Services

Building Services

Overlay Information 2S1060003400

Jurisdiction:	Tigard
City Zoning (updated 2/2014):	R-7 (confirm with Tigard City Planning department)
Within Urban Growth Boundary:	Yes
In Urban Road Maintenance District (*Updated 06/30/2012):	No
In Urban Road Maintenance District (*Updated 06/30/2012):	No
In ESPD (*Updated 06/30/2012):	No
Ground Water Resouce Area:	COOPER MTN-BULL MTN
SDL Assement Area/zone:	Not in an Assesment Area.
Fire District (*Updated 06/30/2012):	TVFR
Fire Management Zone:	6085
Park District:	Not In Park District
Park District:	Not in North Bethany Sub Area
School District (*Updated 06/30/2012):	BEAVERTON
Elementary School Attendance Area:	Scholls Heights
Middle School Attendance Area:	Conestoga
High School Attendance Area:	Southridge
Election Precinct:	410
Commissioner District:	3- Roy Rogers
Assessor Area:	3
Citizen Participation Org:	CPO4B
Community Plan Map:	BULL MOUNTAIN
Historic & Cultural Resource Inventory:	Not located within a Historic and Cultural Resource Inventory Area
POD Date Zoned:	POD:1-9/9/59
ODOT District:	2B
Plat:	1995-021
Census Tract:	031909
Census Block:	2003
Census Blockgroup:	2
Census Geoid:	410670319092003
Zipcode:	97007
Garbage Hauler:	No Info
Garbage Dropbox:	No Info
Thomas Brothers Guide:	Page: 654 - Grid: G4

*** The data layers used to derive items in the report are assembled from multiple sources. Report items flagged with an asterisk (*) are derived from the taxcode layer maintained by Washington County's Department of Assessment and Taxation Cartography Division. The taxcode layer is updated once a year on June 30th and may not reflect final/proposed annexations or boundary adjustments. All information should be verified with individual service districts.**

Geographic Information Systems

Navigation: Washington County » GIS » Reports: Permit Project & Activity 2S1060001101 | Parcel Report 2S1060001101 | GeoSearch District Overlay 2S1060003400 | Parcel Report 2S1060003400 |

General Information
- interactive maps
- map gallery
- data catalog
- contacts
- other gis links
- gis introduction
- frequently asked questions

Property Search
- property / taxlot
- tax maps

Survey Search

Land Services

Building Services

Assessment & Taxation Report

General Property Information	
Site Address:	16720 SW FRIENDLY LN PORTLAND OR, 97223
Tax Lot ID:	2S1060003400
Property Account ID:	R2046404,
Property Classification:	5414 - SPECIALLY ASSESSED - UNZONED FARMLAND - IMPROVED - RURAL RESIDENTI - See full list of Codes
Neighborhood Code:	4TL9
Latitude / Longitude:	45.4248651 / 122.848545
2009-2010 Tax Statement:	R2046404.pdf
2010-2011 Tax Statement:	R2046404.pdf
2011-2012 Tax Statement:	R2046404.pdf
2012-2013 Tax Statement:	R2046404.pdf
2013-2014 Tax Statement:	R2046404.pdf
2014-2015 Tax Statement:	R2046404.pdf

Sales / Deed Information

Sale Date	Sale Instrument	Deed Type	Sale Price
			$
			$
			$

Assessed Values for Account R2046404	
Roll Date:	09/24/2014
Taxcode:	051.36
Market Land Value:	$191,190
Market Bldg Value:	$157,200
Special Market Value:	$377,120
Market Total Value:	$725,510
Taxable Assessed Value:	$263,390
Legal:	1995-021 PARTITION PLAT Lot:1
Lot Size:	A&T Acres: 5.02
Bldg Sq Ft:	2440
Year Built:	1950
Improvement Information	
Total Improvement Value:	$157,200
Plumbing	BATH=2
Bedrooms	

Improvement Details

Description	Value	Square Feet
ARENA	$38,560	4500
CARPORT ATTACHED	$3,550	336
GARAGE CONVERSION	$0	
LEAN-TO	$5,230	1000
MAIN AREA	$100,580	2440
MULTIPURPOSE BUILDING	$5,570	1200
OPEN PORCH ROOFED	$1,670	108
OPEN PORCH ROOFED	$1,110	72
WOOD DECK FIR W/RAIL	$930	128

2015 **Information Advisory**

All property assessment information presented about the 2015 tax year is unedited and uncertified. This information is subject to change, furnished as reference data only and should not be used to calculate or prorate taxes.

****Disclaimer****

Every effort has been made to offer the most current and correct information possible on these pages. The information included on these pages has been compiled by County staff from a variety of sources, and is subject to change without notice. Washington County makes no warranties or representations whatsoever regarding the quality, content, completeness, accuracy or adequacy of such information and data. Washington County reserves the right to make changes at any time without notice. Original records may differ from the information on these pages. Verification of information on source documents is recommended. By using this application, you assume all risks arising out of or associated with access to these pages, including but not limited to risks of damage to your computer, peripherals, software and data from any virus, software, file or other cause associated with access to this application. Washington County shall not be liable for any damages whatsoever arising out of any cause relating to use of this application, including but not limited to mistakes, omissions, deletions, errors, or defects in any information contained in these pages, or any failure to receive or delay in receiving information.

Geographic Information Systems

Navigation: Washington County » GIS » Reports: GeoSearch District Overlay 2S1060003400 | A&T Report 2S1060003400 | Permit Project & Activity 2S1060003400 | Parcel Report 2S1060003400 | Pa

General Information
interactive maps
map gallery
data catalog
contacts
other gis links
gis introduction
frequently asked questions
Property Search
property / taxlot
tax maps
Survey Search
Land Services
Building Services

Parcel Report for Taxlot: 2S1060003800

General Property Information	
Map & Taxlot ID #:	2S1060003800
Real Property Account #:	R2144291 R481794
Site Address:	16550 SW FRIENDLY LN. PORTLAND OR, 97223
City/State/Zip:	
Legal:	
Sub Reports:	District Overlay Information Assessment & Taxation Information Scanned Tax Maps Permits & Projects
Ownership Information:	Information Withheld - why?
Interactive Mapping:	InterMap
Other Resources:	Link to External Sites: Virtual Earth Viewer Google Maps Street Viewer

This page maintained by Washington County Technology Services. Need assistance with this page? email us

Geographic Information Systems

Navigation: Washington County » GIS » Reports: A&T Report 2S1060003400 | Permit Project & Activity 2S1060003400 | Parcel Report 2S1060003400 | Parcel Report 2S1060003800 | GeoSearch Distr

General Information
- interactive maps
- map gallery
- data catalog
- contacts
- other gis links
- gis introduction
- frequently asked questions

Property Search
- property / taxlot
- tax maps

Survey Search

Land Services

Building Services

Overlay Information 2S1060003800

Jurisdiction:	Tigard
City Zoning (updated 2/2014):	R-4.5 (confirm with Tigard City Planning department)
Within Urban Growth Boundary:	Yes
Within Metro's Urban Service Area (*Updated 06/30/2012):	Yes
In Urban Road Maintenance District (*Updated 06/30/2012):	No
In Urban Road Maintenance District (*Updated 06/30/2012):	No
In ESPD (*Updated 06/30/2012):	No
Ground Water Resouce Area:	COOPER MTN-BULL MTN
SDL Assement Area/zone:	Not in an Assesment Area.
Fire District (*Updated 06/30/2012):	TVFR
Fire Management Zone:	6085
Park District:	Not In Park District
Park District:	Not in North Bethany Sub Area
School District (*Updated 06/30/2012):	BEAVERTON
Elementary School Attendance Area:	Scholls Heights
Middle School Attendance Area:	Conestoga
High School Attendance Area:	Southridge
Election Precinct:	410
Commissioner District:	3- Roy Rogers
Assessor Area:	2
Citizen Participation Org:	CPO4B
Community Plan Map:	BULL MOUNTAIN
Historic & Cultural Resource Inventory:	Not located within a Historic and Cultural Resource Inventory Area
POD Date Zoned:	POD:1-9/9/59
ODOT District:	2B
Plat:	Property is not part of a subdivision
Census Tract:	031909
Census Block:	2003
Census Blockgroup:	2
Census Geoid:	410670319092003
Zipcode:	97007
Garbage Hauler:	No Info
Garbage Dropbox:	No Info
Thomas Brothers Guide:	Page: 654 - Grid: G4

*** The data layers used to derive items in the report are assembled from multiple sources. Report items flagged with an asterisk (*) are derived from the taxcode layer maintained by Washington County's Department of Assessment and Taxation Cartography Division. The taxcode layer is updated once a year on June 30th and may not reflect final/proposed annexations or boundary adjustments. All information should be verified with individual service districts.**

Geographic Information Systems

Navigation: Washington County » GIS » Reports: Permit Project & Activity 2S1060003400 | Parcel Report 2S1060003400 | GeoSearch District Overlay 2S1060003800 | Parcel Report 2S1060003800 |

General Information
- interactive maps
- map gallery
- data catalog
- contacts
- other gis links
- gis introduction
- frequently asked questions

Property Search
- property / taxlot
- tax maps

Survey Search

Land Services

Building Services

Assessment & Taxation Report

General Property Information	
Site Address:	16550 SW FRIENDLY LN. PORTLAND OR, 97223
Tax Lot ID:	2S1060003800
Property Account ID's:	R2144291, R481794,
Property Classification:	1910 - URBAN DEVELOPABLE TRACT IMPROVED - See full list of Codes
Neighborhood Code:	4TL9
Latitude / Longitude:	45.4256739 / 122.847183
2009-2010 Tax Statement:	R2144291.pdf R481794.pdf
2010-2011 Tax Statement:	R2144291.pdf R481794.pdf
2011-2012 Tax Statement:	R2144291.pdf R481794.pdf
2012-2013 Tax Statement:	R2144291.pdf R481794.pdf
2013-2014 Tax Statement:	R2144291.pdf R481794.pdf
2014-2015 Tax Statement:	R2144291.pdf R481794.pdf

Sales / Deed Information

Sale Date	Sale Instrument	Deed Type	Sale Price
			$
			$
			$

Assessed Values for Account R2144291	
Roll Date:	09/24/2014
Taxcode:	051.36
Market Land Value:	$3,840
Market Bldg Value:	$0
Special Market Value:	$0
Market Total Value:	$3,840
Taxable Assessed Value:	$3,340
Legal:	Lot:
Lot Size:	A&T Acres: 0.16
Bldg Sq Ft:	0
Year Built:	N/A

Assessed Values for Account R481794	
Roll Date:	09/24/2014
Taxcode:	051.32
Market Land Value:	$641,160
Market Bldg Value:	$286,800
Special Market Value:	$0
Market Total Value:	$927,960
Taxable Assessed Value:	$527,460
Legal:	Lot:
Lot Size:	A&T Acres: 5.20
Bldg Sq Ft:	3678
Year Built:	1994
Improvement Information	
Total Improvement Value:	$286,800
Plumbing	BATH=3
Bedrooms	

Improvement Details

Description	Value	Square Feet
ATTIC COMP FINISH	$13,780	245
ATTIC COMP FINISH	$3,370	60
GARAGE FINISHED	$35,440	964
MAIN AREA	$136,260	1586
MULTIPURPOSE BUILDING	$11,100	1200
OPEN PORCH ROOFED	$6,920	239
PATIO AGGREGATE	$990	360
PAVING AGG	$3,160	1152
UPPER STY FIN	$62,600	1218
UPPER STY UNFINISHED	$13,180	569

2015 **Information Advisory**

All property assessment information presented about the 2015 tax year is unedited and uncertified. This information is subject to change, furnished as reference data only and should not be used to calculate or prorate taxes.

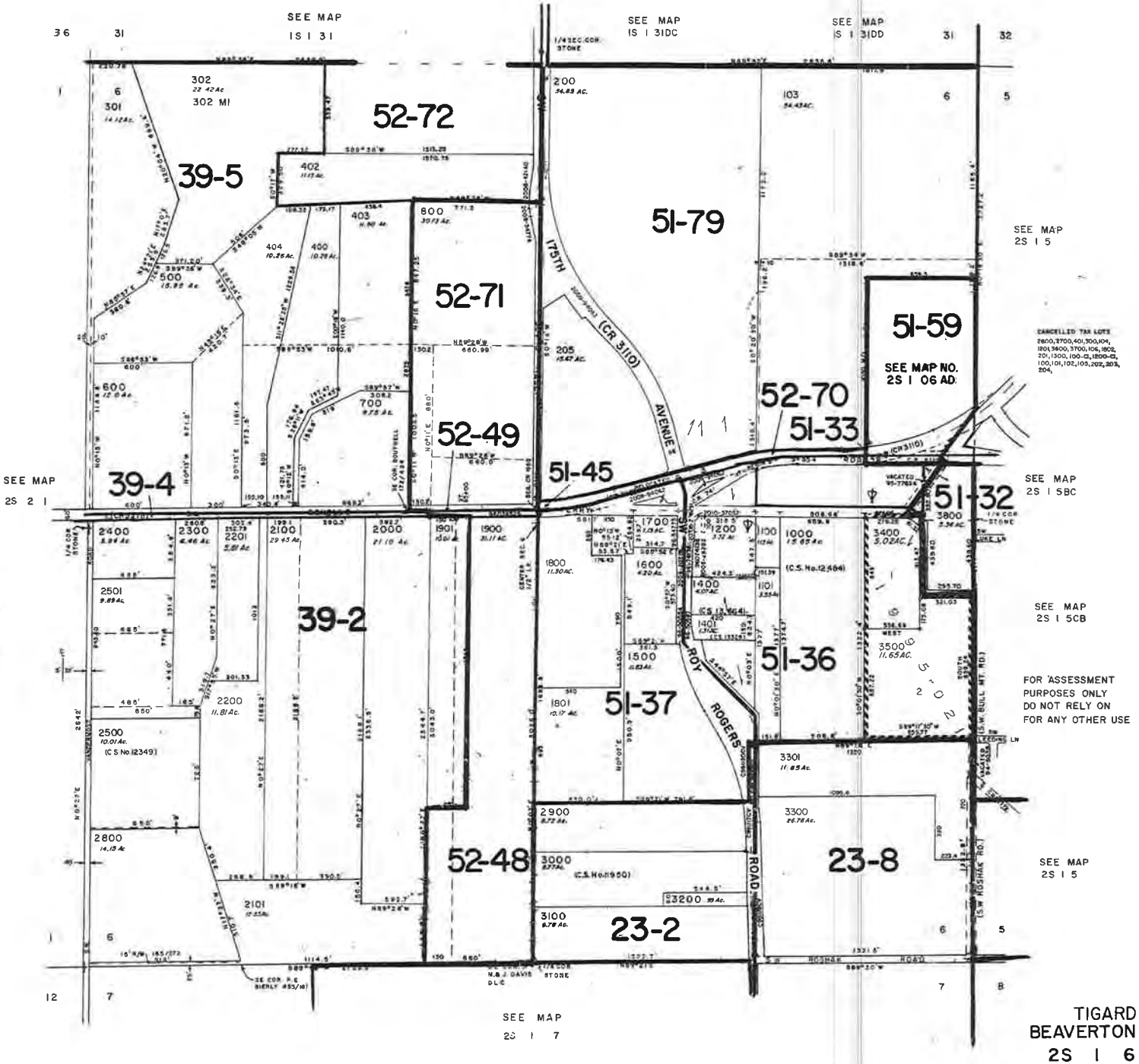
Verification of information on source documents is recommended. By using this application, you assume all risks arising out of or associated with access to these pages, including but not limited to risks of damage to your computer, peripherals, software and data from any virus, software, file or other cause associated with access to this application. Washington County shall not be liable for any damages whatsoever arising out of any cause relating to use of this application, including but not limited to mistakes, omissions, deletions, errors, or defects in any information contained in these pages, or any failure to receive or delay in receiving information.

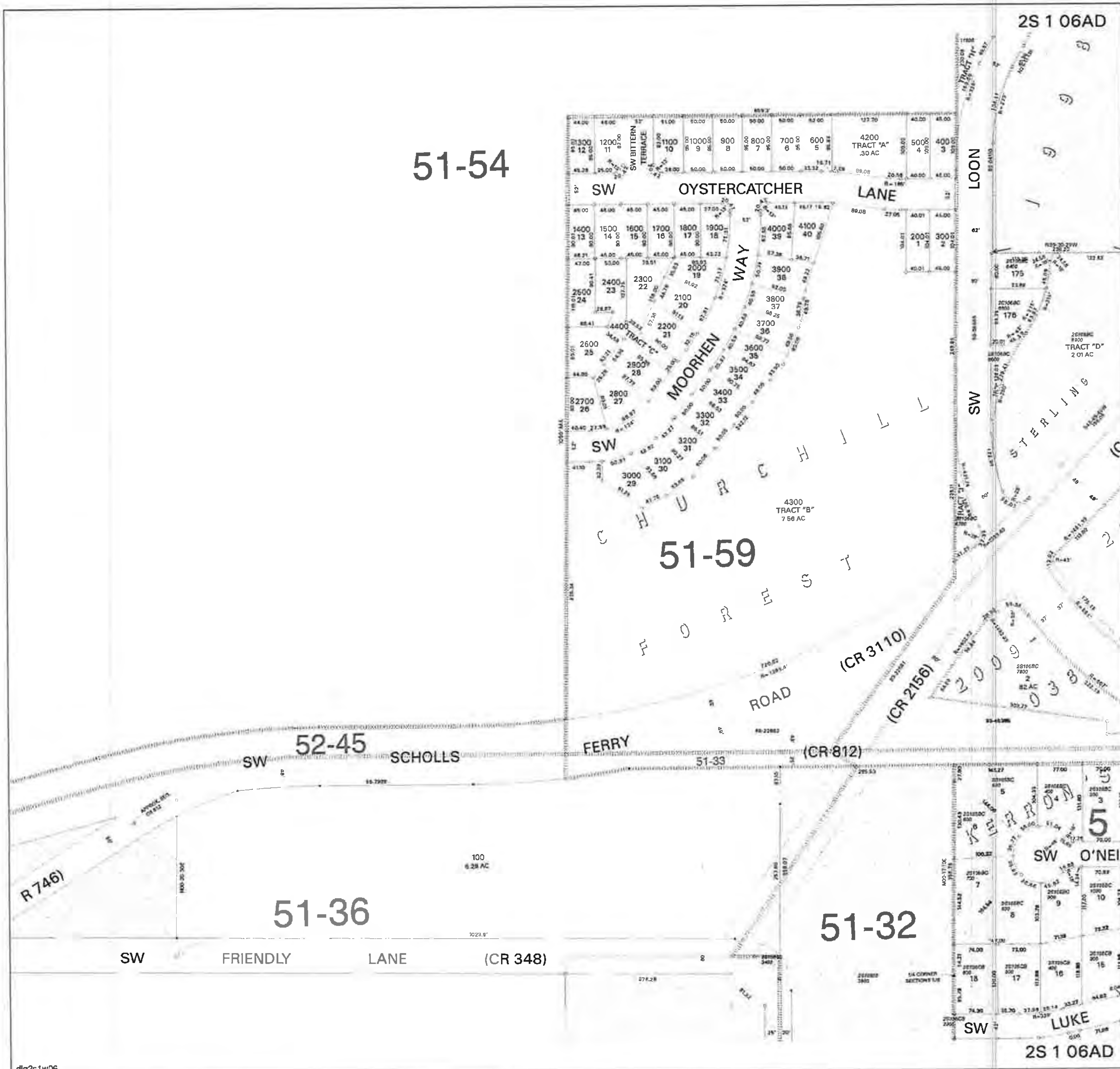
SECTION 6 T2S R1W W.M.

WASHINGTON COUNTY OREGON

SCALE 1"= 400'

2S 1 6

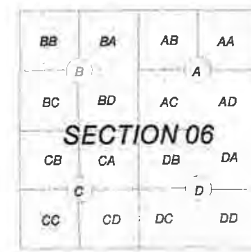




2S 1 06AD

WASHINGTON COUNTY OREGON
SE1/4 NE1/4 SECTION 06 T2S R1W W.M.
SCALE 1" = 100'

FOR ADDITIONAL MAPS VISIT OUR WEBSITE AT www.co.washington.or.us



SCALE 1" = 100'
0 50 100 200 300

CARTOGRAPHY

PLOT DATE: March 19, 2013
FOR ASSESSMENT PURPOSES ONLY - DO NOT RELY ON FOR OTHER USE

Map areas delineated by either gray shading or a cross-hatched pattern are for reference only and may not indicate the most current property boundaries. Please consult the appropriate map for the most current information.

TIGARD
BEAVERTON
2S 1 06AD

Zoning Map

City of Tigard Oregon

Vicinity Map

Zoning Classifications

- R-1 30,000 Sq Ft Min Lot Size
- R-2 20,000 Sq Ft Min Lot Size
- R-3.5 10,000 Sq Ft Min Lot Size
- R-4.5 7,500 Sq Ft Min Lot Size
- R-7 5,000 Sq Ft Min Lot Size
- R-12 3,050 Sq Ft Min Lot Size
- R-25 1,480 Sq Ft Min Lot Size
- R-40 40 Units Per Acre
- MUR-1 Mixed Use Residential 1
- MUR-2 Mixed Use Residential 2
- MU-CBD Mixed Use Central Bus Dist
- C-C Community Commercial
- C-G General Commercial
- C-N Neighborhood Commercial
- C-P Professional Commercial
- MUC Mixed Use Commercial
- MUC-1 Mixed Use Commercial 1
- MUE Mixed Use Empoloyment
- MUE-1 Mixed Use Employment 1
- MUE-2 Mixed Use Employment 2
- I-L Light Industrial
- I-P Industrial Park
- I-H Heavy Industrial
- PR Parks and Recreation
- WA-Cnty Washington County

Overlay Zones

- Historic District Overlay
- Planned Development Overlay

- Tigard City Boundary
- Urban Services Boundary
- Urban Growth Boundary

TIGARD MAPS

Map Created: 5/30/2015

"A Place to Call Home"

City of Tigard, Oregon
13125 SW Hall Blvd
Tigard, OR 97223
503 639-4171
www.tigard-or.gov

TIGARD

Zoning Designations of the Tigard Municipal Code, Title 18: Community Development Code

Current zoning designations for the City of Tigard in conformity with the City's Comprehensive Plan guides development throughout the City. The map is intended as a general reference only and zoning desingations should always be verified.

APPENDIX D

APPENDIX D

CHEMICAL ANALYTICAL PROGRAM

GENERAL

Chain-of-custody procedures were followed during handling and transport of the soil samples to the analytical laboratory. The laboratory holds the samples in cold storage pending extraction and/or analysis. The analytical results, analytical methods reference, and laboratory quality control records are included in this appendix. The soil analytical results are summarized in Tables 1 and 2 of this report.

REVIEW OF ANALYTICAL DATA

The analytical laboratory maintains an internal quality assurance program consisting of a combination of the following:

Surrogate Recoveries: Surrogates are organic compounds that are similar in nature to the analytes of concern but are not normally found in nature. The surrogates are added to quality control and field samples prior to analysis. The percent recovery of the surrogate is calculated to demonstrate acceptable method performance.

Duplicates: Duplicates are obtained by splitting a sample into two parts. The two separate parts are carried through the analyses. The analytical results are then compared by calculating the RPD between the samples.

MS/MSD Recoveries: An MS sample is a sample that has been split into a second portion. The MSD is obtained by further splitting the MS sample. A known concentration of the analyte of interest is added to the MS and MSD samples. The analytical results for both samples are then compared for RPD and percent recovery to demonstrate acceptable method performance.

BS/BSD Recoveries: BS and BSD samples are obtained and analyzed in the same procedure as the MS/MSD samples; however, the laboratory blank sample is used to obtain the BS/BSD samples. The percent recovery and RPD of the known concentration of analyte of interest added to the BS/BSD sample is calculated after chemical analyses to demonstrate acceptable method performance.

SUMMARY OF ANALYTICAL DATA REVIEW

GeoDesign reviewed the attached analytical data report for data quality exceptions and deviations from acceptable method performance criteria. Based on our data review, it is our opinion that the analytical data are acceptable for their intended use.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Wednesday, June 10, 2015

Colby Hunt
GeoDesign, Inc.
15575 SW Sequoia Pkwy, Ste 100
Portland, OR 97224

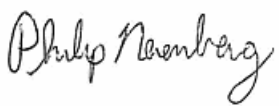
RE: River Terrace East / Polygon-129-02

Enclosed are the results of analyses for work order A5F0230, which was received by the laboratory on 6/5/2015 at 5:35:00PM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: pnerenberg@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

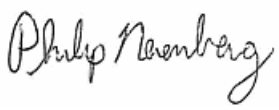
GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Comp-12 (0.0-0.5)	A5F0230-01	Soil	06/05/15 13:54	06/05/15 17:35
Comp-4 (0.0-0.5)	A5F0230-02	Soil	06/05/15 14:38	06/05/15 17:35
Comp-5 (0.0-0.5)	A5F0230-03	Soil	06/05/15 16:15	06/05/15 17:35
Comp-3 (0.0-0.5)	A5F0230-04	Soil	06/05/15 14:54	06/05/15 17:35
Comp-2 (0.0-0.5)	A5F0230-05	Soil	06/05/15 16:40	06/05/15 17:35
Comp-13 (0.0-0.5)	A5F0230-06	Soil	06/05/15 13:42	06/05/15 17:35
Comp-6 (0.0-0.5)	A5F0230-07	Soil	06/05/15 15:42	06/05/15 17:35
Comp-14 (0.0-0.5)	A5F0230-08	Soil	06/05/15 13:23	06/05/15 17:35
Comp-1 (0.0-0.5)	A5F0230-09	Soil	06/05/15 16:36	06/05/15 17:35
Comp-8 (0.0-0.5)	A5F0230-10	Soil	06/05/15 12:30	06/05/15 17:35
Comp-9 (0.0-0.5)	A5F0230-11	Soil	06/05/15 12:43	06/05/15 17:35
Comp-7 (0.0-0.5)	A5F0230-12	Soil	06/05/15 12:21	06/05/15 17:35

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-12 (0.0-0.5) (A5F0230-01RE1)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
Aldrin	ND	---	2.15	ug/kg dry	1	06/09/15 11:21	EPA 8081B	
alpha-BHC	ND	---	2.15	"	"	"	"	
beta-BHC	ND	---	2.15	"	"	"	"	
delta-BHC	ND	---	2.15	"	"	"	"	
gamma-BHC (Lindane)	ND	---	2.15	"	"	"	"	
cis-Chlordane	ND	---	2.15	"	"	"	"	
trans-Chlordane	ND	---	2.15	"	"	"	"	
4,4'-DDD	ND	---	2.15	"	"	"	"	
4,4'-DDE	ND	---	2.15	"	"	"	"	
4,4'-DDT	ND	---	2.15	"	"	"	"	
Dieldrin	ND	---	2.15	"	"	"	"	
Endosulfan I	ND	---	2.15	"	"	"	"	
Endosulfan II	ND	---	2.15	"	"	"	"	
Endosulfan sulfate	ND	---	2.15	"	"	"	"	
Endrin	ND	---	2.15	"	"	"	"	
Endrin Aldehyde	ND	---	2.15	"	"	"	"	
Endrin ketone	ND	---	2.15	"	"	"	"	
Heptachlor	ND	---	2.15	"	"	"	"	
Heptachlor epoxide	ND	---	2.15	"	"	"	"	
Methoxychlor	ND	---	6.44	"	"	"	"	
Chlordane (Technical)	ND	---	64.4	"	"	"	"	
Toxaphene (Total)	ND	---	64.4	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 86 %*	*Limits: 42-129 %*	"	"	"	
Decachlorobiphenyl (Surr)			*90 %*	*Limits: 65-151 %*	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-4 (0.0-0.5) (A5F0230-02RE1)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
Aldrin	ND	---	2.40	ug/kg dry	1	06/09/15 12:03	EPA 8081B	
alpha-BHC	ND	---	2.40	"	"	"	"	
beta-BHC	ND	---	3.60	"	"	"	"	R-02
delta-BHC	ND	---	2.40	"	"	"	"	
gamma-BHC (Lindane)	ND	---	2.40	"	"	"	"	
cis-Chlordane	ND	---	2.40	"	"	"	"	
trans-Chlordane	ND	---	2.40	"	"	"	"	
4,4'-DDD	ND	---	2.88	"	"	"	"	R-02
4,4'-DDE	**6.36**	---	2.40	"	"	"	"	
4,4'-DDT	**5.11**	---	2.40	"	"	"	"	
Dieldrin	ND	---	2.40	"	"	"	"	
Endosulfan I	ND	---	2.40	"	"	"	"	
Endosulfan II	ND	---	2.40	"	"	"	"	
Endosulfan sulfate	ND	---	2.40	"	"	"	"	
Endrin	ND	---	2.40	"	"	"	"	
Endrin Aldehyde	ND	---	2.40	"	"	"	"	
Endrin ketone	ND	---	2.40	"	"	"	"	
Heptachlor	ND	---	2.40	"	"	"	"	
Heptachlor epoxide	ND	---	2.40	"	"	"	"	
Methoxychlor	ND	---	7.20	"	"	"	"	
Chlordane (Technical)	ND	---	72.0	"	"	"	"	
Toxaphene (Total)	ND	---	72.0	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 95 %*	*Limits: 42-129 %*	"	"	"	
Decachlorobiphenyl (Surr)			*89 %*	*Limits: 65-151 %*	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

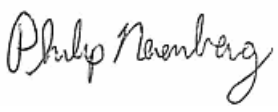
GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-5 (0.0-0.5) (A5F0230-03RE1)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
Aldrin	ND	---	2.21	ug/kg dry	1	06/09/15 12:21	EPA 8081B	
alpha-BHC	ND	---	2.21	"	"	"	"	
beta-BHC	ND	---	2.21	"	"	"	"	
delta-BHC	ND	---	2.21	"	"	"	"	
gamma-BHC (Lindane)	ND	---	2.21	"	"	"	"	
cis-Chlordane	ND	---	2.21	"	"	"	"	
trans-Chlordane	ND	---	2.21	"	"	"	"	
4,4'-DDD	ND	---	2.21	"	"	"	"	
4,4'-DDE	**4.70**	---	2.21	"	"	"	"	
4,4'-DDT	**5.47**	---	2.21	"	"	"	"	
Dieldrin	ND	---	2.21	"	"	"	"	
Endosulfan I	ND	---	2.21	"	"	"	"	
Endosulfan II	ND	---	2.21	"	"	"	"	
Endosulfan sulfate	ND	---	2.21	"	"	"	"	
Endrin	ND	---	2.21	"	"	"	"	
Endrin Aldehyde	ND	---	2.21	"	"	"	"	
Endrin ketone	ND	---	2.21	"	"	"	"	
Heptachlor	ND	---	2.21	"	"	"	"	
Heptachlor epoxide	ND	---	2.21	"	"	"	"	
Methoxychlor	ND	---	6.64	"	"	"	"	
Chlordane (Technical)	ND	---	66.4	"	"	"	"	
Toxaphene (Total)	ND	---	66.4	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 78 %*	*Limits: 42-129 %*	"	"	"	
Decachlorobiphenyl (Surr)			*91 %*	*Limits: 65-151 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-3 (0.0-0.5) (A5F0230-04RE1)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
Aldrin	ND	---	2.36	ug/kg dry	1	06/09/15 12:39	EPA 8081B	
alpha-BHC	ND	---	2.36	"	"	"	"	
beta-BHC	ND	---	2.36	"	"	"	"	
delta-BHC	ND	---	2.36	"	"	"	"	
gamma-BHC (Lindane)	ND	---	2.36	"	"	"	"	
cis-Chlordane	ND	---	2.36	"	"	"	"	
trans-Chlordane	ND	---	2.36	"	"	"	"	
4,4'-DDD	ND	---	2.36	"	"	"	"	
4,4'-DDE	**3.51**	---	2.36	"	"	"	"	
4,4'-DDT	**3.98**	---	2.36	"	"	"	"	
Dieldrin	ND	---	2.36	"	"	"	"	
Endosulfan I	ND	---	2.36	"	"	"	"	
Endosulfan II	ND	---	2.36	"	"	"	"	
Endosulfan sulfate	ND	---	2.36	"	"	"	"	
Endrin	ND	---	2.36	"	"	"	"	
Endrin Aldehyde	ND	---	2.36	"	"	"	"	
Endrin ketone	ND	---	2.36	"	"	"	"	
Heptachlor	ND	---	2.36	"	"	"	"	
Heptachlor epoxide	ND	---	2.36	"	"	"	"	
Methoxychlor	ND	---	7.07	"	"	"	"	
Chlordane (Technical)	ND	---	70.7	"	"	"	"	
Toxaphene (Total)	ND	---	70.7	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 85 %*	*Limits: 42-129 %*	"	"	"	
Decachlorobiphenyl (Surr)			*89 %*	*Limits: 65-151 %*	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

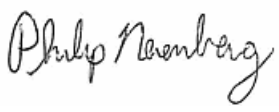
GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-2 (0.0-0.5) (A5F0230-05RE1)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
Aldrin	ND	---	2.32	ug/kg dry	1	06/09/15 12:57	EPA 8081B	
alpha-BHC	ND	---	2.32	"	"	"	"	
beta-BHC	ND	---	2.32	"	"	"	"	
delta-BHC	ND	---	2.32	"	"	"	"	
gamma-BHC (Lindane)	ND	---	2.32	"	"	"	"	
cis-Chlordane	ND	---	2.32	"	"	"	"	
trans-Chlordane	ND	---	2.32	"	"	"	"	
4,4'-DDD	ND	---	2.32	"	"	"	"	
4,4'-DDE	**4.95**	---	2.32	"	"	"	"	
4,4'-DDT	**6.10**	---	2.32	"	"	"	"	
Dieldrin	ND	---	2.32	"	"	"	"	
Endosulfan I	ND	---	2.32	"	"	"	"	
Endosulfan II	ND	---	2.32	"	"	"	"	
Endosulfan sulfate	ND	---	2.32	"	"	"	"	
Endrin	ND	---	2.32	"	"	"	"	
Endrin Aldehyde	ND	---	2.32	"	"	"	"	
Endrin ketone	ND	---	2.32	"	"	"	"	
Heptachlor	ND	---	2.32	"	"	"	"	
Heptachlor epoxide	ND	---	2.32	"	"	"	"	
Methoxychlor	ND	---	6.97	"	"	"	"	
Chlordane (Technical)	ND	---	69.7	"	"	"	"	
Toxaphene (Total)	ND	---	69.7	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 80 %*	*Limits: 42-129 %*	"	"	"	
Decachlorobiphenyl (Surr)			*92 %*	*Limits: 65-151 %*	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-13 (0.0-0.5) (A5F0230-06RE1)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
Aldrin	ND	---	2.25	ug/kg dry	1	06/09/15 13:51	EPA 8081B	
alpha-BHC	ND	---	2.25	"	"	"	"	
beta-BHC	ND	---	2.25	"	"	"	"	
delta-BHC	ND	---	2.25	"	"	"	"	
gamma-BHC (Lindane)	ND	---	2.25	"	"	"	"	
cis-Chlordane	ND	---	2.25	"	"	"	"	
trans-Chlordane	ND	---	2.25	"	"	"	"	
4,4'-DDD	ND	---	2.25	"	"	"	"	
4,4'-DDE	ND	---	2.25	"	"	"	"	
Dieldrin	ND	---	2.25	"	"	"	"	
Endosulfan I	ND	---	2.25	"	"	"	"	
Endosulfan II	ND	---	2.25	"	"	"	"	
Endosulfan sulfate	ND	---	2.25	"	"	"	"	
Endrin	ND	---	2.25	"	"	"	"	
Endrin Aldehyde	ND	---	2.25	"	"	"	"	
Endrin ketone	ND	---	2.25	"	"	"	"	
Heptachlor	ND	---	2.25	"	"	"	"	
Heptachlor epoxide	ND	---	2.25	"	"	"	"	
Chlordane (Technical)	ND	---	67.6	"	"	"	"	
Toxaphene (Total)	ND	---	67.6	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 96 %*	*Limits: 42-129 %*	"	"	"	
Decachlorobiphenyl (Surr)			*93 %*	*Limits: 65-151 %*	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-13 (0.0-0.5) (A5F0230-06RE2)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
4,4'-DDT	ND	---	2.25	ug/kg dry	1	06/10/15 10:11	EPA 8081B	
Methoxychlor	ND	---	6.76	"	"	"	"	
Comp-6 (0.0-0.5) (A5F0230-07RE1)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
Aldrin	ND	---	2.36	ug/kg dry	1	06/09/15 14:09	EPA 8081B	
alpha-BHC	ND	---	2.36	"	"	"	"	
beta-BHC	ND	---	2.36	"	"	"	"	
delta-BHC	ND	---	2.36	"	"	"	"	
gamma-BHC (Lindane)	ND	---	2.36	"	"	"	"	
cis-Chlordane	ND	---	2.36	"	"	"	"	
trans-Chlordane	ND	---	2.36	"	"	"	"	
4,4'-DDD	ND	---	3.30	"	"	"	"	R-02
4,4'-DDE	**5.39**	---	2.36	"	"	"	"	
Dieldrin	ND	---	2.36	"	"	"	"	
Endosulfan I	ND	---	2.36	"	"	"	"	
Endosulfan II	ND	---	2.36	"	"	"	"	
Endosulfan sulfate	ND	---	2.36	"	"	"	"	
Endrin	ND	---	2.36	"	"	"	"	
Endrin Aldehyde	ND	---	2.36	"	"	"	"	
Endrin ketone	ND	---	2.36	"	"	"	"	
Heptachlor	ND	---	2.36	"	"	"	"	
Heptachlor epoxide	ND	---	2.36	"	"	"	"	
Chlordane (Technical)	ND	---	70.8	"	"	"	"	
Toxaphene (Total)	ND	---	70.8	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 86 %*	*Limits: 42-129 %*	"	"	"	
Decachlorobiphenyl (Surr)			*90 %*	*Limits: 65-151 %*	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-6 (0.0-0.5) (A5F0230-07RE2)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
4,4'-DDT	**4.82**	---	2.36	ug/kg dry	1	06/10/15 10:29	EPA 8081B	
Methoxychlor	ND	---	7.08	"	"	"	"	
Comp-14 (0.0-0.5) (A5F0230-08RE1)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
Aldrin	ND	---	2.26	ug/kg dry	1	06/09/15 14:27	EPA 8081B	
alpha-BHC	ND	---	2.26	"	"	"	"	
beta-BHC	ND	---	2.26	"	"	"	"	
delta-BHC	ND	---	2.26	"	"	"	"	
gamma-BHC (Lindane)	ND	---	2.26	"	"	"	"	
cis-Chlordane	ND	---	2.26	"	"	"	"	
trans-Chlordane	ND	---	2.26	"	"	"	"	
4,4'-DDD	ND	---	2.26	"	"	"	"	
4,4'-DDE	ND	---	2.26	"	"	"	"	
Dieldrin	ND	---	2.26	"	"	"	"	
Endosulfan I	ND	---	2.26	"	"	"	"	
Endosulfan II	ND	---	2.26	"	"	"	"	
Endosulfan sulfate	ND	---	2.26	"	"	"	"	
Endrin	ND	---	2.26	"	"	"	"	
Endrin Aldehyde	ND	---	2.26	"	"	"	"	
Endrin ketone	ND	---	2.26	"	"	"	"	
Heptachlor	ND	---	2.26	"	"	"	"	
Heptachlor epoxide	ND	---	2.26	"	"	"	"	
Chlordane (Technical)	ND	---	67.7	"	"	"	"	
Toxaphene (Total)	ND	---	67.7	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 81 %*	*Limits: 42-129 %*	"	"	"	
Decachlorobiphenyl (Surr)			*81 %*	*Limits: 65-151 %*	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-14 (0.0-0.5) (A5F0230-08RE2)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
4,4'-DDT	ND	---	2.26	ug/kg dry	1	06/10/15 10:47	EPA 8081B	
Methoxychlor	ND	---	6.77	"	"	"	"	
Comp-1 (0.0-0.5) (A5F0230-09RE2)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
Aldrin	ND	---	10.5	ug/kg dry	5	06/10/15 09:54	EPA 8081B	
alpha-BHC	ND	---	10.5	"	"	"	"	
beta-BHC	ND	---	10.5	"	"	"	"	
delta-BHC	ND	---	10.5	"	"	"	"	
gamma-BHC (Lindane)	ND	---	10.5	"	"	"	"	
cis-Chlordane	**185**	---	10.5	"	"	"	"	
trans-Chlordane	**176**	---	10.5	"	"	"	"	
4,4'-DDD	ND	---	10.5	"	"	"	"	
4,4'-DDE	ND	---	14.7	"	"	"	"	R-02
4,4'-DDT	**23.2**	---	10.5	"	"	"	"	
Dieldrin	ND	---	15.8	"	"	"	"	R-02
Endosulfan I	ND	---	10.5	"	"	"	"	
Endosulfan II	ND	---	10.5	"	"	"	"	
Endosulfan sulfate	ND	---	10.5	"	"	"	"	
Endrin	ND	---	10.5	"	"	"	"	
Endrin Aldehyde	ND	---	10.5	"	"	"	"	
Endrin ketone	ND	---	10.5	"	"	"	"	
Heptachlor	ND	---	10.5	"	"	"	"	
Heptachlor epoxide	ND	---	10.5	"	"	"	"	
Methoxychlor	ND	---	31.6	"	"	"	"	
Chlordane (Technical)	**1650**	---	316	"	"	"	"	
Toxaphene (Total)	ND	---	316	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 73 %*	*Limits: 42-129 %*	"	"	"	
Decachlorobiphenyl (Surr)			*100 %*	*Limits: 65-151 %*	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-8 (0.0-0.5) (A5F0230-10RE1)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
Aldrin	ND	---	2.21	ug/kg dry	1	06/09/15 15:03	EPA 8081B	
alpha-BHC	ND	---	2.21	"	"	"	"	
beta-BHC	ND	---	2.21	"	"	"	"	
delta-BHC	ND	---	2.21	"	"	"	"	
gamma-BHC (Lindane)	ND	---	2.21	"	"	"	"	
cis-Chlordane	ND	---	2.21	"	"	"	"	
trans-Chlordane	ND	---	2.21	"	"	"	"	
4,4'-DDD	ND	---	2.21	"	"	"	"	
4,4'-DDE	ND	---	2.21	"	"	"	"	
Dieldrin	ND	---	2.21	"	"	"	"	
Endosulfan I	ND	---	2.21	"	"	"	"	
Endosulfan II	ND	---	2.21	"	"	"	"	
Endosulfan sulfate	ND	---	2.21	"	"	"	"	
Endrin	ND	---	2.21	"	"	"	"	
Endrin Aldehyde	ND	---	2.21	"	"	"	"	
Endrin ketone	ND	---	2.21	"	"	"	"	
Heptachlor	ND	---	2.21	"	"	"	"	
Heptachlor epoxide	ND	---	2.21	"	"	"	"	
Chlordane (Technical)	ND	---	66.2	"	"	"	"	
Toxaphene (Total)	ND	---	66.2	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 101 %*	*Limits: 42-129 %*	"	"	"	
Decachlorobiphenyl (Surr)			*101 %*	*Limits: 65-151 %*	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-8 (0.0-0.5) (A5F0230-10RE2)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
4,4'-DDT	**2.91**	---	2.21	ug/kg dry	1	06/10/15 11:05	EPA 8081B	
Methoxychlor	ND	---	6.62	"	"	"	"	
Comp-9 (0.0-0.5) (A5F0230-11RE1)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
Aldrin	ND	---	2.32	ug/kg dry	1	06/09/15 15:21	EPA 8081B	
alpha-BHC	ND	---	2.32	"	"	"	"	
beta-BHC	ND	---	2.32	"	"	"	"	
delta-BHC	ND	---	2.32	"	"	"	"	
gamma-BHC (Lindane)	ND	---	2.32	"	"	"	"	
cis-Chlordane	ND	---	2.32	"	"	"	"	
trans-Chlordane	ND	---	2.32	"	"	"	"	
4,4'-DDD	ND	---	2.32	"	"	"	"	
4,4'-DDE	**3.33**	---	2.32	"	"	"	"	
Dieldrin	ND	---	2.32	"	"	"	"	
Endosulfan I	ND	---	2.32	"	"	"	"	
Endosulfan II	ND	---	2.32	"	"	"	"	
Endosulfan sulfate	ND	---	2.32	"	"	"	"	
Endrin	ND	---	2.32	"	"	"	"	
Endrin Aldehyde	ND	---	2.32	"	"	"	"	
Endrin ketone	ND	---	2.32	"	"	"	"	
Heptachlor	ND	---	2.32	"	"	"	"	
Heptachlor epoxide	ND	---	2.32	"	"	"	"	
Chlordane (Technical)	ND	---	69.6	"	"	"	"	
Toxaphene (Total)	ND	---	69.6	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 89 %*	*Limits: 42-129 %*	"	"	"	
Decachlorobiphenyl (Surr)			*97 %*	*Limits: 65-151 %*	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-9 (0.0-0.5) (A5F0230-11RE2)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
4,4'-DDT	**3.75**	---	2.32	ug/kg dry	1	06/10/15 11:22	EPA 8081B	
Methoxychlor	ND	---	6.96	"	"	"	"	
Comp-7 (0.0-0.5) (A5F0230-12RE1)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
Aldrin	ND	---	2.10	ug/kg dry	1	06/09/15 15:39	EPA 8081B	
alpha-BHC	ND	---	2.10	"	"	"	"	
beta-BHC	ND	---	2.10	"	"	"	"	
delta-BHC	ND	---	2.10	"	"	"	"	
gamma-BHC (Lindane)	ND	---	2.10	"	"	"	"	
cis-Chlordane	ND	---	2.10	"	"	"	"	
trans-Chlordane	ND	---	2.10	"	"	"	"	
4,4'-DDD	ND	---	2.10	"	"	"	"	
4,4'-DDE	**28.9**	---	2.10	"	"	"	"	
Dieldrin	ND	---	2.10	"	"	"	"	
Endosulfan I	ND	---	2.10	"	"	"	"	
Endosulfan II	ND	---	2.10	"	"	"	"	
Endosulfan sulfate	ND	---	2.10	"	"	"	"	
Endrin	ND	---	2.10	"	"	"	"	
Endrin Aldehyde	ND	---	2.10	"	"	"	"	
Endrin ketone	ND	---	2.10	"	"	"	"	
Heptachlor	ND	---	2.10	"	"	"	"	
Heptachlor epoxide	ND	---	2.10	"	"	"	"	
Chlordane (Technical)	ND	---	63.1	"	"	"	"	
Toxaphene (Total)	ND	---	63.1	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 89 %*	*Limits: 42-129 %*	"	"	"	
Decachlorobiphenyl (Surr)			*98 %*	*Limits: 65-151 %*	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-7 (0.0-0.5) (A5F0230-12RE2)			**Matrix: Soil**		**Batch: 5060246**			**C-05**
4,4'-DDT	**16.8**	---	2.10	ug/kg dry	1	06/10/15 11:40	EPA 8081B	
Methoxychlor	ND	---	6.31	"	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

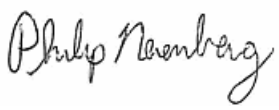
GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-12 (0.0-0.5) (A5F0230-01)			**Matrix: Soil**					
Batch: 5060249								
Antimony	ND	---	1.29	mg/kg dry	10	06/09/15 16:21	EPA 6020A	
Arsenic	**2.56**	---	1.29	"	"	"	"	
Barium	**366**	---	1.29	"	"	"	"	
Beryllium	**0.543**	---	0.259	"	"	"	"	
Cadmium	**0.285**	---	0.259	"	"	"	"	
Chromium	**16.2**	---	1.29	"	"	"	"	
Cobalt	**10.9**	---	0.259	"	"	"	"	
Copper	**12.6**	---	1.29	"	"	"	"	
Lead	**9.96**	---	0.259	"	"	"	"	
Mercury	ND	---	0.104	"	"	"	"	
Molybdenum	ND	---	1.29	"	"	"	"	
Nickel	**12.6**	---	1.29	"	"	"	"	
Selenium	ND	---	1.29	"	"	"	"	
Silver	ND	---	0.259	"	"	"	"	
Thallium	ND	---	0.259	"	"	"	"	
Vanadium	**45.4**	---	2.59	"	"	"	"	
Zinc	**66.9**	---	5.18	"	"	"	"	
Comp-4 (0.0-0.5) (A5F0230-02)			**Matrix: Soil**					
Batch: 5060249								
Antimony	ND	---	1.33	mg/kg dry	10	06/09/15 16:24	EPA 6020A	
Arsenic	**4.92**	---	1.33	"	"	"	"	
Barium	**206**	---	1.33	"	"	"	"	
Beryllium	**0.477**	---	0.265	"	"	"	"	
Cadmium	ND	---	0.265	"	"	"	"	
Chromium	**16.4**	---	1.33	"	"	"	"	
Cobalt	**10.4**	---	0.265	"	"	"	"	
Copper	**12.9**	---	1.33	"	"	"	"	
Lead	**17.5**	---	0.265	"	"	"	"	
Mercury	ND	---	0.106	"	"	"	"	
Molybdenum	ND	---	1.33	"	"	"	"	
Nickel	**11.3**	---	1.33	"	"	"	"	
Selenium	ND	---	1.33	"	"	"	"	
Silver	ND	---	0.265	"	"	"	"	
Thallium	ND	---	0.265	"	"	"	"	
Vanadium	**57.4**	---	2.65	"	"	"	"	

Apex Laboratories



Philip Nerenberg, Lab Director

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-4 (0.0-0.5) (A5F0230-02)			**Matrix: Soil**					
Zinc	**60.6**	---	5.30	mg/kg dry	10	"	EPA 6020A	
Comp-5 (0.0-0.5) (A5F0230-03)			**Matrix: Soil**					
Batch: 5060249								
Antimony	ND	---	1.30	mg/kg dry	10	06/09/15 16:27	EPA 6020A	
Arsenic	**5.58**	---	1.30	"	"	"	"	
Barium	**203**	---	1.30	"	"	"	"	
Beryllium	**0.494**	---	0.260	"	"	"	"	
Cadmium	ND	---	0.260	"	"	"	"	
Chromium	**15.7**	---	1.30	"	"	"	"	
Cobalt	**11.5**	---	0.260	"	"	"	"	
Copper	**11.8**	---	1.30	"	"	"	"	
Lead	**17.8**	---	0.260	"	"	"	"	
Mercury	ND	---	0.104	"	"	"	"	
Molybdenum	ND	---	1.30	"	"	"	"	
Nickel	**11.7**	---	1.30	"	"	"	"	
Selenium	ND	---	1.30	"	"	"	"	
Silver	ND	---	0.260	"	"	"	"	
Thallium	ND	---	0.260	"	"	"	"	
Vanadium	**48.8**	---	2.60	"	"	"	"	
Zinc	**66.5**	---	5.20	"	"	"	"	
Comp-3 (0.0-0.5) (A5F0230-04)			**Matrix: Soil**					
Batch: 5060249								
Antimony	ND	---	1.27	mg/kg dry	10	06/09/15 16:39	EPA 6020A	
Arsenic	**4.59**	---	1.27	"	"	"	"	
Barium	**227**	---	1.27	"	"	"	"	
Beryllium	**0.482**	---	0.254	"	"	"	"	
Cadmium	ND	---	0.254	"	"	"	"	
Chromium	**15.2**	---	1.27	"	"	"	"	
Cobalt	**10.2**	---	0.254	"	"	"	"	
Copper	**11.9**	---	1.27	"	"	"	"	
Lead	**18.9**	---	0.254	"	"	"	"	
Mercury	ND	---	0.101	"	"	"	"	
Molybdenum	ND	---	1.27	"	"	"	"	
Nickel	**11.4**	---	1.27	"	"	"	"	
Selenium	ND	---	1.27	"	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-3 (0.0-0.5) (A5F0230-04)			**Matrix: Soil**					
Silver	ND	---	0.254	mg/kg dry	10	"	EPA 6020A	
Thallium	ND	---	0.254	"	"	"	"	
Vanadium	**47.6**	---	2.54	"	"	"	"	
Zinc	**63.7**	---	5.07	"	"	"	"	
Comp-2 (0.0-0.5) (A5F0230-05)			**Matrix: Soil**					
Batch: 5060249								
Antimony	ND	---	1.34	mg/kg dry	10	06/09/15 16:42	EPA 6020A	
Arsenic	**6.40**	---	1.34	"	"	"	"	
Barium	**205**	---	1.34	"	"	"	"	
Beryllium	**0.444**	---	0.269	"	"	"	"	
Cadmium	ND	---	0.269	"	"	"	"	
Chromium	**15.2**	---	1.34	"	"	"	"	
Cobalt	**10.4**	---	0.269	"	"	"	"	
Copper	**12.4**	---	1.34	"	"	"	"	
Lead	**21.5**	---	0.269	"	"	"	"	
Mercury	ND	---	0.108	"	"	"	"	
Molybdenum	ND	---	1.34	"	"	"	"	
Nickel	**11.1**	---	1.34	"	"	"	"	
Selenium	ND	---	1.34	"	"	"	"	
Silver	ND	---	0.269	"	"	"	"	
Thallium	ND	---	0.269	"	"	"	"	
Vanadium	**48.8**	---	2.69	"	"	"	"	
Zinc	**63.5**	---	5.38	"	"	"	"	
Comp-13 (0.0-0.5) (A5F0230-06)			**Matrix: Soil**					
Batch: 5060249								
Antimony	ND	---	1.20	mg/kg dry	10	06/09/15 16:44	EPA 6020A	
Arsenic	**3.44**	---	1.20	"	"	"	"	
Barium	**304**	---	1.20	"	"	"	"	
Beryllium	**0.565**	---	0.241	"	"	"	"	
Cadmium	**0.265**	---	0.241	"	"	"	"	
Chromium	**18.4**	---	1.20	"	"	"	"	
Cobalt	**13.6**	---	0.241	"	"	"	"	
Copper	**14.9**	---	1.20	"	"	"	"	
Lead	**10.0**	---	0.241	"	"	"	"	
Mercury	ND	---	0.0962	"	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-13 (0.0-0.5) (A5F0230-06)			**Matrix: Soil**					
Molybdenum	ND	---	1.20	mg/kg dry	10	"	EPA 6020A	
Nickel	**14.6**	---	1.20	"	"	"	"	
Selenium	ND	---	1.20	"	"	"	"	
Silver	ND	---	0.241	"	"	"	"	
Thallium	ND	---	0.241	"	"	"	"	
Vanadium	**56.1**	---	2.41	"	"	"	"	
Zinc	**68.5**	---	4.81	"	"	"	"	
Comp-6 (0.0-0.5) (A5F0230-07)			**Matrix: Soil**					
Batch: 5060249								
Antimony	ND	---	1.40	mg/kg dry	10	06/09/15 16:47	EPA 6020A	
Arsenic	**7.79**	---	1.40	"	"	"	"	
Barium	**290**	---	1.40	"	"	"	"	
Beryllium	**0.561**	---	0.281	"	"	"	"	
Cadmium	**0.351**	---	0.281	"	"	"	"	
Chromium	**15.4**	---	1.40	"	"	"	"	
Cobalt	**14.4**	---	0.281	"	"	"	"	
Copper	**12.8**	---	1.40	"	"	"	"	
Lead	**23.8**	---	0.281	"	"	"	"	
Mercury	ND	---	0.112	"	"	"	"	
Molybdenum	ND	---	1.40	"	"	"	"	
Nickel	**11.3**	---	1.40	"	"	"	"	
Selenium	ND	---	1.40	"	"	"	"	
Silver	ND	---	0.281	"	"	"	"	
Thallium	ND	---	0.281	"	"	"	"	
Vanadium	**57.0**	---	2.81	"	"	"	"	
Zinc	**58.8**	---	5.61	"	"	"	"	
Comp-14 (0.0-0.5) (A5F0230-08)			**Matrix: Soil**					
Batch: 5060249								
Antimony	ND	---	1.35	mg/kg dry	10	06/09/15 16:50	EPA 6020A	
Arsenic	**2.56**	---	1.35	"	"	"	"	
Barium	**193**	---	1.35	"	"	"	"	
Beryllium	**0.445**	---	0.270	"	"	"	"	
Cadmium	ND	---	0.270	"	"	"	"	
Chromium	**17.5**	---	1.35	"	"	"	"	
Cobalt	**9.80**	---	0.270	"	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-14 (0.0-0.5) (A5F0230-08)			**Matrix: Soil**					
Copper	**12.6**	---	1.35	mg/kg dry	10	"	EPA 6020A	
Lead	**13.2**	---	0.270	"	"	"	"	
Mercury	ND	---	0.108	"	"	"	"	
Molybdenum	ND	---	1.35	"	"	"	"	
Nickel	**11.0**	---	1.35	"	"	"	"	
Selenium	ND	---	1.35	"	"	"	"	
Silver	ND	---	0.270	"	"	"	"	
Thallium	ND	---	0.270	"	"	"	"	
Vanadium	**51.1**	---	2.70	"	"	"	"	
Zinc	**60.5**	---	5.39	"	"	"	"	
Comp-1 (0.0-0.5) (A5F0230-09)			**Matrix: Soil**					
Batch: 5060249								
Antimony	ND	---	1.21	mg/kg dry	10	06/09/15 16:53	EPA 6020A	
Arsenic	**5.49**	---	1.21	"	"	"	"	
Barium	**289**	---	1.21	"	"	"	"	
Beryllium	**0.617**	---	0.242	"	"	"	"	
Cadmium	**0.338**	---	0.242	"	"	"	"	
Chromium	**14.9**	---	1.21	"	"	"	"	
Cobalt	**14.5**	---	0.242	"	"	"	"	
Copper	**12.5**	---	1.21	"	"	"	"	
Lead	**22.6**	---	0.242	"	"	"	"	
Mercury	ND	---	0.0967	"	"	"	"	
Molybdenum	ND	---	1.21	"	"	"	"	
Nickel	**11.6**	---	1.21	"	"	"	"	
Selenium	ND	---	1.21	"	"	"	"	
Silver	ND	---	0.242	"	"	"	"	
Thallium	ND	---	0.242	"	"	"	"	
Vanadium	**53.6**	---	2.42	"	"	"	"	
Zinc	**72.8**	---	4.84	"	"	"	"	
Comp-8 (0.0-0.5) (A5F0230-10)			**Matrix: Soil**					
Batch: 5060249								
Antimony	ND	---	1.28	mg/kg dry	10	06/09/15 16:56	EPA 6020A	
Arsenic	**5.33**	---	1.28	"	"	"	"	
Barium	**237**	---	1.28	"	"	"	"	
Beryllium	**0.474**	---	0.256	"	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-8 (0.0-0.5) (A5F0230-10)			**Matrix: Soil**					
Cadmium	ND	---	0.256	mg/kg dry	10	"	EPA 6020A	
Chromium	**13.9**	---	1.28	"	"	"	"	
Cobalt	**9.38**	---	0.256	"	"	"	"	
Copper	**14.0**	---	1.28	"	"	"	"	
Lead	**17.7**	---	0.256	"	"	"	"	
Mercury	ND	---	0.103	"	"	"	"	
Molybdenum	ND	---	1.28	"	"	"	"	
Nickel	**9.98**	---	1.28	"	"	"	"	
Selenium	ND	---	1.28	"	"	"	"	
Silver	ND	---	0.256	"	"	"	"	
Thallium	ND	---	0.256	"	"	"	"	
Vanadium	**46.3**	---	2.56	"	"	"	"	
Zinc	**54.4**	---	5.13	"	"	"	"	
Comp-9 (0.0-0.5) (A5F0230-11)			**Matrix: Soil**					
Batch: 5060249								
Antimony	ND	---	1.28	mg/kg dry	10	06/09/15 16:59	EPA 6020A	
Arsenic	**5.24**	---	1.28	"	"	"	"	
Barium	**299**	---	1.28	"	"	"	"	
Beryllium	**0.473**	---	0.256	"	"	"	"	
Cadmium	ND	---	0.256	"	"	"	"	
Chromium	**15.4**	---	1.28	"	"	"	"	
Cobalt	**11.3**	---	0.256	"	"	"	"	
Copper	**15.8**	---	1.28	"	"	"	"	
Lead	**17.5**	---	0.256	"	"	"	"	
Mercury	ND	---	0.102	"	"	"	"	
Molybdenum	ND	---	1.28	"	"	"	"	
Nickel	**11.4**	---	1.28	"	"	"	"	
Selenium	ND	---	1.28	"	"	"	"	
Silver	ND	---	0.256	"	"	"	"	
Thallium	ND	---	0.256	"	"	"	"	
Vanadium	**50.5**	---	2.56	"	"	"	"	
Zinc	**76.2**	---	5.12	"	"	"	"	
Comp-7 (0.0-0.5) (A5F0230-12)			**Matrix: Soil**					
Batch: 5060249								
Antimony	ND	---	1.31	mg/kg dry	10	06/09/15 17:02	EPA 6020A	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-7 (0.0-0.5) (A5F0230-12)			**Matrix: Soil**					
Arsenic	**4.36**	---	1.31	mg/kg dry	10	"	EPA 6020A	
Barium	**237**	---	1.31	"	"	"	"	
Beryllium	**0.444**	---	0.261	"	"	"	"	
Cadmium	ND	---	0.261	"	"	"	"	
Chromium	**15.3**	---	1.31	"	"	"	"	
Cobalt	**10.5**	---	0.261	"	"	"	"	
Copper	**14.0**	---	1.31	"	"	"	"	
Lead	**16.1**	---	0.261	"	"	"	"	
Mercury	ND	---	0.105	"	"	"	"	
Molybdenum	ND	---	1.31	"	"	"	"	
Nickel	**10.9**	---	1.31	"	"	"	"	
Selenium	ND	---	1.31	"	"	"	"	
Silver	ND	---	0.261	"	"	"	"	
Thallium	ND	---	0.261	"	"	"	"	
Vanadium	**45.6**	---	2.61	"	"	"	"	
Zinc	**65.4**	---	5.23	"	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-12 (0.0-0.5) (A5F0230-01)			**Matrix: Soil**		**Batch: 5060240**			
% Solids	**80.0**	---	1.00	% by Weight	1	06/09/15 08:50	EPA 8000C	
Comp-4 (0.0-0.5) (A5F0230-02)			**Matrix: Soil**		**Batch: 5060240**			
% Solids	**77.8**	---	1.00	% by Weight	1	06/09/15 08:50	EPA 8000C	
Comp-5 (0.0-0.5) (A5F0230-03)			**Matrix: Soil**		**Batch: 5060240**			
% Solids	**83.0**	---	1.00	% by Weight	1	06/09/15 08:50	EPA 8000C	
Comp-3 (0.0-0.5) (A5F0230-04)			**Matrix: Soil**		**Batch: 5060240**			
% Solids	**80.3**	---	1.00	% by Weight	1	06/09/15 08:50	EPA 8000C	
Comp-2 (0.0-0.5) (A5F0230-05)			**Matrix: Soil**		**Batch: 5060240**			
% Solids	**80.7**	---	1.00	% by Weight	1	06/09/15 08:50	EPA 8000C	
Comp-13 (0.0-0.5) (A5F0230-06)			**Matrix: Soil**		**Batch: 5060240**			
% Solids	**80.7**	---	1.00	% by Weight	1	06/09/15 08:50	EPA 8000C	
Comp-6 (0.0-0.5) (A5F0230-07)			**Matrix: Soil**		**Batch: 5060240**			
% Solids	**78.5**	---	1.00	% by Weight	1	06/09/15 08:50	EPA 8000C	
Comp-14 (0.0-0.5) (A5F0230-08)			**Matrix: Soil**		**Batch: 5060240**			
% Solids	**78.6**	---	1.00	% by Weight	1	06/09/15 08:50	EPA 8000C	
Comp-1 (0.0-0.5) (A5F0230-09)			**Matrix: Soil**		**Batch: 5060240**			
% Solids	**81.9**	---	1.00	% by Weight	1	06/09/15 08:50	EPA 8000C	
Comp-8 (0.0-0.5) (A5F0230-10)			**Matrix: Soil**		**Batch: 5060240**			
% Solids	**82.5**	---	1.00	% by Weight	1	06/09/15 08:50	EPA 8000C	
Comp-9 (0.0-0.5) (A5F0230-11)			**Matrix: Soil**		**Batch: 5060240**			
% Solids	**83.0**	---	1.00	% by Weight	1	06/09/15 08:50	EPA 8000C	
Comp-7 (0.0-0.5) (A5F0230-12)			**Matrix: Soil**		**Batch: 5060240**			
% Solids	**83.2**	---	1.00	% by Weight	1	06/09/15 08:50	EPA 8000C	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5060246 - EPA 3546/3640A (GPC)							**Soil**					
Blank (5060246-BLK1)					Prepared: 06/08/15 07:07 Analyzed: 06/09/15 10:45							**C-05**
EPA 8081B												
Aldrin	ND	---	1.67	ug/kg wet	1	---	---	---	---	---	---	
alpha-BHC	ND	---	1.67	"	"	---	---	---	---	---	---	
beta-BHC	ND	---	1.67	"	"	---	---	---	---	---	---	
delta-BHC	ND	---	1.67	"	"	---	---	---	---	---	---	
gamma-BHC (Lindane)	ND	---	1.67	"	"	---	---	---	---	---	---	
cis-Chlordane	ND	---	1.67	"	"	---	---	---	---	---	---	
trans-Chlordane	ND	---	1.67	"	"	---	---	---	---	---	---	
4,4'-DDD	ND	---	1.67	"	"	---	---	---	---	---	---	
4,4'-DDE	ND	---	1.67	"	"	---	---	---	---	---	---	
4,4'-DDT	ND	---	1.67	"	"	---	---	---	---	---	---	
Dieldrin	ND	---	1.67	"	"	---	---	---	---	---	---	
Endosulfan I	ND	---	1.67	"	"	---	---	---	---	---	---	
Endosulfan II	ND	---	1.67	"	"	---	---	---	---	---	---	
Endosulfan sulfate	ND	---	1.67	"	"	---	---	---	---	---	---	
Endrin	ND	---	1.67	"	"	---	---	---	---	---	---	
Endrin Aldehyde	ND	---	1.67	"	"	---	---	---	---	---	---	
Endrin ketone	ND	---	1.67	"	"	---	---	---	---	---	---	
Heptachlor	ND	---	1.67	"	"	---	---	---	---	---	---	
Heptachlor epoxide	ND	---	1.67	"	"	---	---	---	---	---	---	
Methoxychlor	ND	---	5.00	"	"	---	---	---	---	---	---	
Chlordane (Technical)	ND	---	50.0	"	"	---	---	---	---	---	---	
Toxaphene (Total)	ND	---	50.0	"	"	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 81 %*	*Limits: 42-129 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*94 %*	*65-151 %*			*"*					
LCS (5060246-BS1)					Prepared: 06/08/15 07:07 Analyzed: 06/09/15 11:03							**C-05**
EPA 8081B												
Aldrin	39.8	---	2.00	ug/kg wet	1	50.0	---	80	45-136%	---	---	
alpha-BHC	44.8	---	2.00	"	"	"	---	90	45-137%	---	---	
beta-BHC	47.2	---	2.00	"	"	"	---	94	50-136%	---	---	
delta-BHC	45.9	---	2.00	"	"	"	---	92	47-139%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5060246 - EPA 3546/3640A (GPC)							**Soil**					
LCS (5060246-BS1)					Prepared: 06/08/15 07:07		Analyzed: 06/09/15 11:03					**C-05**
gamma-BHC (Lindane)	46.2	---	2.00	"	"	"	---	92	49-135%	---	---	
cis-Chlordane	45.5	---	2.00	"	"	"	---	91	54-133%	---	---	
trans-Chlordane	44.6	---	2.00	"	"	"	---	89	53-135%	---	---	
4,4'-DDD	54.6	---	2.00	"	"	"	---	109	56-139%	---	---	
4,4'-DDE	49.8	---	2.00	"	"	"	---	100	56-134%	---	---	
4,4'-DDT	59.4	---	2.00	"	"	"	---	119	50-141%	---	---	
Dieldrin	51.5	---	2.00	"	"	"	---	103	56-136%	---	---	
Endosulfan I	48.3	---	2.00	"	"	"	---	97	52-132%	---	---	
Endosulfan II	53.5	---	2.00	"	"	"	---	107	53-134%	---	---	
Endosulfan sulfate	52.7	---	2.00	"	"	"	---	105	55-136%	---	---	
Endrin	55.9	---	2.00	"	"	"	---	112	56-140%	---	---	
Endrin Aldehyde	51.1	---	2.00	"	"	"	---	102	35-137%	---	---	
Endrin ketone	55.7	---	2.00	"	"	"	---	111	55-136%	---	---	
Heptachlor	44.3	---	2.00	"	"	"	---	89	47-136%	---	---	
Heptachlor epoxide	46.2	---	2.00	"	"	"	---	92	52-136%	---	---	
Methoxychlor	62.8	---	6.00	"	"	"	---	126	52-143%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 81 %*		*Limits: 42-129 %*			*Dilution: 1x*				
Decachlorobiphenyl (Surr)			*91 %*		*65-151 %*			*"*				
Duplicate (5060246-DUP1)					Prepared: 06/08/15 07:07		Analyzed: 06/09/15 11:46					**C-05**
QC Source Sample: Comp-12 (0.0-0.5) (A5F0230-01RE1)												
EPA 8081B												
Aldrin	ND	---	2.10	ug/kg dry	1	---	ND	---	---	---	30%	
alpha-BHC	ND	---	2.10	"	"	---	ND	---	---	---	30%	
beta-BHC	ND	---	2.10	"	"	---	ND	---	---	---	30%	
delta-BHC	ND	---	2.10	"	"	---	ND	---	---	---	30%	
gamma-BHC (Lindane)	ND	---	2.10	"	"	---	ND	---	---	---	30%	
cis-Chlordane	ND	---	2.10	"	"	---	ND	---	---	---	30%	
trans-Chlordane	ND	---	2.10	"	"	---	ND	---	---	---	30%	
4,4'-DDD	ND	---	2.10	"	"	---	ND	---	---	---	30%	
4,4'-DDE	ND	---	2.10	"	"	---	ND	---	---	---	30%	
4,4'-DDT	ND	---	2.10	"	"	---	ND	---	---	---	30%	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5060246 - EPA 3546/3640A (GPC)							**Soil**					
Duplicate (5060246-DUP1)				Prepared: 06/08/15 07:07	Analyzed: 06/09/15 11:46							**C-05**
QC Source Sample: Comp-12 (0.0-0.5) (A5F0230-01RE1)												
Dieldrin	ND	---	2.10	"	"	---	ND	---	---	---	30%	
Endosulfan I	ND	---	2.10	"	"	---	ND	---	---	---	30%	
Endosulfan II	ND	---	2.10	"	"	---	ND	---	---	---	30%	
Endosulfan sulfate	ND	---	3.98	"	"	---	ND	---	---	---	30%	R-02
Endrin	ND	---	2.10	"	"	---	ND	---	---	---	30%	
Endrin Aldehyde	ND	---	5.24	"	"	---	ND	---	---	---	30%	R-02
Endrin ketone	ND	---	2.10	"	"	---	ND	---	---	---	30%	
Heptachlor	ND	---	2.10	"	"	---	ND	---	---	---	30%	
Heptachlor epoxide	ND	---	2.10	"	"	---	ND	---	---	---	30%	
Methoxychlor	ND	---	6.29	"	"	---	ND	---	---	---	30%	
Chlordane (Technical)	ND	---	62.9	"	"	---	ND	---	---	---	30%	
Toxaphene (Total)	ND	---	62.9	"	"	---	ND	---	---	---	30%	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 65 %*	*Limits: 42-129 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*144 %*	*65-151 %*			*"*					
Matrix Spike (5060246-MS1)				Prepared: 06/08/15 07:07	Analyzed: 06/09/15 15:57							**C-05**
QC Source Sample: Comp-7 (0.0-0.5) (A5F0230-12RE1)												
EPA 8081B												
Aldrin	41.3	---	2.12	ug/kg dry	1	52.9	ND	78	45-136%	---	---	
alpha-BHC	48.4	---	2.12	"	"	"	ND	92	45-137%	---	---	
beta-BHC	54.8	---	2.12	"	"	"	ND	104	50-136%	---	---	
delta-BHC	50.4	---	2.12	"	"	"	ND	95	47-139%	---	---	
gamma-BHC (Lindane)	49.5	---	2.12	"	"	"	ND	93	49-135%	---	---	
cis-Chlordane	47.7	---	2.12	"	"	"	ND	90	54-133%	---	---	
trans-Chlordane	48.9	---	2.12	"	"	"	ND	92	53-135%	---	---	
4,4'-DDD	57.2	---	2.12	"	"	"	ND	108	56-139%	---	---	
4,4'-DDE	73.7	---	2.12	"	"	"	28.9	85	56-134%	---	---	
Dieldrin	51.6	---	2.12	"	"	"	ND	97	56-136%	---	---	
Endosulfan I	49.3	---	2.12	"	"	"	ND	93	52-132%	---	---	
Endosulfan II	56.2	---	2.12	"	"	"	ND	106	53-134%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5060246 - EPA 3546/3640A (GPC)							**Soil**					
Matrix Spike (5060246-MS1)					Prepared: 06/08/15 07:07		Analyzed: 06/09/15 15:57					**C-05**
QC Source Sample: Comp-7 (0.0-0.5) (A5F0230-12RE1)												
Endosulfan sulfate	57.4	---	2.12	ug/kg dry	"	"	ND	108	55-136%	---	---	
Endrin	57.5	---	2.12	"	"	"	ND	109	56-140%	---	---	
Endrin Aldehyde	54.3	---	2.12	"	"	"	ND	103	35-137%	---	---	
Endrin ketone	59.5	---	2.12	"	"	"	ND	112	55-136%	---	---	
Heptachlor	47.2	---	2.12	"	"	"	ND	89	47-136%	---	---	
Heptachlor epoxide	47.0	---	2.12	"	"	"	ND	89	52-136%	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 89 %*	*Limits: 42-129 %*			*Dilution: 1x*					
Decachlorobiphenyl (Surr)			*94 %*	*65-151 %*			*"*					
Matrix Spike (5060246-MS2)					Prepared: 06/09/15 16:42		Analyzed: 06/10/15 11:58					**C-05**
QC Source Sample: Comp-7 (0.0-0.5) (A5F0230-12RE2)												
EPA 8081B												
4,4'-DDT	78.9	---	2.12	ug/kg dry	1	52.9	17.4	116	50-141%	---	---	
Methoxychlor	75.6	---	6.35	"	"	"	ND	143	52-143%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5060249 - EPA 3051A							**Soil**					
Blank (5060249-BLK1)					Prepared: 06/08/15 10:37 Analyzed: 06/09/15 16:00							
EPA 6020A												
Antimony	ND	---	1.00	mg/kg wet	10	---	---	---	---	---	---	
Arsenic	ND	---	1.00	"	"	---	---	---	---	---	---	
Barium	ND	---	1.00	"	"	---	---	---	---	---	---	
Beryllium	ND	---	0.200	"	"	---	---	---	---	---	---	
Cadmium	ND	---	0.200	"	"	---	---	---	---	---	---	
Chromium	ND	---	1.00	"	"	---	---	---	---	---	---	
Cobalt	ND	---	0.200	"	"	---	---	---	---	---	---	
Copper	ND	---	1.00	"	"	---	---	---	---	---	---	
Lead	ND	---	0.200	"	"	---	---	---	---	---	---	
Mercury	ND	---	0.0800	"	"	---	---	---	---	---	---	
Molybdenum	ND	---	1.00	"	"	---	---	---	---	---	---	
Nickel	ND	---	1.00	"	"	---	---	---	---	---	---	
Selenium	ND	---	1.00	"	"	---	---	---	---	---	---	
Silver	ND	---	0.200	"	"	---	---	---	---	---	---	
Thallium	ND	---	0.200	"	"	---	---	---	---	---	---	
Vanadium	ND	---	2.00	"	"	---	---	---	---	---	---	
Zinc	ND	---	4.00	"	"	---	---	---	---	---	---	
LCS (5060249-BS1)					Prepared: 06/08/15 10:37 Analyzed: 06/09/15 16:03							
EPA 6020A												
Antimony	25.4	---	1.00	mg/kg wet	10	25.0	---	102	80-120%	---	---	
Arsenic	53.1	---	1.00	"	"	50.0	---	106	"	---	---	
Barium	51.4	---	1.00	"	"	"	---	103	"	---	---	
Beryllium	25.0	---	0.200	"	"	25.0	---	100	"	---	---	
Cadmium	51.4	---	0.200	"	"	50.0	---	103	"	---	---	
Chromium	52.2	---	1.00	"	"	"	---	104	"	---	---	
Cobalt	52.9	---	0.200	"	"	"	---	106	"	---	---	
Copper	54.3	---	1.00	"	"	"	---	108	"	---	---	
Lead	52.4	---	0.200	"	"	"	---	105	"	---	---	
Mercury	0.998	---	0.0800	"	"	1.00	---	100	"	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5060249 - EPA 3051A							Soil					
LCS (5060249-BS1)					Prepared: 06/08/15 10:37		Analyzed: 06/09/15 16:03					
Molybdenum	24.7	---	1.00	mg/kg wet	"	25.0	---	99	"	---	---	
Nickel	53.4	---	1.00	"	"	50.0	---	107	"	---	---	
Selenium	26.2	---	1.00	"	"	25.0	---	105	"	---	---	
Silver	24.7	---	0.200	"	"	"	---	99	"	---	---	
Thallium	25.4	---	0.200	"	"	"	---	102	"	---	---	
Vanadium	50.6	---	2.00	"	"	50.0	---	101	"	---	---	
Zinc	54.9	---	4.00	"	"	"	---	110	"	---	---	
Matrix Spike (5060249-MS2)					Prepared: 06/08/15 10:37		Analyzed: 06/09/15 17:05					
QC Source Sample: Comp-7 (0.0-0.5) (A5F0230-12)												
EPA 6020A												
Antimony	25.7	---	1.27	mg/kg dry	10	31.6	ND	81	75-125%	---	---	
Arsenic	70.3	---	1.27	"	"	63.3	4.36	104	"	---	---	
Barium	307	---	1.27	"	"	"	237	112	"	---	---	
Beryllium	30.9	---	0.253	"	"	31.6	0.444	96	"	---	---	
Cadmium	63.9	---	0.253	"	"	63.3	0.235	101	"	---	---	
Chromium	80.3	---	1.27	"	"	"	15.3	103	"	---	---	
Cobalt	75.1	---	0.253	"	"	"	10.5	102	"	---	---	
Copper	81.4	---	1.27	"	"	"	14.0	107	"	---	---	
Lead	80.3	---	0.253	"	"	"	16.1	102	"	---	---	
Mercury	1.24	---	0.101	"	"	1.27	ND	98	"	---	---	
Molybdenum	28.6	---	1.27	"	"	31.6	ND	91	"	---	---	
Nickel	76.2	---	1.27	"	"	63.3	10.9	103	"	---	---	
Selenium	31.4	---	1.27	"	"	31.6	ND	99	"	---	---	
Silver	30.5	---	0.253	"	"	"	ND	97	"	---	---	
Thallium	31.2	---	0.253	"	"	"	0.131	98	"	---	---	
Vanadium	112	---	2.53	"	"	63.3	45.6	105	"	---	---	
Zinc	139	---	5.06	"	"	"	65.4	117	"	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5060240 - Total Solids (Dry Weight)									**Soil**			
Duplicate (5060240-DUP2)					Prepared: 06/08/15 09:15 Analyzed: 06/09/15 08:50							
QC Source Sample: Comp-8 (0.0-0.5) (A5F0230-10)												
EPA 8000C												
% Solids	**82.5**	---	1.00	% by Weight	1	---	82.5	---	---	0	10%	

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

SAMPLE PREPARATION INFORMATION

Organochlorine Pesticides by EPA 8081B

Prep: EPA 3546/3640A (GPC)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 5060246							
A5F0230-01RE1	Soil	EPA 8081B	06/05/15 13:54	06/08/15 07:07	11.64g/10mL	10g/5mL	1.72
A5F0230-02RE1	Soil	EPA 8081B	06/05/15 14:38	06/08/15 07:07	10.71g/10mL	10g/5mL	1.87
A5F0230-03RE1	Soil	EPA 8081B	06/05/15 16:15	06/08/15 07:07	10.89g/10mL	10g/5mL	1.84
A5F0230-04RE1	Soil	EPA 8081B	06/05/15 14:54	06/08/15 07:07	10.57g/10mL	10g/5mL	1.89
A5F0230-05RE1	Soil	EPA 8081B	06/05/15 16:40	06/08/15 07:07	10.66g/10mL	10g/5mL	1.88
A5F0230-06RE1	Soil	EPA 8081B	06/05/15 13:42	06/08/15 07:07	11g/10mL	10g/5mL	1.82
A5F0230-06RE2	Soil	EPA 8081B	06/05/15 13:42	06/08/15 07:07	11g/10mL	10g/5mL	1.82
A5F0230-07RE1	Soil	EPA 8081B	06/05/15 15:42	06/08/15 07:07	10.8g/10mL	10g/5mL	1.85
A5F0230-07RE2	Soil	EPA 8081B	06/05/15 15:42	06/08/15 07:07	10.8g/10mL	10g/5mL	1.85
A5F0230-08RE1	Soil	EPA 8081B	06/05/15 13:23	06/08/15 07:07	11.27g/10mL	10g/5mL	1.77
A5F0230-08RE2	Soil	EPA 8081B	06/05/15 13:23	06/08/15 07:07	11.27g/10mL	10g/5mL	1.77
A5F0230-09RE2	Soil	EPA 8081B	06/05/15 16:36	06/08/15 07:07	11.59g/10mL	10g/5mL	1.73
A5F0230-10RE1	Soil	EPA 8081B	06/05/15 12:30	06/08/15 07:07	10.98g/10mL	10g/5mL	1.82
A5F0230-10RE2	Soil	EPA 8081B	06/05/15 12:30	06/08/15 07:07	10.98g/10mL	10g/5mL	1.82
A5F0230-11RE1	Soil	EPA 8081B	06/05/15 12:43	06/08/15 07:07	10.39g/10mL	10g/5mL	1.92
A5F0230-11RE2	Soil	EPA 8081B	06/05/15 12:43	06/08/15 07:07	10.39g/10mL	10g/5mL	1.92
A5F0230-12RE1	Soil	EPA 8081B	06/05/15 12:21	06/08/15 07:07	11.42g/10mL	10g/5mL	1.75
A5F0230-12RE2	Soil	EPA 8081B	06/05/15 12:21	06/08/15 07:07	11.42g/10mL	10g/5mL	1.75

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 5060249							
A5F0230-01	Soil	EPA 6020A	06/05/15 13:54	06/08/15 10:37	0.483g/50mL	0.5g/50mL	1.04
A5F0230-02	Soil	EPA 6020A	06/05/15 14:38	06/08/15 10:37	0.485g/50mL	0.5g/50mL	1.03
A5F0230-03	Soil	EPA 6020A	06/05/15 16:15	06/08/15 10:37	0.463g/50mL	0.5g/50mL	1.08
A5F0230-04	Soil	EPA 6020A	06/05/15 14:54	06/08/15 10:37	0.491g/50mL	0.5g/50mL	1.02
A5F0230-05	Soil	EPA 6020A	06/05/15 16:40	06/08/15 10:37	0.461g/50mL	0.5g/50mL	1.08
A5F0230-06	Soil	EPA 6020A	06/05/15 13:42	06/08/15 10:37	0.515g/50mL	0.5g/50mL	0.97
A5F0230-07	Soil	EPA 6020A	06/05/15 15:42	06/08/15 10:37	0.454g/50mL	0.5g/50mL	1.10
A5F0230-08	Soil	EPA 6020A	06/05/15 13:23	06/08/15 10:37	0.472g/50mL	0.5g/50mL	1.06
A5F0230-09	Soil	EPA 6020A	06/05/15 16:36	06/08/15 10:37	0.505g/50mL	0.5g/50mL	0.99
A5F0230-10	Soil	EPA 6020A	06/05/15 12:30	06/08/15 10:37	0.473g/50mL	0.5g/50mL	1.06

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

SAMPLE PREPARATION INFORMATION

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
A5F0230-11	Soil	EPA 6020A	06/05/15 12:43	06/08/15 10:37	0.471g/50mL	0.5g/50mL	1.06
A5F0230-12	Soil	EPA 6020A	06/05/15 12:21	06/08/15 10:37	0.46g/50mL	0.5g/50mL	1.09

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 5060240							
A5F0230-01	Soil	EPA 8000C	06/05/15 13:54	06/08/15 09:15	1N/A/1N/A	1N/A/1N/A	NA
A5F0230-02	Soil	EPA 8000C	06/05/15 14:38	06/08/15 09:15	1N/A/1N/A	1N/A/1N/A	NA
A5F0230-03	Soil	EPA 8000C	06/05/15 16:15	06/08/15 09:15	1N/A/1N/A	1N/A/1N/A	NA
A5F0230-04	Soil	EPA 8000C	06/05/15 14:54	06/08/15 09:15	1N/A/1N/A	1N/A/1N/A	NA
A5F0230-05	Soil	EPA 8000C	06/05/15 16:40	06/08/15 09:15	1N/A/1N/A	1N/A/1N/A	NA
A5F0230-06	Soil	EPA 8000C	06/05/15 13:42	06/08/15 09:15	1N/A/1N/A	1N/A/1N/A	NA
A5F0230-07	Soil	EPA 8000C	06/05/15 15:42	06/08/15 09:15	1N/A/1N/A	1N/A/1N/A	NA
A5F0230-08	Soil	EPA 8000C	06/05/15 13:23	06/08/15 09:15	1N/A/1N/A	1N/A/1N/A	NA
A5F0230-09	Soil	EPA 8000C	06/05/15 16:36	06/08/15 09:15	1N/A/1N/A	1N/A/1N/A	NA
A5F0230-10	Soil	EPA 8000C	06/05/15 12:30	06/08/15 09:15	1N/A/1N/A	1N/A/1N/A	NA
A5F0230-11	Soil	EPA 8000C	06/05/15 12:43	06/08/15 09:15	1N/A/1N/A	1N/A/1N/A	NA
A5F0230-12	Soil	EPA 8000C	06/05/15 12:21	06/08/15 09:15	1N/A/1N/A	1N/A/1N/A	NA

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

Notes and Definitions

Qualifiers:

C-05	Extract has undergone a GPC (Gel-Permeation Chromatography) cleanup per EPA 3640A. Reporting levels may be raised due to dilution necessary for cleanup. Sample Final Volume includes the GPC dilution factor, see the Prep page for details.
R-02	The Reporting Limit for this analyte has been raised to account for interference from coeluting organic compounds present in the sample.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.
---	QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
***	Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

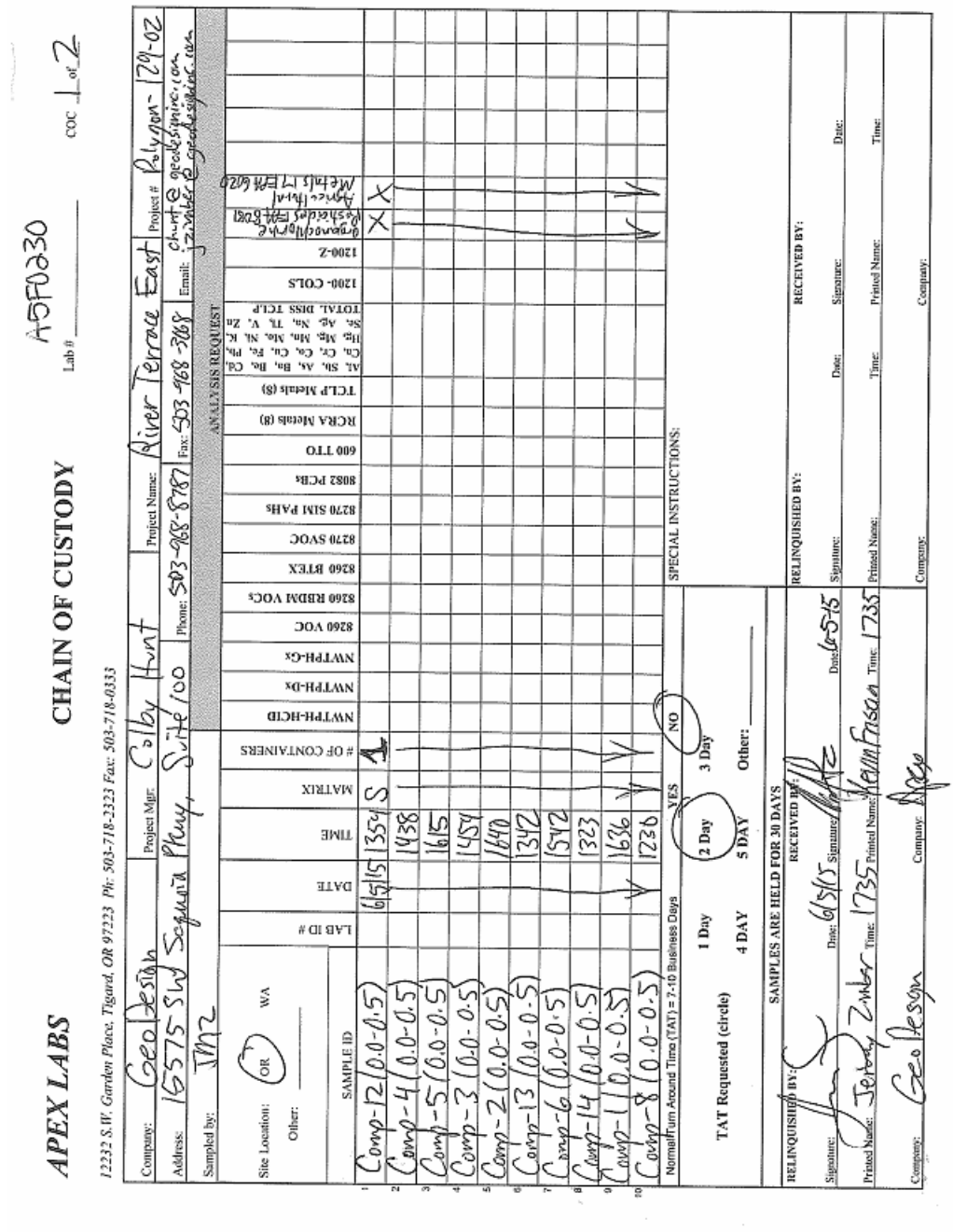
Philip Nerenberg

Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36



Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Philip Nerenberg

Philip Nerenberg, Lab Director

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/10/15 15:36

APEX LABS

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

CHAIN OF CUSTODY

Lab # A5F0230 COC 2 of 2

Company: GeoDesign | Project Mgr: Colby Hunt | Project Name: River Terrace East | Project #: Polygon-129-02

Address: 15575 SW Sequoia Pkwy, Suite 100 | Phone: 503-968-8787 | Fax: 503-968-3068 | Email: chunt@geodesigninc.com; [illegible]@geodesigninc.com

Sampled by:

Site Location: OR WA Other:

ANALYSIS REQUEST

	SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOC	8260 RBDM VOCs	8260 BTEX	8270 SVOC	8270 SIM PAHs	8082 PCBs	600 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS TCLP	1200-COLS	1200-Z	Organochlorine Pesticides EPA 8081	Metals EPA 6020
1	Comp-9 (0.0-0.5)		6/5/15	1243	S	1																X	X
2	Comp-7 (0.0-0.5)		↓	1221	↓	↓																↓	↓
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							

Normal Turn Around Time (TAT) = 7-10 Business Days

TAT Requested (circle): 1 Day, (2 Day), 3 Day, 4 DAY, 5 DAY, Other: ______

YES / (NO)

SPECIAL INSTRUCTIONS:

SAMPLES ARE HELD FOR 30 DAYS

RELINQUISHED BY: Signature: [signature] Date: 6/5/15 Printed Name: Jeremy Zimber Time: 1735 Company: GeoDesign

RECEIVED BY: Signature: [signature] Date: 6-5-15 Printed Name: Kevin Frisch Time: 1735 Company: Apex

RELINQUISHED BY: Signature: Date: Printed Name: Time: Company:

RECEIVED BY: Signature: Date: Printed Name: Time: Company:

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

Tuesday, June 16, 2015

Colby Hunt
GeoDesign, Inc.
15575 SW Sequoia Pkwy, Ste 100
Portland, OR 97224

RE: River Terrace East / Polygon-129-02

Enclosed are the results of analyses for work order A5F0357, which was received by the laboratory on 6/11/2015 at 10:20:00AM.

Thank you for using Apex Labs. We appreciate your business and strive to provide the highest quality services to the environmental industry.

If you have any questions concerning this report or the services we offer, please feel free to contact me by email at: DAuvil@apex-labs.com, or by phone at 503-718-2323.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil For Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/16/15 12:08

ANALYTICAL REPORT FOR SAMPLES

SAMPLE INFORMATION

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
Comp-10(0.0-0.5)	A5F0357-01	Soil	06/11/15 09:07	06/11/15 10:20
Comp-11(0.0-0.5)	A5F0357-02	Soil	06/11/15 09:30	06/11/15 10:20

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil For Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/16/15 12:08

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-10(0.0-0.5) (A5F0357-01RE1)			**Matrix: Soil**		**Batch: 5060408**			**C-05**
Aldrin	ND	---	2.08	ug/kg dry	1	06/15/15 11:38	EPA 8081B	
alpha-BHC	ND	---	2.08	"	"	"	"	
beta-BHC	ND	---	2.08	"	"	"	"	
delta-BHC	ND	---	2.08	"	"	"	"	
gamma-BHC (Lindane)	ND	---	2.08	"	"	"	"	
cis-Chlordane	ND	---	2.08	"	"	"	"	
trans-Chlordane	ND	---	2.08	"	"	"	"	
4,4'-DDD	ND	---	2.08	"	"	"	"	
4,4'-DDE	ND	---	2.08	"	"	"	"	
4,4'-DDT	**2.72**	---	2.08	"	"	"	"	
Dieldrin	ND	---	2.08	"	"	"	"	
Endosulfan I	ND	---	2.08	"	"	"	"	
Endosulfan II	ND	---	2.08	"	"	"	"	
Endosulfan sulfate	ND	---	2.08	"	"	"	"	
Endrin	ND	---	2.08	"	"	"	"	
Endrin Aldehyde	ND	---	2.08	"	"	"	"	
Endrin ketone	ND	---	2.08	"	"	"	"	
Heptachlor	ND	---	2.08	"	"	"	"	
Heptachlor epoxide	ND	---	2.08	"	"	"	"	
Methoxychlor	ND	---	6.25	"	"	"	"	
Chlordane (Technical)	ND	---	62.5	"	"	"	"	
Toxaphene (Total)	ND	---	62.5	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 83 %*	*Limits: 42-129 %*	"	"	"	
Decachlorobiphenyl (Surr)			*82 %*	*Limits: 65-151 %*	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil For Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/16/15 12:08

ANALYTICAL SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-11(0.0-0.5) (A5F0357-02RE1)			**Matrix: Soil**		**Batch: 5060408**			**C-05**
Aldrin	ND	---	2.21	ug/kg dry	1	06/15/15 11:56	EPA 8081B	
alpha-BHC	ND	---	2.21	"	"	"	"	
beta-BHC	ND	---	2.21	"	"	"	"	
delta-BHC	ND	---	2.21	"	"	"	"	
gamma-BHC (Lindane)	ND	---	2.21	"	"	"	"	
cis-Chlordane	ND	---	2.21	"	"	"	"	
trans-Chlordane	ND	---	2.21	"	"	"	"	
4,4'-DDD	ND	---	2.21	"	"	"	"	
4,4'-DDE	ND	---	2.21	"	"	"	"	
4,4'-DDT	ND	---	2.21	"	"	"	"	
Dieldrin	ND	---	2.21	"	"	"	"	
Endosulfan I	ND	---	2.21	"	"	"	"	
Endosulfan II	ND	---	2.21	"	"	"	"	
Endosulfan sulfate	ND	---	2.21	"	"	"	"	
Endrin	ND	---	2.21	"	"	"	"	
Endrin Aldehyde	ND	---	2.21	"	"	"	"	
Endrin ketone	ND	---	2.21	"	"	"	"	
Heptachlor	ND	---	2.21	"	"	"	"	
Heptachlor epoxide	ND	---	2.21	"	"	"	"	
Methoxychlor	ND	---	6.62	"	"	"	"	
Chlordane (Technical)	ND	---	66.2	"	"	"	"	
Toxaphene (Total)	ND	---	66.2	"	"	"	"	
Surrogate: 2,4,5,6-TCMX (Surr)			*Recovery: 91 %*	*Limits: 42-129 %*	"	"	"	
Decachlorobiphenyl (Surr)			*84 %*	*Limits: 65-151 %*	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil For Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/16/15 12:08

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-10(0.0-0.5) (A5F0357-01)			**Matrix: Soil**					
Batch: 5060424								
Antimony	**1.50**	---	1.22	mg/kg dry	10	06/15/15 16:17	EPA 6020A	
Arsenic	**11.4**	---	1.22	"	"	"	"	
Barium	**204**	---	1.22	"	"	"	"	
Beryllium	**1.77**	---	0.244	"	"	"	"	
Cadmium	**7.37**	---	0.244	"	"	"	"	
Chromium	**24.3**	---	2.44	"	"	"	"	
Cobalt	**17.5**	---	1.22	"	"	"	"	
Copper	**22.2**	---	1.22	"	"	"	"	
Lead	**20.5**	---	0.244	"	"	"	"	
Mercury	ND	---	0.0978	"	"	"	"	
Molybdenum	**1.69**	---	1.22	"	"	"	"	
Nickel	**20.0**	---	1.22	"	"	"	"	
Selenium	**1.59**	---	1.22	"	"	"	"	
Silver	**1.36**	---	0.244	"	"	"	"	
Thallium	**1.37**	---	0.244	"	"	"	"	
Vanadium	**64.8**	---	4.89	"	"	"	"	
Zinc	**73.3**	---	4.89	"	"	"	"	
Comp-11(0.0-0.5) (A5F0357-02)			**Matrix: Soil**					
Batch: 5060424								
Antimony	ND	---	1.22	mg/kg dry	10	06/15/15 14:03	EPA 6020A	
Arsenic	**3.23**	---	1.22	"	"	"	"	
Barium	**209**	---	1.22	"	"	"	"	
Cadmium	ND	---	0.244	"	"	"	"	
Chromium	**16.2**	---	1.22	"	"	"	"	
Cobalt	**10.3**	---	0.244	"	"	"	"	
Copper	**15.4**	---	1.22	"	"	"	"	
Lead	**10.3**	---	0.244	"	"	"	"	
Mercury	ND	---	0.0976	"	"	"	"	
Molybdenum	ND	---	1.22	"	"	"	"	
Nickel	**10.1**	---	4.88	"	"	"	"	
Selenium	ND	---	2.44	"	"	"	"	
Silver	ND	---	0.244	"	"	"	"	
Thallium	ND	---	0.244	"	"	"	"	
Vanadium	**56.3**	---	1.22	"	"	"	"	
Zinc	**59.6**	---	4.88	"	"	"	"	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil For Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/16/15 12:08

ANALYTICAL SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-11(0.0-0.5) (A5F0357-02RE1)			**Matrix: Soil**					
Batch: 5060424								
Beryllium	**1.85**	---	0.244	mg/kg dry	10	06/15/15 16:22	EPA 6020A	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil For Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/16/15 12:08

ANALYTICAL SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dilution	Date Analyzed	Method	Notes
Comp-10(0.0-0.5) (A5F0357-01)			**Matrix: Soil**		**Batch: 5060366**			
% Solids	**87.8**	---	1.00	% by Weight	1	06/12/15 09:14	EPA 8000C	Q-38
Comp-11(0.0-0.5) (A5F0357-02)			**Matrix: Soil**		**Batch: 5060366**			
% Solids	**88.3**	---	1.00	% by Weight	1	06/12/15 09:14	EPA 8000C	Q-38

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil For Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/16/15 12:08

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5060408 - EPA 3546/3640A (GPC)							**Soil**					
Blank (5060408-BLK1)					Prepared: 06/11/15 14:56 Analyzed: 06/15/15 11:02							**C-05**
EPA 8081B												
Aldrin	ND	---	1.82	ug/kg wet	1	---	---	---	---	---	---	
alpha-BHC	ND	---	1.82	"	"	---	---	---	---	---	---	
beta-BHC	ND	---	1.82	"	"	---	---	---	---	---	---	
delta-BHC	ND	---	1.82	"	"	---	---	---	---	---	---	
gamma-BHC (Lindane)	ND	---	1.82	"	"	---	---	---	---	---	---	
cis-Chlordane	ND	---	1.82	"	"	---	---	---	---	---	---	
trans-Chlordane	ND	---	1.82	"	"	---	---	---	---	---	---	
4,4'-DDD	ND	---	1.82	"	"	---	---	---	---	---	---	
4,4'-DDE	ND	---	1.82	"	"	---	---	---	---	---	---	
4,4'-DDT	ND	---	1.82	"	"	---	---	---	---	---	---	
Dieldrin	ND	---	1.82	"	"	---	---	---	---	---	---	
Endosulfan I	ND	---	1.82	"	"	---	---	---	---	---	---	
Endosulfan II	ND	---	1.82	"	"	---	---	---	---	---	---	
Endosulfan sulfate	ND	---	1.82	"	"	---	---	---	---	---	---	
Endrin	ND	---	1.82	"	"	---	---	---	---	---	---	
Endrin Aldehyde	ND	---	1.82	"	"	---	---	---	---	---	---	
Endrin ketone	ND	---	1.82	"	"	---	---	---	---	---	---	
Heptachlor	ND	---	1.82	"	"	---	---	---	---	---	---	
Heptachlor epoxide	ND	---	1.82	"	"	---	---	---	---	---	---	
Methoxychlor	ND	---	5.45	"	"	---	---	---	---	---	---	
Chlordane (Technical)	ND	---	54.5	"	"	---	---	---	---	---	---	
Toxaphene (Total)	ND	---	54.5	"	"	---	---	---	---	---	---	
Surr: 2,4,5,6-TCMX (Surr)			*Recovery: 75 %*		*Limits: 42-129 %*				*Dilution: 1x*			
Decachlorobiphenyl (Surr)			*98 %*		*65-151 %*				*"*			
LCS (5060408-BS1)					Prepared: 06/11/15 14:56 Analyzed: 06/15/15 11:20							**C-05**
EPA 8081B												
Aldrin	36.6	---	2.00	ug/kg wet	1	50.0	---	73	45-136%	---	---	
alpha-BHC	40.2	---	2.00	"	"	"	---	80	45-137%	---	---	
beta-BHC	43.3	---	2.00	"	"	"	---	87	50-136%	---	---	
delta-BHC	41.7	---	2.00	"	"	"	---	83	47-139%	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil For Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/16/15 12:08

QUALITY CONTROL (QC) SAMPLE RESULTS

Organochlorine Pesticides by EPA 8081B

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5060408 - EPA 3546/3640A (GPC)							**Soil**					
LCS (5060408-BS1)					Prepared: 06/11/15 14:56 Analyzed: 06/15/15 11:20							**C-05**
gamma-BHC (Lindane)	41.3	---	2.00	"	"	"	---	83	49-135%	---	---	
cis-Chlordane	46.2	---	2.00	"	"	"	---	92	54-133%	---	---	
trans-Chlordane	45.9	---	2.00	"	"	"	---	92	53-135%	---	---	
4,4'-DDD	53.2	---	2.00	"	"	"	---	106	56-139%	---	---	
4,4'-DDE	51.7	---	2.00	"	"	"	---	103	56-134%	---	---	
4,4'-DDT	55.2	---	2.00	"	"	"	---	110	50-141%	---	---	
Dieldrin	51.1	---	2.00	"	"	"	---	102	56-136%	---	---	
Endosulfan I	47.1	---	2.00	"	"	"	---	94	52-132%	---	---	
Endosulfan II	55.4	---	2.00	"	"	"	---	111	53-134%	---	---	
Endosulfan sulfate	54.4	---	2.00	"	"	"	---	109	55-136%	---	---	
Endrin	54.9	---	2.00	"	"	"	---	110	56-140%	---	---	
Endrin Aldehyde	46.9	---	2.00	"	"	"	---	94	35-137%	---	---	
Endrin ketone	55.6	---	2.00	"	"	"	---	111	55-136%	---	---	
Heptachlor	39.9	---	2.00	"	"	"	---	80	47-136%	---	---	
Heptachlor epoxide	45.0	---	2.00	"	"	"	---	90	52-136%	---	---	
Methoxychlor	62.7	---	6.00	"	"	"	---	125	52-143%	---	---	

Surr: 2,4,5,6-TCMX (Surr) *Recovery: 73 %* *Limits: 42-129 %* *Dilution: 1x*
Decachlorobiphenyl (Surr) *93 %* *65-151 %* *"*

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil For Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/16/15 12:08

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5060424 - EPA 3051A							Soil					
Blank (5060424-BLK1)					Prepared: 06/12/15 13:54 Analyzed: 06/15/15 13:22							
EPA 6020A												
Antimony	ND	---	1.00	mg/kg wet	10	---	---	---	---	---	---	
Arsenic	ND	---	1.00	"	"	---	---	---	---	---	---	
Barium	ND	---	1.00	"	"	---	---	---	---	---	---	
Beryllium	ND	---	0.200	"	"	---	---	---	---	---	---	
Cadmium	ND	---	0.200	"	"	---	---	---	---	---	---	
Chromium	ND	---	1.00	"	"	---	---	---	---	---	---	
Cobalt	ND	---	0.200	"	"	---	---	---	---	---	---	
Copper	ND	---	1.00	"	"	---	---	---	---	---	---	
Lead	ND	---	0.200	"	"	---	---	---	---	---	---	
Mercury	ND	---	0.0800	"	"	---	---	---	---	---	---	
Molybdenum	ND	---	1.00	"	"	---	---	---	---	---	---	
Nickel	ND	---	4.00	"	"	---	---	---	---	---	---	
Selenium	ND	---	2.00	"	"	---	---	---	---	---	---	
Silver	ND	---	0.200	"	"	---	---	---	---	---	---	
Thallium	ND	---	0.200	"	"	---	---	---	---	---	---	
Vanadium	ND	---	1.00	"	"	---	---	---	---	---	---	
Zinc	ND	---	4.00	"	"	---	---	---	---	---	---	
LCS (5060424-BS1)					Prepared: 06/12/15 13:54 Analyzed: 06/15/15 13:25							
EPA 6020A												
Antimony	24.7	---	1.00	mg/kg wet	10	25.0	---	99	80-120%	---	---	
Arsenic	52.4	---	1.00	"	"	50.0	---	105	"	---	---	
Barium	48.7	---	1.00	"	"	"	---	97	"	---	---	
Beryllium	24.1	---	0.200	"	"	25.0	---	96	"	---	---	
Cadmium	51.2	---	0.200	"	"	50.0	---	102	"	---	---	
Chromium	51.0	---	1.00	"	"	"	---	102	"	---	---	
Cobalt	50.2	---	0.200	"	"	"	---	100	"	---	---	
Copper	51.3	---	1.00	"	"	"	---	103	"	---	---	
Lead	49.5	---	0.200	"	"	"	---	99	"	---	---	
Mercury	0.957	---	0.0800	"	"	1.00	---	96	"	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil For Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/16/15 12:08

QUALITY CONTROL (QC) SAMPLE RESULTS

Total Metals by EPA 6020 (ICPMS)

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5060424 - EPA 3051A							**Soil**					
LCS (5060424-BS1)					Prepared: 06/12/15 13:54 Analyzed: 06/15/15 13:25							
Molybdenum	24.7	---	1.00	mg/kg wet	"	25.0	---	99	"	---	---	
Nickel	50.1	---	4.00	"	"	50.0	---	100	"	---	---	
Selenium	27.1	---	2.00	"	"	25.0	---	108	"	---	---	
Silver	23.3	---	0.200	"	"	"	---	93	"	---	---	
Thallium	23.9	---	0.200	"	"	"	---	96	"	---	---	
Vanadium	50.1	---	1.00	"	"	50.0	---	100	"	---	---	
Zinc	51.9	---	4.00	"	"	"	---	104	"	---	---	

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil For Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/16/15 12:08

QUALITY CONTROL (QC) SAMPLE RESULTS

Percent Dry Weight

Analyte	Result	MDL	Reporting Limit	Units	Dil.	Spike Amount	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 5060366 - Total Solids (Dry Weight)												**Soil**

No Client related Batch QC samples analyzed for this batch. See notes page for more information.

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil For Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/16/15 12:08

SAMPLE PREPARATION INFORMATION

Organochlorine Pesticides by EPA 8081B

Prep: EPA 3546/3640A (GPC)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 5060408							
A5F0357-01RE1	Soil	EPA 8081B	06/11/15 09:07	06/11/15 14:56	10.93g/10mL	10g/5mL	1.83
A5F0357-02RE1	Soil	EPA 8081B	06/11/15 09:30	06/11/15 14:56	10.26g/10mL	10g/5mL	1.95

Total Metals by EPA 6020 (ICPMS)

Prep: EPA 3051A

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 5060424							
A5F0357-01	Soil	EPA 6020A	06/11/15 09:07	06/12/15 13:58	0.466g/50mL	0.5g/50mL	1.07
A5F0357-02	Soil	EPA 6020A	06/11/15 09:30	06/12/15 13:58	0.464g/50mL	0.5g/50mL	1.08
A5F0357-02RE1	Soil	EPA 6020A	06/11/15 09:30	06/12/15 13:58	0.464g/50mL	0.5g/50mL	1.08

Percent Dry Weight

Prep: Total Solids (Dry Weight)

Lab Number	Matrix	Method	Sampled	Prepared	Sample Initial/Final	Default Initial/Final	RL Prep Factor
Batch: 5060366							
A5F0357-01	Soil	EPA 8000C	06/11/15 09:07	06/11/15 13:14	1N/A/1N/A	1N/A/1N/A	NA
A5F0357-02	Soil	EPA 8000C	06/11/15 09:30	06/11/15 13:14	1N/A/1N/A	1N/A/1N/A	NA

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil For Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/16/15 12:08

Notes and Definitions

Qualifiers:

C-05	Extract has undergone a GPC (Gel-Permeation Chromatography) cleanup per EPA 3640A. Reporting levels may be raised due to dilution necessary for cleanup. Sample Final Volume includes the GPC dilution factor, see the Prep page for details.
Q-38	Oven outside of control limits during drying step.

Notes and Conventions:

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis. Results listed as 'wet' or without 'dry'designation are not dry weight corrected.
RPD	Relative Percent Difference
MDL	If MDL is not listed, data has been evaluated to the Method Reporting Limit only.
WMSC	Water Miscible Solvent Correction has been applied to Results and MRLs for volatiles soil samples per EPA 8000C.
Batch QC	Unless specifically requested, this report contains only results for Batch QC derived from client samples included in this report. All analyses were performed with the appropriate Batch QC (including Sample Duplicates, Matrix Spikes and/or Matrix Spike Duplicates) in order to meet or exceed method and regulatory requirements. Any exceptions to this will be qualified in this report. Complete Batch QC results are available upon request. In cases where there is insufficient sample provided for Sample Duplicates and/or Matrix Spikes, a Lab Control Sample Duplicate (LCS Dup) is analyzed to demonstrate accuracy and precision of the extraction and analysis.
Blank Policy	Apex assesses blank data for potential high bias down to a level equal to ½ the method reporting limit (MRL), except for conventional chemistry and HCID analyses which are assessed only to the MRL. Sample results flagged with a B or B-02 qualifier are potentially biased high if they are less than ten times the level found in the blank for inorganic analyses or less than five times the level found in the blank for organic analyses. For accurate comparison of volatile results to the level found in the blank; water sample results should be divided by the dilution factor, and soil sample results should be divided by 1/50 of the sample dilution to account for the sample prep factor. Results qualified as reported below the MRL may include a potential high bias if associated with a B or B-02 qualified blank. B and B-02 qualifications are not applied to J qualified results reported below the MRL.
---	QC results are not applicable. For example, % Recoveries for Blanks and Duplicates, % RPD for Blanks, Blank Spikes and Matrix Spikes, etc.
***	Used to indicate a possible discrepancy with the Sample and Sample Duplicate results when the %RPD is not available. In this case, either the Sample or the Sample Duplicate has a reportable result for this analyte, while the other is Non Detect (ND).

Apex Laboratories

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Darrell Auvil For Philip Nerenberg, Lab Director

Apex Labs

12232 S.W. Garden Place
Tigard, OR 97223
503-718-2323 Phone
503-718-0333 Fax

GeoDesign, Inc.	Project: **River Terrace East**	
15575 SW Sequoia Pkwy, Ste 100	Project Number: Polygon-129-02	**Reported:**
Portland, OR 97224	Project Manager: Colby Hunt	06/16/15 12:08

APEX LABS — **CHAIN OF CUSTODY** — Lab # A5F0357 — COC 1 of 1

12232 S.W. Garden Place, Tigard, OR 97223 Ph: 503-718-2323 Fax: 503-718-0333

Company: GeoDesign — Project Mgr: Colby Hunt — Project Name: River Terrace East — Project #: Polygon-129-02

Address: 15575 SW Sequoia Pkwy, Suite 100 — Phone: 503-968-8787 — Fax: 503-968-3068 — Email: chunt@geodesigninc.com, jzimber@geodesigninc.com

Sampled by: JMZ

Site Location: (OR circled) WA Other: ____

ANALYSIS REQUEST

	SAMPLE ID	LAB ID #	DATE	TIME	MATRIX	# OF CONTAINERS	NWTPH-HCID	NWTPH-Dx	NWTPH-Gx	8260 VOC	8260 RBDM VOCs	8260 BTEX	8270 SVOC	8270 SIM PAHs	8082 PCBs	600 TTO	RCRA Metals (8)	TCLP Metals (8)	Al, Sb, As, Ba, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Hg, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Tl, V, Zn TOTAL DISS TCLP	1200-COLS	1200-Z	Organochlorine Pesticides EPA 8081	Agricultural EPA Metals 17 6020
1	Comp-10(0.0-0.5)		6/11/15	907	S	1																X	X
2	Comp-11(0.0-0.5)		↓	930	↓	↓																↓	↓
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							

Normal Turn Around Time (TAT) = 7-10 Business Days — YES / NO (NO circled)

TAT Requested (circle): 1 Day, 2 Day (circled), 3 Day, 4 DAY, 5 DAY, Other: ____

SAMPLES ARE HELD FOR 30 DAYS

SPECIAL INSTRUCTIONS:

RELINQUISHED BY:	RECEIVED BY:	RELINQUISHED BY:	RECEIVED BY:
Signature: [signature] Date: 6/11/15	Signature: [signature] Date: 6/11/15	Signature: Date:	Signature: Date:
Printed Name: Jeremy Zimber Time: 1020	Printed Name: Susan Treat Time: 1020	Printed Name: Time:	Printed Name: Time:
Company: GeoDesign	Company: Apex	Company:	Company:

APPENDIX E

UCL Statistics for Uncensored Full Data Sets

User Selected Options	
Date/Time of Computation	6/15/2015 4:46:51 PM
From File	ProUCL Chlordane.xls
Full Precision	OFF
Confidence Coefficient	95%
Number of Bootstrap Operations	2000

Chlordane

General Statistics

Total Number of Observations	14	Number of Distinct Observations	13
		Number of Missing Observations	0
Minimum	62.5	Mean	180.5
Maximum	1650	Median	67.65
SD	423	Std. Error of Mean	113
Coefficient of Variation	2.343	Skewness	3.741

Normal GOF Test

Shapiro Wilk Test Statistic	0.303	**Shapiro Wilk GOF Test**
5% Shapiro Wilk Critical Value	0.874	Data Not Normal at 5% Significance Level
Lilliefors Test Statistic	0.53	**Lilliefors GOF Test**
5% Lilliefors Critical Value	0.237	Data Not Normal at 5% Significance Level

Data Not Normal at 5% Significance Level

Assuming Normal Distribution

95% Normal UCL		**95% UCLs (Adjusted for Skewness)**	
95% Student's-t UCL	380.7	95% Adjusted-CLT UCL (Chen-1995)	487.2
		95% Modified-t UCL (Johnson-1978)	399.5

Gamma GOF Test

A-D Test Statistic	4.772	**Anderson-Darling Gamma GOF Test**
5% A-D Critical Value	0.769	Data Not Gamma Distributed at 5% Significance Level
K-S Test Statistic	0.55	**Kolmogrov-Smirnoff Gamma GOF Test**
5% K-S Critical Value	0.237	Data Not Gamma Distributed at 5% Significance Level

Data Not Gamma Distributed at 5% Significance Level

Gamma Statistics

k hat (MLE)	0.786	k star (bias corrected MLE)	0.665
Theta hat (MLE)	229.6	Theta star (bias corrected MLE)	271.3
nu hat (MLE)	22.01	nu star (bias corrected)	18.63
MLE Mean (bias corrected)	180.5	MLE Sd (bias corrected)	221.3
		Approximate Chi Square Value (0.05)	9.846
Adjusted Level of Significance	0.0312	Adjusted Chi Square Value	9.009

Assuming Gamma Distribution

95% Approximate Gamma UCL (use when n>=50))	341.5	95% Adjusted Gamma UCL (use when n<50)	373.2

Lognormal GOF Test

Shapiro Wilk Test Statistic	0.343	**Shapiro Wilk Lognormal GOF Test**

53			5% Shapiro Wilk Critical Value		0.874		Data Not Lognormal at 5% Significance Level					
54			Lilliefors Test Statistic		0.504		**Lilliefors Lognormal GOF Test**					
55			5% Lilliefors Critical Value		0.237		Data Not Lognormal at 5% Significance Level					
56			**Data Not Lognormal at 5% Significance Level**									
57												
58			**Lognormal Statistics**									
59			Minimum of Logged Data		4.135		Mean of logged Data		4.439			
60			Maximum of Logged Data		7.409		SD of logged Data		0.856			
61												
62			**Assuming Lognormal Distribution**									
63			95% H-UCL		224.4		90% Chebyshev (MVUE) UCL		204.8			
64			95% Chebyshev (MVUE) UCL		244		97.5% Chebyshev (MVUE) UCL		298.5			
65			99% Chebyshev (MVUE) UCL		405.5							
66												
67			**Nonparametric Distribution Free UCL Statistics**									
68			**Data do not follow a Discernible Distribution (0.05)**									
69												
70			**Nonparametric Distribution Free UCLs**									
71			95% CLT UCL		366.4		95% Jackknife UCL		380.7			
72			95% Standard Bootstrap UCL		359.1		95% Bootstrap-t UCL		20009			
73			95% Hall's Bootstrap UCL		6616		95% Percentile Bootstrap UCL		406.4			
74			95% BCA Bootstrap UCL		519.9							
75			90% Chebyshev(Mean, Sd) UCL		519.6		95% Chebyshev(Mean, Sd) UCL		673.2			
76			97.5% Chebyshev(Mean, Sd) UCL		886.4		99% Chebyshev(Mean, Sd) UCL		1305			
77												
78			**Suggested UCL to Use**									
79			95% Chebyshev (Mean, Sd) UCL		673.2							
80												
81	Note: Suggestions regarding the selection of a 95% UCL are provided to help the user to select the most appropriate 95% UCL.											
82	These recommendations are based upon the results of the simulation studies summarized in Singh, Singh, and Iaci (2002)											
83	and Singh and Singh (2003). However, simulations results will not cover all Real World data sets.											
84	For additional insight the user may want to consult a statistician.											
85												

ACRONYMS

ACRONYMS

ACBM	asbestos-containing building materials
AST	aboveground storage tank
ASTM	American Society for Testing and Materials
BGS	below ground surface
BS	blank spike
BSD	blank spike duplicate
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act
CFR	Code of Federal Regulations
CFSL	Clean Fill Screening Level
DDD	dichlorodiphenyldichloroethane
DDE	dichlorodiphenyldichloroethylene
DDT	dichlorodiphenyltrichloroethane
DEQ	Oregon Department of Environmental Quality
EDR	Environmental Data Resources, Inc.
EPA	U.S. Environmental Protection Agency
ESA	Environmental Site Assessment
HGSI	Hardman Geotechnical Services, Inc.
HSIS	Hazardous Substance Information Survey
ICPMS	inductively coupled plasma – mass spectrometry
I.D.	identification
LUST	Leaking Underground Storage Tank
mg/kg	milligrams per kilogram
mg/L	milligrams per liter
MRL	method reporting limit
MS	matrix spike
MSD	matrix spike duplicate
MSL	mean sea level
ORS	Oregon Revised Statute
PCB	polychlorinated biphenyl
PGE	Portland General Electric
RBC	risk-based concentration
RCRA	Resource Conservation and Recovery Act
RPD	relative percent difference
UCL	upper confidence limit
µg/kg	micrograms per kilogram
USGS	U.S. Geological Survey
UST	underground storage tank