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Modified Hazardous Materials Corridor Study
Thomas Creek (Richardson Gap Drive)
Shimanek Covered Bridge
Key# 20314

Linn County Road Department
Scio, Oregon
April 2019

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CONTENTS

FIGURES

CONTENTS (continued)

APPENDICES

EXECUTIVE SUMMARY

Cascade Earth Sciences (CES) conducted a Modified Hazardous Materials Corridor Study (HMCS) for the Thomas Creek Shimanek Covered Bridge rehabilitation on Richardson Gap Drive, Scio, Oregon (Key #20314); referred to as the Project Corridor. The bridge was construction in 1965 and requires structural rehabilitation on both the superstructure and substructure. The Modified HMCS consisted of surface soil sampling, subsurface soil sampling, and a hazardous materials building survey for asbestos-containing materials and lead-based paint.

The HCMS identified the following potential environmental conditions that could impact the proposed construction:

- Two composite soil samples (SS-02 and SS-03) contained benzo(a)pyrene above the clean fill determination and the Oregon Department of Environmental Quality (DEQ) residential Risk Based Contaminants (RBC) for ingestion, dermal contact, and inhalation. The laboratory reporting limit was above the residential RBC and clean fill determination in soil samples SS-01, SS-04, and SS-05;
- Two composite samples (SS-03 and SS-05) contained arsenic at levels above the DEQ residential RBC for ingestion, dermal contact, and inhalation.
- The bridge was constructed with treated timber pilings under the deck.

Based on these findings, CES recommends the following:

- Soils removed from the Project Corridor will need to be managed per Oregon Administrative Rule 340-093 *Solid Waste: General Provisions* and Oregon Department of Transportation Directive GE 14-01(D) *Management of Surface Soils Removed Within Operational Right of Way.* If soil is removed from the right-of-way, it will need to be disposed of at a municipal solid waste landfill or a permitted construction and demolition debris landfill (e.g. Coffin Butte Landfill in Corvallis, Oregon), or in another DEQ approved method. However, if soil will be removed from the Project Corridor in the areas of SS-01, SS-02, and SS-03, additional sampling is recommended to characterize the soil.
- All treated and untreated timbers removed from the bridge may be disposed of at a solid waste landfill permitted by the DEQ to receive this material. The Linn County Road Department has a permit to dispose of treated timbers at the Coffin Butte Landfill located north of Corvallis, Oregon; therefore sampling and analysis of these materials should not be required. The contract specification should allow the contractor to transport and dispose of the timbers at this landfill.

1.0 INTRODUCTION

Cascade Earth Sciences (CES) has conducted this Modified Hazardous Materials Corridor Study (HMCS) for the following (herein referred to as the Project Corridor):

Thomas Creek (Richardson Gap Drive) Shimanek Covered Bridge
Key #20314
Bridge No. 637-070
Richardson Gap Drive, Linn County Road Number 637 at Milepost 0.70
Scio, Oregon; Linn County

The HMCS is intended primarily as an approach to identifying potential sources of contamination that could impact the project. Such impacts could affect worker safety, property value, and construction costs. This report provides an overview of potential contamination issues.

Proposed construction activities associated with the Project Corridor include the following:

- The project will rehabilitate the existing covered bridge, which will include structural improvements so that the bridge will support Oregon Legal Loads.
- The siding, roof, and deck systems will be removed from the main span and the remaining truss will be lifted off its foundations and rehabilitated off to the side.
- The approach spans and substructure will be replaced or repaired as required while the truss is being repaired.
- New abutments and piers will be constructed, and new approach spans will be installed.
- Following rehabilitation, the truss will be placed back into position and a new deck system, siding and roof system will be installed.
- A new steel-backed, timber rail will be installed on the bridge and approach roadways.
- The bridge will be re-painted.
- Large cranes and heavy equipment will be required to have access on both ends of the bridge during construction. Staging areas are expected to be located in the existing right of way. However, the staging area may extend to about 30 feet outside of the right of way (60 feet within centerline of the road) for a distance of up to 200 feet of each end of the bridge.

2.0 CORRIDOR DESCRIPTION

The Project Corridor lies on the border of Sections 9 & 10 in Range 1 West, Township 10 South of the Willamette Meridian (Figure 1). This is primarily an agricultural area with some residences, and public and private roadways in Scio, Linn County, Oregon. The Shimanek Covered Bridge was originally constructed in 1965 and 1966.

2.1 Physical Setting

According to the United Stated Geological Service (USGS) 7.5' Scio Quadrangle Map, the Project Corridor is at an elevation of approximately 350 feet above mean sea level (Appendix A). The nearest surface water body is Thomas Creek, which flows in a westerly direction under the Shimanek Covered

Bridge. In general, the local topography at the Project Corridor is flat. Richardson Gap Drive and Shimanek Bridge Drive in the Project Corridor are elevated from the surrounding areas. Stormwater at the Project Corridor generally flows via ditches adjacent to Richardson Gap Drive and Shimanek Bridge Drive towards Thomas Creek. The Project Corridor is covered by vegetation except for Richardson Gap Drive and Shimanek Bridge Drive which are paved. The roadbeds along the pavement are mostly gravel with sparse vegetation. The Project Corridor is located in the 100-year flood zone.

Based on the local topography and proximity of surface water bodies, local groundwater flow is presumed to be to west along Thomas Creek to the South Santiam River. However, local subsurface geologic and manmade features can affect groundwater flow; therefore, this groundwater flow interpretation is only an estimate based on surface observations. Review of water well records filed with the Oregon Water Resources Department (OWRD) indicate that the depth to groundwater in the Project Corridor is expected to range between 1.5 and 48 feet below ground surface. Seasonal fluctuations may contribute to the depth to groundwater range observed.

3.0 OBSERVATIONS

CES conducted site reconnaissance visits on November 19, 2018 and February 6, 2019. The reconnaissance consisted of systematically traversing the Project Corridor and visually observing adjacent properties from public roadways. Photographs documenting reconnaissance observations are included in Appendix B and the site reconnaissance checklist is provided in Appendix C.

Land use in the Project Corridor is primarily agricultural with public roadways (Photographs 1 through 7). The following table summarizes potential sources of potential environmental concerns identified during the site reconnaissance within the Project Corridor.

Potential Sources of Hazardous Substances	Observed?
Heating oil tanks	No
Aboveground Storage Tanks (ASTs)	No
Underground Storage Tanks (USTs), fill and vent pipes, fuel dispensers	No
Other hazardous substance containers	No
Hazardous waste generation	No
Oil water separators, dry wells or floor/storm drains	No
Septic systems	No
Stains or odors	No
Stressed vegetation	No
Solid waste	Yes
Suspect asbestos-containing materials	Yes
Suspect lead-based paint	Yes
Potential polychlorinated biphenyls (PCBs)-containing equipment	No
Florescent or mercury vapor light bulbs	No
Treated timbers	Yes
Water wells or monitoring wells	No

Specific details regarding potential hazardous material sources are provided below. The locations of these sites are shown on Figure 2.

3.1 Solid Waste

Some solid waste was observed in the Project Corridor, mostly in the stormwater ditches to the sides of the roads. The waste consisted of general refuse, such as food wrappers and bits of paper or plastic. A pile of asphalt chunks was also observed at the northeast corner of the bridge approach (Photograph 8). The observed material is not considered hazardous and as such not an environmental concern for the proposed construction activities.

3.2 Suspect Asbestos- Containing Materials

Asbestos fibers are known or suspected to cause a number of diseases when inhaled or ingested. However, the mere presence of asbestos containing material (ACM) does not mean there is a significant exposure risk. In order for a significant exposure risk to exist, the ACM must be accessible and capable of releasing fibers or disturbed in such a way as to cause the release of fibers (i.e., friable) (e.g., repair or demolition activities). Current regulations do not require the removal of ACM unless an exposure risk is present.

3.2.1 Plan Review

Jessica Penetar, a Certified Asbestos Hazard Emergency Response Act (AHERA) Accredited Inspector (Cert. #IR-18-5549B), requested copies of available plans, elevations and details of the Shimanek Covered Bridge. Available materials that were reviewed included 1965 and 1966 general construction drawings. The review of available drawings for the bridge did not identify materials that could contain asbestos. Copies of the drawings are included in Appendix D.

3.2.2 Asbestos Survey

Ms. Penetar completed the asbestos survey of the bridge on November 19, 2018 and February 6, 2019. The survey included:

- Inspection of possible ACM;
- Completion of the asbestos survey form (Appendix C); and
- Collection of eight bulk samples from accessible locations on and under the bridge for asbestos content analysis. These included timber piling caps, rubber between steel and concrete, and tar/mastic on steel I-beams.

Samples collected during the survey were placed into plastic bags, sealed and labeled. Sampling tools were cleaned between use to reduce the potential for cross-contamination. All samples were shipped under chain-of-custody protocol to TestAmerica, Inc. in Seattle, Washington for asbestos analysis by polarized light microscopy by Environmental Protection Agency (EPA) Method EPA/600/R-93/116.

The approximate sample locations are shown on Figure 3 and materials sampled are shown in Photographs 9 through 12. Roofing materials appeared to be cedar shakes or metal over wooden rafters. Therefore, no samples were collected from roofing material for asbestos analysis (Photograph 13).

3.2.3 Results

Materials containing greater than 1% asbestos are considered ACM by EPA standards. None of the samples collected during the survey were reported as ACM (Appendix E).

Note that additional ACM may be present on-site in inaccessible or concealed locations. If future renovation/demolition activities make these areas accessible, CES recommends a thorough assessment be conducted of these areas at that time to identify and confirm the presence or absence of additional ACM. Until then, all such material should be treated as presumed ACM in accordance with 29 CFR 1926.1101 and 1910.1001.

ACM associated with utilities was not surveyed and are the responsibility of the utility company. If ACM or other hazardous materials associated with utilities are encountered, the utility company is required to remove the material in accordance with applicable regulations prior to or at commencement of bridge removal and replacement.

3.3 Suspect Lead-Based Paint

Colorimetric lead swab kits were used to qualitatively assess the paint present on the bridge. The paint on the metal railing located on the east side of the north bridge approach was not assessed as it is expected to be assessed during repainting. The following table summarizes the surface areas where the colorimetric swab kits were used and the results.

Surface Area Swabed	Lead Detected
White paint on the railing on the west side of the north approach	No
White paint base coat on the west side railing, under the bridge cover	No
Dark red top coat on the outside of the bridge (Photograph 14)	inconclusive due to color of the paint
Light red base coat on the outside of the bridge (Photograph 14)	inconclusive due to color of the paint
White paint on the trim of the old door on the northwest side	No
White paint on the diagonal cross supports	No
White paint on the metal upset rods	No
White paint on the window casing inside the bridge (Photograph 15)	lead detected

Note that the colorimetric swabs only show the presence of lead in the top coat of paint. While efforts were made to test different coats of paint, some coats of paint may not have been accessible.

One composite sample of paint and wood was collected from window casings inside the bridge and from the old door in an area of red paint. Ms. Penetar, a certified Oregon Health Authority Lead-Based Paint Inspector (#2594), oversaw the sampling effort. A cordless drill and an electric drill powered by a generator (equipped with a drill bit for wood) were used to collect the sample. The wood and paint chips generated from the core drilling into the window casing and the door were collected into a new one-gallon plastic bag. A representative composite sample was collected by drilling into or through the wood at several locations. The paint and wood shavings were transferred to a laboratory supplied 8-ounce jar, labeled, and placed in a cooler with ice. The sample was transported under chain-of-custody protocol to TestAmerica Laboratories in Seattle, Washington.

The sample was analyzed for total cadmium, chromium, and lead using EPA method 6010B. The total metals analyses were used as a screening process to identify the necessity of analyzing the sample with Toxicity Characteristic Leaching Procedure (TCLP). If total lead or chromium was detected in the sample at or above a concentration of 100 milligrams per kilogram (mg/kg), or total cadmium was detected at or above 20 mg/kg, the sample was analyzed to assess whether the composite paint/timber materials exhibited the characteristic of toxicity that could define it as a hazardous waste under federal regulations (40 CFR Part 261).

Results of the wood and paint composite sample are shown in Table 1. Lead was detected at 1.8 mg/kg. Cadmium and chromium were not detected above the laboratory reporting limit. Because none of the compounds were detected above the thresholds discussed above, the samples were not analyzed using TCLP.

3.4 Treated Timbers

The bridge was constructed with treated timber pilings and supports under the bridge deck. Treated timbers can generally be disposed of at Coffin Butte Landfill north of Corvallis, Oregon. The Linn County Road Department has a permit to dispose of treated timbers at the landfill and thus, sampling and analysis of these materials on the bridge is not required. The contract specifications should allow the contractor to transport any treated timbers from the bridge and dispose of the material at this landfill.

4.0 HISTORICAL RECORDS

Historical use information was obtained by CES for the Project Corridor by reviewing historical sources such as city directories, aerial photographs, and historical maps.

4.1 Aerial Photographs

CES reviewed aerial photographs dated 1948 to 2016 obtained from Environmental Data Resources (EDR) to clarify past land uses, as described below. Copies of the aerial photographs are included in Appendix A.

Date	Description
1948	The Project Corridor is a roadway with a bridge over Thomas Creek. The areas next to the creek are heavily vegetated. Richardson Gap Drive and Shimanek Bridge Road are present. The surrounding areas are primarily farmland with a few scattered structures, presumed residences.
1955	The Project Corridor is relatively unchanged from the 1948 photograph. A few additional scattered structures are present in the surrounding areas.
1967	The Project Corridor is relatively unchanged from the 1955 photograph. A few additional scattered structures are present in the surrounding areas and the covered structure on the bridge is visible.
1976	The photograph is blurry. The Project Corridor appears to be relatively unchanged from the 1967 photograph. Some of the structures in the surrounding area do not appear to be present.
1982	The Project Corridor is relatively unchanged from the 1976 photograph. A few additional scattered structures are present in the surrounding areas.
1994	The Project Corridor and surrounding areas are relatively unchanged from the 1982 photograph, with the exception of a few additional scattered structures.

Date	Description
2006	The Project Corridor and surrounding areas are relatively unchanged from the 1994 photograph.
2009	The Project Corridor and surrounding areas are relatively unchanged from the 2006 photograph.
2012	The Project Corridor and surrounding areas are relatively unchanged from the 2009 photograph.
2016	The Project Corridor and surrounding areas are relatively unchanged from the 2012 photograph.

As shown, residential and farming activities were identified in the aerial photograph review from 1948 to 2016.

4.2 Sanborn Fire Insurance Maps

CES requested Sanborn Fire Insurance Maps from EDR to identify past land uses. According to EDR, no coverage records are available for the Project Corridor (Appendix A).

4.3 Historic Topographic Maps

Historic topographic maps of the Project Corridor and surrounding properties were reviewed from the USGS Topo and Historical Topographic Map Collection for the years dating from 1921 to 2014. Historic Topographic Maps are used to identify past land uses, as described below and are included in Appendix A.

Date	Description
1921	The 15-minute Lebanon Quadrangle map is blank.
1922	The 15-minute Lebanon Quadrangle map depicts the Project Corridor with Richardson Gap Drive and Shimanek Bridge Drive. "Schimonek Bridge" is shown over Thomas Creek. A few structures are shown around the Project Corridor.
1924	The 15-minute Lebanon Quadrangle map depicts the Project Corridor and surrounding areas as relatively unchanged from the 1922 map.
1944	The 15-minute Lebanon Quadrangle map depicts the Project Corridor as relatively unchanged from the 1924 map. A few more structures are depicted in the surrounding areas.
1957	The 15-minute Lebanon Quadrangle map depicts the Project Corridor as relatively unchanged from the 1944 map. A few more structures are depicted in the surrounding areas. The bridge over Thomas Creek is labeled as "Schimanek Bridge"
1969	The 15-minute Lebanon Quadrangle map depicts the Project Corridor as relatively unchanged from the 1957 map. Fewer structures are present in the surrounding areas.
1986	The 15-minute Lebanon Quadrangle map depicts the Project Corridor and surrounding areas as relatively unchanged from the 1969 map.
2014	The 15-minute Lebanon Quadrangle map depicts the Project Corridor and surrounding areas as relatively unchanged from the 1986 map. However, structures are no longer shown on the map.

4.4 City Directories

City directories, which list business and resident addresses, can provide additional information regarding historical land use and development of a project corridor and its surrounding area. CES requested city directories from EDR (Appendix A) for Richardson Gap Drive and Shimanek Bridge

Drive. Directories dating from 1992, 1995, 2000, 2005, 2010, and 2014 were reviewed to identify past land uses. A summary of the review is provided below.

In the directories from 1992 to 2014, Boeckner Spreading & Trucking is listed at 38781 Richardson Gap Rd. A trucking company has a potential to include automotive service, which could indicate the potential for hazardous chemicals. However, the location is over one mile away from the Project Corridor and therefore unlikely to have a potential environmental impact.

Borchard Transport, Inc. is listed at 40419 Shimanek Bridge Drive (2010 and 2014) and at 4049 Shimanek Bridge Drive (2005). The address listed in 2005 is assumed to be a misprint in the city directory. A transport company has a potential to include automotive service, which could indicate the potential for hazardous chemicals. The location is approximately one half mile away from the Project Corridor and in the presumed side-gradient direction and therefore is unlikely to have a potential environmental impact.

No additional properties were identified in the city directory review that appear to have the likely potential for environmental contamination.

5.0 ENVIRONMENTAL RECORDS REVIEW

CES obtained primary records from EDR for federal, state, and EDR proprietary historical databases and has summarized pertinent information in the following sections.

5.1 Federal Database Records

CES reviewed available federal records for identified hazardous waste sites using "The EDR Radius Map™ with GeoCheck®" (Appendix A). The following table shows the database search radii set forth along with the total number of sites found for each database searched in accordance with the minimum search distances outlined in the American Society for Testing and Materials (ASTM) Standard E1527-13 (ASTM, 2013).

Federal Database Record	Search Radius	Total Sites Found	On or Adjoining API
National Priority List (NPL)	1 mile	0	NA
Comprehensive Environmental Response, Compensation, and Liability Information System (CERCLIS)	0.5 mile	0	NA
CERCLIS No Further Remedial Action Planned (NFRAP)	0.5 mile	0	NA
Corrective Action Report (CORRACTS)	1 mile	0	NA
Resource Conservation and Recovery Act Information – Treatment, Storage, Disposal Facilities (RCRA-TSD)	0.5 mile	0	NA
RCRA – Large Quantity Generator	0.25 mile	0	NA
RCRA – Small Quantity Generator	0.25 mile	0	NA
RCRA – Conditionally Exempt Small Quantity Generator	0.25 mile	0	NA
Emergency Response Notification System (ERNS)	Target Property	0	NA
27 Supplemental Federal Databases	Varies	0	NA

As shown, none of the federal databases identified suspect properties in or within the vicinity of the API.

5.2 State and Tribal Databases

CES reviewed available state and tribal records for identified hazardous waste sites using "EDR DataMap™ Corridor Study" (Appendix A). The following table shows the database search radii set forth along with the total number of sites found for each database searched in accordance with the minimum search distances outlined in the ASTM Standard E1527-13 (ASTM, 2013).

State and Tribal Database Record	ASTM Search Radius (Miles)	Total Sites Found	On or Adjoining API
State – Environmental Cleanup Site Information System (ECSI)	1 mile	0	No
Oregon Confirmed Release List and Inventory (OR CRL)	1 mile	0	NA
Solid Waste Facilities List (SWF/LF)	0.5 mile	0	NA
Leaking Underground Storage Tanks Site List (LUST)	0.5 mile	0	No
Underground Storage Tank Database (UST)	0.25 mile	0	No
Aboveground Storage Tank Database (AST)	0.25 mile	0	NA
Oregon Voluntary Cleanup Program Sites (VCP)	0.5 mile	0	NA
Engineering Controls	0.5 mile	0	NA
Institutional Controls	0.5 mile	0	NA
EDR MGP	1 mile	0	NA
EDR Historic Auto	0.125 mile	0	NA
EDR Historic Dry Cleaner	0.125 mile	0	NA
18 Supplemental State/Tribal Databases	Varies	0	NA

As shown, none of the state databases listed facilities within the specified search radii in the EDR Report.

5.3 Unmappable Facilities

Unmappable facilities are environmental risk facilities that EDR cannot map due to inadequate address information but can locate by zip code or city name. The EDR report identified no unmappable facilities for the project area.

6.0 ADDITIONAL RESEARCH

As part of the Hazardous Material Corridor Study, CES conducted additional research typical of an ASTM Phase I Environmental Site Assessment (ESA). The following sections summarize the results of this research.

6.1 Oregon State Fire Marshal's Office

CES reviewed records from the Oregon State Fire Marshal's (OSFM) database for hazardous materials incidents at the Project Corridor and surrounding properties. Based on a search of these records, no reportable incidents have occurred on Richardson Gap Drive or Shimanek Bridge Drive within one mile of the Project Corridor (OSFM, 2018).

7.0 SOIL SAMPLING AND ANALYSIS

As part of the modified HMCS, CES completed surface and subsurface sampling activities in the Project Corridor. CES follows the industry standard field practices for soil sampling. Samples were analyzed by TestAmerica, Seattle. CES personnel collecting samples are certified Occupational Safety and Health (OSHA) Hazardous Waste Operations and Emergency Response (HAZWOPER)-trained (29 Code of Federal Regulations 1910.120(e)). The approximate locations of the soil samples are shown on Figure 2.

The following analytical methods were used:

- Polynuclear aromatic hydrocarbons (PAHs) by EPA method 8270-SIM;
- Resource Conservation and Recovery Act (RCRA) metals by EPA method 6010B;
- Pesticides by EPA method 8081;
- Herbicides by EPA method 8151A;
- Volatile Organic Compounds (VOCs) by EPA method 8260B;
- Polychlorinated Biphenyls (PCBs) by EPA method 8082; and
- Northwest Total Petroleum Hydrocarbons Diesel Range by method NWTPHDx.

The analyses for each sample were selected based on historical use (agriculture) and information provided by Linn County that oil may have been used on the road before it was paved.

7.1 Subsurface Soil Sampling

Soils from as deep as five feet may be excavated during the installation of the new abutments. Composite soil samples were collected to a depth of five feet in conjunction with geotechnical drilling activities performed by Foundation Engineering from November 19 through November 21, 2018. Soil from each boring was composited and placed into laboratory-supplied jars and Terra Core® kits. Hollow stem auger and/or mud rotary drilling methods were used and soils extracted with mud rotary contained excess water and/or bentonite.

- Sample SS-01 was collected from below the asphalton the north side of the bridge (Foundation Engineering point BH-1) and analyzed for PAHs, RCRA metals, pesticides, herbicides, VOCs, PCBs and NWTPHDx. Material from this location was very wet and rocky and the Terra Core® used for VOC sampling was difficult to fill.
- Sample SS-02 was collected from below the asphalt on the south side of the bridge (Foundation Engineering point BH-2) and analyzed for PAHs, RCRA metals, pesticides, herbicides, VOCs, PCBs and NWTPHDx. Soils from one and a half to two feet below ground surface (bgs) had petroleum odors, and soils from two to five feet bgs contained some bentonite from drilling operations.;
- Sample SS-03 was collected from a grassy area on the north side of Thomas Creek (Foundation Engineering point BH-3) and analyzed for PAHs, RCRA metals, pesticides, and herbicides. These soils were very sticky and mixed with bentonite from drilling operations.

7.2 Surface Soil Sampling

Composite roadside surface soil samples were collected on November 19, 2018 with a decontaminated stainless steel hand auger in accordance with the Oregon Department of Transportation (ODOT) Directive GE 14-01(D). However, due to refusal, soils were collected only from the top one-foot. Soils from six locations were composited and placed into laboratory-supplied jars and Terra Core® kits. Samples were obtained from the following locations:

- Sample SS-04 was collected from soils along Richardson Gap Drive on the north side of the bridge and analyzed for PAHs, RCRA metals, pesticides, herbicides, VOCs, PCBs and NWTPHDx; and
- Sample SS-05 was collected from soils along Richardson Gap Drive on the south side of the bridge and analyzed for PAHs, RCRA metals, pesticides, herbicides, VOCs, PCBs and NWTPHDx.

7.3 Soil Sampling Results and Discussion

Results of the soil analyses are presented in Table 2. Copies of the laboratory analytical data are provided in Appendix E.

The samples generally contained low levels of metals, heavy oil range petroleum hydrocarbons and PAHs. Low levels of VOCs were detected in SS-02. No diesel range hydrocarbons, pesticides, or herbicides were detected in the samples. Note that due to the bentonite in the samples from the mud rotary drilling, the analytical results in SS-01, SS-02, and SS-03 may not be representative of actual soil conditions.

Benzo(a)pyrene was detected in SS-02 and SS-03 at concentrations above the DEQ residential Risk-Based Concentration (RBC) for ingestion, dermal contact, and inhalation, but below the construction worker RBC. While these compounds were not detected in the other samples, the laboratory reporting limit was above the residential RBC. The concentrations detected of benzo(a)pyrene were above the clean fill determination in the SS-02 and SS-03 samples. Benzo(a)pyrene was not detected in SS-01, SS-04, and SS-05, but the laboratory reporting limits were above the clean fill determinations.

Arsenic was detected at concentrations above the residential RBC for ingestion, dermal contact, and inhalation in SS-03 and SS-05. However, the arsenic concentrations detected were below DEQ background levels and clean fill determinations. While arsenic was not detected in SS-01, SS-02, or SS-04, the laboratory reporting limit was above the residential RBC.

Soils removed from the Project Corridor will need to be managed per Oregon Administrative Rule 340-093 *Solid Waste: General Provisions* and ODOT Directive GE 14-01(D) *Management of Surface Soils Removed Within Operational Right of Way*. If soil is removed from the right-of-way, it will need to be disposed of at a municipal solid waste landfill or a permitted construction and demolition debris landfill (e.g. Coffin Butte Landfill in Corvallis, Oregon), or in another DEQ approved method. However, if soil will be removed from the Project Corridor in the areas of SS-01, SS-02, and SS-03, additional sampling is recommended to characterize the soil.

8.0 CONCLUSIONS

CES conducted this HMCS for the Shimanek Covered Bridge Key No. 20314 in Linn County, Oregon**.** The HCMS identified the following potential environmental conditions that could impact the proposed construction:

- Two composite soil samples (SS-02 and SS-03) contained benzo(a)pyrene above the clean fill determination and the DEQ residential RBC for ingestion, dermal contact, and inhalation. The laboratory reporting limit was above the residential RBC and clean fill determination in soil samples SS-01, SS-04, and SS-05.
- Two composite samples (SS-03 and SS-05) contained arsenic at levels above the DEQ residential RBC for ingestion, dermal contact, and inhalation.
- The bridge was constructed with treated timber pilings under the deck.

Based on these findings, CES recommends the following:

- Soils removed from the Project Corridor will need to be managed per Oregon Administrative Rule 340-093 *Solid Waste: General Provisions* and ODOT Directive GE 14-01(D) *Management of Surface Soils Removed Within Operational Right of Way.* If soil is removed from the right-of-way, it will need to be disposed of at a municipal solid waste landfill or a permitted construction and demolition debris landfill (e.g. Coffin Butte Landfill in Corvallis, Oregon), or in another DEQ approved method. However, if soil will be removed from the Project Corridor in the areas of SS-01, SS-02, and SS-03, additional sampling is recommended to characterize the soil.
- All treated and untreated timbers removed from the bridge when dismantled can be disposed of at a solid waste landfill permitted by the DEQ to receive this material. The Linn County Road Department has a permit to dispose of treated timbers at the Coffin Butte Landfill located north of Corvallis, Oregon; therefore sampling an analysis of these materials should not be required. The contract specification should allow the contractor to transport the timbers to and dispose of the material at this landfill.

9.0 LIMITATIONS

This assessment was conducted according to American Association of State Highway and Transportation Officials (AASHTO) criteria for a Corridor Study and does not represent an ASTM Phase I ESA. It is for Linn County's use only and may not be relied upon by any other entity without written permission from an authorized Linn County representative. This report is presented as current at the time of publication; it does not warrant against changes in land use or environmental conditions subsequent to its publication. The conclusions presented in this report are professional opinions based on data described in this report. They are intended only for the purpose, location, and project indicated. This report is not a definitive study of contamination in the Project Corridor and should not be interpreted as such.

Performance of a Corridor Study is intended to reduce but not eliminate uncertainty regarding the existence of environmental conditions. The AASHTO practice is intended primarily as an approach to

identifying potential sources of contamination that could impact a project. Based on the AASHTO guide, this Corridor Study constitutes appropriate inquiry into current and past uses of properties within the Project Corridor and is consistent with good commercial or customary practice. However, no environmental assessment can wholly eliminate uncertainty regarding the potential for environmental conditions in connection with a project. This report is based in part on unverified information supplied to CES by third-party sources. While CES has made efforts to substantiate this third-party information, we cannot guarantee its completeness or accuracy.

CES staff participating in this Corridor Study are scientists, not attorneys. Therefore, it must be clear to all parties that this report does not offer any legal opinion, representation, or interpretation of environmental laws, rules, regulations, or policies of federal, state, or local government agencies.

10.0 SIGNATURES

Report preparation conducted by Jessica Penetar, PE

Signature	April 1, 2019 Date

Corporate review conducted by Abe Izen, Principal Engineer

Signature	April 1, 2019 Date

REFERENCES

ASTM, 2013. *Standard Practice for Environmental Site Assessment: Phase I Environmental Site Assessment Process*. Standard E1527-13. American Society for Testing and Materials. West Conshohocken, Pennsylvania.

OSFM, 2018. *Community Right to Know (CR2K) Hazardous Substances Incident Search.* https://www.oregon.gov/osp/SFM/pages/cr2k_incident_database.aspx Oregon State Fire Marshal's website. Accessed November 29, 2018. Oregon State Fire Marshal, Salem, Oregon.

FIGURES

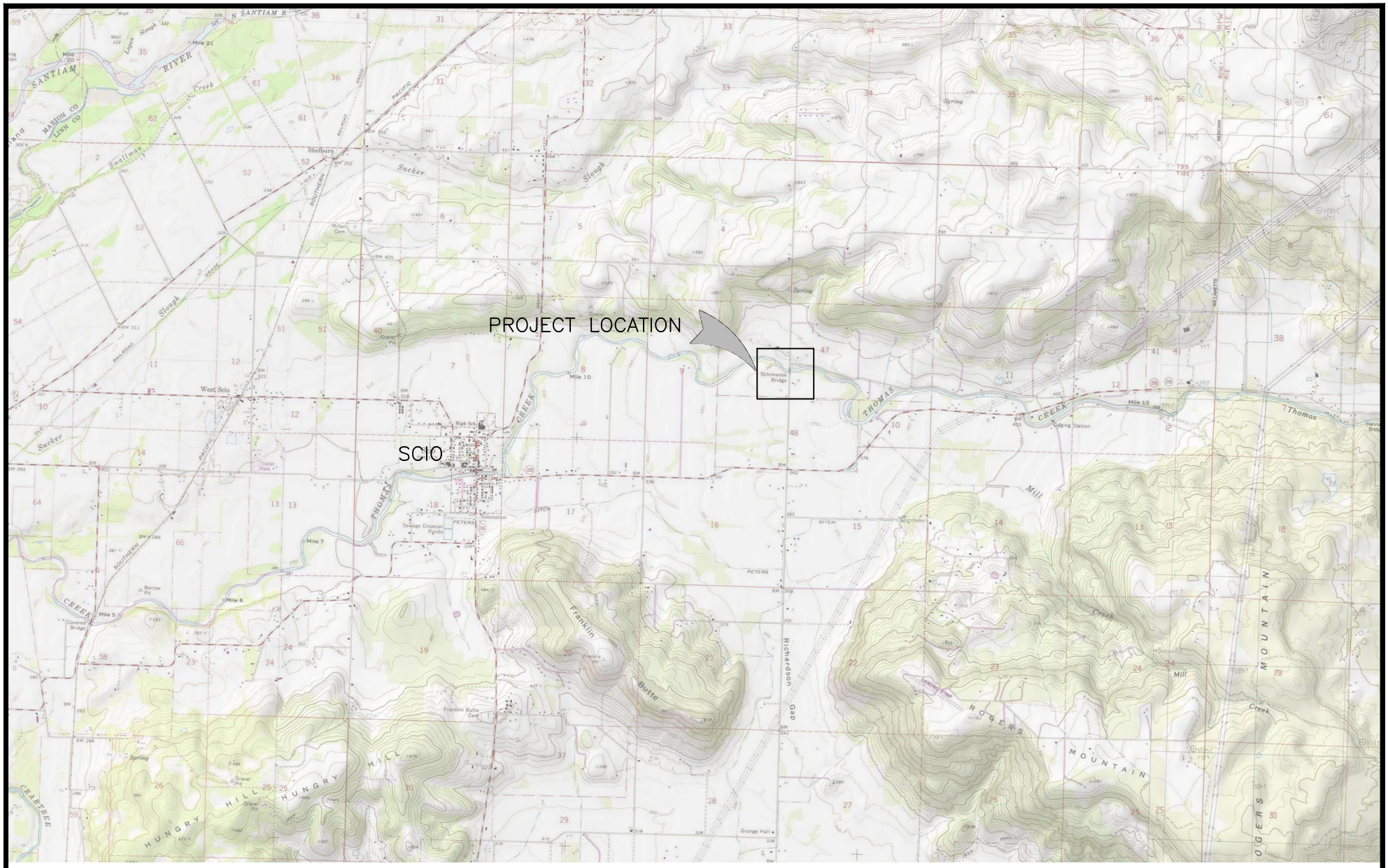


Figure 1: PROJECT LOCATION

PROJECT NUMBER: 2018230024	Shimanek Covered Bridge, Thomas Creek (Richardson Gap Drive) Modified Hazardous Materials Corridor Study
DATE: 2/8/2019	
DWG NO: 2018230024 PHASE I THOMAS CREEK.DWG	Linn County Road Department 3010 SW Ferry St Albany, Oregon 97321
DWG BY: ZBB / PROJECT MANAGER: 1JAP	
REVISED:	CASCADE EARTH SCIENCES

2018230024 Phase I Thomas Creek.dwg February 12, 2019 ZB703548

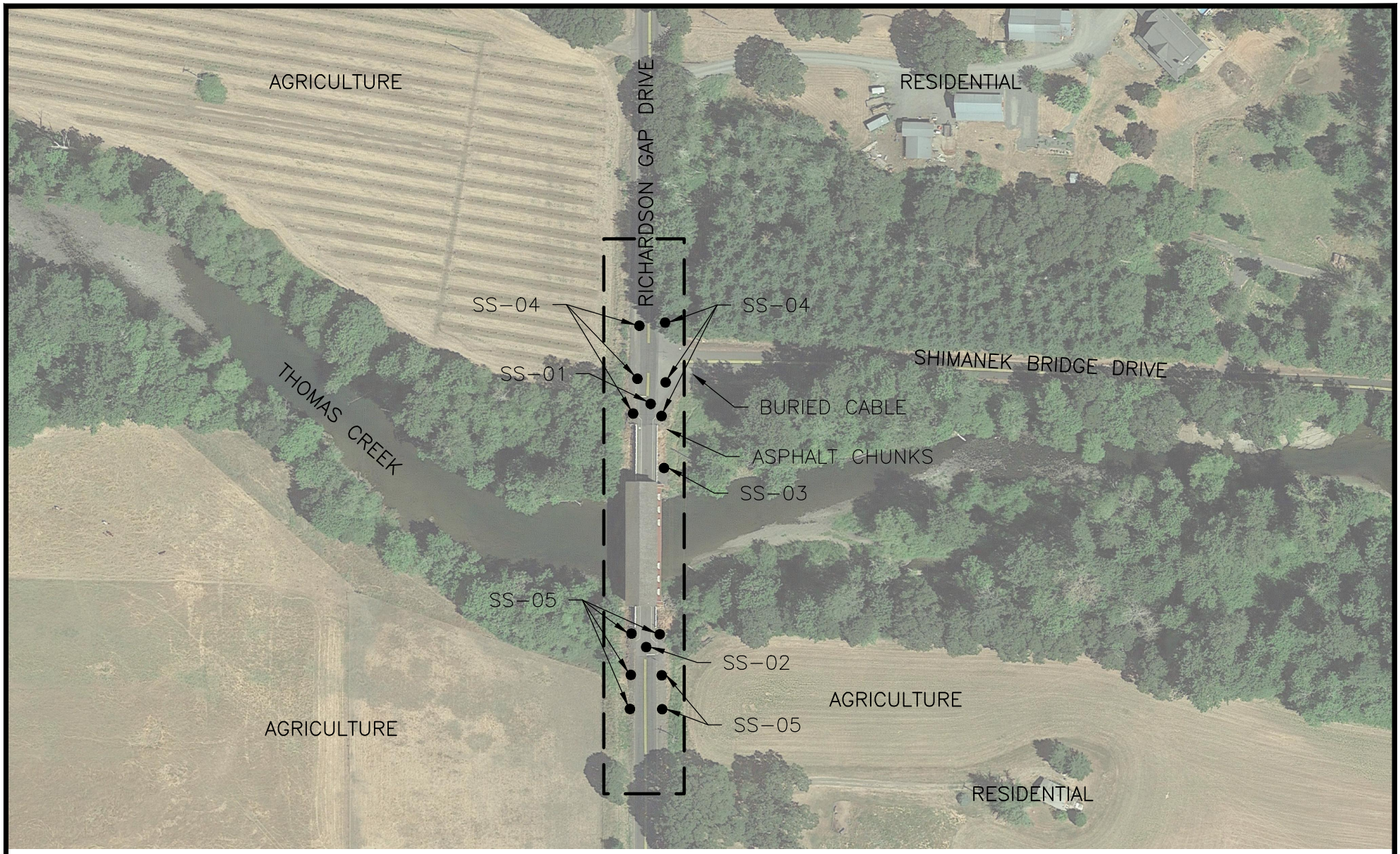


Figure 2: Project Corridor Detail and Soil Sample Locations

LEGEND

PROJECT CORRIDOR

APPROXIMATE SOIL SAMPLE LOCATION

0 150'

1"=150'

(LOCATIONS AND SCALE ARE APPROXIMATE)

(SOURCE: Google Earth Pro Image, 7/2018)

PROJECT NUMBER: 2018230024	Shimanek Covered Bridge, Thomas Creek (Richardson Gap Drive) Modified Hazardous Materials Corridor Study
DATE: 2/8/2019	
DWG NO: 2018230024 PHASE I THOMAS CREEK.DWG	Linn County Road Department 3010 SW Ferry St Albany, Oregon 97321
DWG BY: ZBB / PROJECT MANAGER: 1JAP	
REVISED:	CASCADE EARTH SCIENCES

2018230024 Phase I Thomas Creek.dwg February 12, 2019 ZB703548

LEGEND

● APPROXIMATE ASBESTOS SAMPLE LOCATION

0 45'

1"= 45'

(LOCATIONS AND SCALE ARE APPROXIMATE)

(SOURCE: Google Earth Pro Image, 7/2018)

N

Figure 3: Asbestos Survey

PROJECT NUMBER: 2018230024	Shimanek Covered Bridge, Thomas Creek (Richardson Gap Drive) Modified Hazardous Materials Corridor Study
DATE: 2/8/2019	
DWG NO: 2018230024 PHASE I THOMAS CREEK.DWG	Linn County Road Department 3010 SW Ferry St Albany, Oregon 97321
DWG BY: ZBB / PROJECT MANAGER: 1JAP	
REVISED:	CASCADE EARTH SCIENCES

APPENDICES

Appendix A.

Historical Data

Shimanek Covered Bridge
Richardson Gap Drive/Shimanek Bridge Dr
Scio, OR 97374

Inquiry Number: 5475386.2s
November 05, 2018

The EDR Radius Map™ Report with GeoCheck®

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), the ASTM Standard Practice for Environmental Site Assessments for Forestland or Rural Property (E 2247-16), the ASTM Standard Practice for Limited Environmental Due Diligence: Transaction Screen Process (E 1528-14) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

TARGET PROPERTY INFORMATION

ADDRESS

RICHARDSON GAP DRIVE/SHIMANEK BRIDGE DR
SCIO, OR 97374

COORDINATES

Latitude (North):	44.7155880 - 44° 42' 56.11''
Longitude (West):	122.8045100 - 122° 48' 16.23''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	515484.1
UTM Y (Meters):	4951158.5
Elevation:	351 ft. above sea level

USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map:	6068622 SCIO, OR
Version Date:	2014

AERIAL PHOTOGRAPHY IN THIS REPORT

Portions of Photo from:	20140706
Source:	USDA

MAPPED SITES SUMMARY

Target Property Address:
RICHARDSON GAP DRIVE/SHIMANEK BRIDGE DR
SCIO, OR 97374

Click on Map ID to see full detail.

MAP ID	SITE NAME	ADDRESS	DATABASE ACRONYMS	RELATIVE ELEVATION	DIST (ft. & mi.) DIRECTION

NO MAPPED SITES FOUND

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

FEDERAL FACILITY ---------- Federal Facility Site Information listing
SEMS ---------- Superfund Enterprise Management System

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE ---------- Superfund Enterprise Management System Archive

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

LUCIS ---------- Land Use Control Information System
US ENG CONTROLS ---------- Engineering Controls Sites List

US INST CONTROL Sites with Institutional Controls

Federal ERNS list

ERNS Emergency Response Notification System

State- and tribal - equivalent CERCLIS

ECSI Environmental Cleanup Site Information System
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

LUST Leaking Underground Storage Tank Database
INDIAN LUST Leaking Underground Storage Tanks on Indian Land

State and tribal registered storage tank lists

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

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
VCP Voluntary Cleanup Program Sites

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

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

IHS OPEN DUMPS - Open Dumps on Indian Land

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL - Delisted National Clandestine Laboratory Register
AOCONCERN - Columbia Slough
CDL - Uninhabitable Drug Lab Properties
US 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

RCRA NonGen / NLR - RCRA - Non Generators / No Longer Regulated
FUDS - Formerly Used Defense Sites
DOD - Department of Defense Sites
SCRD DRYCLEANERS - State Coalition for Remediation of Drycleaners Listing
US FIN ASSUR - Financial Assurance Information
EPA WATCH LIST - EPA WATCH LIST
2020 COR ACTION - 2020 Corrective Action Program List
TSCA - Toxic Substances Control Act
TRIS - Toxic Chemical Release Inventory System
SSTS - Section 7 Tracking Systems
ROD - Records Of Decision
RMP - Risk Management Plans
RAATS - RCRA Administrative Action Tracking System
PRP - Potentially Responsible Parties
PADS - PCB Activity Database System
ICIS - Integrated Compliance Information System
FTTS - FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
MLTS - Material Licensing Tracking System
COAL ASH DOE - Steam-Electric Plant Operation Data
COAL ASH EPA - Coal Combustion Residues Surface Impoundments List
PCB TRANSFORMER - PCB Transformer Registration Database
RADINFO - Radiation Information Database
HIST FTTS - FIFRA/TSCA Tracking System Administrative Case Listing
DOT OPS - Incident and Accident Data
CONSENT - Superfund (CERCLA) Consent Decrees
INDIAN RESERV - Indian Reservations
FUSRAP - Formerly Utilized Sites Remedial Action Program
UMTRA - Uranium Mill Tailings Sites
LEAD SMELTERS - Lead Smelter Sites
US AIRS - Aerometric Information Retrieval System Facility Subsystem
US MINES - Mines Master Index File
ABANDONED MINES - Abandoned Mines

FINDS ---------- Facility Index System/Facility Registry System
UXO ---------- Unexploded Ordnance Sites
ECHO ---------- Enforcement & Compliance History Information
DOCKET HWC ---------- Hazardous Waste Compliance Docket Listing
FUELS PROGRAM ---------- EPA Fuels Program Registered Listing
AIRS ---------- Oregon Title V Facility Listing
COAL ASH ---------- Coal Ash Disposal Sites Listing
DRYCLEANERS ---------- Drycleaning Facilities
Enforcement ---------- Enforcement Action Listing
Financial Assurance ---------- Financial Assurance Information Listing
HSIS ---------- Hazardous Substance Information Survey
MANIFEST ---------- Manifest Information
NPDES ---------- Wastewater Permits Database
UIC ---------- Underground Injection Control Program Database

EDR HIGH RISK HISTORICAL RECORDS

EDR Exclusive Records

EDR MGP ---------- EDR Proprietary Manufactured Gas Plants
EDR Hist Auto ---------- EDR Exclusive Historical Auto Stations
EDR Hist Cleaner ---------- EDR Exclusive Historical 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

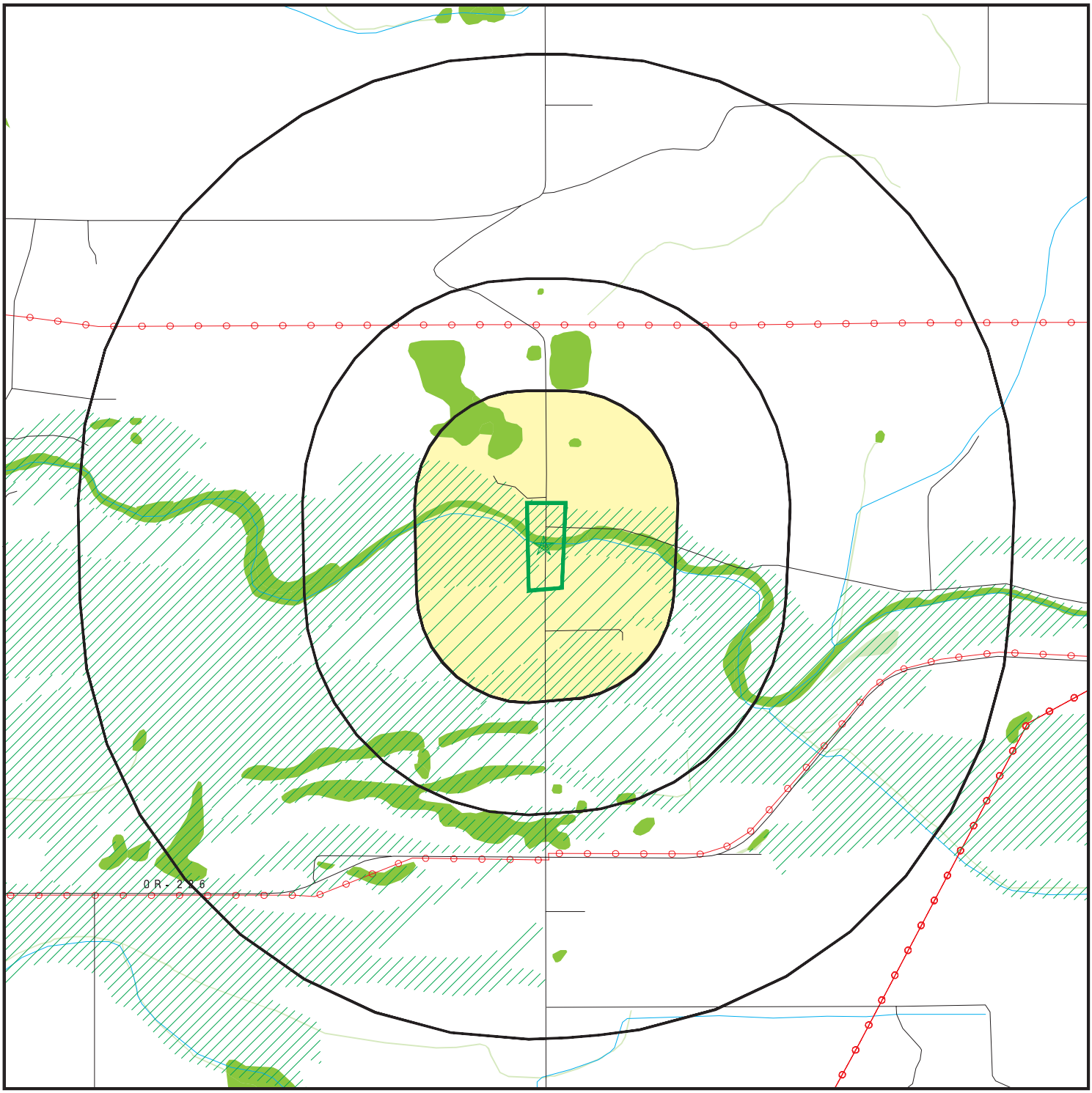
Surrounding sites were not identified.

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

EXECUTIVE SUMMARY

There were no unmapped sites in this report.

OVERVIEW MAP - 5475386.2S

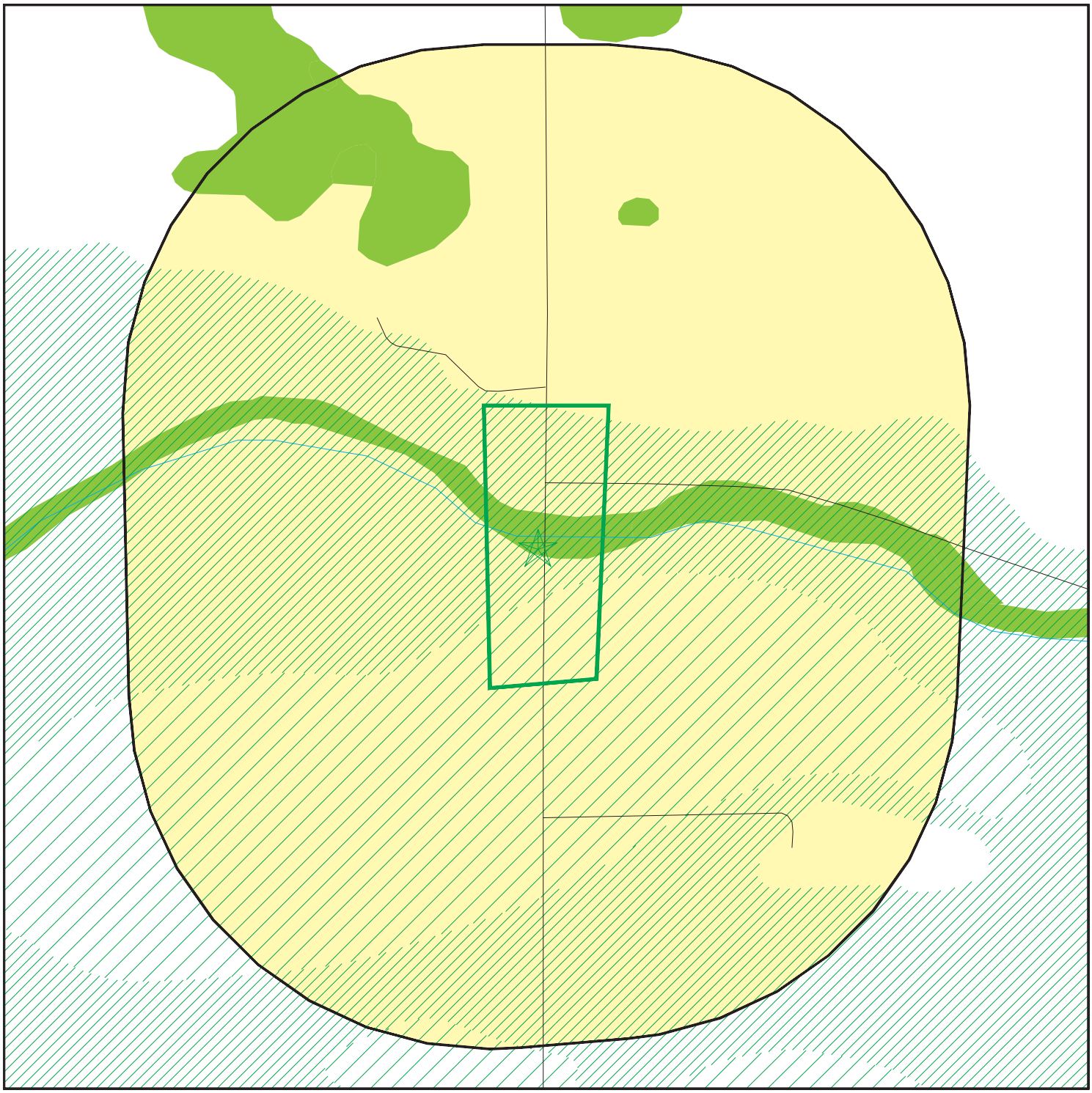


- Target Property
- Sites at elevations higher than or equal to the target property
- Sites at elevations lower than the target property
- Manufactured Gas Plants
- National Priority List Sites
- Dept. Defense Sites
- Indian Reservations BIA
- Power transmission lines
- 100-year flood zone
- 500-year 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:	Shimanek Covered Bridge	CLIENT:	Cascade Earth Sciences
ADDRESS:	Richardson Gap Drive/Shimanek Bridge Dr Scio OR 97374	CONTACT:	Jessica Penetar
LAT/LONG:	44.715588 / 122.80451	INQUIRY #:	5475386.2s
		DATE:	November 05, 2018 2:54 pm

DETAIL MAP - 5475386.2S



- 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
- 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: Shimanek Covered Bridge ADDRESS: Richardson Gap Drive/Shimanek Bridge Dr Scio OR 97374 LAT/LONG: 44.715588 / 122.80451	CLIENT: Cascade Earth Sciences CONTACT: Jessica Penetar INQUIRY #: 5475386.2s DATE: November 05, 2018 2:56 pm

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								
FEDERAL FACILITY	0.500		0	0	0	NR	NR	0
SEMS	0.500		0	0	0	NR	NR	0
Federal CERCLIS NFRAP site list								
SEMS-ARCHIVE	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								
LUCIS	0.500		0	0	0	NR	NR	0
US ENG CONTROLS	0.500		0	0	0	NR	NR	0
US INST CONTROL	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	0	0	NR	0
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		0	0	0	NR	NR	0
INDIAN LUST	0.500		0	0	0	NR	NR	0
State and tribal registered storage tank lists								
FEMA 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
UST	0.250		0	0	NR	NR	NR	0
AST	0.250		0	0	NR	NR	NR	0
INDIAN 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	0	NR	NR	0
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								
SWRCY	0.500		0	0	0	NR	NR	0
HIST LF	0.500		0	0	0	NR	NR	0
INDIAN ODI	0.500		0	0	0	NR	NR	0
DEBRIS REGION 9	0.500		0	0	0	NR	NR	0
ODI	0.500		0	0	0	NR	NR	0
IHS OPEN DUMPS	0.500		0	0	0	NR	NR	0
Local Lists of Hazardous waste / Contaminated Sites								
US HIST 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 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	0	NR	NR	NR	0
FUDS	1.000		0	0	0	0	NR	0
DOD	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
SCRD DRYCLEANERS	0.500		0	0	0	NR	NR	0
US FIN ASSUR	0.001		0	NR	NR	NR	NR	0
EPA WATCH LIST	0.001		0	NR	NR	NR	NR	0
2020 COR ACTION	0.250		0	0	NR	NR	NR	0
TSCA	0.001		0	NR	NR	NR	NR	0
TRIS	0.001		0	NR	NR	NR	NR	0
SSTS	0.001		0	NR	NR	NR	NR	0
ROD	1.000		0	0	0	0	NR	0
RMP	0.001		0	NR	NR	NR	NR	0
RAATS	0.001		0	NR	NR	NR	NR	0
PRP	0.001		0	NR	NR	NR	NR	0
PADS	0.001		0	NR	NR	NR	NR	0
ICIS	0.001		0	NR	NR	NR	NR	0
FTTS	0.001		0	NR	NR	NR	NR	0
MLTS	0.001		0	NR	NR	NR	NR	0
COAL ASH DOE	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
RADINFO	0.001		0	NR	NR	NR	NR	0
HIST FTTS	0.001		0	NR	NR	NR	NR	0
DOT OPS	0.001		0	NR	NR	NR	NR	0
CONSENT	1.000		0	0	0	0	NR	0
INDIAN RESERV	0.001		0	NR	NR	NR	NR	0
FUSRAP	1.000		0	0	0	0	NR	0
UMTRA	0.500		0	0	0	NR	NR	0
LEAD SMELTERS	0.001		0	NR	NR	NR	NR	0
US AIRS	0.001		0	NR	NR	NR	NR	0
US MINES	0.250		0	0	NR	NR	NR	0
ABANDONED MINES	0.001		0	NR	NR	NR	NR	0
FINDS	0.001		0	NR	NR	NR	NR	0
UXO	1.000		0	0	0	0	NR	0
ECHO	0.001		0	NR	NR	NR	NR	0
DOCKET HWC	0.001		0	NR	NR	NR	NR	0
FUELS PROGRAM	0.250		0	0	NR	NR	NR	0
AIRS	0.001		0	NR	NR	NR	NR	0
COAL ASH	0.500		0	0	0	NR	NR	0
DRYCLEANERS	0.250		0	0	NR	NR	NR	0
Enforcement	0.001		0	NR	NR	NR	NR	0
Financial Assurance	0.001		0	NR	NR	NR	NR	0
HSIS	0.001		0	NR	NR	NR	NR	0
MANIFEST	0.250		0	0	NR	NR	NR	0
NPDES	0.001		0	NR	NR	NR	NR	0
UIC	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 Hist Auto	0.125		0	NR	NR	NR	NR	0
EDR Hist Cleaner	0.125		0	NR	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
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	0	0	0	0	0	0

NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

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

NO SITES FOUND

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: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 09/07/2018
Number of Days to Update: 29

Source: EPA
Telephone: N/A
Last EDR Contact: 10/04/2018
Next Scheduled EDR Contact: 01/14/2019
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: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 09/07/2018
Number of Days to Update: 29

Source: EPA
Telephone: N/A
Last EDR Contact: 10/04/2018
Next Scheduled EDR Contact: 01/14/2019
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

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: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 09/07/2018
Number of Days to Update: 29

Source: EPA
Telephone: N/A
Last EDR Contact: 10/04/2018
Next Scheduled EDR Contact: 01/14/2019
Data Release Frequency: Quarterly

Federal CERCLIS list

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: 11/07/2016
Date Data Arrived at EDR: 01/05/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 703-603-8704
Last EDR Contact: 07/06/2018
Next Scheduled EDR Contact: 10/15/2018
Data Release Frequency: Varies

SEMS: Superfund Enterprise Management System

SEMS (Superfund Enterprise Management System) tracks hazardous waste sites, potentially hazardous waste sites, and remedial activities performed in support of EPA's Superfund Program across the United States. The list was formerly know as CERCLIS, renamed to SEMS by the EPA in 2015. The list 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). This dataset also contains sites which are either proposed to or on the National Priorities List (NPL) and the sites which are in the screening and assessment phase for possible inclusion on the NPL.

Date of Government Version: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 09/07/2018
Number of Days to Update: 29

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/04/2018
Next Scheduled EDR Contact: 01/28/2019
Data Release Frequency: Quarterly

Federal CERCLIS NFRAP site list

SEMS-ARCHIVE: Superfund Enterprise Management System Archive

SEMS-ARCHIVE (Superfund Enterprise Management System Archive) tracks sites that have no further interest under the Federal Superfund Program based on available information. The list was formerly known as the CERCLIS-NFRAP, renamed to SEMS ARCHIVE by the EPA in 2015. EPA may perform a minimal level of assessment work at a site while it is archived if site conditions change and/or new information becomes available. Archived sites have been removed and archived from the inventory of SEMS 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 the 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. The 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 potential NPL site.

Date of Government Version: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 09/07/2018
Number of Days to Update: 29

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 10/04/2018
Next Scheduled EDR Contact: 01/28/2019
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: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: EPA
Telephone: 800-424-9346
Last EDR Contact: 09/19/2018
Next Scheduled EDR Contact: 01/07/2019
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: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 09/19/2018
Next Scheduled EDR Contact: 01/07/2019
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: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 09/19/2018
Next Scheduled EDR Contact: 01/07/2019
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: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 09/19/2018
Next Scheduled EDR Contact: 01/07/2019
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: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 09/19/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Quarterly

Federal institutional controls / engineering controls registries

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: 05/14/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: Department of the Navy
Telephone: 843-820-7326
Last EDR Contact: 07/16/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Varies

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: 07/31/2018
Date Data Arrived at EDR: 08/28/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 17

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/28/2018
Next Scheduled EDR Contact: 12/10/2018
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: 07/31/2018
Date Data Arrived at EDR: 08/28/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 17

Source: Environmental Protection Agency
Telephone: 703-603-0695
Last EDR Contact: 08/28/2018
Next Scheduled EDR Contact: 12/10/2018
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: 06/18/2018
Date Data Arrived at EDR: 06/27/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 79

Source: National Response Center, United States Coast Guard
Telephone: 202-267-2180
Last EDR Contact: 09/25/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Quarterly

State- and tribal - equivalent CERCLIS

CRL: Confirmed Release List and Inventory

All facilities with a confirmed release.

Date of Government Version: 08/01/2018
Date Data Arrived at EDR: 08/10/2018
Date Made Active in Reports: 09/24/2018
Number of Days to Update: 45

Source: Department of Environmental Quality
Telephone: 503-229-6170
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Quarterly

ECSI: Environmental Cleanup Site Information System

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

Date of Government Version: 10/01/2018
Date Data Arrived at EDR: 10/03/2018
Date Made Active in Reports: 10/23/2018
Number of Days to Update: 20

Source: Department of Environmental Quality
Telephone: 503-229-6629
Last EDR Contact: 10/03/2018
Next Scheduled EDR Contact: 01/14/2019
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: 07/16/2018
Date Data Arrived at EDR: 07/20/2018
Date Made Active in Reports: 08/20/2018
Number of Days to Update: 31

Source: Department of Environmental Quality
Telephone: 503-229-6299
Last EDR Contact: 10/29/2018
Next Scheduled EDR Contact: 01/28/2019
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: 07/02/2018
Date Data Arrived at EDR: 08/10/2018
Date Made Active in Reports: 09/24/2018
Number of Days to Update: 45

Source: Department of Environmental Quality
Telephone: 503-229-5790
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Quarterly

INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

Date of Government Version: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

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: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: Environmental Protection Agency
Telephone: 415-972-3372
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

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: 04/25/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 8
Telephone: 303-312-6271
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in New Mexico and Oklahoma.

Date of Government Version: 04/01/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 6
Telephone: 214-665-6597
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
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: 05/08/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 4
Telephone: 404-562-8677
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
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: 04/13/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

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: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA, Region 5
Telephone: 312-886-7439
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land
LUSTs on Indian land in Iowa, Kansas, and Nebraska

Date of Government Version: 04/24/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

State and tribal registered storage tank lists

FEMA UST: Underground Storage Tank Listing
A listing of all FEMA owned underground storage tanks.

Date of Government Version: 05/15/2017
Date Data Arrived at EDR: 05/30/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 136
Source: FEMA
Telephone: 202-646-5797
Last EDR Contact: 10/10/2018
Next Scheduled EDR Contact: 01/21/2019
Data Release Frequency: Varies

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: 07/02/2018
Date Data Arrived at EDR: 08/10/2018
Date Made Active in Reports: 09/24/2018
Number of Days to Update: 45
Source: Department of Environmental Quality
Telephone: 503-229-5815
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Quarterly

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

Date of Government Version: 09/05/2017
Date Data Arrived at EDR: 11/16/2017
Date Made Active in Reports: 01/09/2018
Number of Days to Update: 54
Source: Office of State Fire Marshal
Telephone: 503-378-3473
Last EDR Contact: 10/31/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Semi-Annually

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: 05/08/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA Region 4
Telephone: 404-562-9424
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
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: 04/01/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63
Source: EPA Region 6
Telephone: 214-665-7591
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

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: 04/10/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 9
Telephone: 415-972-3368
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

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: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 5
Telephone: 312-886-6136
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

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: 04/12/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 10
Telephone: 206-553-2857
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

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: 04/24/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 7
Telephone: 913-551-7003
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

Date of Government Version: 04/13/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA, Region 1
Telephone: 617-918-1313
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
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: 04/25/2018
Date Data Arrived at EDR: 05/18/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 63

Source: EPA Region 8
Telephone: 303-312-6137
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
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: 10/01/2018
Date Data Arrived at EDR: 10/03/2018
Date Made Active in Reports: 10/23/2018
Number of Days to Update: 20

Source: Department of Environmental Quality
Telephone: 503-229-5193
Last EDR Contact: 10/03/2018
Next Scheduled EDR Contact: 01/14/2019
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: 10/01/2018
Date Data Arrived at EDR: 10/03/2018
Date Made Active in Reports: 10/23/2018
Number of Days to Update: 20

Source: Department of Environmental Quality
Telephone: 503-229-5193
Last EDR Contact: 10/03/2018
Next Scheduled EDR Contact: 01/14/2019
Data Release Frequency: Quarterly

State and tribal voluntary cleanup sites

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: 06/29/2018
Date Data Arrived at EDR: 07/03/2018
Date Made Active in Reports: 07/23/2018
Number of Days to Update: 20

Source: DEQ
Telephone: 503-229-5256
Last EDR Contact: 10/19/2018
Next Scheduled EDR Contact: 01/14/2019
Data Release Frequency: Quarterly

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: 07/27/2015
Date Data Arrived at EDR: 09/29/2015
Date Made Active in Reports: 02/18/2016
Number of Days to Update: 142

Source: EPA, Region 1
Telephone: 617-918-1102
Last EDR Contact: 09/24/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Varies

INDIAN VCP R7: Voluntary Cleanup Priority Lisitng

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

Date of Government Version: 03/20/2008
Date Data Arrived at EDR: 04/22/2008
Date Made Active in Reports: 05/19/2008
Number of Days to Update: 27

Source: EPA, Region 7
Telephone: 913-551-7365
Last EDR Contact: 04/20/2009
Next Scheduled EDR Contact: 07/20/2009
Data Release Frequency: Varies

State and tribal Brownfields sites

BROWNFIELDS: Brownfields Projects

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

Date of Government Version: 08/01/2018
Date Data Arrived at EDR: 08/10/2018
Date Made Active in Reports: 09/24/2018
Number of Days to Update: 45

Source: Department of Environmental Quality
Telephone: 503-229-6801
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: 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: 06/18/2018
Date Data Arrived at EDR: 06/20/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: 202-566-2777
Last EDR Contact: 09/18/2018
Next Scheduled EDR Contact: 12/31/2018
Data Release Frequency: Semi-Annually

Local Lists of Landfill / Solid Waste Disposal Sites

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

SWRCY: Recycling Facility Location Listing

A listing of recycling facility locations.

Date of Government Version: 08/28/2018
Date Data Arrived at EDR: 08/29/2018
Date Made Active in Reports: 09/24/2018
Number of Days to Update: 26

Source: Department of Environmental Quality
Telephone: 503-229-5353
Last EDR Contact: 08/29/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: Quarterly

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: 10/25/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Varies

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: 10/22/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: No Update Planned

IHS OPEN DUMPS: Open Dumps on Indian Land
A listing of all open dumps located on Indian Land in the United States.

Date of Government Version: 04/01/2014
Date Data Arrived at EDR: 08/06/2014
Date Made Active in Reports: 01/29/2015
Number of Days to Update: 176
Source: Department of Health & Human Serivces, Indian Health Service
Telephone: 301-443-1452
Last EDR Contact: 11/02/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Varies

Local Lists of Hazardous waste / Contaminated Sites

US HIST CDL: National Clandestine Laboratory Register
A listing of clandestine drug lab locations that have been removed from the DEAs National Clandestine Laboratory Register.

Date of Government Version: 05/18/2018
Date Data Arrived at EDR: 06/20/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 86
Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/28/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: No Update Planned

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: 07/01/2018
Date Data Arrived at EDR: 08/01/2018
Date Made Active in Reports: 08/15/2018
Number of Days to Update: 14
Source: Oregon State Police
Telephone: 503-373-1540
Last EDR Contact: 10/31/2018
Next Scheduled EDR Contact: 02/11/2019
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: 09/21/2018
Date Data Arrived at EDR: 09/25/2018
Date Made Active in Reports: 10/22/2018
Number of Days to Update: 27

Source: Department of Consumer & Business Services
Telephone: 503-378-4133
Last EDR Contact: 08/01/2018
Next Scheduled EDR Contact: 11/19/2018
Data Release Frequency: Quarterly

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: 05/18/2018
Date Data Arrived at EDR: 06/20/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 86

Source: Drug Enforcement Administration
Telephone: 202-307-1000
Last EDR Contact: 08/28/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: Quarterly

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: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: 202-564-6023
Last EDR Contact: 10/04/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Semi-Annually

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: 03/26/2018
Date Data Arrived at EDR: 03/27/2018
Date Made Active in Reports: 06/08/2018
Number of Days to Update: 73

Source: U.S. Department of Transportation
Telephone: 202-366-4555
Last EDR Contact: 09/25/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Quarterly

SPILLS: Spill Data

Oil and hazardous material spills reported to the Environmental Response Program.

Date of Government Version: 10/01/2018
Date Data Arrived at EDR: 10/02/2018
Date Made Active in Reports: 10/23/2018
Number of Days to Update: 21

Source: Department of Environmental Quality
Telephone: 503-229-5815
Last EDR Contact: 10/01/2018
Next Scheduled EDR Contact: 01/14/2019
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: 07/01/2018
Date Data Arrived at EDR: 08/01/2018
Date Made Active in Reports: 08/15/2018
Number of Days to Update: 14

Source: State Fire Marshal's Office
Telephone: 503-373-1540
Last EDR Contact: 10/31/2018
Next Scheduled EDR Contact: 02/11/2019
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: 03/01/2018
Date Data Arrived at EDR: 03/28/2018
Date Made Active in Reports: 06/22/2018
Number of Days to Update: 86

Source: Environmental Protection Agency
Telephone: (206) 553-1200
Last EDR Contact: 09/19/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Quarterly

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: 01/31/2015
Date Data Arrived at EDR: 07/08/2015
Date Made Active in Reports: 10/13/2015
Number of Days to Update: 97

Source: U.S. Army Corps of Engineers
Telephone: 202-528-4285
Last EDR Contact: 08/24/2018
Next Scheduled EDR Contact: 12/03/2018
Data Release Frequency: Varies

DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 11/10/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 62

Source: USGS
Telephone: 888-275-8747
Last EDR Contact: 10/12/2018
Next Scheduled EDR Contact: 01/21/2019
Data Release Frequency: Semi-Annually

FEDLAND: Federal and Indian Lands

Federally and Indian administrated lands of the United States. Lands included are administrated by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005
Date Data Arrived at EDR: 02/06/2006
Date Made Active in Reports: 01/11/2007
Number of Days to Update: 339

Source: U.S. Geological Survey
Telephone: 888-275-8747
Last EDR Contact: 10/12/2018
Next Scheduled EDR Contact: 01/21/2019
Data Release Frequency: N/A

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: 01/01/2017
Date Data Arrived at EDR: 02/03/2017
Date Made Active in Reports: 04/07/2017
Number of Days to Update: 63
Source: Environmental Protection Agency
Telephone: 615-532-8599
Last EDR Contact: 08/17/2018
Next Scheduled EDR Contact: 11/26/2018
Data Release Frequency: Varies

US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 06/27/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 100
Source: Environmental Protection Agency
Telephone: 202-566-1917
Last EDR Contact: 09/25/2018
Next Scheduled EDR Contact: 01/07/2019
Data Release Frequency: Quarterly

EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

Date of Government Version: 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: 08/03/2018
Next Scheduled EDR Contact: 11/19/2018
Data Release Frequency: Quarterly

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: 09/30/2017
Date Data Arrived at EDR: 05/08/2018
Date Made Active in Reports: 07/20/2018
Number of Days to Update: 73
Source: Environmental Protection Agency
Telephone: 703-308-4044
Last EDR Contact: 08/10/2018
Next Scheduled EDR Contact: 11/19/2018
Data Release Frequency: Varies

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: 12/31/2016
Date Data Arrived at EDR: 06/21/2017
Date Made Active in Reports: 01/05/2018
Number of Days to Update: 198
Source: EPA
Telephone: 202-260-5521
Last EDR Contact: 09/21/2018
Next Scheduled EDR Contact: 12/31/2018
Data Release Frequency: Every 4 Years

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: 12/31/2016
Date Data Arrived at EDR: 01/10/2018
Date Made Active in Reports: 01/12/2018
Number of Days to Update: 2

Source: EPA
Telephone: 202-566-0250
Last EDR Contact: 08/24/2018
Next Scheduled EDR Contact: 12/03/2018
Data Release Frequency: Annually

SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

Date of Government Version: 12/31/2009
Date Data Arrived at EDR: 12/10/2010
Date Made Active in Reports: 02/25/2011
Number of Days to Update: 77

Source: EPA
Telephone: 202-564-4203
Last EDR Contact: 10/24/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Annually

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: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 57

Source: EPA
Telephone: 703-416-0223
Last EDR Contact: 10/04/2018
Next Scheduled EDR Contact: 12/17/2018
Data Release Frequency: Annually

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: 08/01/2018
Date Data Arrived at EDR: 08/22/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 44

Source: Environmental Protection Agency
Telephone: 202-564-8600
Last EDR Contact: 10/23/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

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

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: 10/04/2018
Next Scheduled EDR Contact: 11/19/2018
Data Release Frequency: Quarterly

PADS: PCB Activity Database System
PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

Date of Government Version: 06/01/2017
Date Data Arrived at EDR: 06/09/2017
Date Made Active in Reports: 10/13/2017
Number of Days to Update: 126
Source: EPA
Telephone: 202-566-0500
Last EDR Contact: 10/11/2018
Next Scheduled EDR Contact: 01/21/2019
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: 11/18/2016
Date Data Arrived at EDR: 11/23/2016
Date Made Active in Reports: 02/10/2017
Number of Days to Update: 79
Source: Environmental Protection Agency
Telephone: 202-564-2501
Last EDR Contact: 10/09/2018
Next Scheduled EDR Contact: 01/21/2019
Data Release Frequency: Quarterly

FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA/Office of Prevention, Pesticides and Toxic Substances
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)
A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

Date of Government Version: 04/09/2009
Date Data Arrived at EDR: 04/16/2009
Date Made Active in Reports: 05/11/2009
Number of Days to Update: 25
Source: EPA
Telephone: 202-566-1667
Last EDR Contact: 08/18/2017
Next Scheduled EDR Contact: 12/04/2017
Data Release Frequency: Quarterly

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: 08/30/2016
Date Data Arrived at EDR: 09/08/2016
Date Made Active in Reports: 10/21/2016
Number of Days to Update: 43
Source: Nuclear Regulatory Commission
Telephone: 301-415-7169
Last EDR Contact: 10/11/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Quarterly

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

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: 09/07/2018
Next Scheduled EDR Contact: 12/17/2018
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: 09/04/2018
Next Scheduled EDR Contact: 12/17/2018
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: 05/24/2017
Date Data Arrived at EDR: 11/30/2017
Date Made Active in Reports: 12/15/2017
Number of Days to Update: 15

Source: Environmental Protection Agency
Telephone: 202-566-0517
Last EDR Contact: 10/26/2018
Next Scheduled EDR Contact: 02/04/2019
Data Release Frequency: Varies

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: 07/02/2018
Date Data Arrived at EDR: 07/05/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 92

Source: Environmental Protection Agency
Telephone: 202-343-9775
Last EDR Contact: 10/03/2018
Next Scheduled EDR Contact: 01/14/2019
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

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: 10/30/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Varies

CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

Date of Government Version: 06/30/2018
Date Data Arrived at EDR: 07/17/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 80

Source: Department of Justice, Consent Decree Library
Telephone: Varies
Last EDR Contact: 10/01/2018
Next Scheduled EDR Contact: 12/31/2018
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: 12/31/2015
Date Data Arrived at EDR: 02/22/2017
Date Made Active in Reports: 09/28/2017
Number of Days to Update: 218

Source: EPA/NTIS
Telephone: 800-424-9346
Last EDR Contact: 08/24/2018
Next Scheduled EDR Contact: 12/03/2018
Data Release Frequency: Biennially

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: 12/31/2014
Date Data Arrived at EDR: 07/14/2015
Date Made Active in Reports: 01/10/2017
Number of Days to Update: 546

Source: USGS
Telephone: 202-208-3710
Last EDR Contact: 10/09/2018
Next Scheduled EDR Contact: 01/21/2019
Data Release Frequency: Semi-Annually

FUSRAP: Formerly Utilized Sites Remedial Action Program

DOE established the Formerly Utilized Sites Remedial Action Program (FUSRAP) in 1974 to remediate sites where radioactive contamination remained from Manhattan Project and early U.S. Atomic Energy Commission (AEC) operations.

Date of Government Version: 08/08/2017
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Energy
Telephone: 202-586-3559
Last EDR Contact: 11/01/2018
Next Scheduled EDR Contact: 02/18/2019
Data Release Frequency: Varies

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: 06/23/2017
Date Data Arrived at EDR: 10/11/2017
Date Made Active in Reports: 11/03/2017
Number of Days to Update: 23

Source: Department of Energy
Telephone: 505-845-0011
Last EDR Contact: 08/20/2018
Next Scheduled EDR Contact: 12/03/2018
Data Release Frequency: Varies

LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 07/17/2018
Date Data Arrived at EDR: 08/09/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 57

Source: Environmental Protection Agency
Telephone: 703-603-8787
Last EDR Contact: 10/04/2018
Next Scheduled EDR Contact: 01/14/2019
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

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: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

Date of Government Version: 10/12/2016
Date Data Arrived at EDR: 10/26/2016
Date Made Active in Reports: 02/03/2017
Number of Days to Update: 100

Source: EPA
Telephone: 202-564-2496
Last EDR Contact: 09/26/2017
Next Scheduled EDR Contact: 01/08/2018
Data Release Frequency: Annually

US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/01/2018
Date Data Arrived at EDR: 08/29/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 37

Source: Department of Labor, Mine Safety and Health Administration
Telephone: 303-231-5959
Last EDR Contact: 08/29/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: Semi-Annually

US MINES 2: Ferrous and Nonferrous Metal Mines Database Listing

This map layer includes ferrous (ferrous metal mines are facilities that extract ferrous metals, such as iron ore or molybdenum) and nonferrous (Nonferrous metal mines are facilities that extract nonferrous metals, such as gold, silver, copper, zinc, and lead) metal mines in the United States.

Date of Government Version: 12/05/2005
Date Data Arrived at EDR: 02/29/2008
Date Made Active in Reports: 04/18/2008
Number of Days to Update: 49

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/31/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: Varies

US MINES 3: Active Mines & Mineral Plants Database Listing

Active Mines and Mineral Processing Plant operations for commodities monitored by the Minerals Information Team of the USGS.

Date of Government Version: 04/14/2011
Date Data Arrived at EDR: 06/08/2011
Date Made Active in Reports: 09/13/2011
Number of Days to Update: 97

Source: USGS
Telephone: 703-648-7709
Last EDR Contact: 08/31/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: Varies

ABANDONED MINES: Abandoned Mines

An inventory of land and water impacted by past mining (primarily coal mining) is maintained by OSMRE to provide information needed to implement the Surface Mining Control and Reclamation Act of 1977 (SMCRA). The inventory contains information on the location, type, and extent of AML impacts, as well as, information on the cost associated with the reclamation of those problems. The inventory is based upon field surveys by State, Tribal, and OSMRE program officials. It is dynamic to the extent that it is modified as new problems are identified and existing problems are reclaimed.

Date of Government Version: 09/10/2018
Date Data Arrived at EDR: 09/11/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 3

Source: Department of Interior
Telephone: 202-208-2609
Last EDR Contact: 09/10/2018
Next Scheduled EDR Contact: 12/24/2018
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: 08/07/2018
Date Data Arrived at EDR: 09/05/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 30

Source: EPA
Telephone: (206) 553-1200
Last EDR Contact: 09/18/2018
Next Scheduled EDR Contact: 12/17/2018
Data Release Frequency: Quarterly

UXO: Unexploded Ordnance Sites

A listing of unexploded ordnance site locations

Date of Government Version: 09/30/2017
Date Data Arrived at EDR: 06/19/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 87

Source: Department of Defense
Telephone: 703-704-1564
Last EDR Contact: 10/15/2018
Next Scheduled EDR Contact: 01/28/2019
Data Release Frequency: Varies

DOCKET HWC: Hazardous Waste Compliance Docket Listing

A complete list of the Federal Agency Hazardous Waste Compliance Docket Facilities.

Date of Government Version: 05/31/2018
Date Data Arrived at EDR: 07/26/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 71

Source: Environmental Protection Agency
Telephone: 202-564-0527
Last EDR Contact: 08/31/2018
Next Scheduled EDR Contact: 12/10/2018
Data Release Frequency: Varies

GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

ECHO: Enforcement & Compliance History Information
ECHO provides integrated compliance and enforcement information for about 800,000 regulated facilities nationwide.

Date of Government Version: 09/02/2018
Date Data Arrived at EDR: 09/05/2018
Date Made Active in Reports: 09/14/2018
Number of Days to Update: 9
Source: Environmental Protection Agency
Telephone: 202-564-2280
Last EDR Contact: 09/05/2018
Next Scheduled EDR Contact: 12/17/2018
Data Release Frequency: Quarterly

FUELS PROGRAM: EPA Fuels Program Registered Listing
This listing includes facilities that are registered under the Part 80 (Code of Federal Regulations) EPA Fuels Programs. All companies now are required to submit new and updated registrations.

Date of Government Version: 08/22/2018
Date Data Arrived at EDR: 08/22/2018
Date Made Active in Reports: 10/05/2018
Number of Days to Update: 44
Source: EPA
Telephone: 800-385-6164
Last EDR Contact: 08/22/2018
Next Scheduled EDR Contact: 12/03/2018
Data Release Frequency: Quarterly

AIRS: Oregon Title V Facility Listing
A listing of Title V facility source and emissions information.

Date of Government Version: 10/01/2018
Date Data Arrived at EDR: 10/04/2018
Date Made Active in Reports: 10/26/2018
Number of Days to Update: 22
Source: Department of Environmental Quality
Telephone: 503-229-6459
Last EDR Contact: 10/01/2018
Next Scheduled EDR Contact: 04/17/2047
Data Release Frequency: Annually

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

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 03/16/2018
Date Made Active in Reports: 05/15/2018
Number of Days to Update: 60
Source: Department of Environmental Quality
Telephone: 541-298-7255
Last EDR Contact: 08/30/2018
Next Scheduled EDR Contact: 12/17/2018
Data Release Frequency: Varies

DRYCLEANERS: Drycleaning Facilities
A listing of registered drycleaning facilities in Oregon.

Date of Government Version: 07/27/2018
Date Data Arrived at EDR: 07/31/2018
Date Made Active in Reports: 08/15/2018
Number of Days to Update: 15
Source: Department of Environmental Quality
Telephone: 503-229-6783
Last EDR Contact: 10/29/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Annually

ENF: Enforcement Action Listing
Enforcement actions

Date of Government Version: 09/18/2018
Date Data Arrived at EDR: 09/19/2018
Date Made Active in Reports: 10/23/2018
Number of Days to Update: 34
Source: Department of Environmental Quality
Telephone: 503-229-5696
Last EDR Contact: 09/19/2018
Next Scheduled EDR Contact: 12/31/2018
Data Release Frequency: Quarterly

Financial Assurance 1: Financial Assurance Information Listing
Financial assurance information for hazardous waste facilities.

Date of Government Version: 05/21/2018
Date Data Arrived at EDR: 06/21/2018
Date Made Active in Reports: 07/23/2018
Number of Days to Update: 32
Source: Department of Environmental Quality
Telephone: 541-633-2011
Last EDR Contact: 08/30/2018
Next Scheduled EDR Contact: 12/17/2018
Data Release Frequency: Semi-Annually

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: 08/20/2018
Date Data Arrived at EDR: 08/21/2018
Date Made Active in Reports: 09/24/2018
Number of Days to Update: 34

Source: Department of Environmental Quality
Telephone: 503-229-5521
Last EDR Contact: 08/20/2018
Next Scheduled EDR Contact: 12/03/2018
Data Release Frequency: Semi-Annually

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: 05/03/2018
Date Data Arrived at EDR: 05/03/2018
Date Made Active in Reports: 06/07/2018
Number of Days to Update: 35

Source: State Fire Marshal's Office
Telephone: 503-373-1540
Last EDR Contact: 10/31/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Semi-Annually

OR MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 08/06/2018
Date Made Active in Reports: 08/15/2018
Number of Days to Update: 9

Source: Department of Environmental Quality
Telephone: N/A
Last EDR Contact: 08/01/2018
Next Scheduled EDR Contact: 11/19/2018
Data Release Frequency: Annually

NPDES: Wastewater Permits Database

A listing of permitted wastewater facilities.

Date of Government Version: 09/20/2018
Date Data Arrived at EDR: 09/20/2018
Date Made Active in Reports: 10/22/2018
Number of Days to Update: 32

Source: Department of Environmental Quality
Telephone: 503-229-5657
Last EDR Contact: 08/01/2018
Next Scheduled EDR Contact: 11/19/2018
Data Release Frequency: Varies

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: 09/25/2018
Date Data Arrived at EDR: 09/27/2018
Date Made Active in Reports: 10/23/2018
Number of Days to Update: 26

Source: Department of Environmental Quality
Telephone: 503-229-5945
Last EDR Contact: 09/25/2018
Next Scheduled EDR Contact: 01/07/2019
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 Hist Auto: EDR Exclusive Historical Auto 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 Hist Cleaner: EDR Exclusive Historical 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 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 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 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: 07/01/2018
Date Data Arrived at EDR: 08/01/2018
Date Made Active in Reports: 08/31/2018
Number of Days to Update: 30

Source: Department of Environmental Conservation
Telephone: 518-402-8651
Last EDR Contact: 10/31/2018
Next Scheduled EDR Contact: 02/11/2019
Data Release Frequency: Quarterly

WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2017
Date Data Arrived at EDR: 06/15/2018
Date Made Active in Reports: 07/09/2018
Number of Days to Update: 24

Source: Department of Natural Resources
Telephone: N/A
Last EDR Contact: 09/06/2018
Next Scheduled EDR Contact: 12/24/2018
Data Release Frequency: Annually

Oil/Gas Pipelines

Source: PennWell Corporation

Petroleum Bundle (Crude Oil, Refined Products, Petrochemicals, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)) N = Natural Gas Bundle (Natural Gas, Gas Liquids (LPG/NGL), and Specialty Gases (Miscellaneous)). This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

Electric Power Transmission Line Data

Source: PennWell Corporation

This map includes information copyrighted by PennWell Corporation. This information is provided on a best effort basis and PennWell Corporation does not guarantee its accuracy nor warrant its fitness for any particular purpose. Such information has been reprinted with the permission of PennWell.

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 was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

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

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

STREET AND ADDRESS INFORMATION

GEOCHECK ®- PHYSICAL SETTING SOURCE ADDENDUM

TARGET PROPERTY ADDRESS

SHIMANEK COVERED BRIDGE
RICHARDSON GAP DRIVE/SHIMANEK BRIDGE DR
SCIO, OR 97374

TARGET PROPERTY COORDINATES

Latitude (North):	44.715588 - 44° 42' 56.12''
Longitude (West):	122.80451 - 122° 48' 16.24''
Universal Tranverse Mercator:	Zone 10
UTM X (Meters):	515484.1
UTM Y (Meters):	4951158.5
Elevation:	351 ft. above sea level

USGS TOPOGRAPHIC MAP

Target Property Map:	6068622 SCIO, OR
Version Date:	2014

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 principle 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).

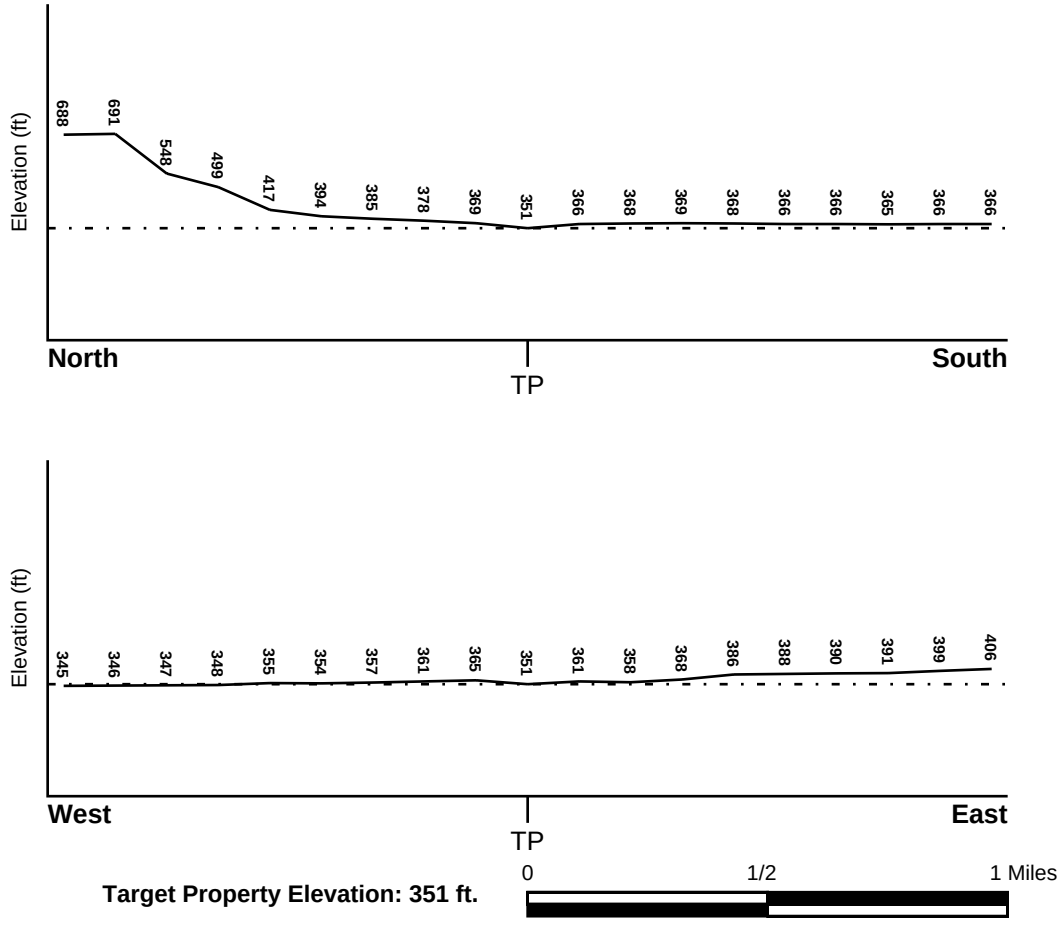
TOPOGRAPHIC INFORMATION

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 SSE

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

Flood Plain Panel at Target Property	FEMA Source Type
41043C0260G	FEMA FIRM Flood data

Additional Panels in search area:	FEMA Source Type
41043C0255G	FEMA FIRM Flood data
41043C0254G	FEMA FIRM Flood data

NATIONAL WETLAND INVENTORY

NWI Quad at Target Property	NWI Electronic Data Coverage
SCIO	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

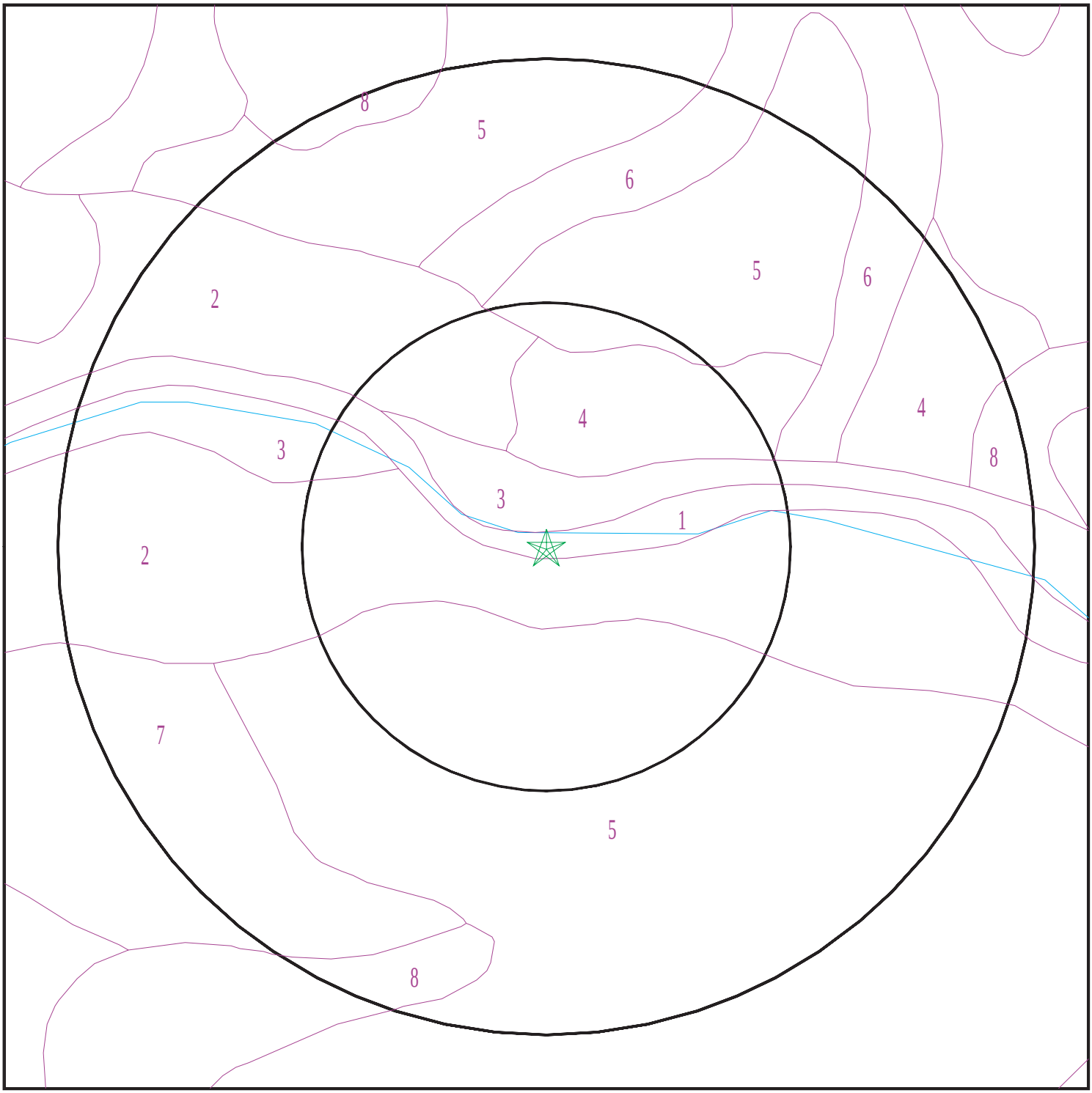
Era:	Cenozoic
System:	Tertiary
Series:	Oligocene
Code:	Toc *(decoded above as Era, System & Series)*

GEOLOGIC AGE IDENTIFICATION

Category: Continental Deposits

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 - 5475386.2s



Target Property
SSURGO Soil
Water

0 1/16 1/8 1/4 Miles

N

SITE NAME:	Shimanek Covered Bridge	CLIENT:	Cascade Earth Sciences
ADDRESS:	Richardson Gap Drive/Shimanek Bridge Dr Scio OR 97374	CONTACT:	Jessica Penetar
LAT/LONG:	44.715588 / 122.80451	INQUIRY #:	5475386.2s
		DATE:	November 05, 2018 2:57 pm

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:	Water
Soil Surface Texture:	
Hydrologic Group:	Not reported
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: 2

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

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	18 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
2	18 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: 14 Min: 4	Max: 7.3 Min: 6.1

Soil Map ID: 3

Soil Component Name: Fluvents

Soil Surface Texture: variable

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: All hydric

Corrosion Potential - Uncoated Steel: Not Reported

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 46 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	59 inches	variable	Not reported	Not reported	Max: Min:	Max: Min:

Soil Map ID: 4

Soil Component Name: Chehalis

Soil Surface Texture: silty clay loam

Hydrologic Group: Class B - Moderate infiltration rates. Deep and moderately deep, moderately well and well drained soils with moderately coarse textures.

Soil Drainage Class: Well drained

Hydric Status: Not hydric

Corrosion Potential - Uncoated Steel: Moderate

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 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	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: 7.3 Min: 5.6
2	16 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%), silt.	Max: 14 Min: 4	Max: 7.3 Min: 5.6

Soil Map ID: 5

Soil Component Name: Conser

Soil Surface Texture: silty clay 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: > 0 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	silty clay loam	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: 1.4 Min: 0.42	Max: 6.5 Min: 5.6
2	16 inches	63 inches	silty 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: 1.4 Min: 0.42	Max: 6.5 Min: 5.6

Soil Map ID: 6

Soil Component Name: Courtney

Soil Surface Texture: gravelly silty clay 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: > 0 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	gravelly silty clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILIS, Gravels, Clean Gravels, Well-graded gravel.	Max: 141 Min: 42	Max: 7.3 Min: 5.6
2	16 inches	33 inches	gravelly clay	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILIS, Gravels, Clean Gravels, Well-graded gravel.	Max: 141 Min: 42	Max: 7.3 Min: 5.6
3	33 inches	48 inches	very gravelly clay loam	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILIS, Gravels, Clean Gravels, Well-graded gravel.	Max: 141 Min: 42	Max: 7.3 Min: 5.6
4	48 inches	59 inches	extremely gravelly sand	Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils.	COARSE-GRAINED SOILIS, Gravels, Clean Gravels, Well-graded gravel.	Max: 141 Min: 42	Max: 7.3 Min: 5.6

Soil Map ID: 7

Soil Component Name: Coburg

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: > 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	16 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: 4 Min: 1.4	Max: 7.3 Min: 6.1
2	16 inches	61 inches	silty clay	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: 8

Soil Component Name: Awbrig

Soil Surface Texture: silty clay 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: > 0 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	silty clay loam	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: 4 Min: 1.4	Max: 7.3 Min: 6.6

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	31 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: 4 Min: 1.4	Max: 7.3 Min: 6.6
3	31 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 50% or more), Fat Clay.	Max: 4 Min: 1.4	Max: 7.3 Min: 6.6

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
A1	USGS40000990728	1/2 - 1 Mile North
B3	USGS40000990638	1/2 - 1 Mile South

FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
No PWS System Found		

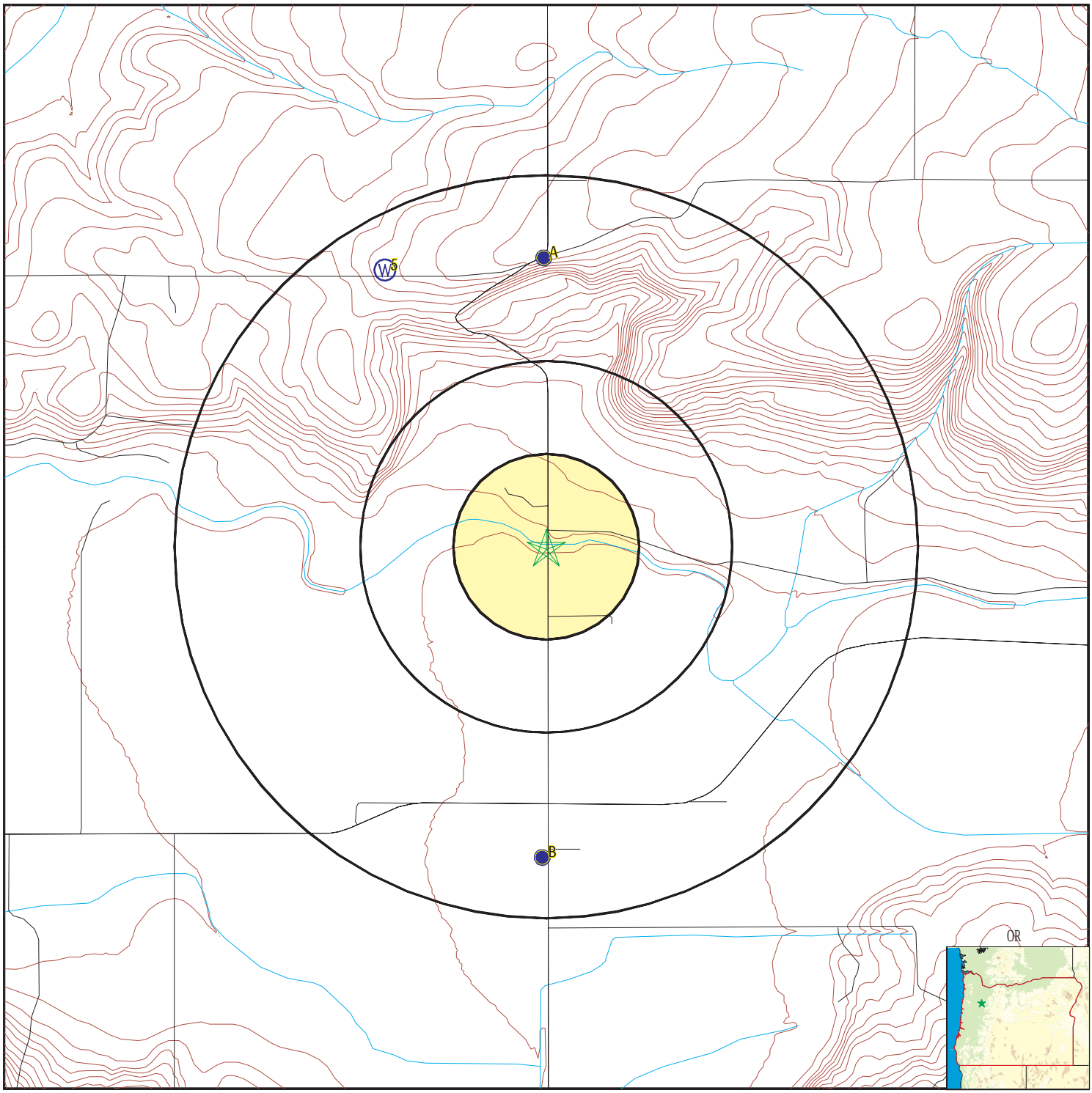
Note: PWS System location is not always the same as well location.

GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

STATE DATABASE WELL INFORMATION

MAP ID	WELL ID	LOCATION FROM TP
A2	ORW600000004584	1/2 - 1 Mile North
B4	ORW600000003777	1/2 - 1 Mile South
5	ORW600000007397	1/2 - 1 Mile NNW

PHYSICAL SETTING SOURCE MAP - 5475386.2s



- County Boundary
- Major Roads
- Contour Lines
- 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
- Oil, gas or related wells

SITE NAME:	Shimanek Covered Bridge	CLIENT:	Cascade Earth Sciences
ADDRESS:	Richardson Gap Drive/Shimanek Bridge Dr Scio OR 97374	CONTACT:	Jessica Penetar
		INQUIRY #:	5475386.2s
LAT/LONG:	44.715588 / 122.80451	DATE:	November 05, 2018 2:57 pm

GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS

Map ID
Direction
Distance
Elevation | Database | EDR ID Number

A1
North
1/2 - 1 Mile
Higher | **FED USGS** | **USGS40000990728**

Organization ID:	USGS-OR	Organization Name:	USGS Oregon Water Science Center
Monitor Location:	10S/01W-04DAD	Type:	Well
Description:	Not Reported	HUC:	17090006
Drainage Area:	Not Reported	Drainage Area Units:	Not Reported
Contrib Drainage Area:	Not Reported	Contrib Drainage Area Unts:	Not Reported
Aquifer:	Not Reported	Formation Type:	Not Reported
Aquifer Type:	Not Reported	Construction Date:	19570101
Well Depth:	139	Well Depth Units:	ft
Well Hole Depth:	Not Reported	Well Hole Depth Units:	Not Reported

Ground water levels,Number of Measurements:	1	Level reading date:	1957-12-01
Feet below surface:	48.00	Feet to sea level:	Not Reported
Note:	Not Reported		

A2
North
1/2 - 1 Mile
Higher | **OR WELLS** | **ORW600000004584**

Well Log ID:	LINN 3605	Last Update:	01/01/1990
Well Tag:	0	State Obs Well #:	0
Observation Well:	Not Reported	Recorder Well:	Not Reported
Obs Well Flag:	Not Reported	Surface Elevation:	675

B3
South
1/2 - 1 Mile
Higher | **FED USGS** | **USGS40000990638**

Organization ID:	USGS-OR	Organization Name:	USGS Oregon Water Science Center
Monitor Location:	10S/01W-16ADA	Type:	Well
Description:	NAWQA data entry com.&ver.09/08/1999 Hinkle SR		
HUC:	17090006	Drainage Area:	Not Reported
Drainage Area Units:	Not Reported	Contrib Drainage Area:	Not Reported
Contrib Drainage Area Unts:	Not Reported		
Aquifer:	Willamette Lowland basin-fill aquifers		
Formation Type:	Quaternary Alluvium	Aquifer Type:	Unconfined single aquifer
Construction Date:	19730807	Well Depth:	50
Well Depth Units:	ft	Well Hole Depth:	50
Well Hole Depth Units:	ft		

Ground water levels,Number of Measurements:	6	Level reading date:	2004-06-17
Feet below surface:	2.24	Feet to sea level:	Not Reported
Note:	Not Reported		
Level reading date:	2002-07-11	Feet below surface:	3.96
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1996-11-15	Feet below surface:	1.76
Feet to sea level:	Not Reported	Note:	The site had been pumped recently.

Level reading date:	1993-07-27	Feet below surface:	4.04
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1993-02-05	Feet below surface:	1.57
Feet to sea level:	Not Reported	Note:	Not Reported
Level reading date:	1973-08-07	Feet below surface:	6.00
Feet to sea level:	Not Reported	Note:	Not Reported

B4
South
1/2 - 1 Mile
Higher

OR WELLS **ORW600000003777**

Well Log ID:	LINN 3778	Last Update:	01/01/1990
Well Tag:	0	State Obs Well #:	0
Observation Well:	Noncurrent	Recorder Well:	Not Reported
Obs Well Flag:	Other Obs Well, Noncurrent	Surface Elevation:	365

5
NNW
1/2 - 1 Mile
Higher

OR WELLS **ORW600000007397**

Well Log ID:	LINN 295	Last Update:	10/25/2005
Well Tag:	0	State Obs Well #:	0
Observation Well:	Noncurrent	Recorder Well:	Not Reported
Obs Well Flag:	Other Obs Well, Noncurrent	Surface Elevation:	630

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
97374	4	1.7	1.2	1.4	0

Federal EPA Radon Zone for LINN County: 3

Note: Zone 1 indoor average level > 4 pCi/L.
: Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.
: Zone 3 indoor average level < 2 pCi/L.

Not Reported

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.

Current USGS 7.5 Minute Topographic Map
Source: U.S. Geological Survey

HYDROLOGIC INFORMATION

Flood Zone Data: This data was obtained from the Federal Emergency Management Agency (FEMA). It depicts 100-year and 500-year flood zones as defined by FEMA. It includes the National Flood Hazard Layer (NFHL) which incorporates Flood Insurance Rate Map (FIRM) data and Q3 data from FEMA in areas not covered by NFHL.
Source: FEMA
Telephone: 877-336-2627
Date of Government Version: 2003, 2015

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 Service (NRCS)
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 Service (NRCS)
Telephone: 800-672-5559
SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Service, 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

Shimanek Covered Bridge

Richardson Gap Drive/Shimanek Bridge Dr

Scio, OR 97374

Inquiry Number: 5475386.3

November 05, 2018

Certified Sanborn® Map Report

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

Certified Sanborn® Map Report

11/05/18

Site Name:

Shimanek Covered Bridge
Richardson Gap Drive/Shimane
Scio, OR 97374
EDR Inquiry # 5475386.3

Client Name:

Cascade Earth Sciences
3511 Pacific Boulevard SW
Albany, OR 97321
Contact: Jessica Penetar

The Sanborn Library has been searched by EDR and maps covering the target property location as provided by Cascade Earth Sciences 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:

Certification # 08FB-4552-8DCC

PO # P201823036

Project Shimanek Covered Bridge

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 #: 08FB-4552-8DCC

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™

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Cascade Earth Sciences (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.

Shimanek Covered Bridge

Richardson Gap Drive/Shimanek Bridge Dr

Scio, OR 97374

Inquiry Number: 5475386.4

November 05, 2018

EDR Historical Topo Map Report

with QuadMatch™

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

EDR Historical Topo Map Report

11/05/18

Site Name:

Shimanek Covered Bridge
Richardson Gap Drive/Shimane
Scio, OR 97374
EDR Inquiry # 5475386.4

Client Name:

Cascade Earth Sciences
3511 Pacific Boulevard SW
Albany, OR 97321
Contact: Jessica Penetar

EDR Topographic Map Library has been searched by EDR and maps covering the target property location as provided by Cascade Earth Sciences were identified for the years listed below. EDR's Historical Topo Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topo Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the late 1800s.

Search Results:

P.O.# P201823036

Project: Shimanek Covered Bridge

Coordinates:

Latitude:	44.715588 44° 42' 56" North
Longitude:	-122.80451 -122° 48' 16" West
UTM Zone:	Zone 10 North
UTM X Meters:	515483.64
UTM Y Meters:	4951375.21
Elevation:	350.56' above sea level

Maps Provided:

2014
1986
1969
1957
1944
1924
1922
1921

Topo Sheet Key

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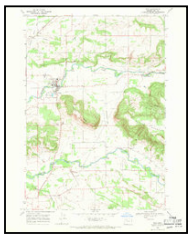
2014 Source Sheets

Scio
2014
7.5-minute, 24000

1986 Source Sheets

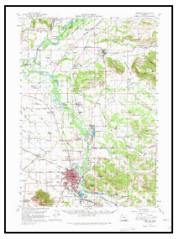
Scio
1986
7.5-minute, 24000
Aerial Photo Revised 1982

1969 Source Sheets



Scio
1969
7.5-minute, 24000
Aerial Photo Revised 1967

1957 Source Sheets



Lebanon
1957
15-minute, 62500

Topo Sheet Key

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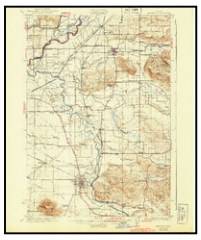
1944 Source Sheets

LEBANON
1944
15-minute, 50000

1924 Source Sheets



Lebanon
1924
15-minute, 62500

1922 Source Sheets

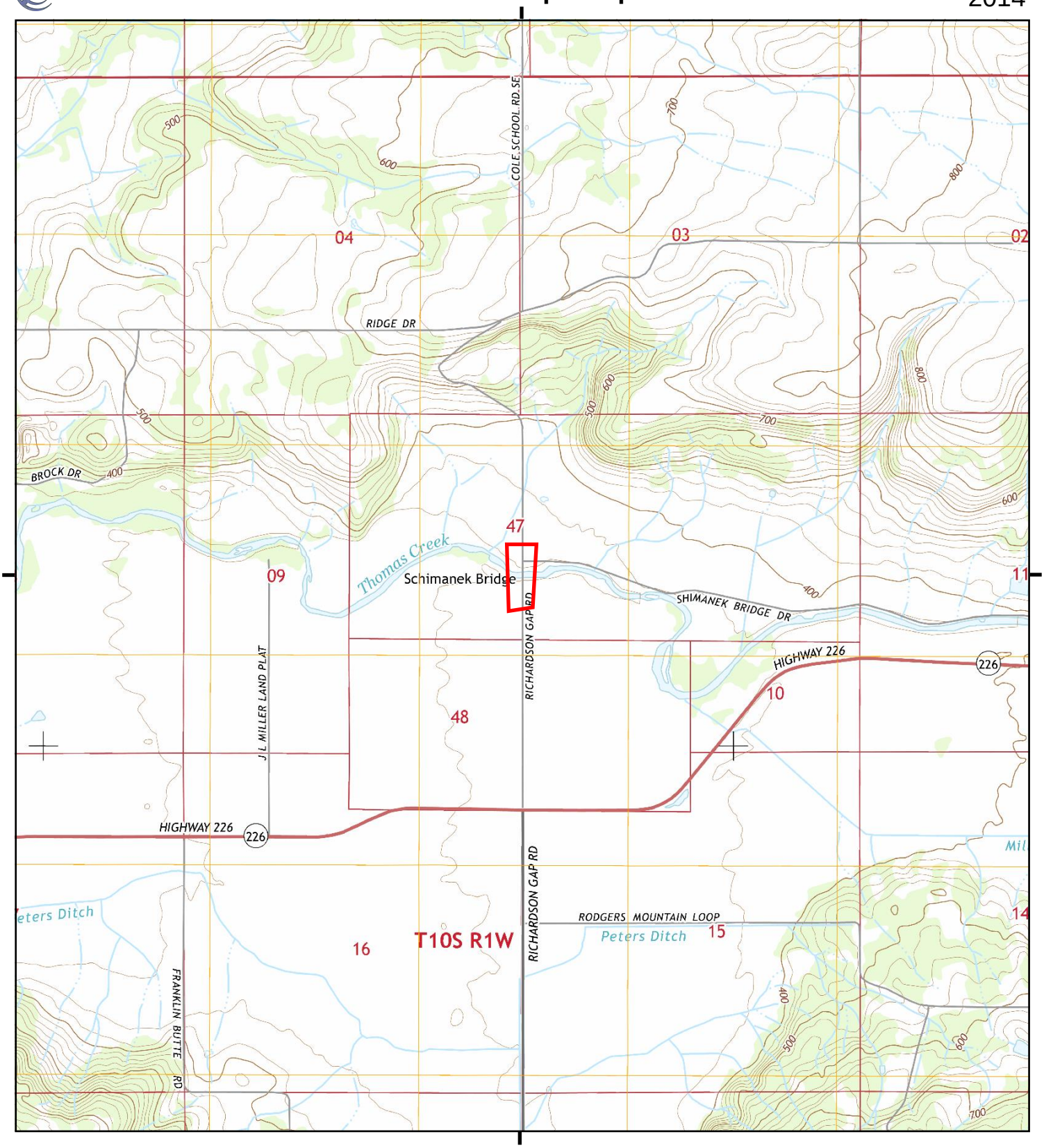
Lebanon
1922
15-minute, 48000

1921 Source Sheets

Lebanon
1921
15-minute, 62500

Historical Topo Map

2014



0 Miles 0.25 0.5 1 1.5

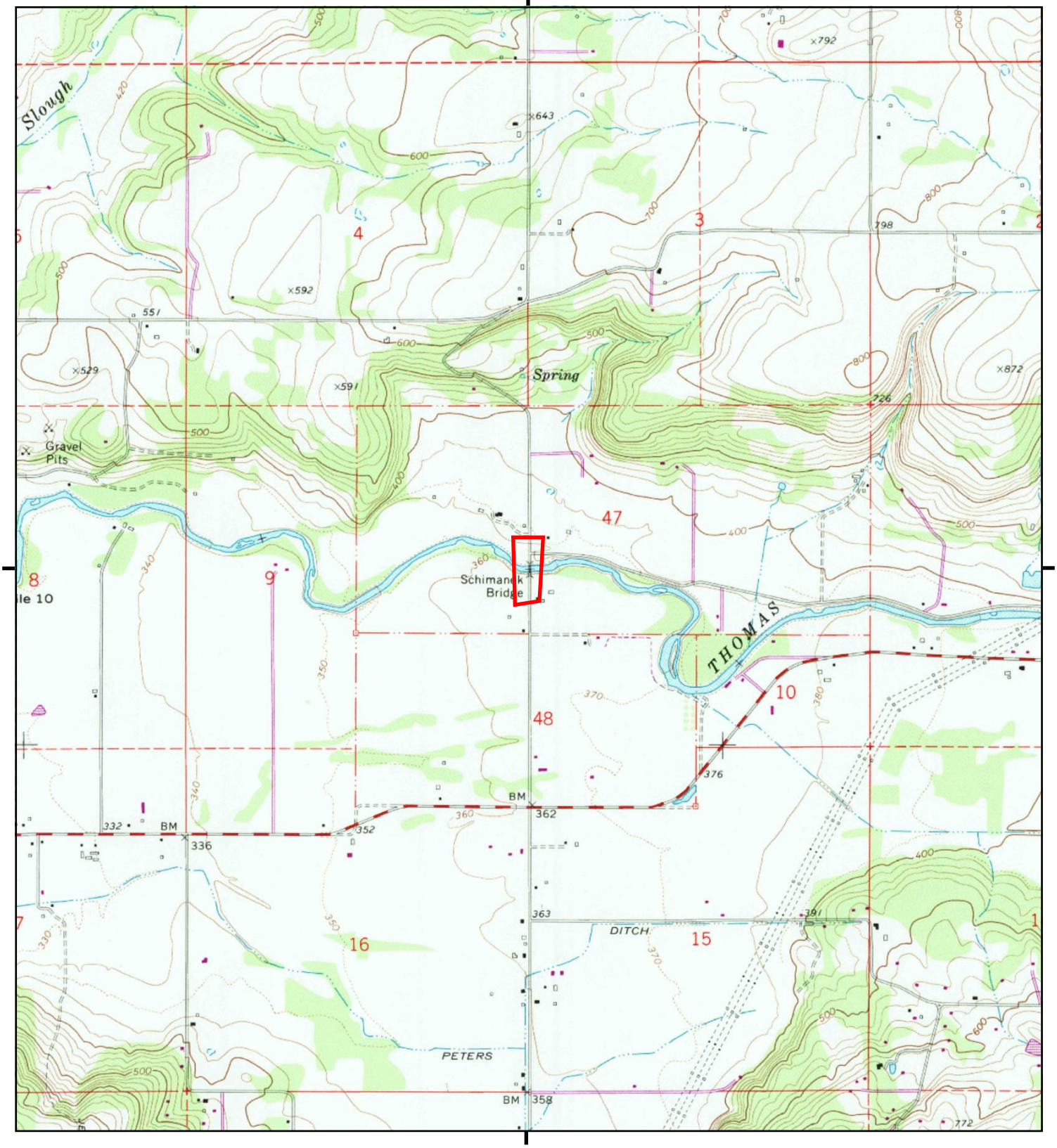
NW N NE
W E
SW S SE

TP, Scio, 2014, 7.5-minute

Shimanek Covered Bridge
Richardson Gap Drive/Shimanek Bridge
Scio, OR 97374
Cascade Earth Sciences

N

5475386 - 4



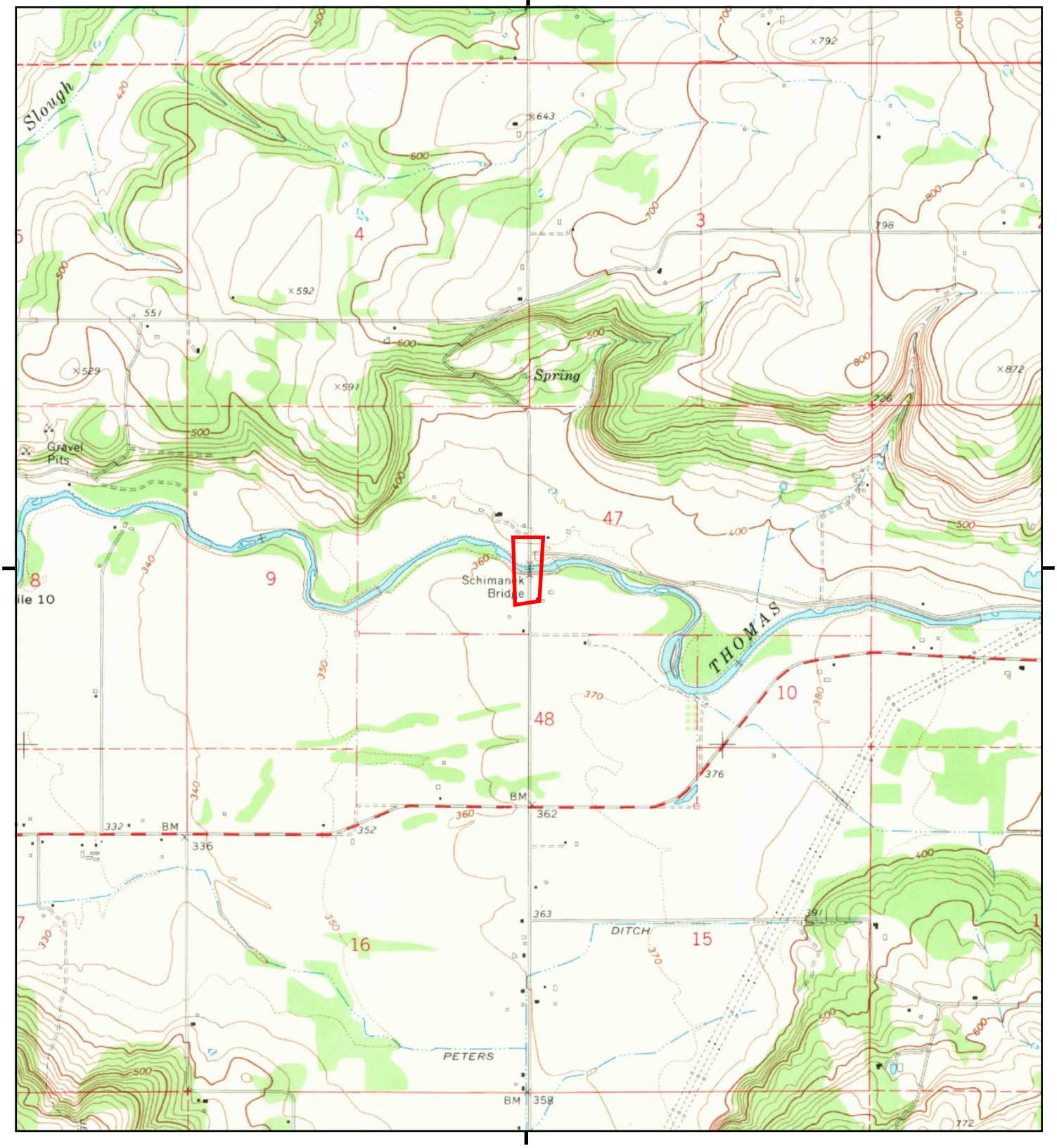
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Scio, 1986, 7.5-minute

Shimanek Covered Bridge
Richardson Gap Drive/Shimanek Bridge
Scio, OR 97374
Cascade Earth Sciences

N



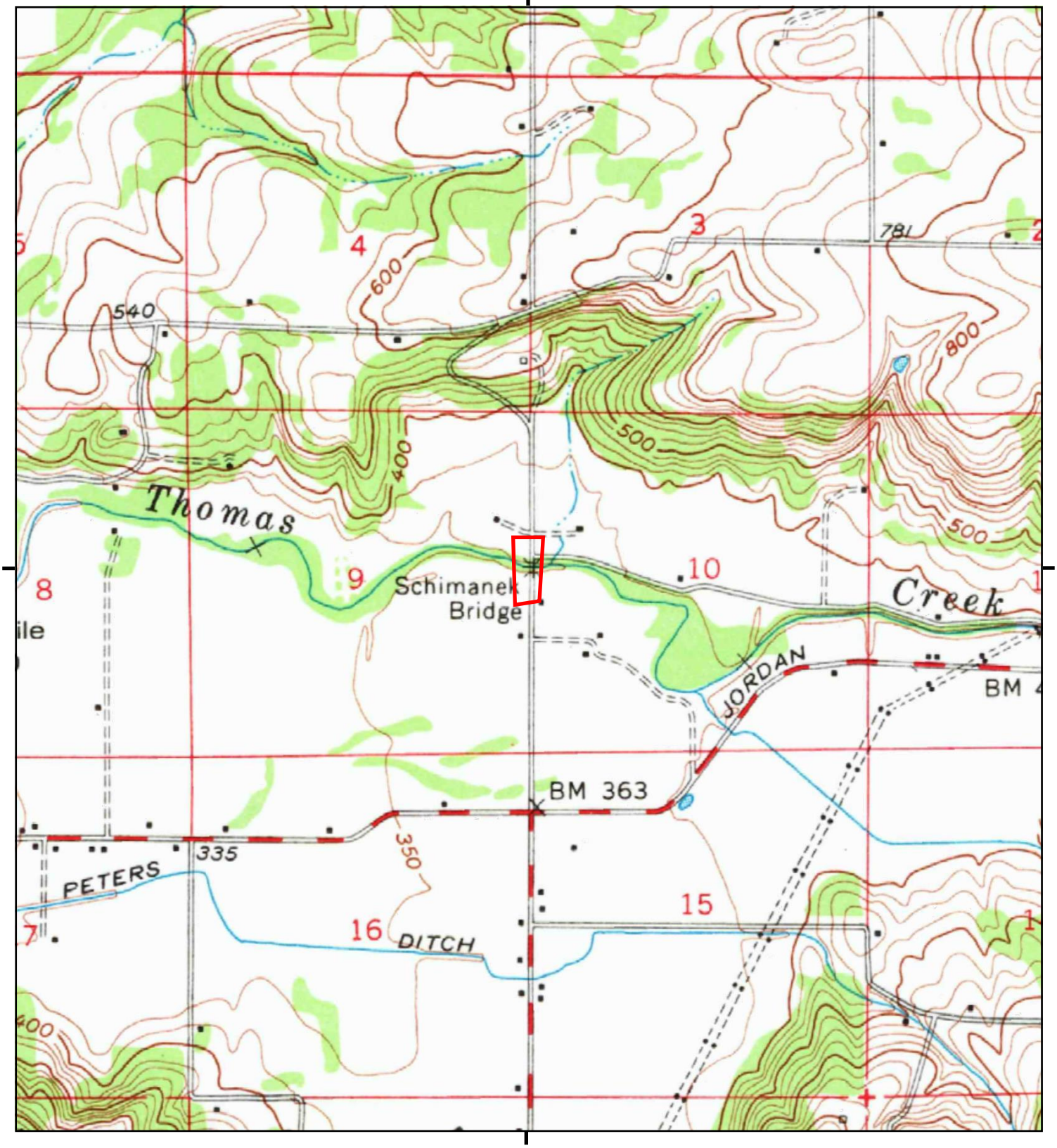
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Scio, 1969, 7.5-minute

Shimanek Covered Bridge
Richardson Gap Drive/Shimanek Bridge
Scio, OR 97374
Cascade Earth Sciences

N



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□□ll□□i□□ □ □p □□□□□□□□□

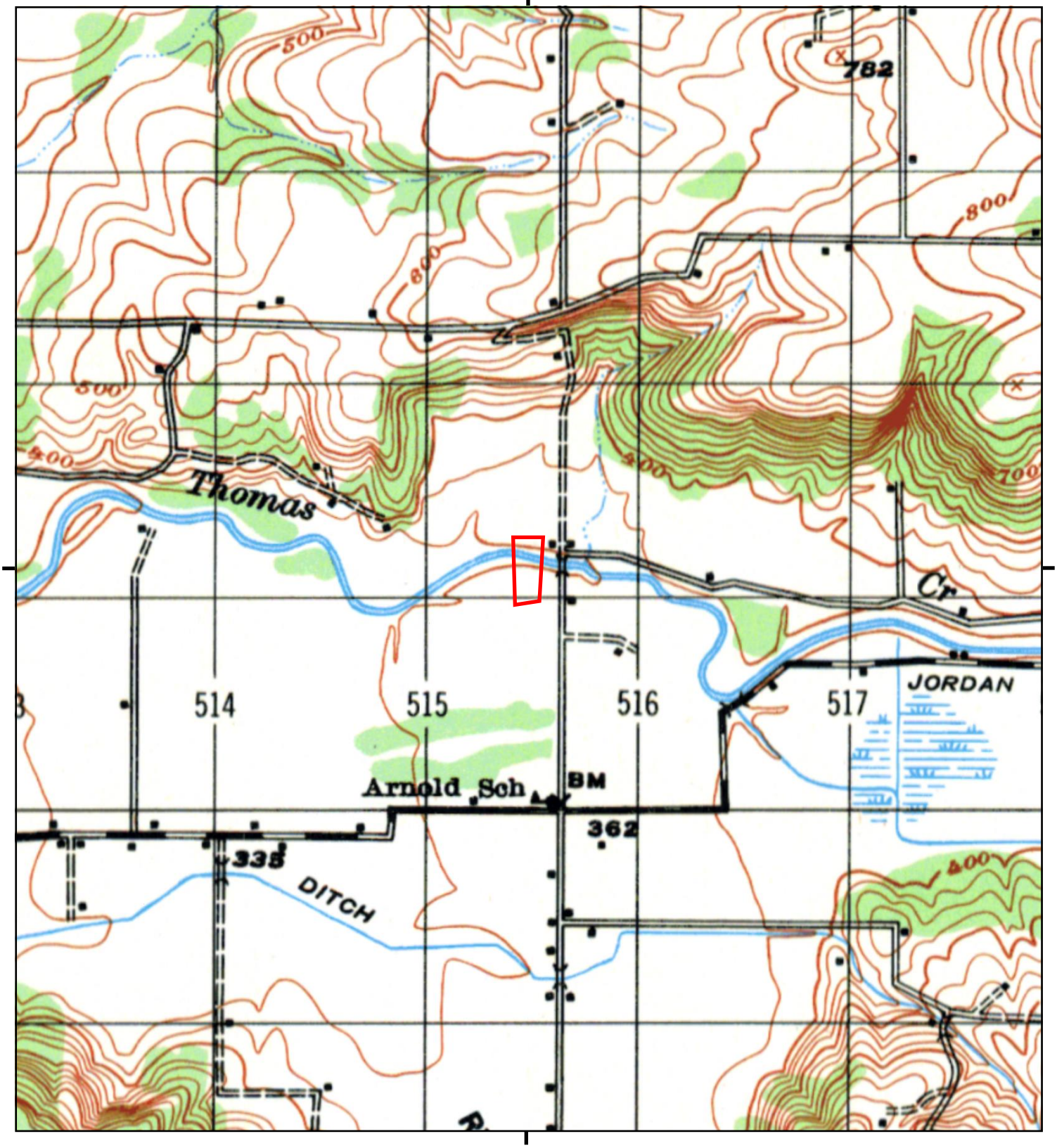
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Lebanon, 1957, 15-minute

□□□□ □AM□□ Shimanek Covered Bridge
A□□□□□□□ Richardson Gap Drive/Shimanek Bridge I
Scio, OR 97374
□□□□□□ Cascade Earth Sciences

N



□□i□r□p□r□i□□l□d□□i□□r□ □i□□ r□□ □□□
□□ll□□i□□ □ □p □□□□□□□□□

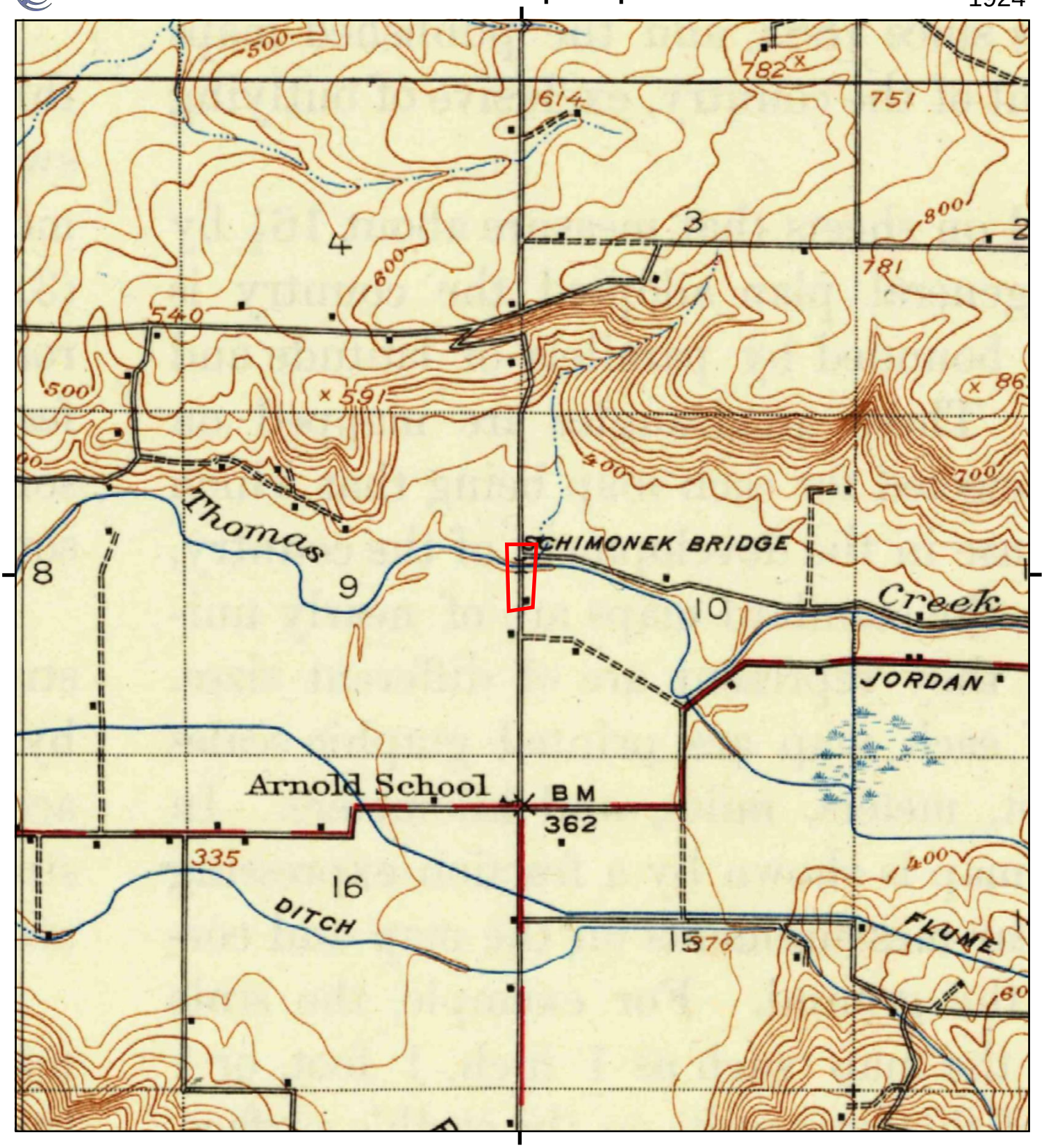
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, LEBANON, 1944, 15-minute

□□□□ □AM□□ Shimanek Covered Bridge
A□□□□□□□ Richardson Gap Drive/Shimanek Bridge I
Scio, OR 97374
□□□□□□□ Cascade Earth Sciences

N



□□i□r□p□r□i□□l□d□□i□□r□ □i□□ r□□ □□□
□□ll□□i□□ □ □p □□□□□□□□□

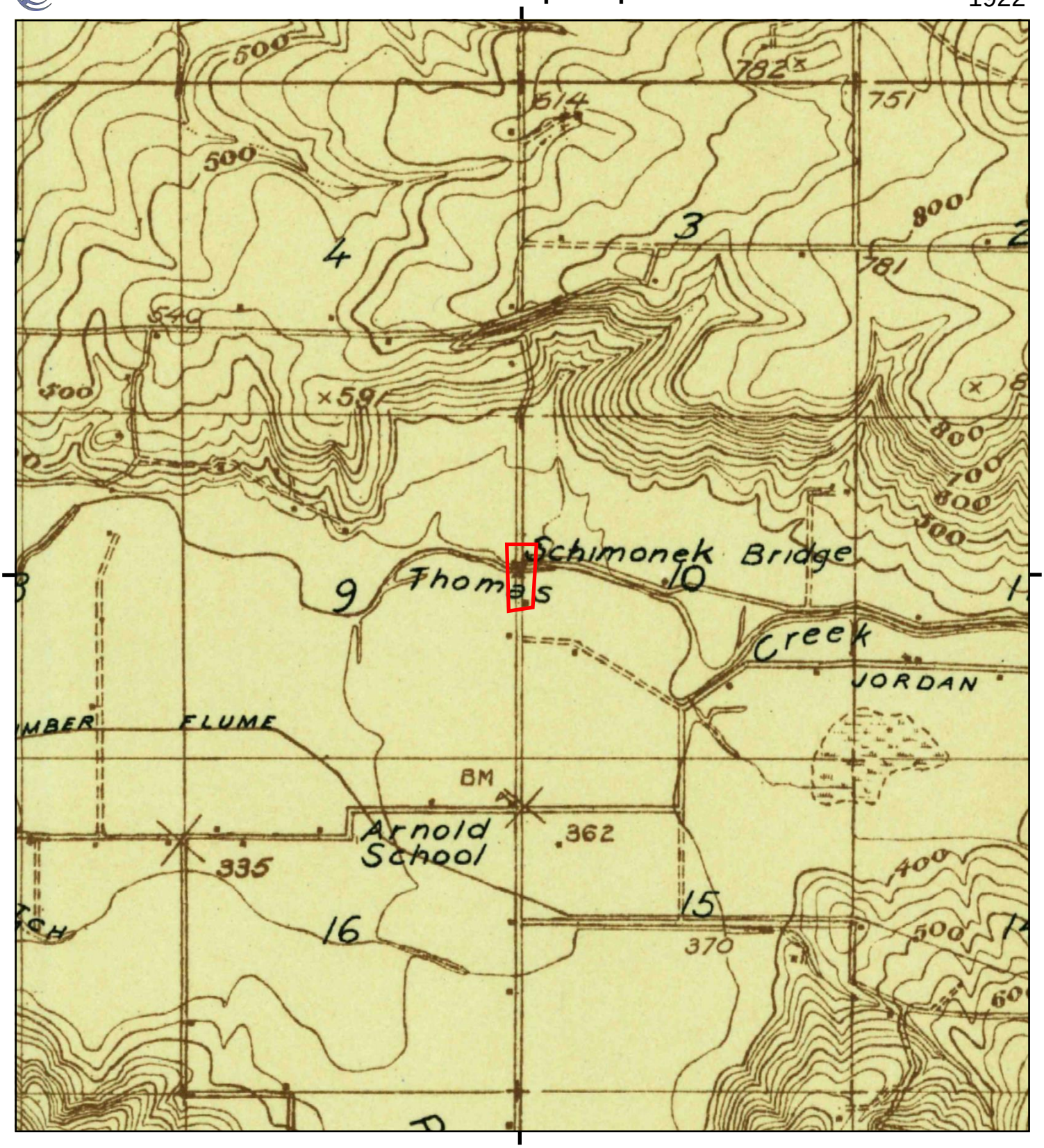
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Lebanon, 1924, 15-minute

□□□□ □AM□□ Shimanek Covered Bridge
A□□□□□□□ Richardson Gap Drive/Shimanek Bridge I
Scio, OR 97374
□□□□□□□ Cascade Earth Sciences

N



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□□ll□□i□□ □ □p □□□□□□□□□

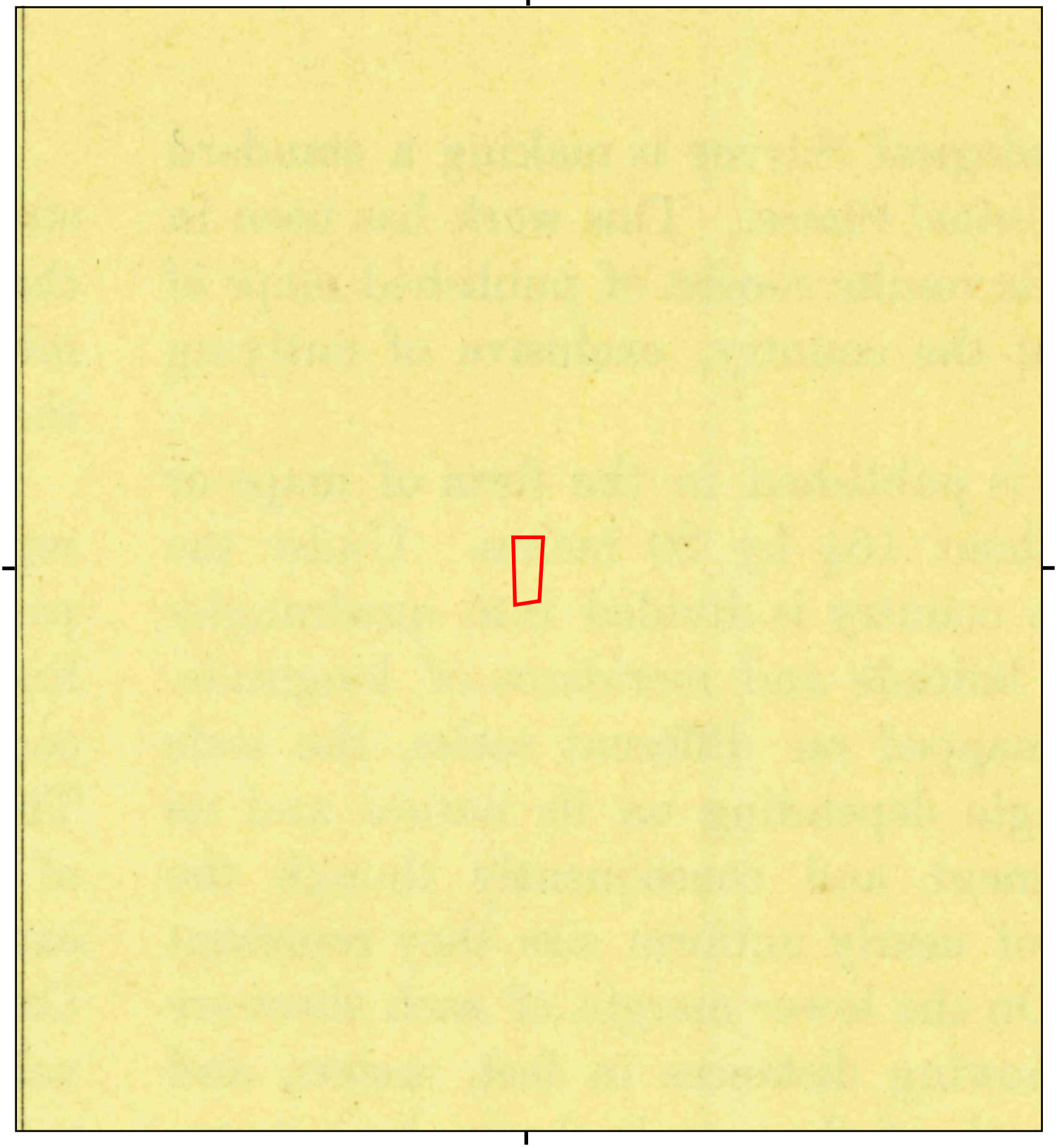
0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Lebanon, 1922, 15-minute

□□□□ □AM□□ Shimanek Covered Bridge
A□□□□□□□ Richardson Gap Drive/Shimanek Bridge I
Scio, OR 97374
□□□□□□□ Cascade Earth Sciences

N



□□i□r□p□r□i□□l□d□□i□□□r□ □i□□ □r□□ □□□
□□ll□□i□□ □ □p □□□□□□□□□□

0 Miles 0.25 0.5 1 1.5

NW N NE
W E
SW S SE

TP, Lebanon, 1921, 15-minute

□□□□ □AM□□ Shimanek Covered Bridge
A□□□□□□□ Richardson Gap Drive/Shimanek Bridge [
Scio, OR 97374
□□□□□□□ Cascade Earth Sciences

N

Shimanek Covered Bridge

Richardson Gap Drive/Shimanek Bridge Dr

Scio, OR 97374

Inquiry Number: 5475386.8

November 06, 2018

The EDR Aerial Photo Decade Package

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

EDR Aerial Photo Decade Package

11/06/18

Site Name:

Shimanek Covered Bridge
Richardson Gap Drive/Shimane
Scio, OR 97374
EDR Inquiry # 5475386.8

Client Name:

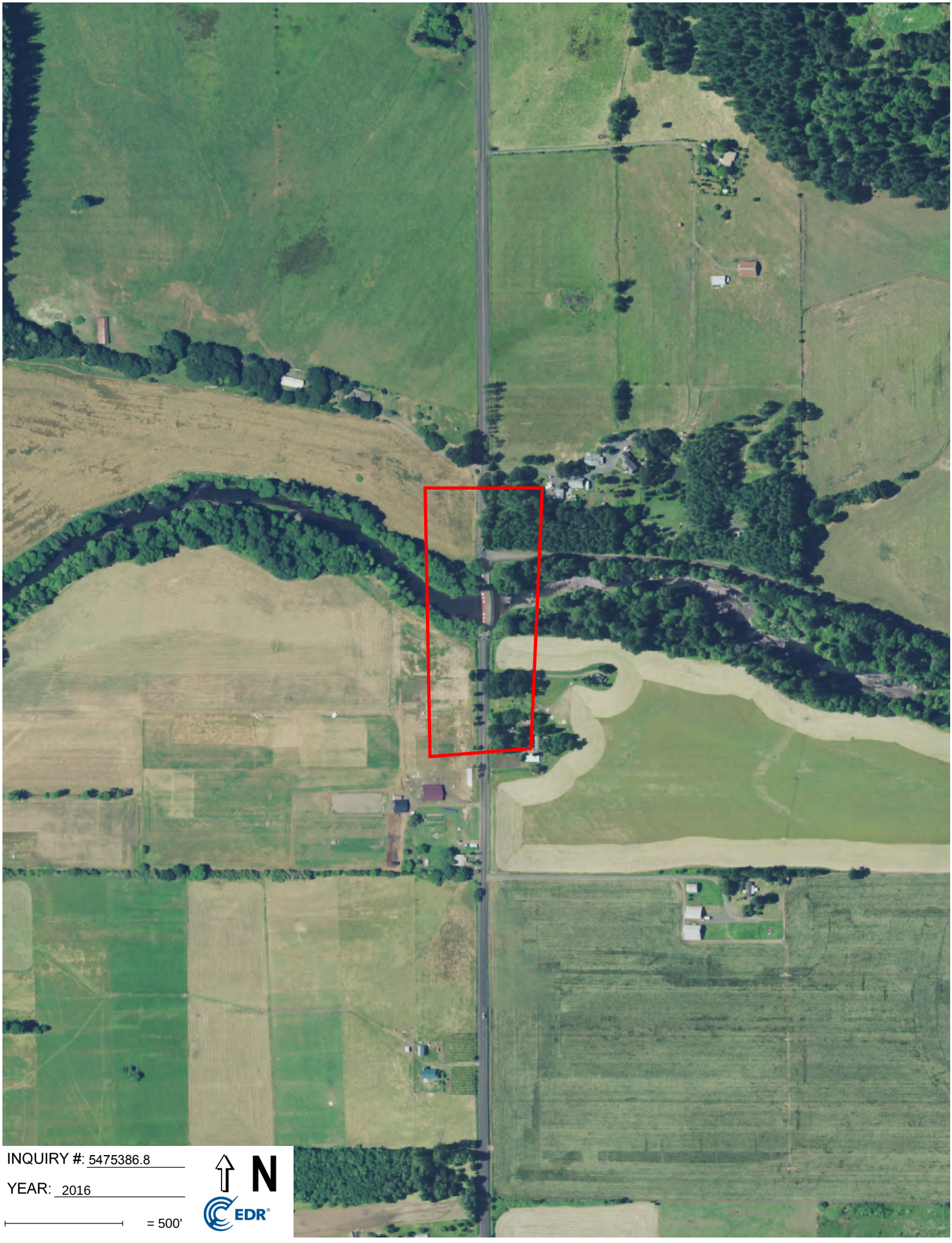
Cascade Earth Sciences
3511 Pacific Boulevard SW
Albany, OR 97321
Contact: Jessica Penetar

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

Search Results:

Year	*Scale*	*Details*	*Source*
2016	1"=500'	Flight Year: 2016	USDA/NAIP
2012	1"=500'	Flight Year: 2012	USDA/NAIP
2009	1"=500'	Flight Year: 2009	USDA/NAIP
2006	1"=500'	Flight Year: 2006	USDA/NAIP
1994	1"=750'	Flight Date: May 23, 1994	USGS
1982	1"=500'	Flight Date: July 10, 1982	USDA
1976	1"=500'	Flight Date: July 28, 1976	USGS
1967	1"=500'	Flight Date: November 19, 1967	USGS
1955	1"=500'	Flight Date: July 10, 1955	USGS
1948	1"=500'	Flight Date: June 28, 1948	USDA

When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.



INQUIRY #: 5475386.8

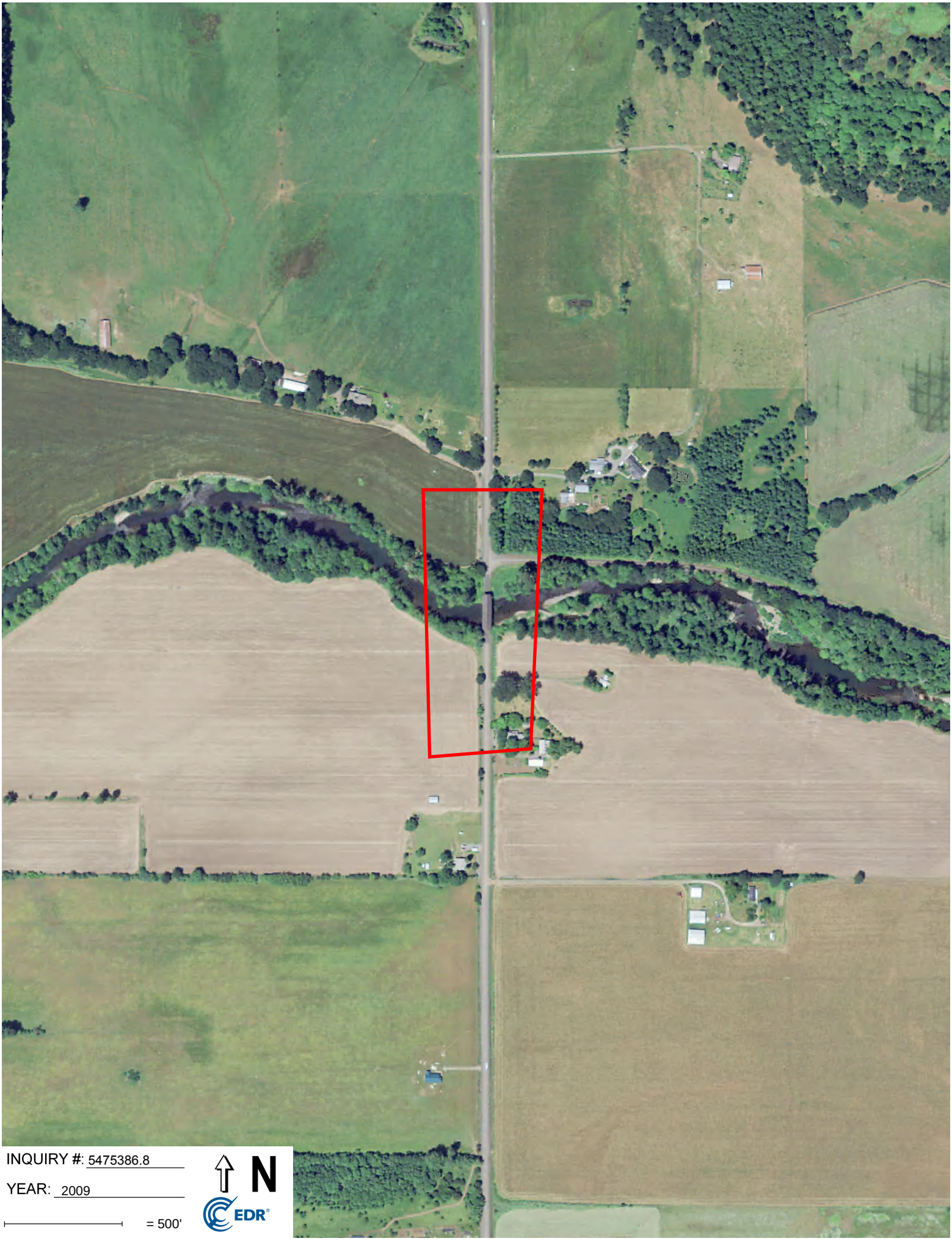
YEAR: 2016

= 500'

N

EDR


INQUIRY #: 5475386.8
YEAR: 2012
= 500'
N
EDR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YEAR: 2009
= 500'
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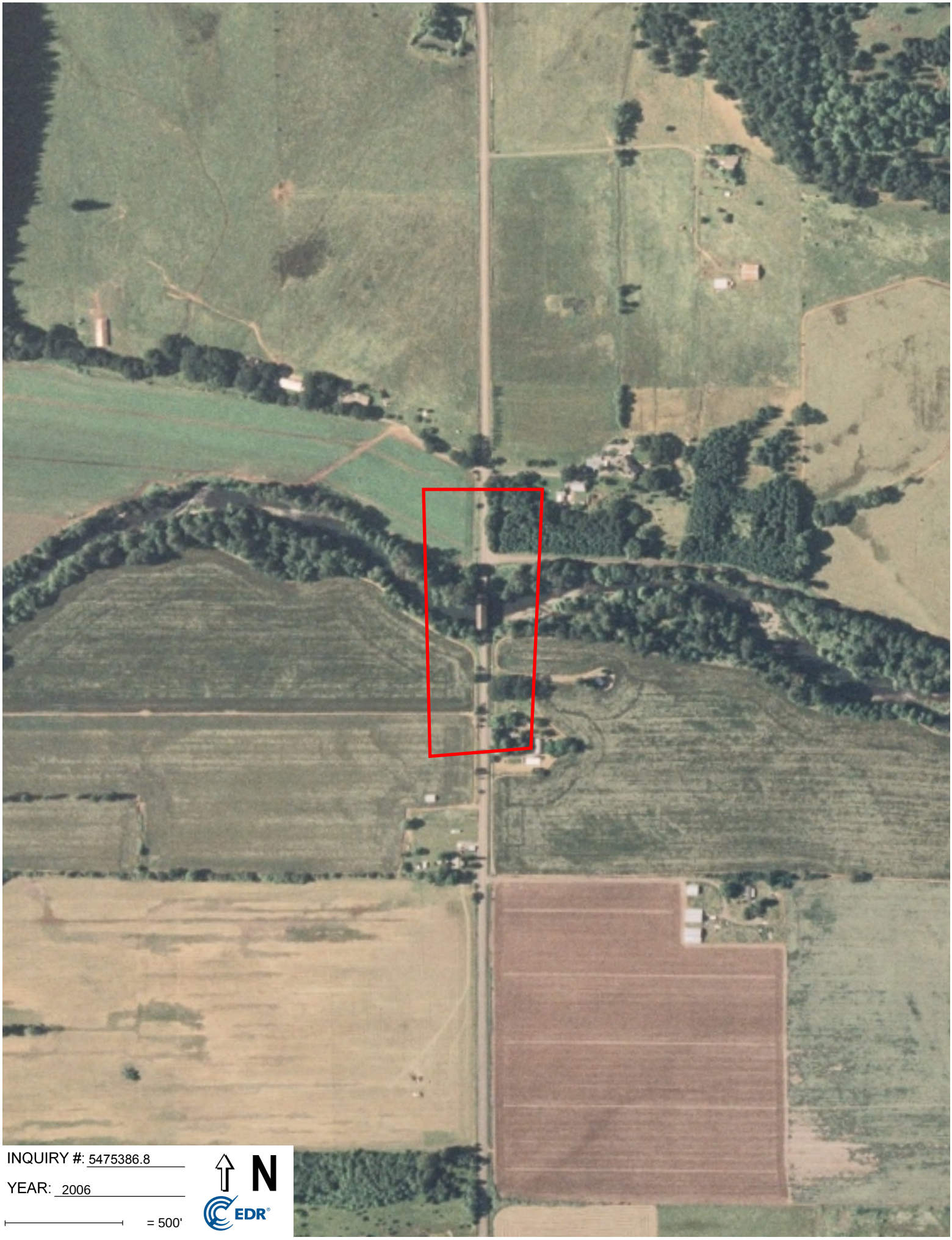
EDR



INQUIRY #: 5475386.8

YEAR: 2006

= 500'

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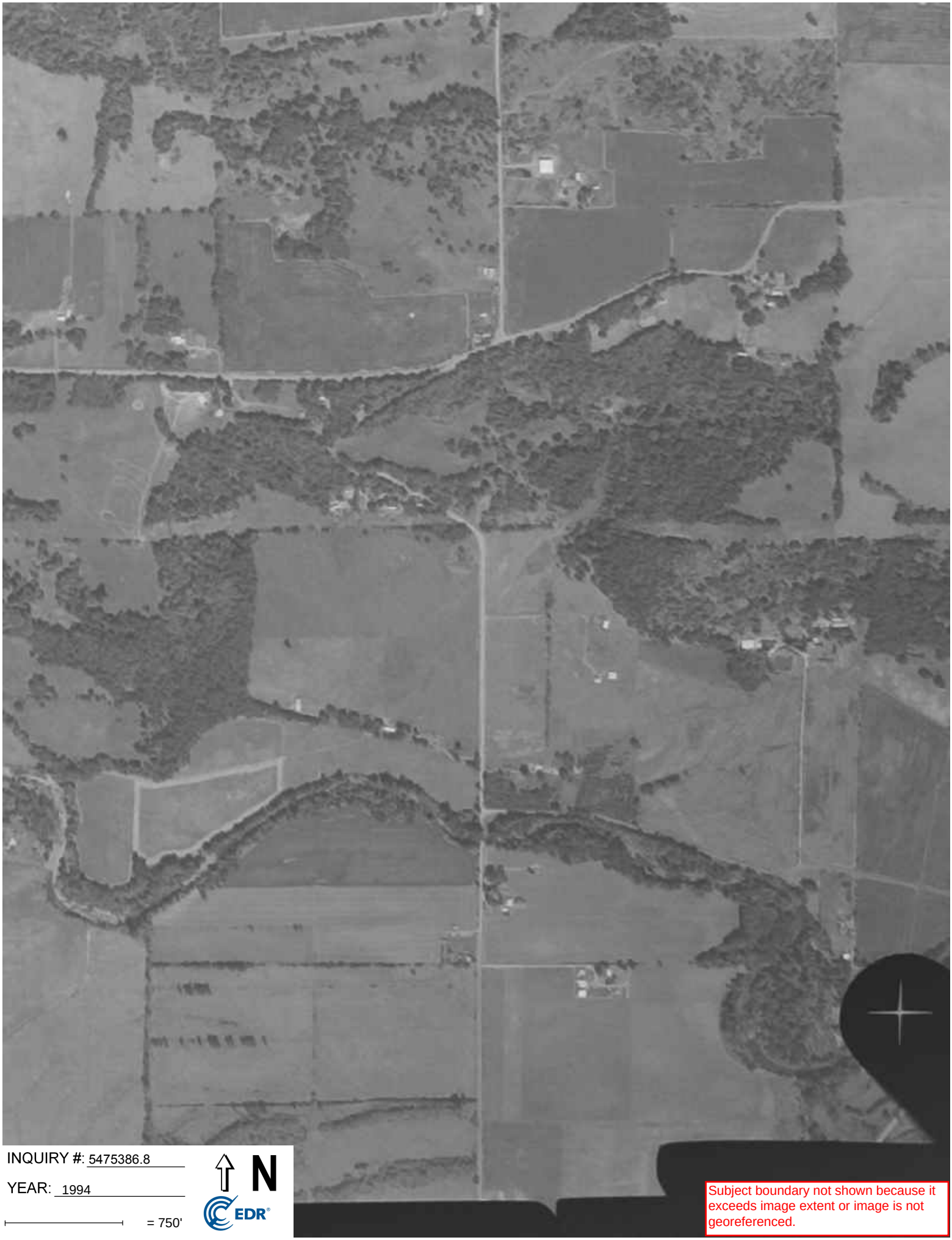
EDR



INQUIRY #: 5475386.8

YEAR: 1994

= 750'

N

EDR

Subject boundary not shown because it exceeds image extent or image is not georeferenced.

INQUIRY #: 5475386.8

YEAR: 1994

= 500'

N

EDR

Subject boundary not shown because it exceeds image extent or image is not georeferenced.


INQUIRY #: 5475386.8
YEAR: 1982
= 500'
N
EDR

INQUIRY #: 5475386.8

YEAR: 1976

= 500'

N

EDR

INQUIRY #: 5475386.8

YEAR: 1967

= 500'

N

EDR

INQUIRY #: 5475386.8

YEAR: 1955

= 500'

N

EDR

INQUIRY #: 5475386.8

YEAR: 1948

= 500'

N

EDR

Shimanek Covered Bridge
Richardson Gap Drive/Shimanek Bridge Dr
Scio, OR 97374

Inquiry Number: 5475386.5
November 06, 2018

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.

RECORD SOURCES

EDR's Digital Archive combines historical directory listings from sources such as Cole Information and Dun & Bradstreet. These standard sources of property information complement and enhance each other to provide a more comprehensive report.

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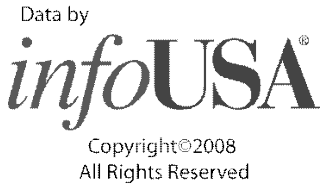


RESEARCH SUMMARY

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
2014	☑	☐	EDR Digital Archive
2010	☑	☐	EDR Digital Archive
2005	☑	☐	EDR Digital Archive
2000	☑	☐	EDR Digital Archive
1995	☑	☐	EDR Digital Archive
1992	☑	☐	EDR Digital Archive

FINDINGS

TARGET PROPERTY STREET

Richardson Gap Drive/Shimanek Bridge Dr
Scio, OR 97374

Year	*CD Image*	*Source*
RICHARDSON GAP RD		
2014	pg A2	EDR Digital Archive
2010	pg A5	EDR Digital Archive
2005	pg A8	EDR Digital Archive
2000	pg A11	EDR Digital Archive
1995	pg A13	EDR Digital Archive
1992	pg A16	EDR Digital Archive
SHIMANEK BR DR		
1992	pg A17	EDR Digital Archive
SHIMANEK BRIDGE DR		
2014	pg A4	EDR Digital Archive
2010	pg A7	EDR Digital Archive
2005	pg A10	EDR Digital Archive
2000	pg A12	EDR Digital Archive
1995	pg A14	EDR Digital Archive
1992	pg A18	EDR Digital Archive
SHIMANK BRDG DR		
1995	pg A15	EDR Digital Archive
1992	pg A19	EDR Digital Archive

FINDINGS

CROSS STREETS

No Cross Streets Identified

City Directory Images

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

RICHARDSON GAP RD 2014

35787	PROVIDNC VNYRD CHRISTN FLLWSHP
35819	DUNN, LOREN C
35832	JIMENEZ, JOSE T
35849	MCLEAN, RICHARD C
35854	OLSON, JOSEPHINE R
35891	BRENNER, GREGORY J
	KNOC PROPERTIES LLC
	PACIFIC ANALYTICS LLC
36012	BENCHMARK CONTROLS LLC
	DAVIS, GENEVA M
36060	POTTER, AARON B
36080	OCCUPANT UNKNOWN,
36096	WILLIAMS, JOHN
36122	HENRY, HEIDI A
36124	DELAMATER, ROBERT E
36167	TARGET MARKETING SERVICES
	TJY PROPERTIES LLC
	YOUNG, MARK D
36176	ERICKSON, MARK A
	IT TOTAL CONNECTIONS
36390	HAGGARD, JASON N
36450	LUCKINI, DAVID
36456	WARNER, BRANDON C
36554	TATUM, DOUGLAS L
36590	OCCUPANT UNKNOWN,
36596	LUCKINI GENO
	OCCUPANT UNKNOWN,
36750	SILBERNAGEL, JON E
36831	MOORE, DELORES J
36854	OCCUPANT UNKNOWN,
36932	FERY JOE
	FERY, JOE R
37046	OCCUPANT UNKNOWN,
37050	FRITTS, JOSEPH S
37093	MIKOLAS, DOUGLAS A
37095	CLAYTON, GLENN O
	LEONE REBEKAH LODGE NO 84 I
	SCIO MINI STORAGE
37099	BOLMAN, LOGAN
37300	KINNEY, JACK
	TPOB ENTERPRISES
37317	LARONT, MARVIN N
37382	OCCUPANT UNKNOWN,
37545	NORTON, DANIEL L
37575	HUNTER JEFFREY C
	HUNTER, JEFFREY C
	MOUNTAIN VALLEY FARM LLC
37613	MALIN, GREG T
37617	EVE, FREDRICK L
37665	OLAND, JULIANNE E

RICHARDSON GAP RD 2014 (Cont'd)

38011 SILBERNAGEL, DAVID J
38165 CHRISTIE FARMS
CHRISTIE, JONATHAN E
38167 CHRISTIE, CT T
38243 SMALLEY JACK
SMALLEY, SUZANNE M
38301 MARTIN, RICHARD T
38314 CLASON, RICHARD J
38348 ENGLER CONSTRUCTION INC
OCCUPANT UNKNOWN,
38480 KIMMEL, JOHN H
38499 CLARK, BRUCE F
38514 BELLIARD, ERNESTO S
38550 ZELENKA, ERNEST
38609 TIPPIN, JOHN A
38665 OCCUPANT UNKNOWN,
38666 OCCUPANT UNKNOWN,
38781 BOECKNER SPREADING & TRUCKING
JANTZ, FRANKLIN
38916 CARTER, JON L
38995 READ, LACY
39006 MALUSKI, IVAN I
39049 BYERS, DANIEL F
FRONT DOOR ENTERPRISES
39079 ANDROES, RICHARD
39140 ADAMS, MEGAN
39141 BRIGGS, VANCE A
GAP ROAD
REX LOWTHER
RUSH GRAPHICS
39241 CRENSHAW, BRUCE
39378 MULVAHILL, TODD
39382 HARGREAVES, NORMA R
39388 HAMLIN, KEVIN W
39392 PILGRIM, ALLEN W
VISUAL APPEAL
39400 GUMM, JOYCE A

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SHIMANEK BRIDGE DR 2014

40411 OCCUPANT UNKNOWN,
40419 BORCHARD CONSTRUCTION CO
BORCHARD TRANSPORT INC
40420 BEATY, WILLIAM
40444 ROHDE, LYNN M
40454 RAUCH, FREDDY G
40595 SILBERNAGEL, TODD
40773 MILES HAY FARMS INC
MILES, DANIEL
40777 DOG & CAT BOARDING
R J STUSSY ENTERPRISES
STUSSY, RICHARD J
40781 BENNETT, DANIEL A
40939 ALIOTH, LARISSA
41014 JANTZ, BRENDA K
41037 NEWSOME, SAMUEL
41044 JANTZ, CURTIS D
41055 CLOUD NINE CONSTRUCTION
41078 CROMPTON, LARRY B
41121 OCCUPANT UNKNOWN,
41125 K H A MANAGEMENT
41199 TOEWS, THAD J
TRIPLE T LIVESTOCK LLC

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

RICHARDSON GAP RD 2010

35787 PROVIDNCE VNYRD CHRISTN FELLOW
35819 DUNN, BOB L
35832 JIMENEZ, JOSE T
35849 FROEMKE, ANTHONY L
35854 OLSON, DIANA D
35891 BRENNER, GREGORY J
KNOC PROPERTIES LLC
PACIFIC ANALYTICS LLC
TUCKER CNSTR & REMODLING
36012 BENCHMARK CONTROLS LLC
OCCUPANT UNKNOWN,
36060 POTTER, AARON B
36096 POTTER, ROY
36122 HENRY, HEIDI A
36124 DELAMATER, ROBERT E
36167 TARGET MARKETING SERVICES
YOUNG, MARK D
36176 ERICKSON, MARK A
IT TOTAL CONNECTIONS
36234 DUNCAN, MICHAEL L
36246 MASSEY, JOY P
36390 OCCUPANT UNKNOWN,
36456 OCCUPANT UNKNOWN,
36554 GARCIA GERARDO
GARCIA, ARMINDA
36596 LUCKINI GENO
LUCKINI, GENO J
36750 SILBERNAGEL, JON E
36831 LIGHTHOUSE FARM SANCTUARY
MOORE, DELORES J
36854 OCCUPANT UNKNOWN,
36932 FERY JOE
FERY, DAVID A
J & K FARMS
37050 FRITTS, JOSEPH S
J S FRITTS
37093 MIKOLAS, DOUGLAS A
37095 CLAYTON, GLENN O
LEONE REBEKAH LODGE NO 84 I
SCIO MINI STORAGE
37099 BOLMAN CONST INC
BOLMAN, RUSSELL L
37300 KINNEY, JACK F
TPOB ENTERPRISES
37317 MENDOZA, MARIA
37545 NORTON, ROBBIE L
37575 HUNTER JEFFREY C
HUNTER, JEFFREY C
MOUNTAIN VALLEY FARM LLC
37613 MALIN, GREG T

RICHARDSON GAP RD 2010 (Cont'd)

37617 OCCUPANT UNKNOWN,
37665 OLAND, MARK J
38011 OCCUPANT UNKNOWN,
38165 CATHOLIC ENGGED ENCNTER OF ORE
CHRISTIE FARMS
CHRISTIE, JONATHAN E
38167 CHRISTIE, CT T
38243 SMALLEY JACK
SMALLEY, SUZANNE M
38301 FARREN, JAMES W
MARTIN, RICHARD T
38314 CLASON, RICHARD J
38348 BOATWRIGHT, THERESA M
OCCUPANT UNKNOWN,
38466 COMMONS, JOYCE
38480 KIMMEL, JOHN H
38499 CLARK, GENE A
38514 STIGEN, TERRY R
38550 ZELENKA, SYLVIA K
38609 OCCUPANT UNKNOWN,
38665 R WEBSTER & ASSOCIATES
WEBSTER, ROD H
38781 BOECKNER SPREADING & TRUCKING
JANTZ, FRANKLIN
39006 ALLEN, MICHAEL K
39049 OCCUPANT UNKNOWN,
39079 BYERS, DANIEL F
39141 BRIGGS, VANCE A
RUSH GRAPHICS
39374 MICHAEL, WILBERT
39378 OCCUPANT UNKNOWN,
39382 HARGREAVES, NORMA R
39388 BURKS, ROY S
39392 PILGRIM, ALLEN W
VISUAL APPEAL
39400 GUMM, JOYCE A

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SHIMANEK BRIDGE DR 2010

40411 OCCUPANT UNKNOWN,
40419 BORCHARD CONSTRUCTION CO
BORCHARD TRANSPORT INC
40420 BEATY, WILLIAM B
40444 BASKET PEDDLER
ROHDE, LUKE W
40454 RAUCH, FLORA M
40595 OCCUPANT UNKNOWN,
40773 B & B LAWNSERVICES LLC
OCCUPANT UNKNOWN,
40777 DOG & CAT BOARDING
R J STUSSY ENTERPRISES
STUSSY, RICHARD J
40781 OCCUPANT UNKNOWN,
40939 NELSON, HENRY
41014 JANTZ, BRENDA K
41037 OCCUPANT UNKNOWN,
41044 JANTZ, CURTIS D
41055 CLOUD NINE CONSTRUCTION
TURNER, FAYE B
41078 CROMPTON, LARRY B
41121 HYDE, GREG
41125 K H A MANAGEMENT
41199 TOEWS, THAD J

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

RICHARDSON GAP RD 2005

35787 PROVIDNCE VNYRD CHRISTN FELLOW
35819 DUNN, BOB L
35832 LEISINGER, ALVIN H
35849 MCLEAN, RICHARD C
35854 OLSON, DIANA D
35891 BEATTIE, URSALA T
TUCKER CNSTR & REMODLING
36012 DAVIS, WARREN R
36060 POTTER, AARON B
36096 OCCUPANT UNKNOWN,
36122 SCHEEL, VIRGIL R
36124 K KROSS CATTLE CO
ROBERTS, DOLLY L
36176 ERICKSON, MARK A
36234 MIKES MASONRY
36246 MASSEY, JOY
36554 OCCUPANT UNKNOWN,
36596 LUCKINI, GENO J
36831 MOORE, DELORES J
36854 EASLY, CHRISTINE A
36932 FERY, JOE R
J & K FARMS
37050 FRITTS, JOSEPH S
37093 MIKOLAS, DOUGLAS A
37095 CLAYTON, GLENN O
SCIO MINI STORAGE
37099 OCCUPANT UNKNOWN,
37300 HOT ROD MARKETING
TRICKEL, LINDA R
37317 LARONT, MARVIN N
37545 OCCUPANT UNKNOWN,
37575 HUNTER JEFFREY C
HUNTER, JEFFREY C
37613 FRATTO, SALVATORE
37617 MOSSO, JOHN
37665 OCCUPANT UNKNOWN,
38011 NOLLEN, EARL J
38165 CHRISTIE FARMS
CHRISTIE, JONATHAN E
38167 CHRISTIE, C T
38243 SMALLEY JACK
SMALLEY, SUZANNE M
38301 FARREN, JAMES W
38314 MCLEAN, CORKY U
38466 COMMONS, JOYCE
38480 KIMMEL, JOHN H
38499 COMMONS INC
COMMONS, THOMAS W
38514 STIGEN, TERRY R
38550 ZELENKA, SYLVIA K

RICHARDSON GAP RD 2005 (Cont'd)

38609 CLASON, RICHARD J
38665 R WEBSTER & ASSOC
WEBSTER, ROD H
38781 BOECKNER SPREADING & TRUCKING
BOECKNER, ERROL G
38995 ATCHLEY, DANIELLE
REBMANN, BRUCE A
39006 ALLEN, MICHAEL K
39049 DANIELS, RYAN R
39079 ROGERS, P
39141 BRIGGS, VANCE A
RUSH GRAPHICS
39374 READ, TYLER
39378 OCCUPANT UNKNOWN,
39382 HARGREAVES, NORMA R
39388 BROCKMAN, GENEVA L
COTTONWOODS ESPRESSO
39392 PILGRIM, ALLEN W
39400 OCCUPANT UNKNOWN,

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SHIMANEK BRIDGE DR 2005

4049	BORCHARD TRANSPORT INC
40411	ROGERS, SCOTT T
40419	BORCHARD CONSTRUCTION CO
40420	BEATY, WILLIAM B
40444	BASKET PEDDLER
	ROHDE, MARK W
40454	RAUCH, FLORA M
40595	PEARSON, ERIC
40773	STUSSY, RICHARD J
40777	DOG & CAT BOARDING
	OCCUPANT UNKNOWN,
	R J STUSSY ENTERPRISES
40781	OCCUPANT UNKNOWN,
41014	PEARSON, KRISTINE M
41044	JANTZ, CURTIS D
41055	CLOUD NINE CONSTRUCTION
41078	CROMPTON, LARRY B
41121	TURNER, LEONARD M
41133	HYDE, GREG
41199	TOEWS, THAD

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

RICHARDSON GAP RD 2000

35787 PROVIDNCE VNYRD CHRISTN FELLOW
35819 DUNN, BOB L
35849 MCLEAN, RICHARD C
35891 TUCKER, THOMAS L
36096 POTTER, DEION
36122 SCHEEL, VIRGIL R
36124 ROBERTS, GARY E
36554 TATUM, EMMA E
36596 LUCKINI, GENO
36831 MOORE, CHESTER
36932 FERY JOE
J&K FARMS
37095 CLAYTON, GLENN
SCIO MINI STORAGE
37099 BOLMAN, ROBERT L
37545 TRIPLE TD RANCH
37575 HUNTER, D
37665 PORT MYRON
PORT, MYRON
38011 NOLLEN, EARL
38165 HARPER, CHERYL J
38167 CHRISTIE, C T
38243 SMALLEY JACK
SMALLEY, JACK
38301 FARREN, JAMES
38314 MCLEAN, PAUL
38514 VASQUEZ, MARTIN C
38550 ZELENKA, ERNEST
38609 CLASON, RICHARD J
38617 LINNWELD INC
38665 WEBSTER, ROD
38781 BOECKNER SPREADING & TRUCKING
BOECKNER, ERROL
JANTZ, F
38995 RYDHOLM, JOHN
39006 BEGUELIN, LISA M
39049 DANIELS, JAMES B
39079 ROGERS, THOMAS
39140 TRACEY, KEVIN
39141 BRIGGS, VANCE
RUSH GRAPHICS

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SHIMANEK BRIDGE DR 2000

40419 BORCHARD CONSTRUCTION
40444 ROHDE, MARK W
UNLIMITED RESOURCES
40454 RAUCH, AUGUST
40595 TOEWS, JOHN
40717 WIGS HAIRPIECES & STYLING
40773 PEARSON, ERIC
40777 DOG & CAT BOARDING
STUSSY R J ENTERPRISES
STUSSY, RICHARD
40781 HAMLIN, JASON A
41055 CLOUD NINE CONSTRUCTION
41078 CROMPTON, LARRY B
41121 HYDE, GREG
TABOR, EDWARD M

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

RICHARDSON GAP RD 1995

35787 PROVIDENCE VINEYARD CHURCH
36554 TATUM, OSCAR
36596 LUCKINI, GENO
36831 MOORE, CHESTER JR
36932 J&K FARMS
37093 KIBLER, ELMER
37095 CLAYTON, GLENN
37545 TRIPLE TD RANCH
37575 SAPAUGH, DON
37617 TORGISON, WESLEY
37665 PORT, MYRON
38167 CHRISTIE, C T
38301 FARREN, JAMES
38314 MCLEAN, PAUL
38484 KIMMEL, JOHN H
38499 COMMONS INC
38514 VASQUEZ, MARTIN C
38550 ZELENKA, ERNEST
38609 CLASON, RICHARD J
38781 BOECKNER SPREADING & TRUCKING
BOECKNER, ERROL
38995 REBMAN, RAY
39079 ROGERS, THOMAS
39388 BROCKMAN, GENEVA
39400 GUMM, LOUIS J

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SHIMANEK BRIDGE DR 1995

40419 BORCHARD CONSTRUCTION
40717 STUSSY R J ENTERPRISES
41055 CLOUD NINE CONSTRUCTION

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SHIMANK BRDG DR 1995

40419 BORCHARD, OTMAR
40444 ROHDE, MARK W
40454 RAUCH, AUGUST
40595 SILBERNAGEL, TONY
40717 STUSSY, RICHARD
41199 KOOP, FRANK

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

RICHARDSON GAP RD 1992

35849 MC LEAN RICHARD C
36554 TATUM, OSCAR
36596 LUCKINI, GENO
36750 BRASSWELL, HAROLD J
36831 MOORE, CHESTER JR
37095 CLAYTON, GLENN
37317 LARONT MARVIN N
37575 SAPAUGH, DONALD J
37617 HOLMES, TIM
38167 CHRISTIE, C T
LINNWELD CO
38301 VIAN, LORETTA J
38314 MCLEAN, PAUL
38480 CHILDERS, JOHN N
38484 KIMMEL, JOHN H
38514 VASQUEZ, MARTIN C
38550 ZELENKA, ERNEST
38609 CLASON, RICHARD J
38781 BOECKNER SPREADING & TRUCKING
BOECKNER, ERROL
38995 REBMAN, RAY
39079 ROGERS, THOMAS
39400 GUMM, LOUIS J

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SHIMANEK BR DR 1992

40419	BORCHARD, OTMAR
	PEARSON, KAREN L
40444	ROHDE, MARK W
40454	RAUCH, AUGUST
40595	SILBERNAGEL, TONY
40713	ELTON, JAMES A
40717	STUSSY, RICHARD

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SHIMANEK BRIDGE DR 1992

40717 STUSSY R J ENTERPRISES

Target Street	Cross Street	Source
✓	-	EDR Digital Archive

SHIMANK BRDG DR 1992

38747 SUMMEROW, JAMES W

Appendix B.

Site Photographs

Photograph 1.

Shimanek Covered Bridge

Photograph 2.

View to the south of Richardson Gap Road and Shimanek Covered Bridge

Photograph 3.

Shimanek Bridge Drive, view to the northeast

Photograph 4.

View to the north of Richardson Gap Drive

Photograph 5.

View to the northeast from the south side of the bridge.

Photograph 6.

View to the southeast.

Photograph 7.

View to the west from the south side of the bridge.

Photograph 8.

Asphalt chunks located on the northeast corner of the approach to the bridge.

Photograph 9.

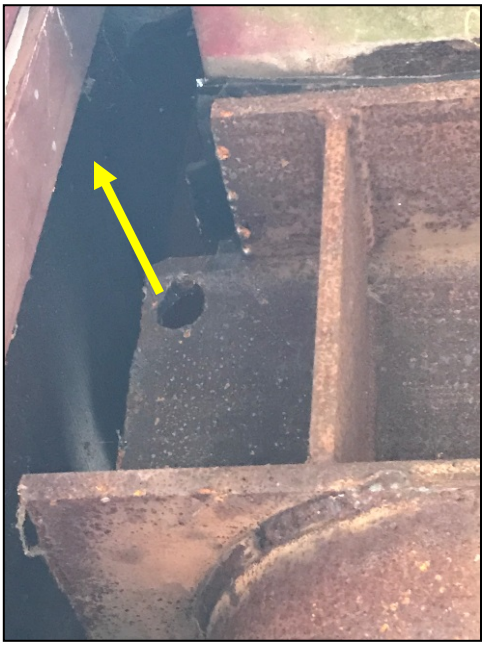
Samples AS-01 and AS-02: Netting and coating on pilings.

Photograph 10.

Samples AS-03 and AS-04: Mastic/Tar below netting on piles.

Photograph 11.

Samples AS-05 and AS-06: Tar on I-beam.

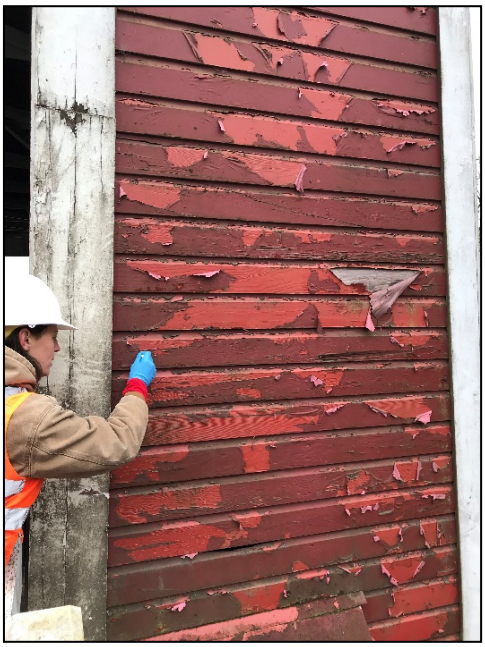


Photograph 12.

Samples AS-07 and AS-08: Rubber spacer between I-beam and concrete.

Photograph 13.

Roofing materials. No felt observed. No samples were collected for asbestos analysis.



Photograph 14.

Two layers of paint visible on the outside of the bridge: the dark red is the most recent coat.

Photograph 15.

Window casing: lead detected with the colorimetric swab kit.

Appendix C.

Site Reconnaissance Checklist and Field Forms

INITIAL SITE ASSESSMENT (ISA) CHECKLIST

Project Information

District:	County: *Linn*	Route: Richardson Gap Drive	Milepost: 0.70
Description: *Thomas Creek (Richardson Gap Drive) Shimanek Covered Bridge Project*			
Does the project have potential hazardous waste involvement? *Yes*			

Screening Criteria

1. Project Features: New R/W? *N*	Excavation? *Y*	Relocate Utilities? *N*
2. Land Use History and Development Setting (urban/rural; industrial, commercial, agricultural, housing other –list)		
Current land uses: *Bridge and public roadway* Previous land uses: *Bridge/roadway* Adjacent land uses: *Agricultural and residential*		
3. In-house record review		
4. Any known hazardous waste sites in vicinity? *No*		If yes, identify and explain.

Optional Records

County Assessor	Fire Dept	Sanborn Maps *X*	Other

Take photos of sites or sketch

Visual Inspection

Storage Structures:	Contamination:	Potential asbestos containing materials: *Yes*
Underground tanks	Surface Staining	Buildings
Aboveground tanks	Oil sheen	Sprayed-on fireproofing
Sumps	Odors	Pipe wrap
Ponds	Stress vegetation	Floor tiles
Transformers	Other	Siding
Other		Ceiling tiles
		Acoustical plaster
Sites:	Sites	Sites: Piling cap, mastic near piles, tar on I-beam, rubber spacer by I-beam

Comments: **Conducted by: Jessica Penetar-CES**

See laboratory report for results of asbestos survey, soil sampling, and lead paint/wood composite sampling

CES

DAILY FIELD REPORT

PROJECT: Linn County - Shimanek Bridge	**PROJECT #:** 2018230024
LOCATION: Scio OR	**TASK #:** 202
CONTRACTOR:	**BILLING GROUP #:**
CES PERSONNEL: J. Penetar	**PAGE** 1 **OF** 2
WEATHER: Sunny, 40F	**DATE:** 11/19/18

TIME	DESCRIPTION OF WORK
958	J. Penetar of CES on-site for soil sampling + phase I inspection. Foundation Engineering on-site Drilling on south side of bridge.
1010	Spoke w/ Matt of foundation Drilling on South side of bridge. Used Hollow Stem auger to 2', then switched to Mud rotary. Cuttings from 2-5' are mostly mud. Put bags on ice. Waiting for lab bottles. Will be SS-02 Composite for PAH, Metals, PCB, VOC, NWTPH-Dx, pesticides + herbicides foundation pair BH-2.
1101	Collect SS-04, 6-point composite from north side of Shimanek Bridge, along Richardson Gap Dr. Two points North of Sh. Br. Dr. 3 on each side of Ric. Gap Dr. Collected between 0-12". due to refusal at 8-12" because of gravel + fill. Decon auger.
1130	Collect SS-05 6-point composite from South side of Shimanek Bridge. 3 on each side of road. Kevin Groom of Linn County Stopped by to check in. Off-site now.
1140	Asbestos inspection: (will sample another day)

14 miles

CES

DAILY FIELD REPORT
CONTINUED

PROJECT: Linn County - Shumanek Covered Br.	**PROJECT #:** 20182300024
CES PERSONNEL: Perstar	**PAGE** 2 **OF** 2
	DATE: 11/19/18

TIME	DESCRIPTION OF WORK
	Netting between approach span pilings (under bridge) - suspect ACM.
	- floor is wood - no suspect ACM can see through it.
	- can see through roof in some spots, no felt under shakes.
	Metal at base of roof.
	No signs of caulking. No other obvious ACM. will review
	plans in more detail.
1215	Coordinate w/ Matt on sample collection from other
	two locations. TP off-site.
1405 (JP)	Collect SS-02 from foundation Eng. Sals. Soils
	from 1.5'-2' had petroleum odor.

Asbestos Survey Field Data Sheet

Sampler Name: Jessica Porter

Date: 2/6/19

Site: Shumway Bridge

Sample ID	Material Description	~~Amount~~ Dine	Location	Condition	Friable?
AS-01	Netting on piling caps under coating	953	on treated timbers	fair	Netting - No black coating yes
AS-02	" "	1004	"	fair	"
AS-03	Mastic below netting - on piles	954	"	good	Yes
AS-04	"	1005			
AS-05	Tar on I-beam	956	I-beam on piles near road.	good	No
AS-06	" "	958	" "	good	No
AS-07	Rubber material between concrete + I beam	1018	between concrete + I beam	good	No
AS-08		1019	"	good	No

CES

CES

DAILY FIELD REPORT

PROJECT: Shimmick Covered Bridge	**PROJECT #:** 2018230024
LOCATION: Scio, OR	**TASK #:**
CONTRACTOR:	**BILLING GROUP #:**
CES PERSONNEL: J. Penetar, C. Cotton	**PAGE** 1 **OF** 2
WEATHER: Cloudy, 35°F	**DATE:** 2/6/19

TIME	DESCRIPTION OF WORK
941	CES on-site for lead inspection and asbestos survey
953	~~Collect AS-SP~~ Start asbestos survey. See other sheet
1023	finish asbestos survey. Start with lead survey. Metal rails are painted on approach. Per scope, will not be tested at this time.
	Wood railing on North west side of bridge - No lead detected (swab not red).
	Dark red top layer on covered bridge: No lead detected.
	light red base coat on bridge: No lead detected. However, paint is red and hard to determine with swabs.
	White paint on old door: No Pb. detected.
	Railing exposed underlayer of paint: No lead detected (under over)
	Cross beam inside bridge (X-supports): No lead detected.
	Metal vertical rods: No lead detected
	Window casing inside bridge: lead detected (orange/red on paint)
1205	Collect Wood Composite. Wood and paint chip sample composite from two window casings and some red paint areas.

CES

DAILY FIELD REPORT
CONTINUED

PROJECT:	**PROJECT #:**
CES PERSONNEL:	**PAGE** 2 **OF** 2
	DATE: 2/6/19

TIME	DESCRIPTION OF WORK
1215	CES off-site.

Appendix D.

Bridge Drawings

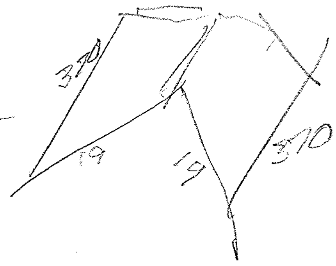
19' 3/4" x 2 = 39 1/2"

366 2
4
370 2

#2

6 Weeks Wait

10" Weather
146 sqs
39 sqs



10x10

2865

Ridge cap 185

GILKEY SIM

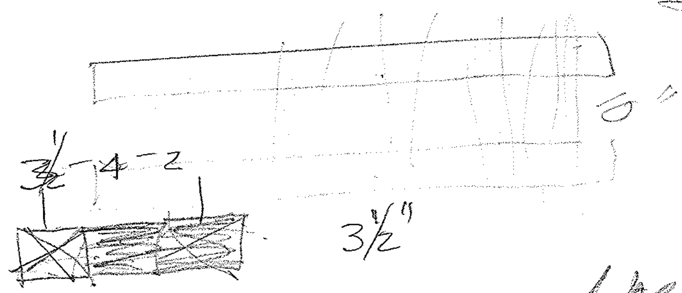
10

14,615

—GAL—

Perry Nordstrand

38825



1# Heavy $95 —

1# med $72 —

2# $48 — 1"x4" — 4" gap

NORDSTRAND CEDAR

Tar

cut hip 75 years.

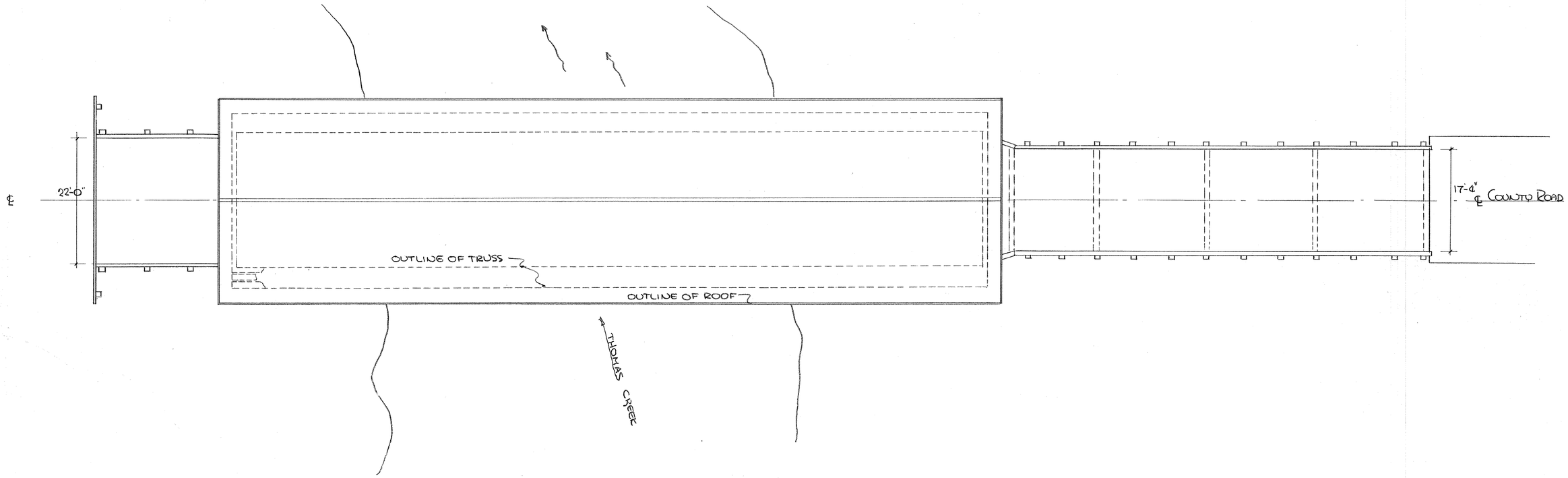
3 down and then every other

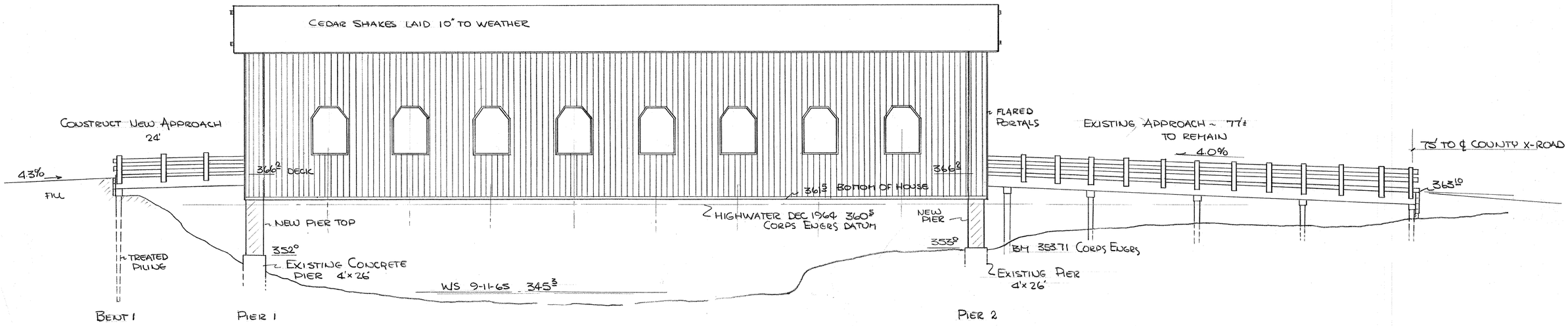
BID TABULATION

PHASE I

BID OPENING: April 26, 1989 9:40 A.M.,P.D.T.

ITEM	QUANTITY	ENGINEER'S ESTIMATE UNIT PRICE	ENGINEER'S ESTIMATE TOTAL	Morse Bros UNIT PRICE	Morse Bros TOTAL	N. Santiam UNIT PRICE	N. Santiam TOTAL	Houck, RL UNIT PRICE	Houck, RL TOTAL	Wildish UNIT TOTAL	Wildish TOTAL
PHASE I Asphalt Concrete Class "B"	33,870 TONS	$ 23.30	$ 789,171.00	$ 18.94	$ 641,497.80	$ 21.65	$ 733,285.50	$ 23.15	$ 784,090.50	$ 24.30	$ 823,041.00





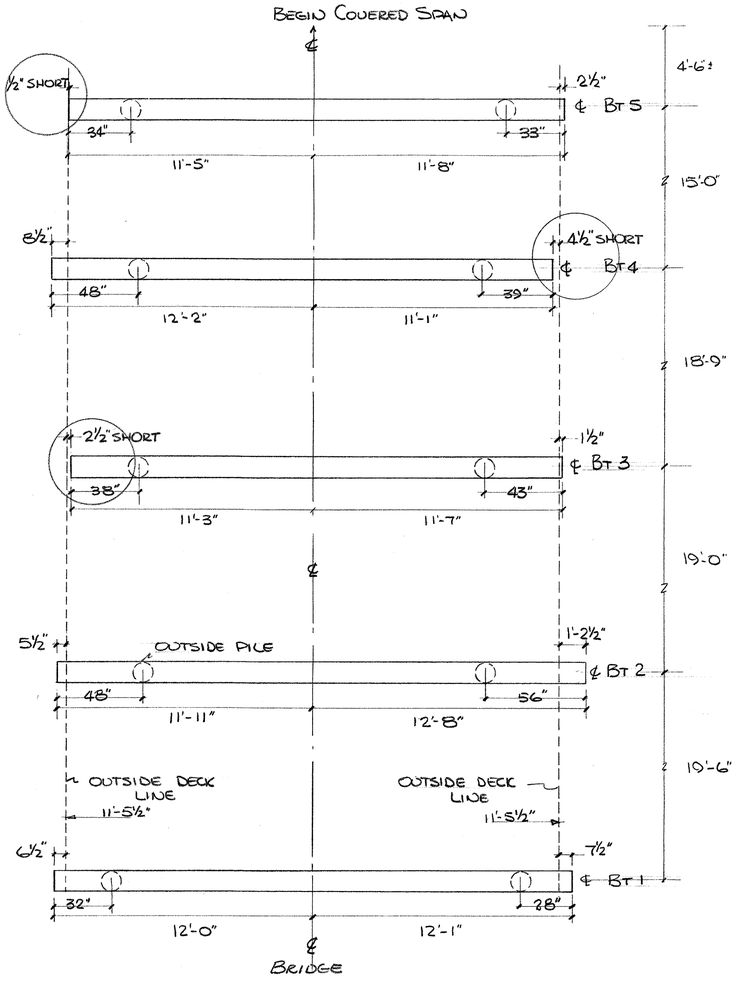
SHIMANEK BRIDGE

THOMAS CREEK ~ LINN CO.

130'-6" HOWE TRUSS
22'-0" ROADWAY
H20-S16-44 LOADING

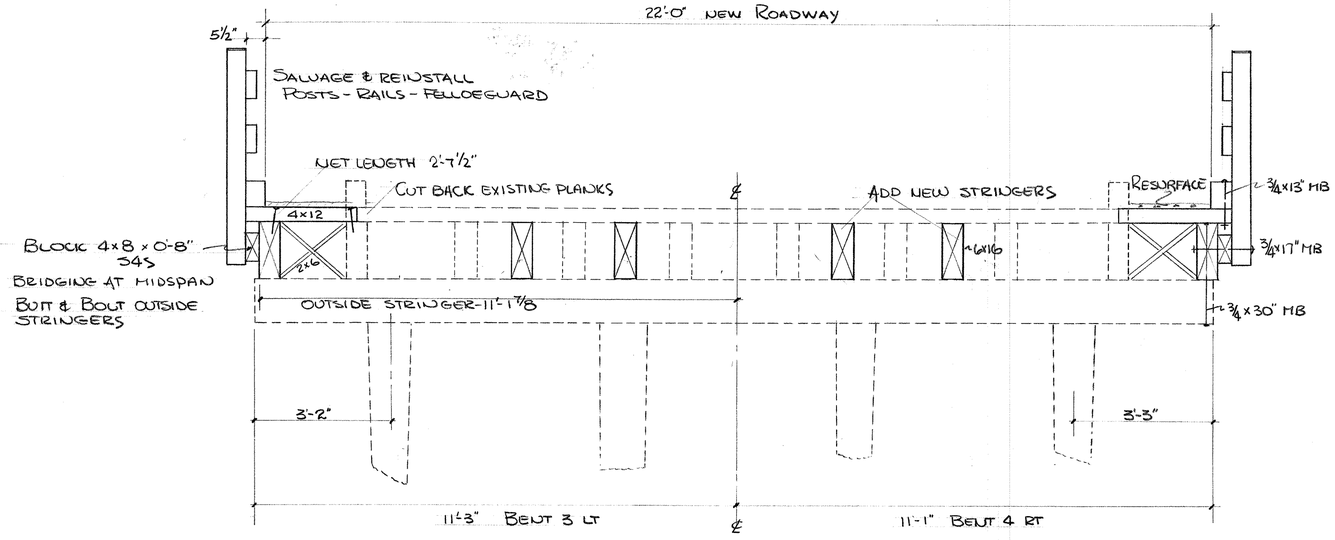
STATE # 12965
COUNTY # 637-070

2

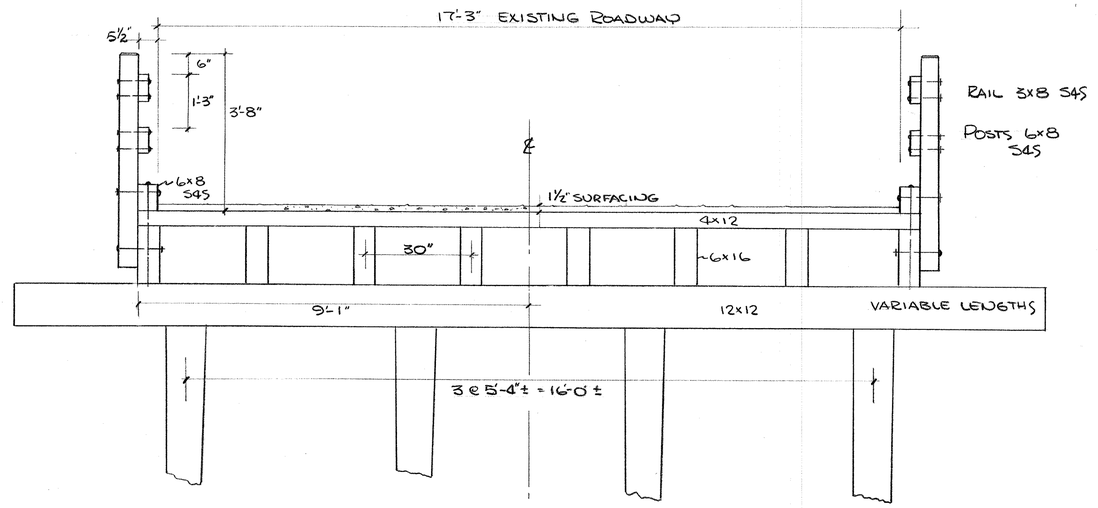


PLAN - CAP LAYOUT

1/4" = 1'-0"

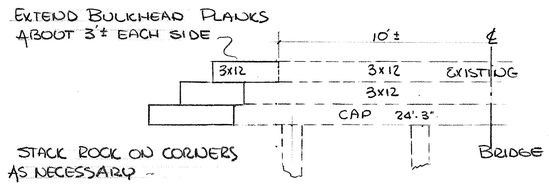


SECTION - PROPOSED ALTERATION



SECTION - EXISTING TRESTLE

1/2" = 1'-0"



END BULKHEAD REVISION

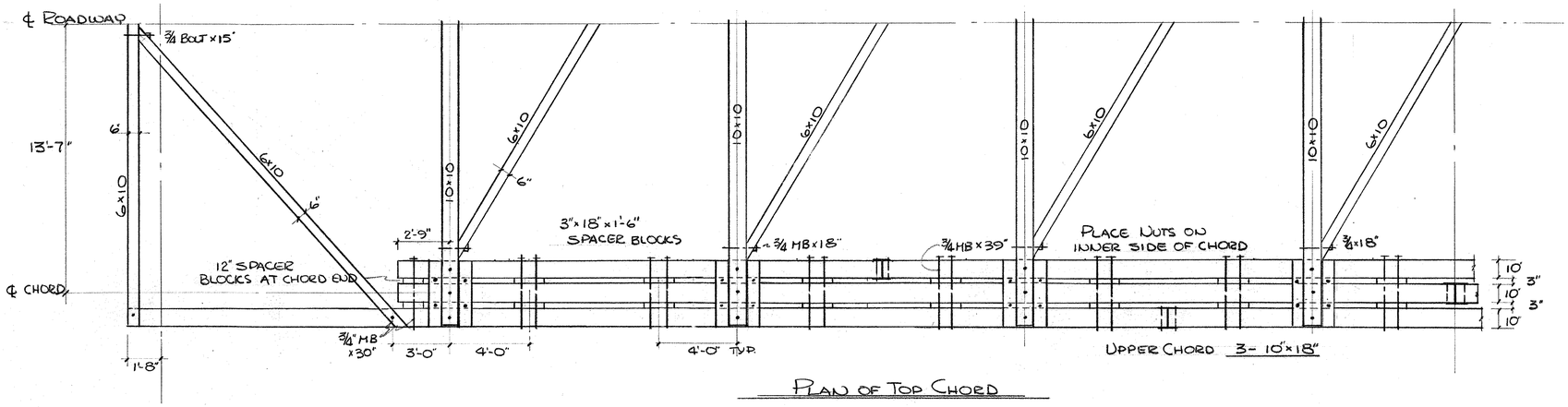
1/2" = 1'-0"

CRITERIA FOR H-15 LOADING - 6x16 STRINGERS @ 2'-3" SPACING WITH 4" DECK - ADD 4 ADDITIONAL STRINGERS AS SHOWN FOR H 20-S 16 LOADING

HAMILTON CONSTRUCTION CO.

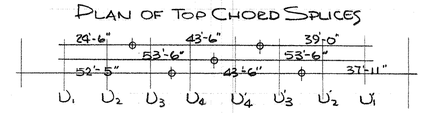
SHIMANEK BRIDGE
ALTERATIONS TO THE
NORTH APPROACH

WAD	FEB 8, 1966	SHT 1/1

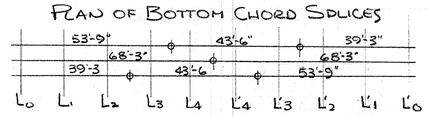


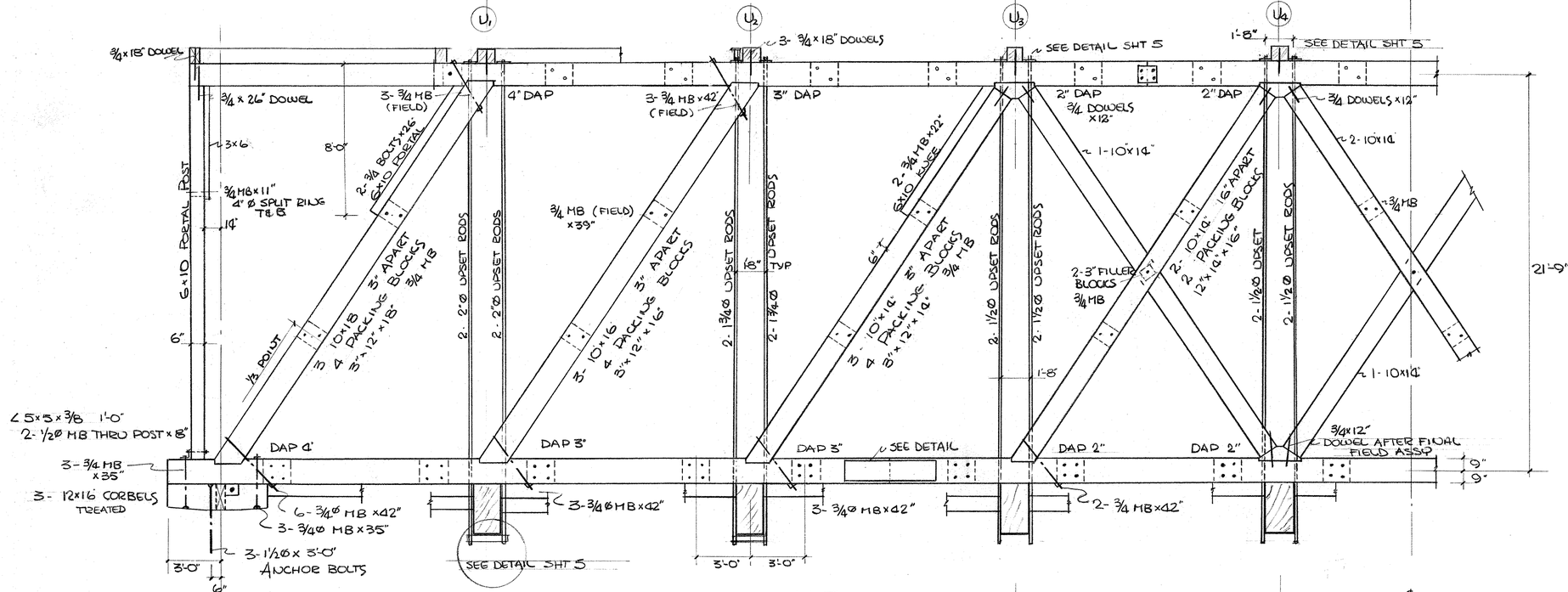
PLAN OF TOP CHORD

PLAN OF TOP CHORD SPLICES



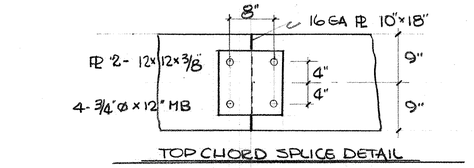
PLAN OF BOTTOM CHORD SPLICES



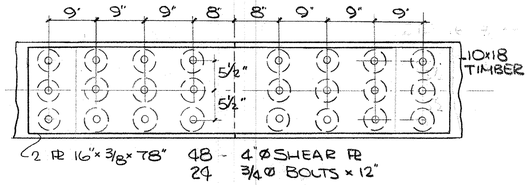


ELEVATION

¼" = 1'-0"

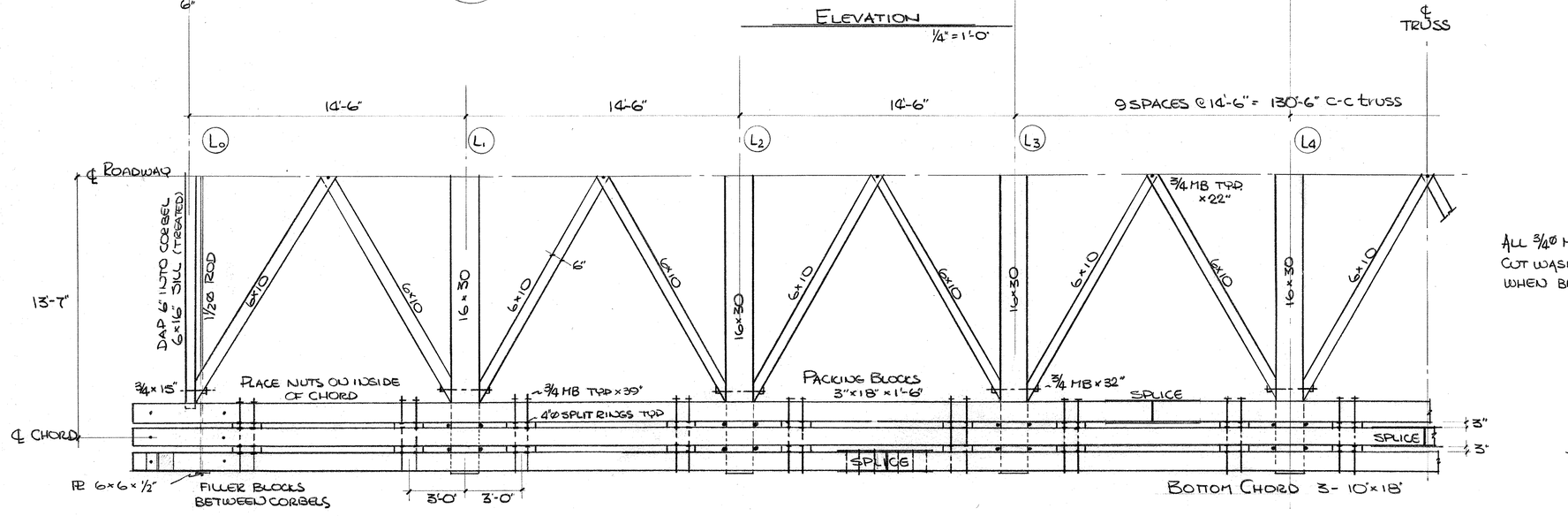


TOP CHORD SPLICE DETAIL



BOTTOM CHORD SPLICE DETAIL

¾" = 1'-0"



PLAN OF BOTTOM CHORD

ALL ¾ø MB SHALL HAVE ½"×3" CUT WASHERS OR BEVEL WASHERS WHEN BEARING AGAINST WOOD --

REVISED 11-17-65

REGISTERED PROFESSIONAL ENGINEER 1930 OREGON MAY 6, 1955 W. A. PALMATIER

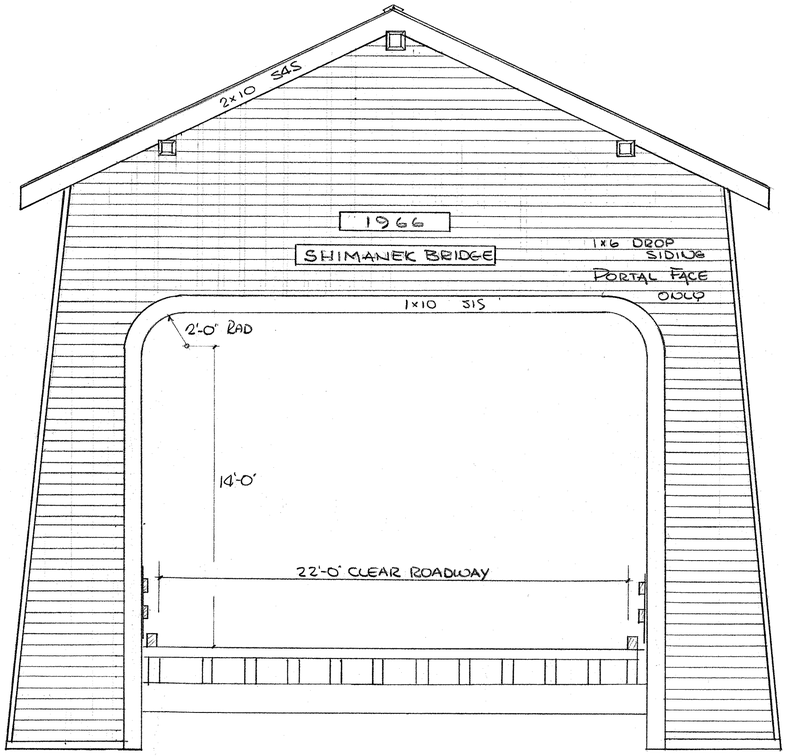
HAMILTON CONSTRUCTION CO

SHIMANEK BRIDGE

LINN COUNTY

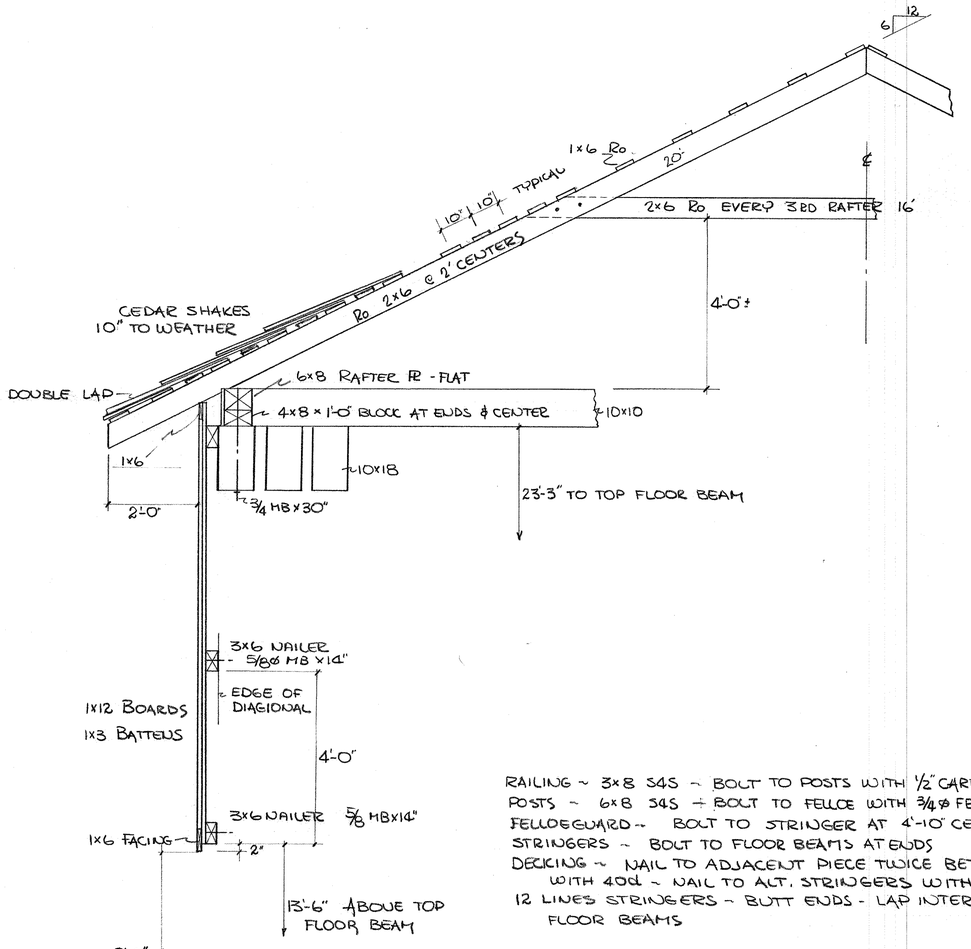
TRUSS DETAILS

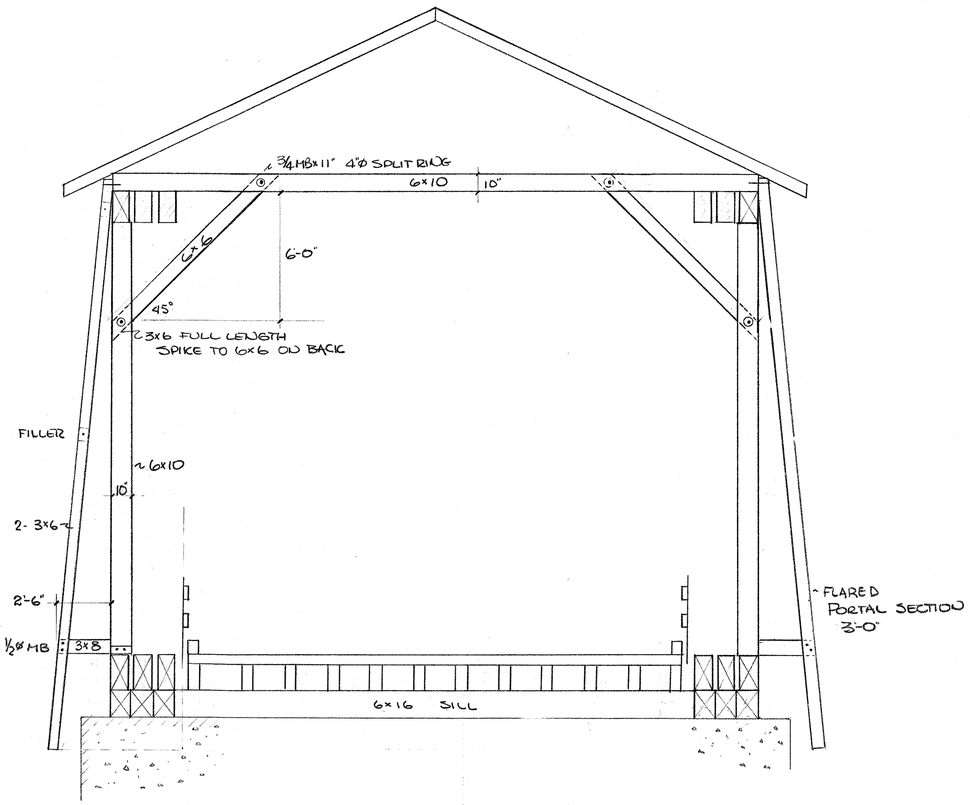
OCT 1965 SHT 2 OF 5 WAP



PORTAL ELEVATION

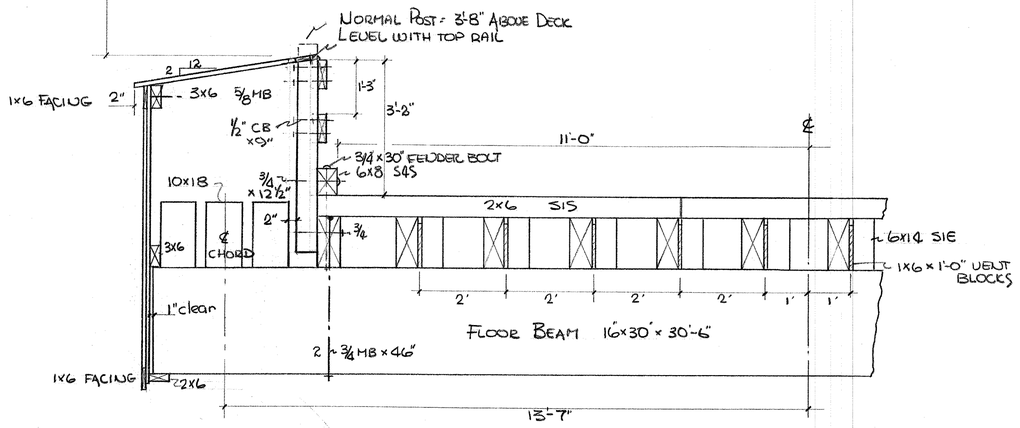
1/4" = 1'-0"





PORTAL DETAIL

1/4" = 1'-0"



PARTIAL SECTION THRU HOUSE

1/2" = 1'-0"

REGISTERED PROFESSIONAL ENGINEER 3830 OREGON MAY 6, 1955 W. A. PALMATIER

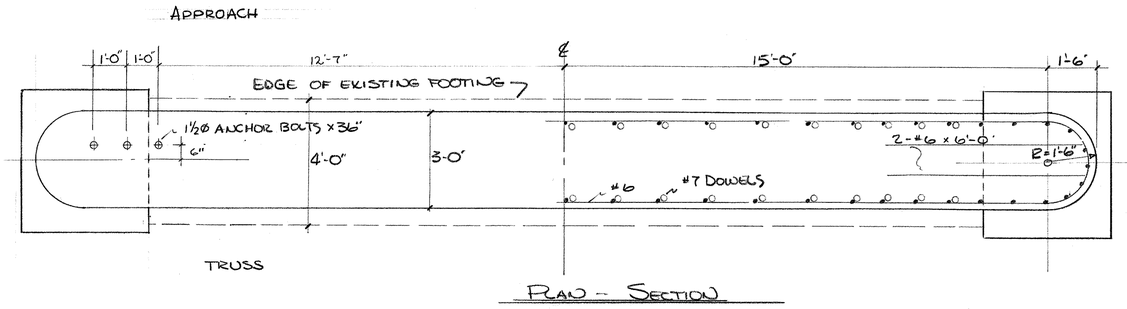
HAMILTON CONSTRUCTION CO

SHIMANEK BRIDGE

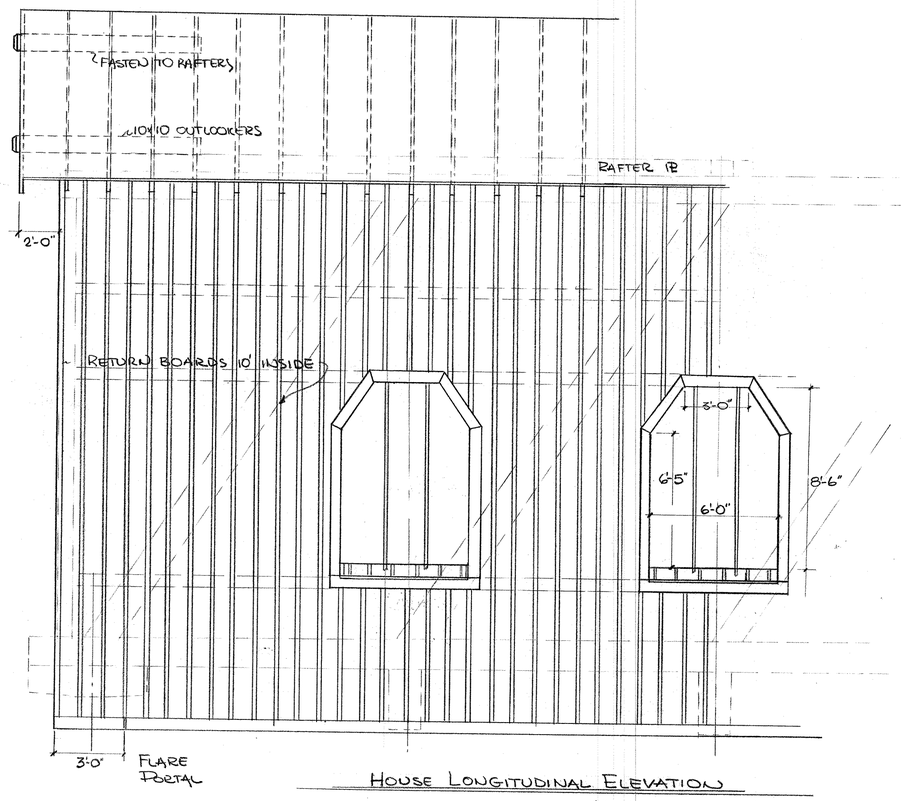
LINN COUNTY

HOUSE DETAILS

NOV 1965 SHT 3 of 5 WAP

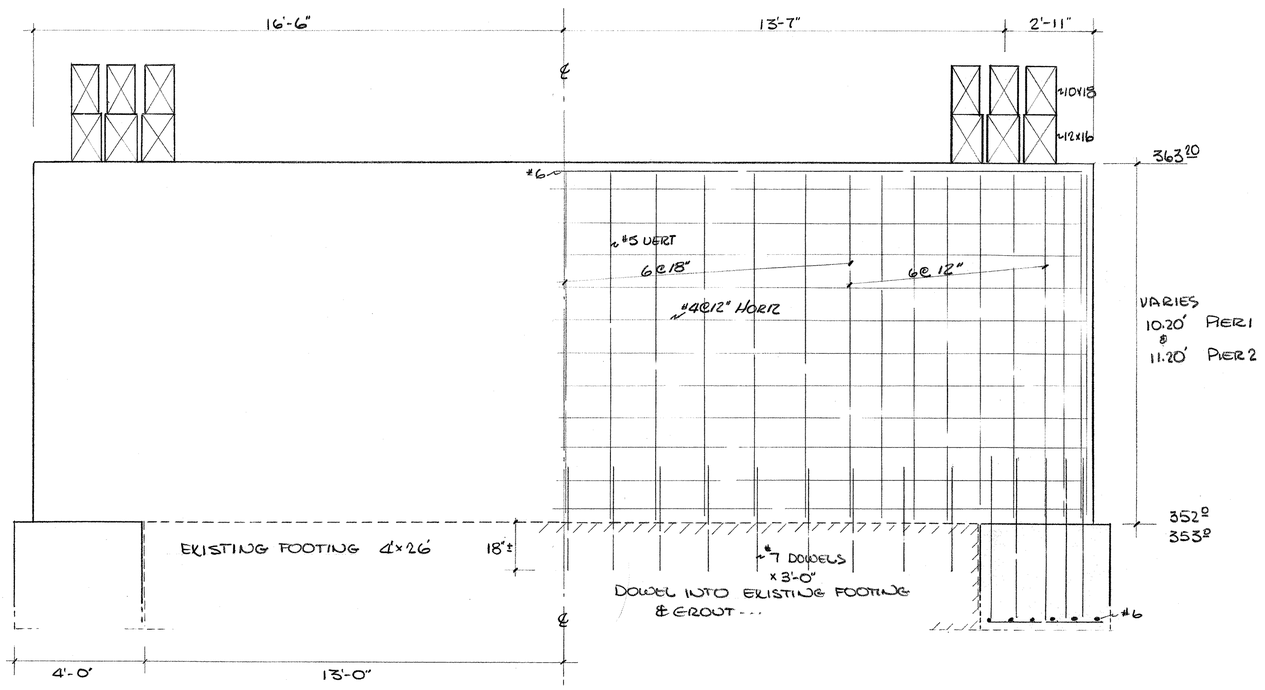


PLAN - SECTION



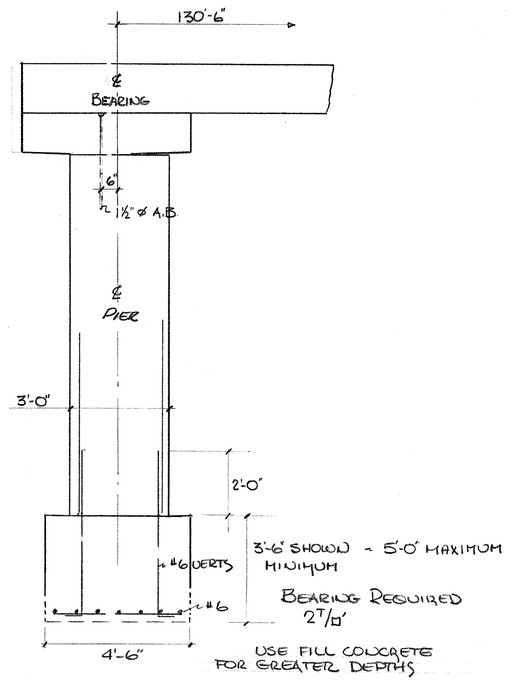
HOUSE LONGITUDINAL ELEVATION

1/2" = 1'-0"



ELEVATION - PIERS

3/8" = 1'-0"



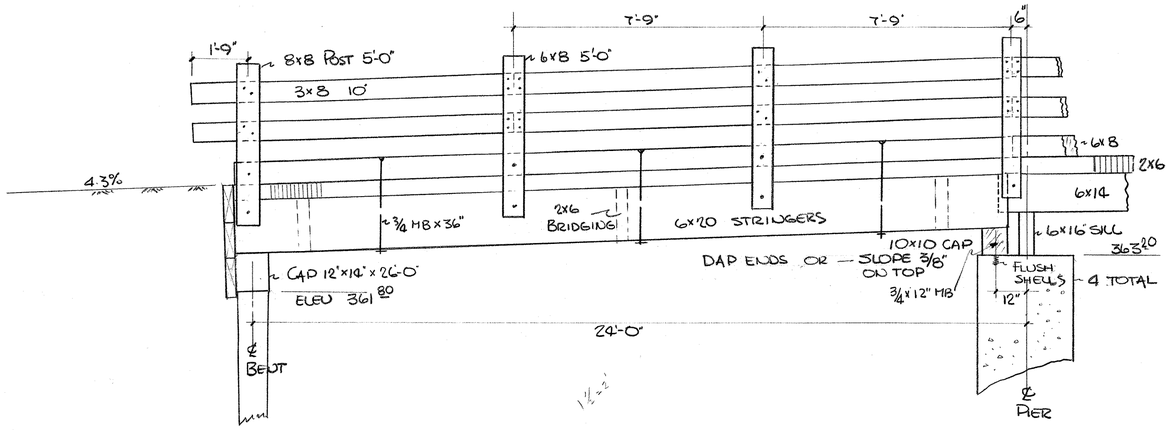
REGISTERED PROFESSIONAL ENGINEER
OREGON
MAY 6, 1958
W. A. PALMATEER

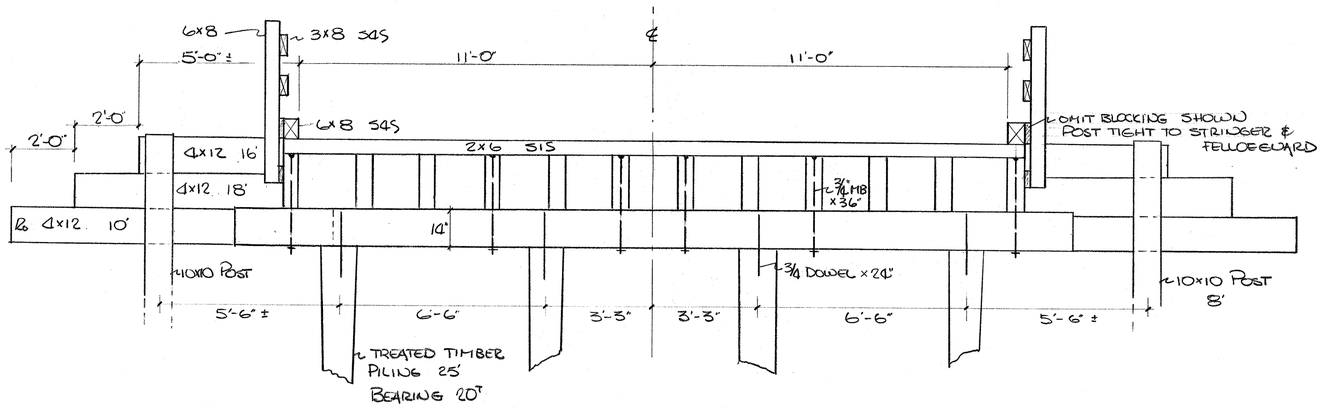
HAMILTON CONSTRUCTION CO.

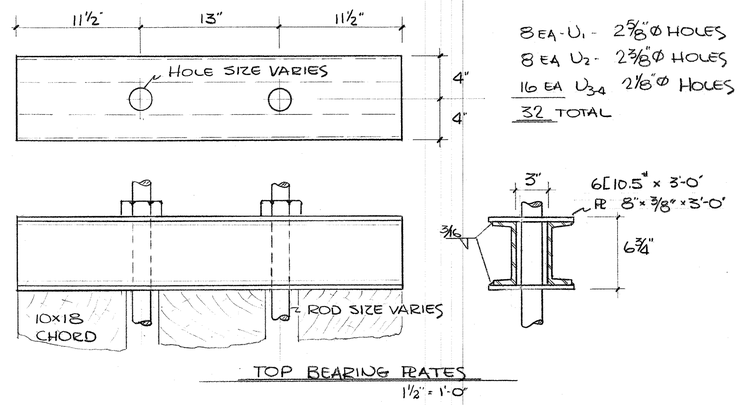
SHIMANEK BRIDGE
LINN COUNTY

PIER DETAILS

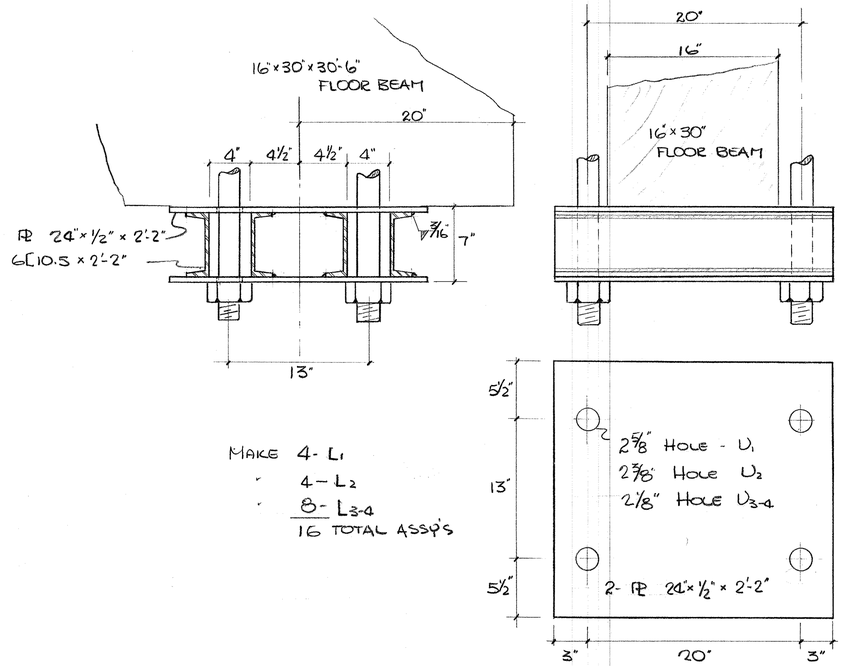
LOU 1963 SHEET 4 of 5 WAP







TOP BEARING PLATES
1½" = 1'-0"



BOTTOM BEARING PLATES
1½" = 1'-0"

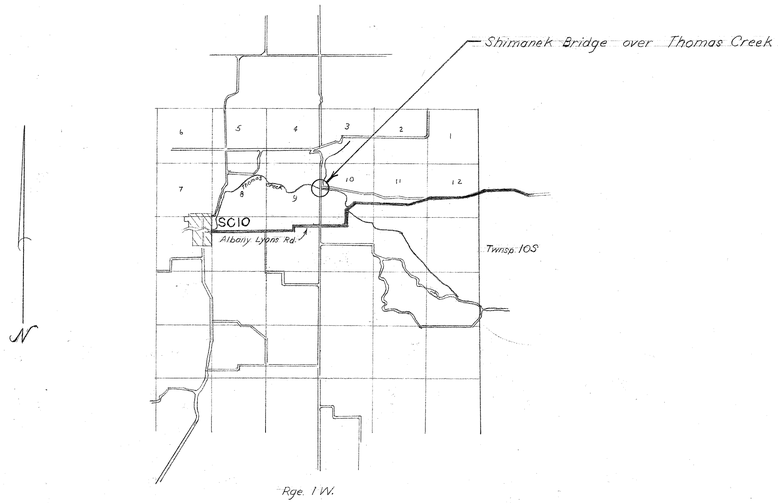
REGISTERED PROFESSIONAL ENGINEER 3580 OREGON MAY 6, 1965 W. A. PALMATEER

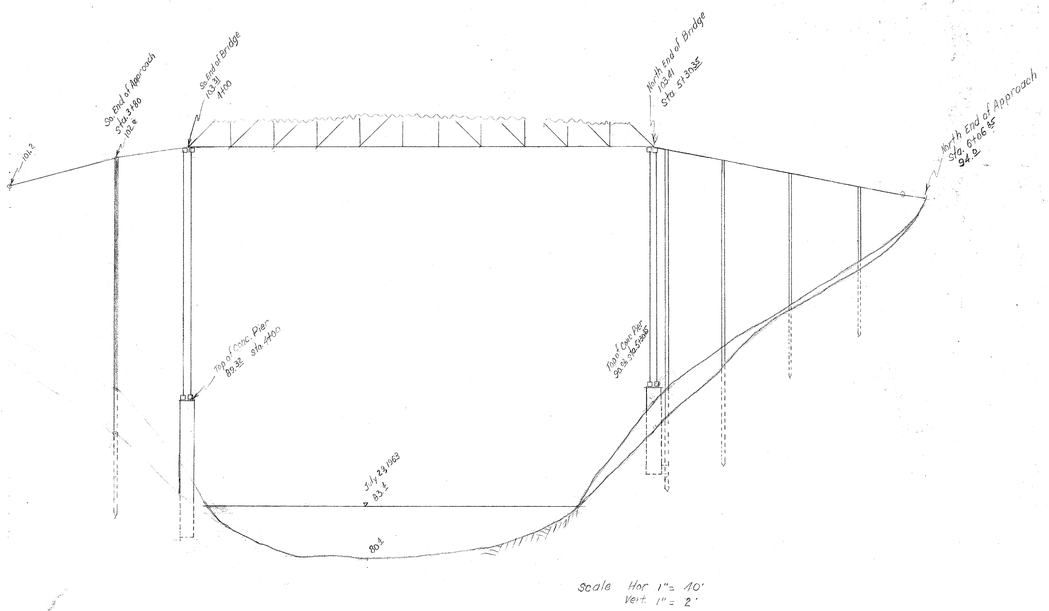
HAMILTON CONSTRUCTION CO

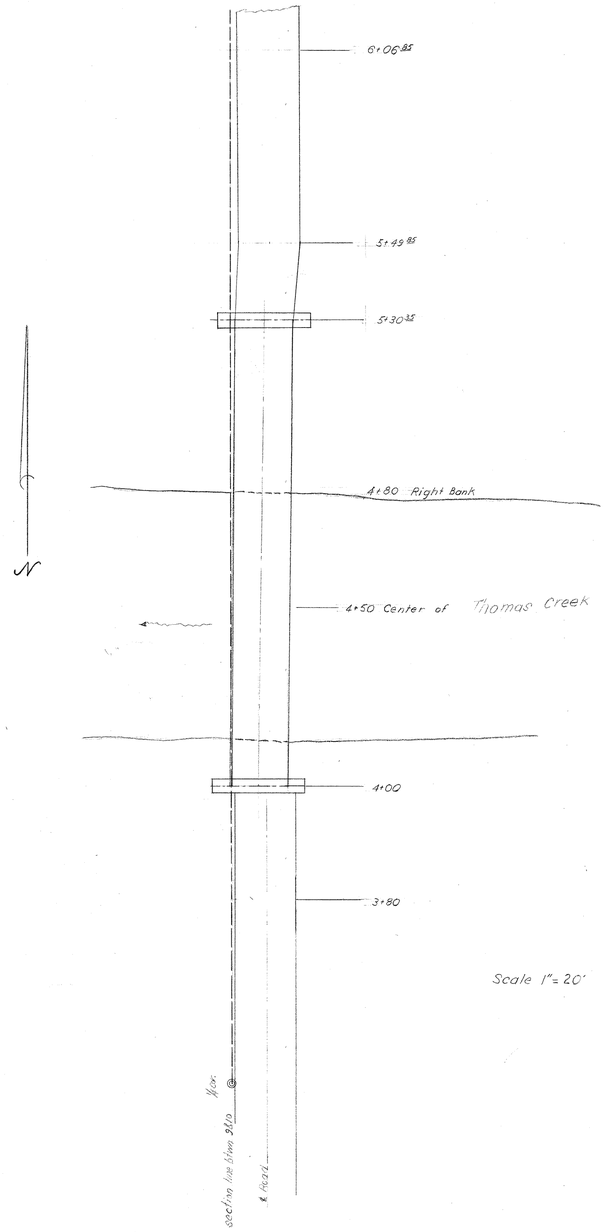
SHIMANEK BRIDGE
LINN CO

APPROACH SPAN & BEARING DETAILS

NOV 1965 SHT 5 of 5 W&P







Sec. 9, 10 T10S., R1W

SHIMANEK BRIDGE
VICINITY PLAN
LINN COUNTY, ORE.

Date: July 1965	
Scale: As Noted	
Drawn: R.D.	

#637-0.70

FILE A3-46

Appendix E.

Laboratory Analytical Data

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-83726-1
Client Project/Site: Shamanek Covered Bridge

For:
Cascade Earth Sciences Inc.
3511 Pacific Blvd Sw
Albany, Oregon 97321

Attn: Jessica Penetar

Authorized for release by:
2/20/2019 12:57:21 PM

Nathan Lewis, Project Manager I
(253)922-2310
nathan.lewis@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Client: Cascade Earth Sciences Inc.
Project/Site: Shamanek Covered Bridge

TestAmerica Job ID: 580-83726-1

Job ID: 580-83726-1

Laboratory: TestAmerica Seattle

Narrative

Job Narrative
580-83726-1

Comments
No additional comments.

Receipt
The samples were received on 2/7/2019 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.6º C.

Subcontract non-Sister
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Subcontract Work
Method Asbestos by EPA PLM Method 600/R-93/116: This method was subcontracted to EMLab - Irvine. The subcontract laboratory certification is different from that of the facility issuing the final report.

Glossary

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

Accreditation/Certification Summary

Client: Cascade Earth Sciences Inc. TestAmerica Job ID: 580-83726-1
Project/Site: Shamanek Covered Bridge

Laboratory: TestAmerica Seattle

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	02-28-19
ANAB	DoD / DOE		L2236	01-19-22
ANAB	ISO/IEC 17025		L2236	01-19-22
California	State Program	9	2901	11-05-19
Montana (UST)	State Program	8	N/A	04-30-20
Nevada	State Program	9	WA000502019-1	07-31-19
Oregon	NELAP	10	WA100007	11-05-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-14-00126	02-10-20

Sample Summary

Client: Cascade Earth Sciences Inc.
Project/Site: Shamanek Covered Bridge

TestAmerica Job ID: 580-83726-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-83726-1	AS-01	Solid	02/06/19 09:53	02/07/19 09:45
580-83726-2	AS-02	Solid	02/06/19 10:04	02/07/19 09:45
580-83726-3	AS-03	Solid	02/06/19 09:54	02/07/19 09:45
580-83726-4	AS-04	Solid	02/06/19 10:05	02/07/19 09:45
580-83726-5	AS-05	Solid	02/06/19 09:56	02/07/19 09:45
580-83726-6	AS-06	Solid	02/06/19 09:58	02/07/19 09:45
580-83726-7	AS-07	Solid	02/06/19 10:18	02/07/19 09:45
580-83726-8	AS-08	Solid	02/06/19 10:19	02/07/19 09:45

EMLab P&K
A TestAmerica Company

Report for:

Nathan Lewis
TestAmerica-Seattle
5755 8th Street East
Tacoma, WA 98424

Regarding: Project: 580-83726-1
EML ID: 2093034

Approved by:

Approved Signatory
Danny Li

Dates of Analysis:
Asbestos PLM: 02-19-2019

Service SOPs: Asbestos PLM (EPA 40CFR App E to Sub E of Part 763 & EPA METHOD 600/R-93-116, SOP EM-AS-S-1267)

EMLab P&K
17461 Derian Ave, Suite 100, Irvine, CA 92614
(866) 888-6653 Fax (623) 780-7695 www.emlab.com

Client: TestAmerica-Seattle
C/O: Nathan Lewis
Re: 580-83726-1

Date of Receipt: 02-08-2019
Date of Report: 02-19-2019

ASBESTOS PLM REPORT

Total Samples Submitted:	8
Total Samples Analyzed:	8
Total Samples with Layer Asbestos Content > 1%:	0

Location: AS-01 (580-83726-1) Lab ID-Version‡: 9895702-1

Sample Layers	Asbestos Content
Black Tar	ND
Tan Woven Material	ND
Composite Non-Asbestos Content:	50% Glass Fibers
Sample Composite Homogeneity:	Moderate

Location: AS-02 (580-83726-2) Lab ID-Version‡: 9895703-1

Sample Layers	Asbestos Content
Black Tar	ND
Tan Woven Material	ND
Composite Non-Asbestos Content:	50% Glass Fibers
Sample Composite Homogeneity:	Moderate

Location: AS-03 (580-83726-3) Lab ID-Version‡: 9895704-1

Sample Layers	Asbestos Content
Black Tar	ND
Sample Composite Homogeneity:	Moderate

Location: AS-04 (580-83726-4) Lab ID-Version‡: 9895705-1

Sample Layers	Asbestos Content
Black Tar	ND
Sample Composite Homogeneity:	Moderate

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

EMLab P&K
17461 Derian Ave, Suite 100, Irvine, CA 92614
(866) 888-6653 Fax (623) 780-7695 www.emlab.com

Client: TestAmerica-Seattle
C/O: Nathan Lewis
Re: 580-83726-1

Date of Receipt: 02-08-2019
Date of Report: 02-19-2019

ASBESTOS PLM REPORT

Location: AS-05 (580-83726-5) Lab ID-Version‡: 9895706-1

Sample Layers	Asbestos Content
Black Tar	ND
Sample Composite Homogeneity:	Moderate

Location: AS-06 (580-83726-6) Lab ID-Version‡: 9895707-1

Sample Layers	Asbestos Content
Black Tar	ND
Sample Composite Homogeneity:	Moderate

Location: AS-07 (580-83726-7) Lab ID-Version‡: 9895708-1

Sample Layers	Asbestos Content
Black Non-Fibrous Material	ND
Sample Composite Homogeneity:	Moderate

Location: AS-08 (580-83726-8) Lab ID-Version‡: 9895709-1

Sample Layers	Asbestos Content
Black Non-Fibrous Material	ND
Sample Composite Homogeneity:	Moderate

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.
‡ A "Version" indicated by -"x" after the Lab ID# with a value greater than 1 indicates a sample with amended data. The revision number is reflected by the value of "x".

9405 SW Nimbus Ave
Beaverton, OR 97008-7145
503-906-9200 Fax 503-906-9210

580-83726 Chain of Custody

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Jessica Penetar	Site Contact:	Date:	COC No:
Client Name CES	Tel/Fax:	Lab Contact:	Carrier:	1 of 1 COCs
Address 3511 Pacific Blvd SW	Analysis Turnaround Time			Job No.
City/State/Zip Albany, OR 97321	Calendar (C) or Work Days (W) _____			
Phone 541-926-7737	TAT if different from Below _____			SDG No.
FAX	☐ 2 weeks			
Project Name: Shimanek Covered Bridge	☐ 1 week			Sampler:
Site:	☐ 2 days			
PO # 20182300024	☐ 1 day			Sample Specific Notes:

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Asbestos	Lead	Cadmium	Chromium	HOLD TCLP
AS-01	2/6/19	953			1		X				
AS-02		1004			1						
AS-03		954			1						
AS-04		1005			1						
AS-05		956			1						
AS-06		958			1						
AS-07		1018			1						
AS-08		1019			1						
Wood Composite		1205			1			X	X	X	X

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

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant Poison B ☐ Unknown ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Please Send report to jessica.penetar@valmont.com (DO NOT send to Brian Rabe)

5.6°C

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Jessica Penetar	CES	2/6/19 1945		TARGET	2/7/19 945
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TAL-1002 0912

Form No. CA-C-WI-002, Rev. 3.1, dated 07/12/2012

9405 SW Nimbus Ave
Beaverton, OR 97008-7145
503-906-9200 Fax 503-906-9210

580-83726 Chain of Custody

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

2/20/2019

Client Contact	Project Manager: Jessica Penetar	Site Contact:	Date:	COC No:
Client Name CES	Tel/Fax:	Lab Contact:	Carrier:	1 of 1 COCs
Address 3511 Pacific Blvd SW	Analysis Turnaround Time			Job No.
City/State/Zip Albany, OR 97321	Calendar (C) or Work Days (W)			
Phone 541-926-7737	TAT if different from Below			SDG No.
FAX	☐ 2 weeks			
Project Name: Shimanek Covered Bridge	☐ 1 week			Sampler:
Site:	☐ 2 days			
PO # 20182300024	☐ 1 day			

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Asbestos	Lead	Cadmium	Chromium	HPLD TCLP	Sample Specific Notes:
AS-01	2/6/19	953			1		X					
AS-02		1004			1							
AS-03		954			1							
AS-04		1005			1							
AS-05		956			1							
AS-06		958			1							
AS-07		1018			1							
AS-08		1019			1							
Wood Composite		1205			1			X	X	X	X	

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

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant Poison B ☐ Unknown ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Please Send report to jessica.penetar@valmont.com (DO NOT send to Brian Rabe)

5.6°C

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	CES	2/6/19 1445		TAPOR	2/7/19 945
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
	TAPOR	2/7/19 1100		TASEC	2.8.19 1020
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
					8:1.9

TAL-1002 0912

Form No. CA-C-WI-002, Rev. 3.1, dated 07/12/2012

Login Sample Receipt Checklist

Client: Cascade Earth Sciences Inc. Job Number: 580-83726-1

Login Number: 83726 **List Source: TestAmerica Seattle**
List Number: 1
Creator: O'Connell, Jason I

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-83726-2
Client Project/Site: Shamanck Covered Bridge

For:
Cascade Earth Sciences Inc.
3511 Pacific Blvd Sw
Albany, Oregon 97321

Attn: Jessica Penetar

Kristine D. Allen

Authorized for release by:
2/13/2019 5:31:21 PM
Kristine Allen, Manager of Project Management
(253)248-4970
kristine.allen@testamericainc.com

Designee for

Nathan Lewis, Project Manager I
(253)922-2310
nathan.lewis@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Client: Cascade Earth Sciences Inc.
Project/Site: Shamanck Covered Bridge

TestAmerica Job ID: 580-83726-2

Job ID: 580-83726-2

Laboratory: TestAmerica Seattle

Narrative

Job Narrative
580-83726-2

Comments
No additional comments.

Receipt
The samples were received on 2/7/2019 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 5.6º C.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Glossary

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

Client: Cascade Earth Sciences Inc.
Project/Site: Shamanck Covered Bridge

TestAmerica Job ID: 580-83726-2

Client Sample ID: Wood Composite
Date Collected: 02/06/19 12:05
Date Received: 02/07/19 09:45

Lab Sample ID: 580-83726-9
Matrix: Solid
Percent Solids: 87.7

Method: 6010C - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.1		mg/Kg	☼	02/12/19 15:33	02/13/19 12:27	1
Chromium	ND		1.4		mg/Kg	☼	02/12/19 15:33	02/13/19 12:27	1
Lead	**1.8**		1.7		mg/Kg	☼	02/12/19 15:33	02/13/19 12:27	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**87.7**		0.1		%			02/11/19 06:18	1
Percent Moisture	**12.3**		0.1		%			02/11/19 06:18	1

Method: 6010C - Metals (ICP)

Lab Sample ID: MB 580-294515/23-A
Matrix: Solid
Analysis Batch: 294575

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 294515

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cadmium	ND		1.0		mg/Kg		02/12/19 15:33	02/13/19 11:52	1
Chromium	ND		1.3		mg/Kg		02/12/19 15:33	02/13/19 11:52	1
Lead	ND		1.5		mg/Kg		02/12/19 15:33	02/13/19 11:52	1

Lab Sample ID: LCS 580-294515/24-A
Matrix: Solid
Analysis Batch: 294575

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 294515

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Cadmium	50.0	46.1		mg/Kg		92	80 - 120
Chromium	50.0	49.2		mg/Kg		98	80 - 120
Lead	50.0	47.7		mg/Kg		95	80 - 120

Lab Sample ID: LCSD 580-294515/25-A
Matrix: Solid
Analysis Batch: 294575

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 294515

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Cadmium	50.0	46.5		mg/Kg		93	80 - 120	1	20
Chromium	50.0	50.0		mg/Kg		100	80 - 120	2	20
Lead	50.0	47.7		mg/Kg		95	80 - 120	0	20

Lab Chronicle

Client: Cascade Earth Sciences Inc.
Project/Site: Shamanck Covered Bridge

TestAmerica Job ID: 580-83726-2

Client Sample ID: Wood Composite

Lab Sample ID: 580-83726-9

Date Collected: 02/06/19 12:05

Matrix: Solid

Date Received: 02/07/19 09:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	294424	02/11/19 06:18	BAH	TAL SEA

Client Sample ID: Wood Composite

Lab Sample ID: 580-83726-9

Date Collected: 02/06/19 12:05

Matrix: Solid

Date Received: 02/07/19 09:45

Percent Solids: 87.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	3050B			294515	02/12/19 15:33	JKM	TAL SEA
Total/NA	Analysis	6010C		1	294575	02/13/19 12:27	HJM	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Cascade Earth Sciences Inc.
Project/Site: Shamanck Covered Bridge

TestAmerica Job ID: 580-83726-2

Laboratory: TestAmerica Seattle

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	02-28-19
ANAB	DoD / DOE		L2236	01-19-22
ANAB	ISO/IEC 17025		L2236	01-19-22
California	State Program	9	2901	11-05-19
Montana (UST)	State Program	8	N/A	04-30-20
Nevada	State Program	9	WA000502019-1	07-31-19
Oregon	NELAP	10	WA100007	11-05-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-19

Sample Summary

Client: Cascade Earth Sciences Inc.
Project/Site: Shamanck Covered Bridge

TestAmerica Job ID: 580-83726-2

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-83726-9	Wood Composite	Solid	02/06/19 12:05	02/07/19 09:45

9405 SW Nimbus Ave
Beaverton, OR 97008-7145
503-906-9200 Fax 503-906-9210

580-83726 Chain of Custody

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact	Project Manager: Jessica Penetar	Site Contact:	Date:	COC No:
Client Name CES	Tel/Fax:	Lab Contact:	Carrier:	1 of 1 COCs
Address 3511 Pacific Blvd SW	Analysis Turnaround Time			Job No.
City/State/Zip Albany, OR 97321	Calendar (C) or Work Days (W) _____			
Phone 541-926-7737	TAT if different from Below _____			SDG No.
FAX	☐ 2 weeks			
Project Name: Shimanek Covered Bridge	☐ 1 week			Sampler:
Site:	☐ 2 days			
PO # 20182300024	☐ 1 day			Sample Specific Notes:

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Asbestos	Lead	Cadmium	Chromium	HOLD TCLP
AS-01	2/6/19	953			1		X				
AS-02		1004			1						
AS-03		954			1						
AS-04		1005			1						
AS-05		956			1						
AS-06		958			1						
AS-07		1018			1						
AS-08		1019			1						
Wood Composite		1205			1			X	X	X	X

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

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant Poison B ☐ Unknown ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Special Instructions/QC Requirements & Comments:

Please Send report to jessica.penetar@valmont.com (DO NOT send to Brian Rabe)

5.6°C

	Company:	Date/Time:		Company:	Date/Time:
Relinquished by: Jessica Penetar	CES	2/6/19 1945	Received by:	TARGIT	2/7/19 945
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:

TAL-1002 0912

Form No. CA-C-WI-002, Rev. 3.1, dated 07/12/2012

9405 SW Nimbus Ave
Beaverton, OR 97008-7145
503-906-9200 Fax 503-906-9210

580-83726 Chain of Custody

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Laboratories, Inc.

Client Contact
Client Name: CES
Address: 3511 Pacific Blvd SW
City/State/Zip: Albany, OR 97321
Phone: 541-926-7737
FAX
Project Name: Shimanek Covered Bridge
Site:
P O #: 2018230024

Project Manager: Jessica Penetar
Tel/Fax:
Site Contact:
Date:
Lab Contact:
Carrier:
COC No:
1 of 1 COCs
Job No.
SDG No.
Sampler:

Analysis Turnaround Time
Calendar (C) or Work Days (W) ______
TAT if different from Below ______
☐ 2 weeks
☐ 1 week
☐ 2 days
☐ 1 day

Sample Identification	Sample Date	Sample Time	Sample Type	Matrix	# of Cont.	Filtered Sample	Asbestos	Lead	Cadmium	Chromium	HOLD TCLP	Sample Specific Notes:
AS-01	2/6/19	953			1		X					
AS-02		1004			1							
AS-03		954			1							
AS-04		1005			1							
AS-05		956			1							
AS-06		958			1							
AS-07		1018			1							
AS-08		1019			1							
Wood Composite		1205			1			X	X	X	X	

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

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant Poison B ☐ Unknown ☐

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For ______ Months

Special Instructions/QC Requirements & Comments:
Please Send report to jessica.penetar@valmont.com (DO NOT send to Brian Rabe)
5.6°C

Relinquished by:	Company:	Date/Time:	Received by:	Company:	Date/Time:
[signature]	CES	2/6/19 1445	[signature]	TAPOR	2/7/19 945
[signature]	TAPOR	2/7/19 1100	[signature]	TASEA	2-8-19 1020
					3-2-1.9

TAL-1002 0912

Form No. CA-C-WI-002, Rev. 3.1, dated 07/12/2012

Login Sample Receipt Checklist

Client: Cascade Earth Sciences Inc.

Job Number: 580-83726-2

Login Number: 83726

List Source: TestAmerica Seattle

List Number: 1

Creator: O'Connell, Jason I

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-82025-1
Client Project/Site: Shimanek Covered Bridge

For:
Cascade Earth Sciences Inc.
3511 Pacific Blvd Sw
Albany, Oregon 97321

Attn: Jessica Penetar

Authorized for release by:
12/11/2018 4:37:11 PM

Nathan Lewis, Project Manager I
(253)922-2310
nathan.lewis@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Job ID: 580-82025-1

Laboratory: TestAmerica Seattle

Narrative

Job Narrative
580-82025-1

Comments
No additional comments.

Receipt
The sample was received on 11/23/2018 10:50 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 4.3º C.

GC/MS VOA
Method(s) 5035: The following sample was provided to the laboratory with a significantly different initial weight than that required by the reference method: SS-01 (580-82025-1). The method requires 8-12 grams. The amount provided was above this range.

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 580-289674 and analytical batch 580-289687 recovered outside control limits for the following analytes: Vinyl chloride, Trichlorofluoromethane and Dichlorodifluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been qualified and reported.

Method(s) 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch preparation batch 580-289674 and analytical batch 580-289687 recovered outside control limits for the following analytes: Vinyl chloride and Trichlorofluoromethane.

Method(s) 8260C: The laboratory control sample and/or the laboratory control sample duplicate (LCS/LCSD) for preparation batch 580-289674 and analytical batch 580-289687 recovered outside control limits for the following analyte(s): 1,2,3-Trichlorobenzene. 1,2,3-Trichlorobenzene has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270C SIM: The surrogate recovery for the method blank associated with preparation batch 580-290094 and analytical batch 580-290528 was outside the upper control limits. All samples were within recovery limits, therefore the data are reported.

Method(s) 8270C SIM: The following sample was diluted due to the nature of the sample matrix: SS-01 (580-82025-1). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8081A: The following samples were diluted due to the nature of the sample matrix: SS-01 (580-82025-1), (580-82025-C-1-F MS) and (580-82025-C-1-G MSD). Elevated reporting limits (RLs) are provided.

Method(s) NWTPH-Dx: Continuing calibration verification (CCV) standard associated with batch 580-290662 recovered outside %Drift acceptance criteria for o-Terphenyl surrogate. The %Recovery is within acceptance criteria for the surrogate in the CCV and associated samples; therefore, the data are qualified and reported. The following sample is impacted: (CCVRT 580-290662/3).

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Job ID: 580-82025-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Client Sample ID: SS-01
Date Collected: 11/21/18 08:01
Date Received: 11/23/18 10:50

Lab Sample ID: 580-82025-1
Matrix: Solid
Percent Solids: 79.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND	*	160		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Chloromethane	ND		81		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Vinyl chloride	ND	*	120		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Bromomethane	ND		160		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Chloroethane	ND		330		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Trichlorofluoromethane	ND	*	160		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,1-Dichloroethene	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Methylene Chloride	ND		200		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
trans-1,2-Dichloroethene	ND		49		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,1-Dichloroethane	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
2,2-Dichloropropane	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
cis-1,2-Dichloroethene	ND		49		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Bromochloromethane	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Chloroform	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,1,1-Trichloroethane	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Carbon tetrachloride	ND		16		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,1-Dichloropropene	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Benzene	ND		24		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,2-Dichloroethane	ND		16		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Trichloroethene	ND		49		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,2-Dichloropropane	ND		16		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Dibromomethane	ND		49		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Bromodichloromethane	ND		49		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
cis-1,3-Dichloropropene	ND		16		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Toluene	ND		120		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
trans-1,3-Dichloropropene	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,1,2-Trichloroethane	ND		16		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Tetrachloroethene	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,3-Dichloropropane	ND		49		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Dibromochloromethane	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,2-Dibromoethane	ND		16		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Chlorobenzene	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Ethylbenzene	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,1,1,2-Tetrachloroethane	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,1,2,2-Tetrachloroethane	ND		16		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
m-Xylene & p-Xylene	ND		160		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
o-Xylene	ND		49		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Styrene	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Bromoform	ND		160		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Isopropylbenzene	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Bromobenzene	ND		81		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
N-Propylbenzene	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,2,3-Trichloropropane	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
2-Chlorotoluene	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,3,5-Trimethylbenzene	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
4-Chlorotoluene	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
t-Butylbenzene	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,2,4-Trimethylbenzene	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
sec-Butylbenzene	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1

Client Sample ID: SS-01
Date Collected: 11/21/18 08:01
Date Received: 11/23/18 10:50

Lab Sample ID: 580-82025-1
Matrix: Solid
Percent Solids: 79.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		49		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
4-Isopropyltoluene	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,4-Dichlorobenzene	ND		49		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
n-Butylbenzene	ND		120		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,2-Dichlorobenzene	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,2-Dibromo-3-Chloropropane	ND		200		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,2,4-Trichlorobenzene	ND		49		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
1,2,3-Trichlorobenzene	ND	*	120		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Hexachlorobutadiene	ND		120		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Naphthalene	ND		81		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1
Methyl tert-butyl ether	ND		33		ug/Kg	☼	11/26/18 16:58	11/27/18 00:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*106*		*80 - 120*	*11/26/18 16:58*	*11/27/18 00:10*	*1*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*	*11/26/18 16:58*	*11/27/18 00:10*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*	*11/26/18 16:58*	*11/27/18 00:10*	*1*
Trifluorotoluene (Surr)	*100*		*80 - 120*	*11/26/18 16:58*	*11/27/18 00:10*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 121*	*11/26/18 16:58*	*11/27/18 00:10*	*1*

Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dalapon	ND		190		ug/Kg	☼	12/03/18 12:34	12/06/18 18:01	1
Dicamba	ND		110		ug/Kg	☼	12/03/18 12:34	12/06/18 18:01	1
Mecoprop	ND		110		ug/Kg	☼	12/03/18 12:34	12/06/18 18:01	1
MCPA	ND		110		ug/Kg	☼	12/03/18 12:34	12/06/18 18:01	1
Dichlorprop	ND		110		ug/Kg	☼	12/03/18 12:34	12/06/18 18:01	1
2,4-D	ND		110		ug/Kg	☼	12/03/18 12:34	12/06/18 18:01	1
Pentachlorophenol	ND		190		ug/Kg	☼	12/03/18 12:34	12/06/18 18:01	1
Silvex (2,4,5-TP)	ND		110		ug/Kg	☼	12/03/18 12:34	12/06/18 18:01	1
2,4,5-T	ND		110		ug/Kg	☼	12/03/18 12:34	12/06/18 18:01	1
Dinoseb	ND		190		ug/Kg	☼	12/03/18 12:34	12/06/18 18:01	1
2,4-DB	ND		110		ug/Kg	☼	12/03/18 12:34	12/06/18 18:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*83*		*53 - 150*	*12/03/18 12:34*	*12/06/18 18:01*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5
2-Methylnaphthalene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5
1-Methylnaphthalene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5
Acenaphthylene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5
Acenaphthene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5
Fluorene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5
Phenanthrene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5
Anthracene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5
Fluoranthene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5
Pyrene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5
Benzo[a]anthracene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5
Chrysene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5

Client Sample ID: SS-01
Date Collected: 11/21/18 08:01
Date Received: 11/23/18 10:50

Lab Sample ID: 580-82025-1
Matrix: Solid
Percent Solids: 79.6

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5
Benzo[k]fluoranthene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5
Benzo[a]pyrene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5
Indeno[1,2,3-cd]pyrene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5
Dibenz(a,h)anthracene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5
Benzo[g,h,i]perylene	ND		27		ug/Kg	☼	12/01/18 20:47	12/10/18 15:41	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*109*		*57 - 120*	*12/01/18 20:47*	*12/10/18 15:41*	*5*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		17		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
alpha-BHC	ND		11		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
beta-BHC	ND		28		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
delta-BHC	ND		17		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
gamma-BHC (Lindane)	ND		11		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
4,4'-DDD	ND		11		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
4,4'-DDE	ND		11		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
4,4'-DDT	ND		11		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
Dieldrin	ND		11		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
Endosulfan I	ND		11		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
Endosulfan II	ND		11		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
Endosulfan sulfate	ND		11		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
Endrin	ND		11		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
Endrin aldehyde	ND		110		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
Heptachlor	ND		17		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
Heptachlor epoxide	ND		17		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
Methoxychlor	ND		56		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
Endrin ketone	ND		11		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
Toxaphene	ND		560		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
cis-Chlordane	ND		11		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5
trans-Chlordane	ND		17		ug/Kg	☼	12/04/18 14:42	12/06/18 18:15	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*93*		*50 - 123*	*12/04/18 14:42*	*12/06/18 18:15*	*5*
DCB Decachlorobiphenyl	*84*		*43 - 129*	*12/04/18 14:42*	*12/06/18 18:15*	*5*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.023		mg/Kg	☼	12/04/18 14:42	12/06/18 15:33	1
PCB-1221	ND		0.023		mg/Kg	☼	12/04/18 14:42	12/06/18 15:33	1
PCB-1232	ND		0.023		mg/Kg	☼	12/04/18 14:42	12/06/18 15:33	1
PCB-1242	ND		0.023		mg/Kg	☼	12/04/18 14:42	12/06/18 15:33	1
PCB-1248	ND		0.023		mg/Kg	☼	12/04/18 14:42	12/06/18 15:33	1
PCB-1254	ND		0.023		mg/Kg	☼	12/04/18 14:42	12/06/18 15:33	1
PCB-1260	ND		0.023		mg/Kg	☼	12/04/18 14:42	12/06/18 15:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*70*		*54 - 142*	*12/04/18 14:42*	*12/06/18 15:33*	*1*
Tetrachloro-m-xylene	*93*		*58 - 122*	*12/04/18 14:42*	*12/06/18 15:33*	*1*

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Shimanek Covered Bridge

TestAmerica Job ID: 580-82025-1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		290		mg/Kg	☼	12/01/18 19:40	12/11/18 02:40	5
Motor Oil (>C24-C36)	**820**		290		mg/Kg	☼	12/01/18 19:40	12/11/18 02:40	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*50 - 150*	*12/01/18 19:40*	*12/11/18 02:40*	*5*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.5		mg/Kg	☼	11/30/18 11:36	12/03/18 14:47	1
Barium	**110**		0.41		mg/Kg	☼	11/30/18 11:36	12/03/18 14:47	1
Cadmium	ND		0.82		mg/Kg	☼	11/30/18 11:36	12/03/18 14:47	1
Chromium	**5.7**		1.1		mg/Kg	☼	11/30/18 11:36	12/03/18 14:47	1
Lead	**4.4**		1.2		mg/Kg	☼	11/30/18 11:36	12/03/18 14:47	1
Selenium	ND		4.1		mg/Kg	☼	11/30/18 11:36	12/03/18 14:47	1
Silver	ND		2.1		mg/Kg	☼	11/30/18 11:36	12/03/18 14:47	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.023		mg/Kg	☼	11/27/18 12:00	11/27/18 16:12	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**79.6**		0.1		%			11/26/18 13:56	1
Percent Moisture	**20.4**		0.1		%			11/26/18 13:56	1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 580-289674/1-A
Matrix: Solid
Analysis Batch: 289687

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 289674

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND		200		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Chloromethane	ND		100		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Vinyl chloride	ND		150		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Bromomethane	ND		200		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Chloroethane	ND		400		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Trichlorofluoromethane	ND		200		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,1-Dichloroethene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Methylene Chloride	ND		250		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
trans-1,2-Dichloroethene	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,1-Dichloroethane	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
2,2-Dichloropropane	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
cis-1,2-Dichloroethene	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Bromochloromethane	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Chloroform	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,1,1-Trichloroethane	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Carbon tetrachloride	ND		20		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,1-Dichloropropene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Benzene	ND		30		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2-Dichloroethane	ND		20		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Trichloroethene	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2-Dichloropropane	ND		20		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Dibromomethane	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Bromodichloromethane	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
cis-1,3-Dichloropropene	ND		20		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Toluene	ND		150		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
trans-1,3-Dichloropropene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,1,2-Trichloroethane	ND		20		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Tetrachloroethene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,3-Dichloropropane	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Dibromochloromethane	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2-Dibromoethane	ND		20		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Chlorobenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Ethylbenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,1,1,2-Tetrachloroethane	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,1,2,2-Tetrachloroethane	ND		20		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
m-Xylene & p-Xylene	ND		200		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
o-Xylene	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Styrene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Bromoform	ND		200		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Isopropylbenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Bromobenzene	ND		100		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
N-Propylbenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2,3-Trichloropropane	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
2-Chlorotoluene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,3,5-Trimethylbenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
4-Chlorotoluene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
t-Butylbenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2,4-Trimethylbenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1

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

Lab Sample ID: MB 580-289674/1-A
Matrix: Solid
Analysis Batch: 289687

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 289674

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
sec-Butylbenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,3-Dichlorobenzene	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
4-Isopropyltoluene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,4-Dichlorobenzene	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
n-Butylbenzene	ND		150		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2-Dichlorobenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2-Dibromo-3-Chloropropane	ND		250		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2,4-Trichlorobenzene	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2,3-Trichlorobenzene	ND		150		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Hexachlorobutadiene	ND		150		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Naphthalene	ND		100		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Methyl tert-butyl ether	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*106*		*80 - 120*	*11/26/18 16:00*	*11/26/18 18:58*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*	*11/26/18 16:00*	*11/26/18 18:58*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*	*11/26/18 16:00*	*11/26/18 18:58*	*1*
Trifluorotoluene (Surr)	*102*		*80 - 120*	*11/26/18 16:00*	*11/26/18 18:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 121*	*11/26/18 16:00*	*11/26/18 18:58*	*1*

Lab Sample ID: LCS 580-289674/2-A
Matrix: Solid
Analysis Batch: 289687

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 289674

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dichlorodifluoromethane	800	1500	*	ug/Kg		187	26 - 145
Chloromethane	800	1010		ug/Kg		126	53 - 145
Vinyl chloride	800	730		ug/Kg		91	52 - 150
Bromomethane	800	908		ug/Kg		114	66 - 133
Chloroethane	800	984		ug/Kg		123	67 - 139
Trichlorofluoromethane	800	979		ug/Kg		122	73 - 143
1,1-Dichloroethene	800	963		ug/Kg		120	68 - 137
Methylene Chloride	800	844		ug/Kg		106	66 - 141
trans-1,2-Dichloroethene	800	832		ug/Kg		104	71 - 135
1,1-Dichloroethane	800	816		ug/Kg		102	70 - 141
2,2-Dichloropropane	800	998		ug/Kg		125	62 - 150
cis-1,2-Dichloroethene	800	836		ug/Kg		104	74 - 129
Bromochloromethane	800	794		ug/Kg		99	76 - 131
Chloroform	800	801		ug/Kg		100	74 - 133
1,1,1-Trichloroethane	800	989		ug/Kg		124	69 - 144
Carbon tetrachloride	800	991		ug/Kg		124	66 - 150
1,1-Dichloropropene	800	894		ug/Kg		112	76 - 141
Benzene	800	826		ug/Kg		103	79 - 135
1,2-Dichloroethane	800	821		ug/Kg		103	68 - 132
Trichloroethene	800	857		ug/Kg		107	69 - 144
1,2-Dichloropropane	800	790		ug/Kg		99	75 - 136
Dibromomethane	800	754		ug/Kg		94	72 - 130
Bromodichloromethane	800	799		ug/Kg		100	73 - 132

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

Lab Sample ID: LCS 580-289674/2-A
Matrix: Solid
Analysis Batch: 289687

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 289674

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
cis-1,3-Dichloropropene	800	875		ug/Kg		109	80 - 122
Toluene	800	878		ug/Kg		110	80 - 125
trans-1,3-Dichloropropene	800	823		ug/Kg		103	80 - 121
1,1,2-Trichloroethane	800	882		ug/Kg		110	80 - 123
Tetrachloroethene	800	965		ug/Kg		121	71 - 136
1,3-Dichloropropane	800	826		ug/Kg		103	80 - 120
Dibromochloromethane	800	836		ug/Kg		105	75 - 125
1,2-Dibromoethane	800	841		ug/Kg		105	77 - 123
Chlorobenzene	800	838		ug/Kg		105	80 - 123
Ethylbenzene	800	911		ug/Kg		114	80 - 127
1,1,1,2-Tetrachloroethane	800	837		ug/Kg		105	79 - 128
1,1,2,2-Tetrachloroethane	800	724		ug/Kg		90	74 - 120
m-Xylene & p-Xylene	800	933		ug/Kg		117	80 - 128
o-Xylene	800	884		ug/Kg		111	80 - 125
Styrene	800	916		ug/Kg		115	79 - 129
Bromoform	800	897		ug/Kg		112	65 - 134
Isopropylbenzene	800	930		ug/Kg		116	80 - 128
Bromobenzene	800	964		ug/Kg		121	78 - 126
N-Propylbenzene	800	911		ug/Kg		114	74 - 127
1,2,3-Trichloropropane	800	855		ug/Kg		107	70 - 127
2-Chlorotoluene	800	869		ug/Kg		109	77 - 127
1,3,5-Trimethylbenzene	800	896		ug/Kg		112	72 - 128
4-Chlorotoluene	800	836		ug/Kg		104	78 - 126
t-Butylbenzene	800	901		ug/Kg		113	79 - 127
1,2,4-Trimethylbenzene	800	881		ug/Kg		110	73 - 127
sec-Butylbenzene	800	892		ug/Kg		112	77 - 129
1,3-Dichlorobenzene	800	841		ug/Kg		105	78 - 122
4-Isopropyltoluene	800	840		ug/Kg		105	71 - 129
1,4-Dichlorobenzene	800	817		ug/Kg		102	77 - 123
n-Butylbenzene	800	848		ug/Kg		106	77 - 130
1,2-Dichlorobenzene	800	831		ug/Kg		104	78 - 120
1,2-Dibromo-3-Chloropropane	800	706		ug/Kg		88	53 - 135
1,2,4-Trichlorobenzene	800	761		ug/Kg		95	68 - 131
1,2,3-Trichlorobenzene	800	549	*	ug/Kg		69	71 - 129
Hexachlorobutadiene	800	872		ug/Kg		109	65 - 136
Naphthalene	800	536		ug/Kg		67	67 - 124
Methyl tert-butyl ether	800	859		ug/Kg		107	75 - 126

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 120*
Trifluorotoluene (Surr)	*100*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 121*

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

Lab Sample ID: LCSD 580-289674/3-A
Matrix: Solid
Analysis Batch: 289687

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 289674

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dichlorodifluoromethane	800	1640	*	ug/Kg		205	26 - 145	9	23
Chloromethane	800	1020		ug/Kg		127	53 - 145	1	18
Vinyl chloride	800	2030	*	ug/Kg		254	52 - 150	94	37
Bromomethane	800	981		ug/Kg		123	66 - 133	8	22
Chloroethane	800	1050		ug/Kg		132	67 - 139	7	22
Trichlorofluoromethane	800	1240	*	ug/Kg		155	73 - 143	23	17
1,1-Dichloroethene	800	1040		ug/Kg		130	68 - 137	8	17
Methylene Chloride	800	867		ug/Kg		108	66 - 141	3	17
trans-1,2-Dichloroethene	800	871		ug/Kg		109	71 - 135	5	16
1,1-Dichloroethane	800	850		ug/Kg		106	70 - 141	4	13
2,2-Dichloropropane	800	834		ug/Kg		104	62 - 150	18	20
cis-1,2-Dichloroethene	800	878		ug/Kg		110	74 - 129	5	14
Bromochloromethane	800	817		ug/Kg		102	76 - 131	3	15
Chloroform	800	826		ug/Kg		103	74 - 133	3	13
1,1,1-Trichloroethane	800	1010		ug/Kg		127	69 - 144	2	14
Carbon tetrachloride	800	999		ug/Kg		125	66 - 150	1	12
1,1-Dichloropropene	800	928		ug/Kg		116	76 - 141	4	11
Benzene	800	837		ug/Kg		105	79 - 135	1	15
1,2-Dichloroethane	800	844		ug/Kg		105	68 - 132	3	11
Trichloroethene	800	900		ug/Kg		113	69 - 144	5	10
1,2-Dichloropropane	800	796		ug/Kg		99	75 - 136	1	10
Dibromomethane	800	781		ug/Kg		98	72 - 130	3	14
Bromodichloromethane	800	807		ug/Kg		101	73 - 132	1	10
cis-1,3-Dichloropropene	800	894		ug/Kg		112	80 - 122	2	16
Toluene	800	881		ug/Kg		110	80 - 125	0	16
trans-1,3-Dichloropropene	800	818		ug/Kg		102	80 - 121	1	17
1,1,2-Trichloroethane	800	875		ug/Kg		109	80 - 123	1	15
Tetrachloroethene	800	975		ug/Kg		122	71 - 136	1	16
1,3-Dichloropropane	800	829		ug/Kg		104	80 - 120	0	18
Dibromochloromethane	800	846		ug/Kg		106	75 - 125	1	11
1,2-Dibromoethane	800	858		ug/Kg		107	77 - 123	2	11
Chlorobenzene	800	848		ug/Kg		106	80 - 123	1	10
Ethylbenzene	800	906		ug/Kg		113	80 - 127	1	16
1,1,1,2-Tetrachloroethane	800	862		ug/Kg		108	79 - 128	3	11
1,1,2,2-Tetrachloroethane	800	754		ug/Kg		94	74 - 120	4	18
m-Xylene & p-Xylene	800	952		ug/Kg		119	80 - 128	2	13
o-Xylene	800	913		ug/Kg		114	80 - 125	3	14
Styrene	800	913		ug/Kg		114	79 - 129	0	15
Bromoform	800	918		ug/Kg		115	65 - 134	2	17
Isopropylbenzene	800	957		ug/Kg		120	80 - 128	3	17
Bromobenzene	800	927		ug/Kg		116	78 - 126	4	12
N-Propylbenzene	800	904		ug/Kg		113	74 - 127	1	17
1,2,3-Trichloropropane	800	848		ug/Kg		106	70 - 127	1	16
2-Chlorotoluene	800	869		ug/Kg		109	77 - 127	0	16
1,3,5-Trimethylbenzene	800	897		ug/Kg		112	72 - 128	0	16
4-Chlorotoluene	800	845		ug/Kg		106	78 - 126	1	16
t-Butylbenzene	800	916		ug/Kg		114	79 - 127	2	13
1,2,4-Trimethylbenzene	800	890		ug/Kg		111	73 - 127	1	12

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

Lab Sample ID: LCSD 580-289674/3-A
Matrix: Solid
Analysis Batch: 289687

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 289674

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
sec-Butylbenzene			800	903		ug/Kg		113	77 - 129	1	12
1,3-Dichlorobenzene			800	847		ug/Kg		106	78 - 122	1	12
4-Isopropyltoluene			800	860		ug/Kg		107	71 - 129	2	11
1,4-Dichlorobenzene			800	838		ug/Kg		105	77 - 123	2	12
n-Butylbenzene			800	896		ug/Kg		112	77 - 130	5	12
1,2-Dichlorobenzene			800	845		ug/Kg		106	78 - 120	2	12
1,2-Dibromo-3-Chloropropane			800	736		ug/Kg		92	53 - 135	4	20
1,2,4-Trichlorobenzene			800	782		ug/Kg		98	68 - 131	3	16
1,2,3-Trichlorobenzene			800	572		ug/Kg		72	71 - 129	4	18
Hexachlorobutadiene			800	893		ug/Kg		112	65 - 136	2	19
Naphthalene			800	546		ug/Kg		68	67 - 124	2	17
Methyl tert-butyl ether			800	833		ug/Kg		104	75 - 126	3	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Trifluorotoluene (Surr)	*97*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 121*

Method: 8151A - Herbicides (GC/MS)

Lab Sample ID: MB 580-290141/1-A
Matrix: Solid
Analysis Batch: 290489

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dalapon	ND		160		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Dicamba	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Mecoprop	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
MCPA	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Dichlorprop	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
2,4-D	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Pentachlorophenol	ND		160		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Silvex (2,4,5-TP)	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
2,4,5-T	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Dinoseb	ND		160		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
2,4-DB	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*110*		*53 - 150*	*12/03/18 12:34*	*12/06/18 15:00*	*1*

Method: 8151A - Herbicides (GC/MS) (Continued)

Lab Sample ID: LCS 580-290141/2-A
Matrix: Solid
Analysis Batch: 290489

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290141

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dalapon	333	183		ug/Kg		55	15 - 120
Dicamba	333	295		ug/Kg		88	36 - 134
Mecoprop	333	342		ug/Kg		103	48 - 150
MCPA	333	320		ug/Kg		96	51 - 150
Dichlorprop	333	362		ug/Kg		109	47 - 150
2,4-D	333	332		ug/Kg		100	51 - 150
Pentachlorophenol	333	340		ug/Kg		102	44 - 150
Silvex (2,4,5-TP)	333	389		ug/Kg		117	53 - 150
2,4,5-T	333	324		ug/Kg		97	56 - 150
Dinoseb	333	259		ug/Kg		78	38 - 150
2,4-DB	333	391		ug/Kg		117	47 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*91*		*53 - 150*

Lab Sample ID: LCSD 580-290141/3-A
Matrix: Solid
Analysis Batch: 290489

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290141

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dalapon	333	209		ug/Kg		63	15 - 120	13	40
Dicamba	333	321		ug/Kg		96	36 - 134	9	40
Mecoprop	333	362		ug/Kg		109	48 - 150	5	40
MCPA	333	337		ug/Kg		101	51 - 150	5	40
Dichlorprop	333	380		ug/Kg		114	47 - 150	5	40
2,4-D	333	307		ug/Kg		92	51 - 150	8	40
Pentachlorophenol	333	351		ug/Kg		105	44 - 150	3	40
Silvex (2,4,5-TP)	333	379		ug/Kg		114	53 - 150	3	40
2,4,5-T	333	341		ug/Kg		102	56 - 150	5	40
Dinoseb	333	273		ug/Kg		82	38 - 150	5	40
2,4-DB	333	395		ug/Kg		119	47 - 150	1	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*97*		*53 - 150*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 580-290094/1-A
Matrix: Solid
Analysis Batch: 290528

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290094

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
2-Methylnaphthalene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
1-Methylnaphthalene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Acenaphthylene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Acenaphthene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 580-290094/1-A
Matrix: Solid
Analysis Batch: 290528

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290094

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Phenanthrene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Anthracene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Fluoranthene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Pyrene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Benzo[a]anthracene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Chrysene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Benzo[a]pyrene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*121*	*X*	*57 - 120*	*12/01/18 20:47*	*12/07/18 14:03*	*1*

Lab Sample ID: LCS 580-290094/2-A
Matrix: Solid
Analysis Batch: 290528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290094

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	1000	919		ug/Kg		92	70 - 120
2-Methylnaphthalene	1000	1010		ug/Kg		101	68 - 120
1-Methylnaphthalene	1000	986		ug/Kg		99	71 - 120
Acenaphthylene	1000	1020		ug/Kg		102	68 - 120
Acenaphthene	1000	928		ug/Kg		93	68 - 120
Fluorene	1000	972		ug/Kg		97	73 - 120
Phenanthrene	1000	933		ug/Kg		93	73 - 120
Anthracene	1000	1040		ug/Kg		104	73 - 125
Fluoranthene	1000	1070		ug/Kg		107	74 - 125
Pyrene	1000	1010		ug/Kg		101	70 - 120
Benzo[a]anthracene	1000	1050		ug/Kg		105	66 - 120
Chrysene	1000	908		ug/Kg		91	69 - 120
Benzo[b]fluoranthene	1000	925		ug/Kg		92	63 - 121
Benzo[k]fluoranthene	1000	936		ug/Kg		94	63 - 123
Benzo[a]pyrene	1000	988		ug/Kg		99	72 - 124
Indeno[1,2,3-cd]pyrene	1000	878		ug/Kg		88	65 - 121
Dibenz(a,h)anthracene	1000	970		ug/Kg		97	70 - 125
Benzo[g,h,i]perylene	1000	960		ug/Kg		96	63 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*109*		*57 - 120*

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 580-290263/1-A
Matrix: Solid
Analysis Batch: 290437

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290263

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		3.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
alpha-BHC	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
beta-BHC	ND		5.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
delta-BHC	ND		3.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
4,4'-DDD	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
4,4'-DDE	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
4,4'-DDT	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Dieldrin	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Endosulfan I	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Endosulfan II	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Endosulfan sulfate	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Endrin	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Endrin aldehyde	ND		20		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Heptachlor	ND		3.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Heptachlor epoxide	ND		3.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Methoxychlor	ND		10		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Endrin ketone	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Toxaphene	ND		100		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
cis-Chlordane	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
trans-Chlordane	ND		3.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*89*		*50 - 123*	*12/04/18 14:42*	*12/06/18 14:14*	*1*
DCB Decachlorobiphenyl	*97*		*43 - 129*	*12/04/18 14:42*	*12/06/18 14:14*	*1*

Lab Sample ID: LCS 580-290263/2-A
Matrix: Solid
Analysis Batch: 290437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290263

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	20.0	18.4		ug/Kg		92	56 - 121
alpha-BHC	20.0	17.9		ug/Kg		90	62 - 120
beta-BHC	20.0	17.2		ug/Kg		86	62 - 120
delta-BHC	20.0	16.8		ug/Kg		84	53 - 124
gamma-BHC (Lindane)	20.0	17.1		ug/Kg		85	55 - 120
4,4'-DDD	20.0	16.4		ug/Kg		82	61 - 122
4,4'-DDE	20.0	17.0		ug/Kg		85	53 - 124
4,4'-DDT	20.0	19.1		ug/Kg		95	57 - 137
Dieldrin	20.0	19.0		ug/Kg		95	63 - 121
Endosulfan I	20.0	18.3		ug/Kg		92	64 - 121
Endosulfan II	20.0	18.2		ug/Kg		91	37 - 139
Endosulfan sulfate	20.0	18.3		ug/Kg		92	63 - 120
Endrin	20.0	21.9		ug/Kg		110	70 - 127
Endrin aldehyde	20.0	15.9	J	ug/Kg		80	36 - 150
Heptachlor	20.0	19.6		ug/Kg		98	64 - 124
Heptachlor epoxide	20.0	18.6		ug/Kg		93	62 - 120
Methoxychlor	20.0	19.3		ug/Kg		96	61 - 130

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 580-290263/2-A
Matrix: Solid
Analysis Batch: 290437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290263

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Endrin ketone			20.0	18.8		ug/Kg		94	56 - 120		
cis-Chlordane			20.0	18.1		ug/Kg		91	62 - 120		
trans-Chlordane			20.0	19.1		ug/Kg		96	60 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*82*		*50 - 123*
DCB Decachlorobiphenyl	*93*		*43 - 129*

Lab Sample ID: LCS 580-290263/4-A
Matrix: Solid
Analysis Batch: 290437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290263

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Toxaphene			500	505		ug/Kg		101	57 - 126		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*86*		*50 - 123*
DCB Decachlorobiphenyl	*93*		*43 - 129*

Lab Sample ID: LCSD 580-290263/3-A
Matrix: Solid
Analysis Batch: 290437

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290263

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin			20.0	19.7		ug/Kg		98	56 - 121	7	18
alpha-BHC			20.0	19.1		ug/Kg		96	62 - 120	6	15
beta-BHC			20.0	19.4		ug/Kg		97	62 - 120	12	19
delta-BHC			20.0	17.9		ug/Kg		89	53 - 124	6	18
gamma-BHC (Lindane)			20.0	18.4		ug/Kg		92	55 - 120	7	18
4,4'-DDD			20.0	19.2		ug/Kg		96	61 - 122	16	18
4,4'-DDE			20.0	19.5		ug/Kg		98	53 - 124	14	18
4,4'-DDT			20.0	20.2		ug/Kg		101	57 - 137	6	23
Dieldrin			20.0	20.4		ug/Kg		102	63 - 121	7	19
Endosulfan I			20.0	20.5		ug/Kg		103	64 - 121	11	20
Endosulfan II			20.0	19.8		ug/Kg		99	37 - 139	8	18
Endosulfan sulfate			20.0	19.4		ug/Kg		97	63 - 120	6	19
Endrin			20.0	23.1		ug/Kg		115	70 - 127	5	20
Endrin aldehyde			20.0	17.7	J	ug/Kg		88	36 - 150	10	24
Heptachlor			20.0	20.3		ug/Kg		101	64 - 124	3	17
Heptachlor epoxide			20.0	19.7		ug/Kg		99	62 - 120	6	20
Methoxychlor			20.0	20.6		ug/Kg		103	61 - 130	7	20
Endrin ketone			20.0	20.0		ug/Kg		100	56 - 120	6	18
cis-Chlordane			20.0	19.9		ug/Kg		100	62 - 120	9	18
trans-Chlordane			20.0	20.6		ug/Kg		103	60 - 120	8	19

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*93*		*50 - 123*

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 580-290263/3-A
Matrix: Solid
Analysis Batch: 290437

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290263

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
DCB Decachlorobiphenyl	105		43 - 129

Lab Sample ID: LCSD 580-290263/5-A
Matrix: Solid
Analysis Batch: 290437

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290263

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toxaphene			500	502		ug/Kg		100	57 - 126	1	24

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
Tetrachloro-m-xylene	88		50 - 123
DCB Decachlorobiphenyl	96		43 - 129

Lab Sample ID: 580-82025-1 MS
Matrix: Solid
Analysis Batch: 290437

Client Sample ID: SS-01
Prep Type: Total/NA
Prep Batch: 290263

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	ND		24.8	20.0		ug/Kg	☼	81	56 - 121
alpha-BHC	ND		24.8	21.3		ug/Kg	☼	86	62 - 120
beta-BHC	ND		24.8	ND		ug/Kg	☼	83	62 - 120
delta-BHC	ND		24.8	20.5		ug/Kg	☼	82	53 - 124
gamma-BHC (Lindane)	ND		24.8	20.3		ug/Kg	☼	82	55 - 120
4,4'-DDD	ND		24.8	19.0		ug/Kg	☼	77	61 - 122
4,4'-DDE	ND		24.8	19.5		ug/Kg	☼	79	53 - 124
4,4'-DDT	ND		24.8	19.8		ug/Kg	☼	80	57 - 137
Dieldrin	ND		24.8	18.3		ug/Kg	☼	74	63 - 121
Endosulfan I	ND		24.8	19.0		ug/Kg	☼	77	64 - 121
Endosulfan II	ND		24.8	19.3		ug/Kg	☼	78	37 - 139
Endosulfan sulfate	ND		24.8	17.2		ug/Kg	☼	69	63 - 120
Endrin	ND		24.8	22.9		ug/Kg	☼	92	70 - 127
Endrin aldehyde	ND		24.8	ND		ug/Kg	☼	NC	36 - 150
Heptachlor	ND		24.8	20.6		ug/Kg	☼	83	64 - 124
Heptachlor epoxide	ND		24.8	19.0		ug/Kg	☼	77	62 - 120
Methoxychlor	ND		24.8	ND		ug/Kg	☼	79	61 - 130
Endrin ketone	ND		24.8	17.5		ug/Kg	☼	70	56 - 120
cis-Chlordane	ND		24.8	19.0		ug/Kg	☼	77	62 - 120
trans-Chlordane	ND		24.8	ND		ug/Kg	☼	76	60 - 120

Surrogate	MS %Recovery	MS Qualifier	Limits
Tetrachloro-m-xylene	83		50 - 123
DCB Decachlorobiphenyl	78		43 - 129

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: 580-82025-1 MSD
Matrix: Solid
Analysis Batch: 290437

Client Sample ID: SS-01
Prep Type: Total/NA
Prep Batch: 290263

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin	ND		23.0	20.4		ug/Kg	☼	89	56 - 121	2	18
alpha-BHC	ND		23.0	20.6		ug/Kg	☼	90	62 - 120	3	15
beta-BHC	ND		23.0	ND		ug/Kg	☼	90	62 - 120	0	19
delta-BHC	ND		23.0	20.2		ug/Kg	☼	88	53 - 124	1	18
gamma-BHC (Lindane)	ND		23.0	20.2		ug/Kg	☼	88	55 - 120	0	18
4,4'-DDD	ND		23.0	19.4		ug/Kg	☼	85	61 - 122	2	18
4,4'-DDE	ND		23.0	18.7		ug/Kg	☼	81	53 - 124	4	18
4,4'-DDT	ND		23.0	18.7		ug/Kg	☼	82	57 - 137	6	23
Dieldrin	ND		23.0	18.2		ug/Kg	☼	79	63 - 121	0	19
Endosulfan I	ND		23.0	18.4		ug/Kg	☼	80	64 - 121	3	20
Endosulfan II	ND		23.0	19.2		ug/Kg	☼	84	37 - 139	1	18
Endosulfan sulfate	ND		23.0	16.9		ug/Kg	☼	73	63 - 120	2	19
Endrin	ND		23.0	22.8		ug/Kg	☼	99	70 - 127	0	20
Endrin aldehyde	ND		23.0	ND		ug/Kg	☼	NC	36 - 150	NC	24
Heptachlor	ND		23.0	20.0		ug/Kg	☼	87	64 - 124	3	17
Heptachlor epoxide	ND		23.0	18.7		ug/Kg	☼	82	62 - 120	2	20
Methoxychlor	ND		23.0	ND		ug/Kg	☼	78	61 - 130	9	20
Endrin ketone	ND		23.0	16.8		ug/Kg	☼	73	56 - 120	4	18
cis-Chlordane	ND		23.0	18.2		ug/Kg	☼	79	62 - 120	4	18
trans-Chlordane	ND		23.0	18.6		ug/Kg	☼	81	60 - 120	1	19

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*92*		*50 - 123*
DCB Decachlorobiphenyl	*84*		*43 - 129*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 580-290263/1-A
Matrix: Solid
Analysis Batch: 290587

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290263

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.020		mg/Kg		12/04/18 14:42	12/06/18 13:53	1
PCB-1221	ND		0.020		mg/Kg		12/04/18 14:42	12/06/18 13:53	1
PCB-1232	ND		0.020		mg/Kg		12/04/18 14:42	12/06/18 13:53	1
PCB-1242	ND		0.020		mg/Kg		12/04/18 14:42	12/06/18 13:53	1
PCB-1248	ND		0.020		mg/Kg		12/04/18 14:42	12/06/18 13:53	1
PCB-1254	ND		0.020		mg/Kg		12/04/18 14:42	12/06/18 13:53	1
PCB-1260	ND		0.020		mg/Kg		12/04/18 14:42	12/06/18 13:53	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*102*		*54 - 142*	*12/04/18 14:42*	*12/06/18 13:53*	*1*
Tetrachloro-m-xylene	*92*		*58 - 122*	*12/04/18 14:42*	*12/06/18 13:53*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 580-290263/6-A
Matrix: Solid
Analysis Batch: 290587

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290263

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	0.100	0.0962		mg/Kg		96	64 - 120
PCB-1260	0.100	0.0912		mg/Kg		91	63 - 130

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*92*		*54 - 142*
Tetrachloro-m-xylene	*96*		*58 - 122*

Lab Sample ID: LCSD 580-290263/7-A
Matrix: Solid
Analysis Batch: 290587

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290263

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	0.100	0.0985		mg/Kg		99	64 - 120	2	21
PCB-1260	0.100	0.0954		mg/Kg		95	63 - 130	5	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*93*		*54 - 142*
Tetrachloro-m-xylene	*78*		*58 - 122*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-290093/1-A
Matrix: Solid
Analysis Batch: 290662

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290093

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		50		mg/Kg		12/01/18 19:40	12/10/18 19:26	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		12/01/18 19:40	12/10/18 19:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*50 - 150*	*12/01/18 19:40*	*12/10/18 19:26*	*1*

Lab Sample ID: LCS 580-290093/2-A
Matrix: Solid
Analysis Batch: 290662

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290093

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
#2 Diesel (C10-C24)	500	448		mg/Kg		90	70 - 125
Motor Oil (>C24-C36)	500	481		mg/Kg		96	70 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*70*		*50 - 150*

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

Lab Sample ID: LCSD 580-290093/3-A
Matrix: Solid
Analysis Batch: 290662

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290093

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)			500	455		mg/Kg		91	70 - 125	2	16
Motor Oil (>C24-C36)			500	495		mg/Kg		99	70 - 129	3	16

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*76*		*50 - 150*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 580-290025/19-A
Matrix: Solid
Analysis Batch: 290167

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290025

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.0		mg/Kg		11/30/18 11:36	12/03/18 14:01	1
Barium	ND		0.50		mg/Kg		11/30/18 11:36	12/03/18 14:01	1
Cadmium	ND		1.0		mg/Kg		11/30/18 11:36	12/03/18 14:01	1
Chromium	ND		1.3		mg/Kg		11/30/18 11:36	12/03/18 14:01	1
Lead	ND		1.5		mg/Kg		11/30/18 11:36	12/03/18 14:01	1
Selenium	ND		5.0		mg/Kg		11/30/18 11:36	12/03/18 14:01	1
Silver	ND		2.5		mg/Kg		11/30/18 11:36	12/03/18 14:01	1

Lab Sample ID: LCS 580-290025/20-A
Matrix: Solid
Analysis Batch: 290167

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290025

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic			50.0	53.9		mg/Kg		108	80 - 120
Barium			50.0	57.3		mg/Kg		115	80 - 120
Cadmium			50.0	50.0		mg/Kg		100	80 - 120
Chromium			50.0	54.3		mg/Kg		109	80 - 120
Lead			50.0	54.2		mg/Kg		108	80 - 120
Selenium			50.0	51.6		mg/Kg		103	80 - 120
Silver			50.0	53.6		mg/Kg		107	80 - 120

Lab Sample ID: LCSD 580-290025/21-A
Matrix: Solid
Analysis Batch: 290167

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290025

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic			50.0	53.4		mg/Kg		107	80 - 120	1	20
Barium			50.0	56.6		mg/Kg		113	80 - 120	1	20
Cadmium			50.0	49.5		mg/Kg		99	80 - 120	1	20
Chromium			50.0	53.8		mg/Kg		108	80 - 120	1	20
Lead			50.0	53.8		mg/Kg		108	80 - 120	1	20
Selenium			50.0	50.4		mg/Kg		101	80 - 120	2	20
Silver			50.0	53.6		mg/Kg		107	80 - 120	0	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 580-289744/22-A
Matrix: Solid
Analysis Batch: 289777

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 289744

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.030		mg/Kg		11/27/18 12:00	11/27/18 15:08	1

Lab Sample ID: LCS 580-289744/23-A
Matrix: Solid
Analysis Batch: 289777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 289744

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Mercury			0.167	0.169		mg/Kg		101	80 - 120		

Lab Sample ID: LCSD 580-289744/24-A
Matrix: Solid
Analysis Batch: 289777

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 289744

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury			0.167	0.171		mg/Kg		103	80 - 120	1	20

Lab Chronicle

Client: Cascade Earth Sciences Inc.
Project/Site: Shimanek Covered Bridge

TestAmerica Job ID: 580-82025-1

Client Sample ID: SS-01

Lab Sample ID: 580-82025-1

Date Collected: 11/21/18 08:01

Matrix: Solid

Date Received: 11/23/18 10:50

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	289639	11/26/18 13:56	JCM	TAL SEA

Client Sample ID: SS-01

Lab Sample ID: 580-82025-1

Date Collected: 11/21/18 08:01

Matrix: Solid

Date Received: 11/23/18 10:50

Percent Solids: 79.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			289674	11/26/18 16:58	ASJ	TAL SEA
Total/NA	Analysis	8260C		1	289687	11/27/18 00:10	ASJ	TAL SEA
Total/NA	Prep	8151A			290141	12/03/18 12:34	BAH	TAL SEA
Total/NA	Analysis	8151A		1	290489	12/06/18 18:01	KFS	TAL SEA
Total/NA	Prep	3546			290094	12/01/18 20:47	BAH	TAL SEA
Total/NA	Analysis	8270C SIM		5	290647	12/10/18 15:41	W1T	TAL SEA
Total/NA	Prep	3546			290263	12/04/18 14:42	BAH	TAL SEA
Total/NA	Analysis	8081A		5	290437	12/06/18 18:15	TL1	TAL SEA
Total/NA	Prep	3546			290263	12/04/18 14:42	BAH	TAL SEA
Total/NA	Analysis	8082A		1	290587	12/06/18 15:33	APR	TAL SEA
Total/NA	Prep	3546			290093	12/01/18 19:40	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		5	290662	12/11/18 02:40	Z1R	TAL SEA
Total/NA	Prep	3050B			290025	11/30/18 11:36	T1H	TAL SEA
Total/NA	Analysis	6010B		1	290167	12/03/18 14:47	HJM	TAL SEA
Total/NA	Prep	7471A			289744	11/27/18 12:00	T1H	TAL SEA
Total/NA	Analysis	7471A		1	289777	11/27/18 16:12	T1H	TAL SEA

Laboratory References:

TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Cascade Earth Sciences Inc. TestAmerica Job ID: 580-82025-1
Project/Site: Shimanek Covered Bridge

Laboratory: TestAmerica Seattle

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-19
ANAB	DoD ELAP		L2236	01-19-19
ANAB	ISO/IEC 17025		L2236	01-19-19
California	State Program	9	2901	11-05-19
Montana (UST)	State Program	8	N/A	04-30-20
Nevada	State Program	9	WA000502019-1	07-31-19
Oregon	NELAP	10	WA100007	11-05-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-19

Sample Summary

Client: Cascade Earth Sciences Inc.
Project/Site: Shimanek Covered Bridge

TestAmerica Job ID: 580-82025-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-82025-1	SS-01	Solid	11/21/18 08:01	11/23/18 10:50

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericainc.com

☐ Rush
☒ Short Hold

Chain of Custody Record

Client: CES
Client Contact: Jessica Penetar
Date: 11/21/18
Chain of Custody Number: 34968
Address: 3511 Pacific Blvd SW
Telephone Number (Area Code)/Fax Number: 541-812-6621
Lab Number:
Page 1 of 1
City: Albany | State: OR | Zip Code: 97321
Sampler: J. Penetar
Lab Contact:
Project Name and Location (State): Shimanek Covered Bridge
Billing Contact:
Contract/Purchase Order/Quote No.:

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	VOC	PCB	NWTPH Dx	PAH	RCRA Metals	Pesticides	Herbicides	Special Instructions/ Conditions of Receipt
SS-01	11/21	801				X							X	X	X	X	X	X	X	Include Barium

580-82025 Chain of Custody

Cooler: ☐ Yes ☐ No Cooler Temp: _____
Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown
Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required (business days)
☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☐ Other _____

QC Requirements (Specify): 4.3°C

	Date	Time
1. Relinquished By Sign/Print: Jessica Penetar	11/21	900
2. Relinquished By Sign/Print:		
3. Relinquished By Sign/Print:		

	Date	Time
1. Received By Sign/Print: Jason O'Connell	11/23/18	1050
2. Received By Sign/Print:		
3. Received By Sign/Print:		

Comments:

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

TAL-8274-580 (0210)

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

TestAmerica Seattle
5755 8th Street E.
Tacoma, WA 98424
Tel. 253-922-2310
Fax 253-922-5047
www.testamericainc.com

☐ Rush
☒ Short Hold

Chain of Custody Record

Client: CES	Client Contact: Jessica Penetar	Date: 11/21/18	Chain of Custody Number: 34968
Address: 3511 Pacific Blvd SW	Telephone Number (Area Code)/Fax Number: 541-812-6621	Lab Number:	Page 1 of 1
City: Albany / State: OR / Zip Code: 97321	Sampler: J. Penetar	Lab Contact:	
Project Name and Location (State): Shimanek Covered Bridge	Billing Contact:		
Contract/Purchase Order/Quote No.			

Sample I.D. and Location/Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	VOC	PCB	NWTPH-Dx	PAH	RCRA Metals	Pesticides	Herbicides	Special Instructions/ Conditions of Receipt
SS-01	11/21	801				X							X	X	X	X	X	X	X	Include Barium

580-82025 Chain of Custody

Cooler: ☐ Yes ☐ No Cooler Temp: _____

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal: ☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

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

Turn Around Time Required (business days): ☐ 24 Hours ☐ 48 Hours ☐ 5 Days ☐ 10 Days ☐ 15 Days ☐ Other _____

QC Requirements (Specify): 4.3°C

	Date	Time		Date	Time
1. Relinquished By Sign/Print: Jessica Penetar	11/21	900	1. Received By Sign/Print: Jason O'Connell	11/23/18	1050
2. Relinquished By Sign/Print:	11/23/18	1700	2. Received By Sign/Print: Then Hobbs	11-24-18	0930
3. Relinquished By Sign/Print:	Date	Time	3. Received By Sign/Print:	Date	Time

Comments: 4-23

DISTRIBUTION: WHITE – Stays with the Samples; CANARY – Returned to Client with Report; PINK – Field Copy

TAL-8274-580 (0210)

12/11/2018

Login Sample Receipt Checklist

Client: Cascade Earth Sciences Inc. Job Number: 580-82025-1

Login Number: 82025 **List Source: TestAmerica Seattle**
List Number: 1
Creator: O'Connell, Jason I

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

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ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-81942-1
Client Project/Site: Shimanek Covered Bridge

For:
Cascade Earth Sciences Inc.
3511 Pacific Blvd Sw
Albany, Oregon 97321

Attn: Jessica Penetar

Authorized for release by:
12/12/2018 1:02:12 PM

Nathan Lewis, Project Manager I
(253)922-2310
nathan.lewis@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Job ID: 580-81942-1

Laboratory: TestAmerica Seattle

Narrative

Job Narrative
580-81942-1

Comments
No additional comments.

Receipt
The samples were received on 11/20/2018 9:45 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 3.4º C.

GC/MS VOA
Method(s) 5035: The following samples were provided to the laboratory with a significantly different initial weight than that required by the reference method: SS-04 (580-81942-1), SS-05 (580-81942-2) and SS-02 (580-81942-3). The method requires 8-12 grams. The amount provided was above this range.

Method(s) 8260C: The minimum response factor (RF) criteria for the continuing calibration verification (CCV) analyzed in batch 580-289687 was outside criteria for the following analyte(s): Benzene, Vinyl chloride, Dichlorobromomethane and Trichloroethene. As indicated in the reference method, sample analysis may proceed; however, any detection or non-detection for the affected analyte(s) is considered estimated.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 580-289687 recovered outside acceptance criteria, low biased, for 1,2,3-Trichlorobenzene and Naphthalene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 580-289687 recovered above the upper control limit for Bromobenzene and Dichlorodifluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

Method(s) 8260C: The laboratory control sample (LCS) for preparation batch 580-289674 and 580-289674 and analytical batch 580-289687 recovered outside control limits for the following analyte(s): 1,2,3-Trichlorobenzene. 1,2,3-Trichlorobenzene has been identified as a poor performing analyte when analyzed using this method; therefore, re-extraction/re-analysis was not performed. Data have been qualifed and reported.

Method(s) 8260C: The laboratory control sample (LCS) and / or laboratory control sample duplicate (LCSD) for preparation batch 580-289674 and 580-289674 and analytical batch 580-289687 recovered outside control limits for the following analytes: Vinyl chloride, Trichlorofluoromethane and Dichlorodifluoromethane. These analytes were biased high in the LCS and were not detected in the associated samples; therefore, the data have been qualified and reported.

Method(s) 8260C: The RPD of the laboratory control sample (LCS) and laboratory control sample duplicate (LCSD) for batch preparation batch 580-289674 and 580-289674 and analytical batch 580-289687 recovered outside control limits for the following analytes: Vinyl chloride and Trichlorofluoromethane.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC/MS Semi VOA
Method(s) 8270C SIM: The surrogate recovery for the blank associated with preparation batch 580-290094 and analytical batch 580-290528 was outside the upper control limits. All samples were within recovery limits, therefore the data is reported

Method(s) 8270C SIM: The following samples were diluted due to the nature of the sample matrix: SS-04 (580-81942-1), SS-05 (580-81942-2) and SS-02 (580-81942-3). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
Method(s) 8081A: The %RPD between the primary and confirmation column exceeded 40% for gamma-BHC (Lindane) for the following

Job ID: 580-81942-1 (Continued)

Laboratory: TestAmerica Seattle (Continued)

samples: SS-04 (580-81942-1) and SS-05 (580-81942-2). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

Method(s) 8081A: The continuing calibration verification (CCV) associated with batch 580-290547 recovered outside acceptance criteria, low biased, for Endosulfan II and Endrin aldehyde. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect for this analyte, the data have been reported.

Method(s) 8081A: The continuing calibration verification (CCV) associated with 580-290606 recovered outside the control limits for Chlordane (technical) and Endrin aldehyde on one column. Results are confirmed on both columns and reported from the passing column. The following samples are impacted: SS-02 (580-81942-3) and (CCVIS 580-290606/7).

Method(s) NWTPH-Dx: Continuing calibration verification (CCV) standard associated with batch 580-290662 recovered outside %Drift acceptance criteria for o-Terphenyl surrogate. The %Recovery is within acceptance criteria for the surrogate in the CCV and associated samples; therefore, the data are qualified and reported. The following sample is impacted: (CCVRT 580-290662/3).

Method(s) 8082A: The continuing calibration verification (CCV) associated with 580-290834 recovered low and outside the control limits for PCB-1232 on one column. Results are confirmed on both columns and reported from the passing column. The following samples are impacted: SS-04 (580-81942-1), SS-05 (580-81942-2), SS-02 (580-81942-3) and (CCV 580-290834/3).

Method(s) 8082A: Surrogate recovery for the following sample was outside control limits: SS-02 (580-81942-3). Evidence of matrix interference is present; therefore, re-extraction and/or re-analysis was not performed.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The absolute response for Cd was greater than the method reporting limit (RL) in the following sample: (580-82027-A-22-D DU). The instrument raw data has been manually reviewed and the result has beenreported as ND.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
*	RPD of the LCS and LCSD exceeds the control limits

GC/MS Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Client Sample ID: SS-04
Date Collected: 11/19/18 11:01
Date Received: 11/20/18 09:45

Lab Sample ID: 580-81942-1
Matrix: Solid
Percent Solids: 93.4

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		15		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Bromobenzene	ND		49		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Bromochloromethane	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Bromodichloromethane	ND		30		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Bromoform	ND		99		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Bromomethane	ND		99		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Carbon tetrachloride	ND		9.9		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Chlorobenzene	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Chloroethane	ND		200		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Chloroform	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Chloromethane	ND		49		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
2-Chlorotoluene	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
4-Chlorotoluene	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
cis-1,2-Dichloroethene	ND		30		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
cis-1,3-Dichloropropene	ND		9.9		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Dibromochloromethane	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,2-Dibromo-3-Chloropropane	ND		120		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,2-Dibromoethane	ND		9.9		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Dibromomethane	ND		30		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,3-Dichlorobenzene	ND		30		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,4-Dichlorobenzene	ND		30		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,2-Dichlorobenzene	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Dichlorodifluoromethane	ND	*	99		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,1-Dichloroethane	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,2-Dichloroethane	ND		9.9		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,1-Dichloroethene	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
2,2-Dichloropropane	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,2-Dichloropropane	ND		9.9		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,3-Dichloropropane	ND		30		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,1-Dichloropropene	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Ethylbenzene	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Hexachlorobutadiene	ND		74		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Isopropylbenzene	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
4-Isopropyltoluene	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Methylene Chloride	ND		120		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Methyl tert-butyl ether	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
m-Xylene & p-Xylene	ND		99		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Naphthalene	ND		49		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
n-Butylbenzene	ND		74		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
N-Propylbenzene	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
o-Xylene	ND		30		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
sec-Butylbenzene	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Styrene	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
t-Butylbenzene	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,1,1,2-Tetrachloroethane	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,1,2,2-Tetrachloroethane	ND		9.9		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Tetrachloroethene	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Toluene	ND		74		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
trans-1,2-Dichloroethene	ND		30		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1

Client Sample ID: SS-04
Date Collected: 11/19/18 11:01
Date Received: 11/20/18 09:45

Lab Sample ID: 580-81942-1
Matrix: Solid
Percent Solids: 93.4

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,2,4-Trichlorobenzene	ND		30		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,2,3-Trichlorobenzene	ND	*	74		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,1,1-Trichloroethane	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,1,2-Trichloroethane	ND		9.9		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Trichloroethene	ND		30		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Trichlorofluoromethane	ND	*	99		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,2,3-Trichloropropane	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,3,5-Trimethylbenzene	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
1,2,4-Trimethylbenzene	ND		20		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1
Vinyl chloride	ND	*	74		ug/Kg	☼	11/26/18 16:00	11/26/18 22:52	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*106*		*80 - 120*	*11/26/18 16:00*	*11/26/18 22:52*	*1*
4-Bromofluorobenzene (Surr)	*99*		*80 - 120*	*11/26/18 16:00*	*11/26/18 22:52*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*	*11/26/18 16:00*	*11/26/18 22:52*	*1*
Trifluorotoluene (Surr)	*100*		*80 - 120*	*11/26/18 16:00*	*11/26/18 22:52*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 121*	*11/26/18 16:00*	*11/26/18 22:52*	*1*

Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dalapon	ND		170		ug/Kg	☼	12/03/18 12:34	12/06/18 16:43	1
Dicamba	ND		94		ug/Kg	☼	12/03/18 12:34	12/06/18 16:43	1
Mecoprop	ND		94		ug/Kg	☼	12/03/18 12:34	12/06/18 16:43	1
MCPA	ND		94		ug/Kg	☼	12/03/18 12:34	12/06/18 16:43	1
Dichlorprop	ND		94		ug/Kg	☼	12/03/18 12:34	12/06/18 16:43	1
2,4-D	ND		94		ug/Kg	☼	12/03/18 12:34	12/06/18 16:43	1
Pentachlorophenol	ND		170		ug/Kg	☼	12/03/18 12:34	12/06/18 16:43	1
Silvex (2,4,5-TP)	ND		94		ug/Kg	☼	12/03/18 12:34	12/06/18 16:43	1
2,4,5-T	ND		94		ug/Kg	☼	12/03/18 12:34	12/06/18 16:43	1
Dinoseb	ND		170		ug/Kg	☼	12/03/18 12:34	12/06/18 16:43	1
2,4-DB	ND		94		ug/Kg	☼	12/03/18 12:34	12/06/18 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*71*		*53 - 150*	*12/03/18 12:34*	*12/06/18 16:43*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5
2-Methylnaphthalene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5
1-Methylnaphthalene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5
Acenaphthylene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5
Acenaphthene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5
Fluorene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5
Phenanthrene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5
Anthracene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5
Fluoranthene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5
Pyrene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5
Benzo[a]anthracene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5
Chrysene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5

Client Sample ID: SS-04
Date Collected: 11/19/18 11:01
Date Received: 11/20/18 09:45

Lab Sample ID: 580-81942-1
Matrix: Solid
Percent Solids: 93.4

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5
Benzo[k]fluoranthene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5
Benzo[a]pyrene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5
Indeno[1,2,3-cd]pyrene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5
Dibenz(a,h)anthracene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5
Benzo[g,h,i]perylene	ND		26		ug/Kg	☼	12/01/18 20:47	12/10/18 16:07	5

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*107*		*57 - 120*	*12/01/18 20:47*	*12/10/18 16:07*	*5*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		3.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
alpha-BHC	ND		2.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
beta-BHC	ND		5.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
delta-BHC	ND		3.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
gamma-BHC (Lindane)	ND		2.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
4,4'-DDD	ND		2.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
4,4'-DDE	ND		2.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
4,4'-DDT	ND		2.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
Dieldrin	ND		2.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
Endosulfan I	ND		2.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
Endosulfan II	ND		2.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
Endosulfan sulfate	ND		2.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
Endrin	ND		2.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
Endrin aldehyde	ND		21		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
Heptachlor	ND		3.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
Heptachlor epoxide	ND		3.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
Methoxychlor	ND		10		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
Endrin ketone	ND		2.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
Toxaphene	ND		100		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
cis-Chlordane	ND		2.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1
trans-Chlordane	ND		3.1		ug/Kg	☼	12/01/18 18:13	12/09/18 15:42	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*82*		*50 - 123*	*12/01/18 18:13*	*12/09/18 15:42*	*1*
DCB Decachlorobiphenyl	*97*		*43 - 129*	*12/01/18 18:13*	*12/09/18 15:42*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.021		mg/Kg	☼	12/01/18 18:13	12/11/18 15:01	1
PCB-1221	ND		0.021		mg/Kg	☼	12/01/18 18:13	12/11/18 15:01	1
PCB-1232	ND		0.021		mg/Kg	☼	12/01/18 18:13	12/11/18 15:01	1
PCB-1242	ND		0.021		mg/Kg	☼	12/01/18 18:13	12/11/18 15:01	1
PCB-1248	ND		0.021		mg/Kg	☼	12/01/18 18:13	12/11/18 15:01	1
PCB-1254	ND		0.021		mg/Kg	☼	12/01/18 18:13	12/11/18 15:01	1
PCB-1260	ND		0.021		mg/Kg	☼	12/01/18 18:13	12/11/18 15:01	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*70*		*54 - 142*	*12/01/18 18:13*	*12/11/18 15:01*	*1*
Tetrachloro-m-xylene	*90*		*58 - 122*	*12/01/18 18:13*	*12/11/18 15:01*	*1*

Client Sample Results

Client: Cascade Earth Sciences Inc.
Project/Site: Shimanek Covered Bridge

TestAmerica Job ID: 580-81942-1

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		460		mg/Kg	☼	12/01/18 19:40	12/11/18 04:28	10
Motor Oil (>C24-C36)	**490**		460		mg/Kg	☼	12/01/18 19:40	12/11/18 04:28	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*80*		*50 - 150*	*12/01/18 19:40*	*12/11/18 04:28*	*10*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.1		mg/Kg	☼	11/26/18 16:43	11/28/18 11:59	1
Barium	**55**		0.35		mg/Kg	☼	11/26/18 16:43	11/28/18 11:59	1
Cadmium	ND		0.70		mg/Kg	☼	11/26/18 16:43	11/28/18 11:59	1
Chromium	**14**		0.91		mg/Kg	☼	11/26/18 16:43	11/28/18 11:59	1
Lead	**20**		1.0		mg/Kg	☼	11/26/18 16:43	11/28/18 11:59	1
Selenium	ND		3.5		mg/Kg	☼	11/26/18 16:43	11/28/18 11:59	1
Silver	ND		1.7		mg/Kg	☼	11/26/18 16:43	11/28/18 11:59	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.030		mg/Kg	☼	11/27/18 12:00	11/27/18 15:50	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**93.4**		0.1		%			11/21/18 14:27	1
Percent Moisture	**6.6**		0.1		%			11/21/18 14:27	1

Client Sample ID: SS-05
Date Collected: 11/19/18 11:30
Date Received: 11/20/18 09:45

Lab Sample ID: 580-81942-2
Matrix: Solid
Percent Solids: 93.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		19		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Bromobenzene	ND		62		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Bromochloromethane	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Bromodichloromethane	ND		37		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Bromoform	ND		120		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Bromomethane	ND		120		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Carbon tetrachloride	ND		12		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Chlorobenzene	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Chloroethane	ND		250		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Chloroform	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Chloromethane	ND		62		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
2-Chlorotoluene	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
4-Chlorotoluene	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
cis-1,2-Dichloroethene	ND		37		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
cis-1,3-Dichloropropene	ND		12		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Dibromochloromethane	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,2-Dibromo-3-Chloropropane	ND		160		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,2-Dibromoethane	ND		12		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Dibromomethane	ND		37		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,3-Dichlorobenzene	ND		37		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,4-Dichlorobenzene	ND		37		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,2-Dichlorobenzene	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Dichlorodifluoromethane	ND	*	120		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,1-Dichloroethane	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,2-Dichloroethane	ND		12		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,1-Dichloroethene	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
2,2-Dichloropropane	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,2-Dichloropropane	ND		12		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,3-Dichloropropane	ND		37		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,1-Dichloropropene	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Ethylbenzene	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Hexachlorobutadiene	ND		94		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Isopropylbenzene	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
4-Isopropyltoluene	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Methylene Chloride	ND		160		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Methyl tert-butyl ether	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
m-Xylene & p-Xylene	ND		120		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Naphthalene	ND		62		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
n-Butylbenzene	ND		94		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
N-Propylbenzene	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
o-Xylene	ND		37		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
sec-Butylbenzene	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Styrene	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
t-Butylbenzene	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,1,1,2-Tetrachloroethane	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,1,2,2-Tetrachloroethane	ND		12		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Tetrachloroethene	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Toluene	ND		94		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
trans-1,2-Dichloroethene	ND		37		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1

Client Sample ID: SS-05
Date Collected: 11/19/18 11:30
Date Received: 11/20/18 09:45

Lab Sample ID: 580-81942-2
Matrix: Solid
Percent Solids: 93.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,2,4-Trichlorobenzene	ND		37		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,2,3-Trichlorobenzene	ND	*	94		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,1,1-Trichloroethane	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,1,2-Trichloroethane	ND		12		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Trichloroethene	ND		37		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Trichlorofluoromethane	ND	*	120		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,2,3-Trichloropropane	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,3,5-Trimethylbenzene	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
1,2,4-Trimethylbenzene	ND		25		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1
Vinyl chloride	ND	*	94		ug/Kg	☼	11/26/18 16:00	11/26/18 23:18	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*105*		*80 - 120*	*11/26/18 16:00*	*11/26/18 23:18*	*1*
4-Bromofluorobenzene (Surr)	*98*		*80 - 120*	*11/26/18 16:00*	*11/26/18 23:18*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*	*11/26/18 16:00*	*11/26/18 23:18*	*1*
Trifluorotoluene (Surr)	*101*		*80 - 120*	*11/26/18 16:00*	*11/26/18 23:18*	*1*
1,2-Dichloroethane-d4 (Surr)	*102*		*80 - 121*	*11/26/18 16:00*	*11/26/18 23:18*	*1*

Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dalapon	ND		150		ug/Kg	☼	12/03/18 12:34	12/06/18 17:09	1
Dicamba	ND		86		ug/Kg	☼	12/03/18 12:34	12/06/18 17:09	1
Mecoprop	ND		86		ug/Kg	☼	12/03/18 12:34	12/06/18 17:09	1
MCPA	ND		86		ug/Kg	☼	12/03/18 12:34	12/06/18 17:09	1
Dichlorprop	ND		86		ug/Kg	☼	12/03/18 12:34	12/06/18 17:09	1
2,4-D	ND		86		ug/Kg	☼	12/03/18 12:34	12/06/18 17:09	1
Pentachlorophenol	ND		150		ug/Kg	☼	12/03/18 12:34	12/06/18 17:09	1
Silvex (2,4,5-TP)	ND		86		ug/Kg	☼	12/03/18 12:34	12/06/18 17:09	1
2,4,5-T	ND		86		ug/Kg	☼	12/03/18 12:34	12/06/18 17:09	1
Dinoseb	ND		150		ug/Kg	☼	12/03/18 12:34	12/06/18 17:09	1
2,4-DB	ND		86		ug/Kg	☼	12/03/18 12:34	12/06/18 17:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*74*		*53 - 150*	*12/03/18 12:34*	*12/06/18 17:09*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10
2-Methylnaphthalene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10
1-Methylnaphthalene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10
Acenaphthylene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10
Acenaphthene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10
Fluorene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10
Phenanthrene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10
Anthracene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10
Fluoranthene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10
Pyrene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10
Benzo[a]anthracene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10
Chrysene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10

Client Sample ID: SS-05
Date Collected: 11/19/18 11:30
Date Received: 11/20/18 09:45

Lab Sample ID: 580-81942-2
Matrix: Solid
Percent Solids: 93.6

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10
Benzo[k]fluoranthene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10
Benzo[a]pyrene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10
Indeno[1,2,3-cd]pyrene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10
Dibenz(a,h)anthracene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10
Benzo[g,h,i]perylene	ND		50		ug/Kg	☼	12/01/18 20:47	12/10/18 16:33	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*106*		*57 - 120*	*12/01/18 20:47*	*12/10/18 16:33*	*10*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		3.0		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
alpha-BHC	ND		2.0		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
beta-BHC	ND		5.1		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
delta-BHC	ND		3.0		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
4,4'-DDD	ND		2.0		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
4,4'-DDE	ND		2.0		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
4,4'-DDT	ND		2.0		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
Dieldrin	ND		2.0		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
Endosulfan I	ND		2.0		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
Endosulfan II	ND		2.0		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
Endosulfan sulfate	ND		2.0		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
Endrin	ND		2.0		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
Endrin aldehyde	ND		20		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
Heptachlor	ND		3.0		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
Heptachlor epoxide	ND		3.0		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
Methoxychlor	ND		10		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
Endrin ketone	ND		2.0		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
Toxaphene	ND		100		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
cis-Chlordane	ND		2.0		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1
trans-Chlordane	ND		3.0		ug/Kg	☼	12/01/18 18:13	12/09/18 16:00	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*70*		*50 - 123*	*12/01/18 18:13*	*12/09/18 16:00*	*1*
DCB Decachlorobiphenyl	*85*		*43 - 129*	*12/01/18 18:13*	*12/09/18 16:00*	*1*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.020		mg/Kg	☼	12/01/18 18:13	12/11/18 15:54	1
PCB-1221	ND		0.020		mg/Kg	☼	12/01/18 18:13	12/11/18 15:54	1
PCB-1232	ND		0.020		mg/Kg	☼	12/01/18 18:13	12/11/18 15:54	1
PCB-1242	ND		0.020		mg/Kg	☼	12/01/18 18:13	12/11/18 15:54	1
PCB-1248	ND		0.020		mg/Kg	☼	12/01/18 18:13	12/11/18 15:54	1
PCB-1254	ND		0.020		mg/Kg	☼	12/01/18 18:13	12/11/18 15:54	1
PCB-1260	ND		0.020		mg/Kg	☼	12/01/18 18:13	12/11/18 15:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*63*		*54 - 142*	*12/01/18 18:13*	*12/11/18 15:54*	*1*
Tetrachloro-m-xylene	*85*		*58 - 122*	*12/01/18 18:13*	*12/11/18 15:54*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		980		mg/Kg	☼	12/01/18 19:40	12/11/18 04:50	20
Motor Oil (>C24-C36)	**2000**		980		mg/Kg	☼	12/01/18 19:40	12/11/18 04:50	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*101*		*50 - 150*	*12/01/18 19:40*	*12/11/18 04:50*	*20*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**2.3**		2.1		mg/Kg	☼	11/26/18 16:43	11/28/18 12:02	1
Barium	**68**		0.34		mg/Kg	☼	11/26/18 16:43	11/28/18 12:02	1
Cadmium	ND		0.69		mg/Kg	☼	11/26/18 16:43	11/28/18 12:02	1
Chromium	**14**		0.90		mg/Kg	☼	11/26/18 16:43	11/28/18 12:02	1
Lead	**15**		1.0		mg/Kg	☼	11/26/18 16:43	11/28/18 12:02	1
Selenium	ND		3.4		mg/Kg	☼	11/26/18 16:43	11/28/18 12:02	1
Silver	ND		1.7		mg/Kg	☼	11/26/18 16:43	11/28/18 12:02	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.029		mg/Kg	☼	11/27/18 12:00	11/27/18 15:53	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**93.6**		0.1		%			11/21/18 14:27	1
Percent Moisture	**6.4**		0.1		%			11/21/18 14:27	1

Client Sample ID: SS-02
Date Collected: 11/19/18 14:05
Date Received: 11/20/18 09:45

Lab Sample ID: 580-81942-3
Matrix: Solid
Percent Solids: 91.6

Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		16		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Bromobenzene	ND		55		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Bromochloromethane	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Bromodichloromethane	ND		33		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Bromoform	ND		110		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Bromomethane	ND		110		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Carbon tetrachloride	ND		11		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Chlorobenzene	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Chloroethane	ND		220		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Chloroform	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Chloromethane	ND		55		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
2-Chlorotoluene	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
4-Chlorotoluene	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
cis-1,2-Dichloroethene	ND		33		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
cis-1,3-Dichloropropene	ND		11		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Dibromochloromethane	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,2-Dibromo-3-Chloropropane	ND		140		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,2-Dibromoethane	ND		11		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Dibromomethane	ND		33		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,3-Dichlorobenzene	ND		33		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,4-Dichlorobenzene	ND		33		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,2-Dichlorobenzene	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Dichlorodifluoromethane	ND	*	110		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,1-Dichloroethane	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,2-Dichloroethane	ND		11		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,1-Dichloroethene	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
2,2-Dichloropropane	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,2-Dichloropropane	ND		11		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,3-Dichloropropane	ND		33		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,1-Dichloropropene	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Ethylbenzene	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Hexachlorobutadiene	ND		82		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Isopropylbenzene	**36**		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
4-Isopropyltoluene	**110**		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Methylene Chloride	ND		140		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Methyl tert-butyl ether	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
m-Xylene & p-Xylene	ND		110		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Naphthalene	ND		55		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
n-Butylbenzene	**88**		82		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
N-Propylbenzene	**45**		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
o-Xylene	ND		33		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
sec-Butylbenzene	**140**		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Styrene	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
t-Butylbenzene	**38**		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,1,1,2-Tetrachloroethane	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,1,2,2-Tetrachloroethane	ND		11		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Tetrachloroethene	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Toluene	ND		82		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
trans-1,2-Dichloroethene	ND		33		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1

Client Sample ID: SS-02
Date Collected: 11/19/18 14:05
Date Received: 11/20/18 09:45

Lab Sample ID: 580-81942-3
Matrix: Solid
Percent Solids: 91.6

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,3-Dichloropropene	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,2,4-Trichlorobenzene	ND		33		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,2,3-Trichlorobenzene	ND	*	82		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,1,1-Trichloroethane	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,1,2-Trichloroethane	ND		11		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Trichloroethene	ND		33		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Trichlorofluoromethane	ND	*	110		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,2,3-Trichloropropane	ND		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,3,5-Trimethylbenzene	**210**		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
1,2,4-Trimethylbenzene	**420**		22		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1
Vinyl chloride	ND	*	82		ug/Kg	☼	11/26/18 16:58	11/26/18 23:44	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*102*		*80 - 120*	*11/26/18 16:58*	*11/26/18 23:44*	*1*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*	*11/26/18 16:58*	*11/26/18 23:44*	*1*
Dibromofluoromethane (Surr)	*99*		*80 - 120*	*11/26/18 16:58*	*11/26/18 23:44*	*1*
Trifluorotoluene (Surr)	*101*		*80 - 120*	*11/26/18 16:58*	*11/26/18 23:44*	*1*
1,2-Dichloroethane-d4 (Surr)	*99*		*80 - 121*	*11/26/18 16:58*	*11/26/18 23:44*	*1*

Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dalapon	ND		170		ug/Kg	☼	12/03/18 12:34	12/06/18 17:35	1
Dicamba	ND		95		ug/Kg	☼	12/03/18 12:34	12/06/18 17:35	1
Mecoprop	ND		95		ug/Kg	☼	12/03/18 12:34	12/06/18 17:35	1
MCPA	ND		95		ug/Kg	☼	12/03/18 12:34	12/06/18 17:35	1
Dichlorprop	ND		95		ug/Kg	☼	12/03/18 12:34	12/06/18 17:35	1
2,4-D	ND		95		ug/Kg	☼	12/03/18 12:34	12/06/18 17:35	1
Pentachlorophenol	ND		170		ug/Kg	☼	12/03/18 12:34	12/06/18 17:35	1
Silvex (2,4,5-TP)	ND		95		ug/Kg	☼	12/03/18 12:34	12/06/18 17:35	1
2,4,5-T	ND		95		ug/Kg	☼	12/03/18 12:34	12/06/18 17:35	1
Dinoseb	ND		170		ug/Kg	☼	12/03/18 12:34	12/06/18 17:35	1
2,4-DB	ND		95		ug/Kg	☼	12/03/18 12:34	12/06/18 17:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*66*		*53 - 150*	*12/03/18 12:34*	*12/06/18 17:35*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**110**		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10
2-Methylnaphthalene	**770**		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10
1-Methylnaphthalene	**630**		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10
Acenaphthylene	ND		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10
Acenaphthene	**95**		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10
Fluorene	**170**		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10
Phenanthrene	**550**		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10
Anthracene	**180**		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10
Fluoranthene	**57**		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10
Pyrene	**200**		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10
Benzo[a]anthracene	**110**		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10
Chrysene	**260**		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10

Client Sample ID: SS-02
Date Collected: 11/19/18 14:05
Date Received: 11/20/18 09:45

Lab Sample ID: 580-81942-3
Matrix: Solid
Percent Solids: 91.6

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[b]fluoranthene	ND		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10
Benzo[k]fluoranthene	ND		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10
Benzo[a]pyrene	**72**		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10
Indeno[1,2,3-cd]pyrene	ND		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10
Dibenz(a,h)anthracene	ND		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10
Benzo[g,h,i]perylene	**65**		48		ug/Kg	☼	12/01/18 20:47	12/10/18 16:59	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*105*		*57 - 120*	*12/01/18 20:47*	*12/10/18 16:59*	*10*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		30		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
alpha-BHC	ND		20		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
beta-BHC	ND		51		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
delta-BHC	ND		30		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
gamma-BHC (Lindane)	ND		20		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
4,4'-DDD	ND		20		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
4,4'-DDE	ND		20		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
4,4'-DDT	ND		20		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
Dieldrin	ND		20		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
Endosulfan I	ND		20		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
Endosulfan II	ND		20		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
Endosulfan sulfate	ND		20		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
Endrin	ND		20		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
Endrin aldehyde	ND		200		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
Heptachlor	ND		30		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
Heptachlor epoxide	ND		30		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
Methoxychlor	ND		100		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
Endrin ketone	ND		20		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
Toxaphene	ND		1000		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
cis-Chlordane	ND		20		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10
trans-Chlordane	ND		30		ug/Kg	☼	12/01/18 18:13	12/09/18 16:18	10

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*55*		*50 - 123*	*12/01/18 18:13*	*12/09/18 16:18*	*10*
DCB Decachlorobiphenyl	*117*		*43 - 129*	*12/01/18 18:13*	*12/09/18 16:18*	*10*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.020		mg/Kg	☼	12/01/18 18:13	12/11/18 16:12	1
PCB-1221	ND		0.020		mg/Kg	☼	12/01/18 18:13	12/11/18 16:12	1
PCB-1232	ND		0.020		mg/Kg	☼	12/01/18 18:13	12/11/18 16:12	1
PCB-1242	ND		0.020		mg/Kg	☼	12/01/18 18:13	12/11/18 16:12	1
PCB-1248	ND		0.020		mg/Kg	☼	12/01/18 18:13	12/11/18 16:12	1
PCB-1254	ND		0.020		mg/Kg	☼	12/01/18 18:13	12/11/18 16:12	1
PCB-1260	ND		0.020		mg/Kg	☼	12/01/18 18:13	12/11/18 16:12	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*53*	*X*	*54 - 142*	*12/01/18 18:13*	*12/11/18 16:12*	*1*
Tetrachloro-m-xylene	*66*		*58 - 122*	*12/01/18 18:13*	*12/11/18 16:12*	*1*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		1000		mg/Kg	☼	12/01/18 19:40	12/11/18 05:11	20
Motor Oil (>C24-C36)	**3000**		1000		mg/Kg	☼	12/01/18 19:40	12/11/18 05:11	20

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*84*		*50 - 150*	*12/01/18 19:40*	*12/11/18 05:11*	*20*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		2.2		mg/Kg	☼	11/30/18 09:57	12/03/18 12:36	1
Barium	**62**		0.36		mg/Kg	☼	11/30/18 09:57	12/03/18 12:36	1
Cadmium	ND		0.73		mg/Kg	☼	11/30/18 09:57	12/03/18 12:36	1
Chromium	**8.4**		0.95		mg/Kg	☼	11/30/18 09:57	12/03/18 12:36	1
Lead	**18**		1.1		mg/Kg	☼	11/30/18 09:57	12/03/18 12:36	1
Selenium	ND		3.6		mg/Kg	☼	11/30/18 09:57	12/03/18 12:36	1
Silver	ND		1.8		mg/Kg	☼	11/30/18 09:57	12/03/18 12:36	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.020		mg/Kg	☼	11/27/18 12:00	11/27/18 15:55	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**91.6**		0.1		%			11/21/18 14:27	1
Percent Moisture	**8.4**		0.1		%			11/21/18 14:27	1

Method: 8260C - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 580-289674/1-A
Matrix: Solid
Analysis Batch: 289687

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 289674

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		30		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Bromobenzene	ND		100		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Bromochloromethane	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Bromodichloromethane	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Bromoform	ND		200		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Bromomethane	ND		200		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Carbon tetrachloride	ND		20		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Chlorobenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Chloroethane	ND		400		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Chloroform	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Chloromethane	ND		100		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
2-Chlorotoluene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
4-Chlorotoluene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
cis-1,2-Dichloroethene	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
cis-1,3-Dichloropropene	ND		20		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Dibromochloromethane	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2-Dibromo-3-Chloropropane	ND		250		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2-Dibromoethane	ND		20		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Dibromomethane	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,3-Dichlorobenzene	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,4-Dichlorobenzene	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2-Dichlorobenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Dichlorodifluoromethane	ND		200		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,1-Dichloroethane	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2-Dichloroethane	ND		20		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,1-Dichloroethene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
2,2-Dichloropropane	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2-Dichloropropane	ND		20		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,3-Dichloropropane	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,1-Dichloropropene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Ethylbenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Hexachlorobutadiene	ND		150		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Isopropylbenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
4-Isopropyltoluene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Methylene Chloride	ND		250		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Methyl tert-butyl ether	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
m-Xylene & p-Xylene	ND		200		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Naphthalene	ND		100		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
n-Butylbenzene	ND		150		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
N-Propylbenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
o-Xylene	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
sec-Butylbenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Styrene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
t-Butylbenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,1,1,2-Tetrachloroethane	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,1,2,2-Tetrachloroethane	ND		20		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Tetrachloroethene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Toluene	ND		150		ug/Kg		11/26/18 16:00	11/26/18 18:58	1

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

Lab Sample ID: MB 580-289674/1-A
Matrix: Solid
Analysis Batch: 289687

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 289674

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
trans-1,3-Dichloropropene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2,4-Trichlorobenzene	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2,3-Trichlorobenzene	ND		150		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,1,1-Trichloroethane	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,1,2-Trichloroethane	ND		20		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Trichloroethene	ND		60		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Trichlorofluoromethane	ND		200		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2,3-Trichloropropane	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,3,5-Trimethylbenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
1,2,4-Trimethylbenzene	ND		40		ug/Kg		11/26/18 16:00	11/26/18 18:58	1
Vinyl chloride	ND		150		ug/Kg		11/26/18 16:00	11/26/18 18:58	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Toluene-d8 (Surr)	*106*		*80 - 120*	*11/26/18 16:00*	*11/26/18 18:58*	*1*
4-Bromofluorobenzene (Surr)	*100*		*80 - 120*	*11/26/18 16:00*	*11/26/18 18:58*	*1*
Dibromofluoromethane (Surr)	*98*		*80 - 120*	*11/26/18 16:00*	*11/26/18 18:58*	*1*
Trifluorotoluene (Surr)	*102*		*80 - 120*	*11/26/18 16:00*	*11/26/18 18:58*	*1*
1,2-Dichloroethane-d4 (Surr)	*100*		*80 - 121*	*11/26/18 16:00*	*11/26/18 18:58*	*1*

Lab Sample ID: LCS 580-289674/2-A
Matrix: Solid
Analysis Batch: 289687

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 289674

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	800	826		ug/Kg		103	79 - 135
Bromobenzene	800	964		ug/Kg		121	78 - 126
Bromochloromethane	800	794		ug/Kg		99	76 - 131
Bromodichloromethane	800	799		ug/Kg		100	73 - 132
Bromoform	800	897		ug/Kg		112	65 - 134
Bromomethane	800	908		ug/Kg		114	66 - 133
Carbon tetrachloride	800	991		ug/Kg		124	66 - 150
Chlorobenzene	800	838		ug/Kg		105	80 - 123
Chloroethane	800	984		ug/Kg		123	67 - 139
Chloroform	800	801		ug/Kg		100	74 - 133
Chloromethane	800	1010		ug/Kg		126	53 - 145
2-Chlorotoluene	800	869		ug/Kg		109	77 - 127
4-Chlorotoluene	800	836		ug/Kg		104	78 - 126
cis-1,2-Dichloroethene	800	836		ug/Kg		104	74 - 129
cis-1,3-Dichloropropene	800	875		ug/Kg		109	80 - 122
Dibromochloromethane	800	836		ug/Kg		105	75 - 125
1,2-Dibromo-3-Chloropropane	800	706		ug/Kg		88	53 - 135
1,2-Dibromoethane	800	841		ug/Kg		105	77 - 123
Dibromomethane	800	754		ug/Kg		94	72 - 130
1,3-Dichlorobenzene	800	841		ug/Kg		105	78 - 122
1,4-Dichlorobenzene	800	817		ug/Kg		102	77 - 123
1,2-Dichlorobenzene	800	831		ug/Kg		104	78 - 120
Dichlorodifluoromethane	800	1500	*	ug/Kg		187	26 - 145

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

Lab Sample ID: LCS 580-289674/2-A
Matrix: Solid
Analysis Batch: 289687

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 289674

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
1,1-Dichloroethane	800	816		ug/Kg		102	70 - 141
1,2-Dichloroethane	800	821		ug/Kg		103	68 - 132
1,1-Dichloroethene	800	963		ug/Kg		120	68 - 137
2,2-Dichloropropane	800	998		ug/Kg		125	62 - 150
1,2-Dichloropropane	800	790		ug/Kg		99	75 - 136
1,3-Dichloropropane	800	826		ug/Kg		103	80 - 120
1,1-Dichloropropene	800	894		ug/Kg		112	76 - 141
Ethylbenzene	800	911		ug/Kg		114	80 - 127
Hexachlorobutadiene	800	872		ug/Kg		109	65 - 136
Isopropylbenzene	800	930		ug/Kg		116	80 - 128
4-Isopropyltoluene	800	840		ug/Kg		105	71 - 129
Methylene Chloride	800	844		ug/Kg		106	66 - 141
Methyl tert-butyl ether	800	859		ug/Kg		107	75 - 126
m-Xylene & p-Xylene	800	933		ug/Kg		117	80 - 128
Naphthalene	800	536		ug/Kg		67	67 - 124
n-Butylbenzene	800	848		ug/Kg		106	77 - 130
N-Propylbenzene	800	911		ug/Kg		114	74 - 127
o-Xylene	800	884		ug/Kg		111	80 - 125
sec-Butylbenzene	800	892		ug/Kg		112	77 - 129
Styrene	800	916		ug/Kg		115	79 - 129
t-Butylbenzene	800	901		ug/Kg		113	79 - 127
1,1,1,2-Tetrachloroethane	800	837		ug/Kg		105	79 - 128
1,1,2,2-Tetrachloroethane	800	724		ug/Kg		90	74 - 120
Tetrachloroethene	800	965		ug/Kg		121	71 - 136
Toluene	800	878		ug/Kg		110	80 - 125
trans-1,2-Dichloroethene	800	832		ug/Kg		104	71 - 135
trans-1,3-Dichloropropene	800	823		ug/Kg		103	80 - 121
1,2,4-Trichlorobenzene	800	761		ug/Kg		95	68 - 131
1,2,3-Trichlorobenzene	800	549	*	ug/Kg		69	71 - 129
1,1,1-Trichloroethane	800	989		ug/Kg		124	69 - 144
1,1,2-Trichloroethane	800	882		ug/Kg		110	80 - 123
Trichloroethene	800	857		ug/Kg		107	69 - 144
Trichlorofluoromethane	800	979		ug/Kg		122	73 - 143
1,2,3-Trichloropropane	800	855		ug/Kg		107	70 - 127
1,3,5-Trimethylbenzene	800	896		ug/Kg		112	72 - 128
1,2,4-Trimethylbenzene	800	881		ug/Kg		110	73 - 127
Vinyl chloride	800	730		ug/Kg		91	52 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Toluene-d8 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*101*		*80 - 120*
Dibromofluoromethane (Surr)	*98*		*80 - 120*
Trifluorotoluene (Surr)	*100*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 121*

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

Lab Sample ID: LCSD 580-289674/3-A
Matrix: Solid
Analysis Batch: 289687

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 289674

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	800	837		ug/Kg		105	79 - 135	1	15
Bromobenzene	800	927		ug/Kg		116	78 - 126	4	12
Bromochloromethane	800	817		ug/Kg		102	76 - 131	3	15
Bromodichloromethane	800	807		ug/Kg		101	73 - 132	1	10
Bromoform	800	918		ug/Kg		115	65 - 134	2	17
Bromomethane	800	981		ug/Kg		123	66 - 133	8	22
Carbon tetrachloride	800	999		ug/Kg		125	66 - 150	1	12
Chlorobenzene	800	848		ug/Kg		106	80 - 123	1	10
Chloroethane	800	1050		ug/Kg		132	67 - 139	7	22
Chloroform	800	826		ug/Kg		103	74 - 133	3	13
Chloromethane	800	1020		ug/Kg		127	53 - 145	1	18
2-Chlorotoluene	800	869		ug/Kg		109	77 - 127	0	16
4-Chlorotoluene	800	845		ug/Kg		106	78 - 126	1	16
cis-1,2-Dichloroethene	800	878		ug/Kg		110	74 - 129	5	14
cis-1,3-Dichloropropene	800	894		ug/Kg		112	80 - 122	2	16
Dibromochloromethane	800	846		ug/Kg		106	75 - 125	1	11
1,2-Dibromo-3-Chloropropane	800	736		ug/Kg		92	53 - 135	4	20
1,2-Dibromoethane	800	858		ug/Kg		107	77 - 123	2	11
Dibromomethane	800	781		ug/Kg		98	72 - 130	3	14
1,3-Dichlorobenzene	800	847		ug/Kg		106	78 - 122	1	12
1,4-Dichlorobenzene	800	838		ug/Kg		105	77 - 123	2	12
1,2-Dichlorobenzene	800	845		ug/Kg		106	78 - 120	2	12
Dichlorodifluoromethane	800	1640	*	ug/Kg		205	26 - 145	9	23
1,1-Dichloroethane	800	850		ug/Kg		106	70 - 141	4	13
1,2-Dichloroethane	800	844		ug/Kg		105	68 - 132	3	11
1,1-Dichloroethene	800	1040		ug/Kg		130	68 - 137	8	17
2,2-Dichloropropane	800	834		ug/Kg		104	62 - 150	18	20
1,2-Dichloropropane	800	796		ug/Kg		99	75 - 136	1	10
1,3-Dichloropropane	800	829		ug/Kg		104	80 - 120	0	18
1,1-Dichloropropene	800	928		ug/Kg		116	76 - 141	4	11
Ethylbenzene	800	906		ug/Kg		113	80 - 127	1	16
Hexachlorobutadiene	800	893		ug/Kg		112	65 - 136	2	19
Isopropylbenzene	800	957		ug/Kg		120	80 - 128	3	17
4-Isopropyltoluene	800	860		ug/Kg		107	71 - 129	2	11
Methylene Chloride	800	867		ug/Kg		108	66 - 141	3	17
Methyl tert-butyl ether	800	833		ug/Kg		104	75 - 126	3	15
m-Xylene & p-Xylene	800	952		ug/Kg		119	80 - 128	2	13
Naphthalene	800	546		ug/Kg		68	67 - 124	2	17
n-Butylbenzene	800	896		ug/Kg		112	77 - 130	5	12
N-Propylbenzene	800	904		ug/Kg		113	74 - 127	1	17
o-Xylene	800	913		ug/Kg		114	80 - 125	3	14
sec-Butylbenzene	800	903		ug/Kg		113	77 - 129	1	12
Styrene	800	913		ug/Kg		114	79 - 129	0	15
t-Butylbenzene	800	916		ug/Kg		114	79 - 127	2	13
1,1,1,2-Tetrachloroethane	800	862		ug/Kg		108	79 - 128	3	11
1,1,2,2-Tetrachloroethane	800	754		ug/Kg		94	74 - 120	4	18
Tetrachloroethene	800	975		ug/Kg		122	71 - 136	1	16
Toluene	800	881		ug/Kg		110	80 - 125	0	16

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

Lab Sample ID: LCSD 580-289674/3-A
Matrix: Solid
Analysis Batch: 289687

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 289674

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
trans-1,2-Dichloroethene			800	871		ug/Kg		109	71 - 135	5	16
trans-1,3-Dichloropropene			800	818		ug/Kg		102	80 - 121	1	17
1,2,4-Trichlorobenzene			800	782		ug/Kg		98	68 - 131	3	16
1,2,3-Trichlorobenzene			800	572		ug/Kg		72	71 - 129	4	18
1,1,1-Trichloroethane			800	1010		ug/Kg		127	69 - 144	2	14
1,1,2-Trichloroethane			800	875		ug/Kg		109	80 - 123	1	15
Trichloroethene			800	900		ug/Kg		113	69 - 144	5	10
Trichlorofluoromethane			800	1240	*	ug/Kg		155	73 - 143	23	17
1,2,3-Trichloropropane			800	848		ug/Kg		106	70 - 127	1	16
1,3,5-Trimethylbenzene			800	897		ug/Kg		112	72 - 128	0	16
1,2,4-Trimethylbenzene			800	890		ug/Kg		111	73 - 127	1	12
Vinyl chloride			800	2030	*	ug/Kg		254	52 - 150	94	37

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Toluene-d8 (Surr)	*104*		*80 - 120*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*101*		*80 - 120*
Trifluorotoluene (Surr)	*97*		*80 - 120*
1,2-Dichloroethane-d4 (Surr)	*98*		*80 - 121*

Method: 8151A - Herbicides (GC/MS)

Lab Sample ID: MB 580-290141/1-A
Matrix: Solid
Analysis Batch: 290489

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dalapon	ND		160		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Dicamba	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Mecoprop	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
MCPA	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Dichlorprop	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
2,4-D	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Pentachlorophenol	ND		160		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Silvex (2,4,5-TP)	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
2,4,5-T	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Dinoseb	ND		160		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
2,4-DB	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*110*		*53 - 150*	*12/03/18 12:34*	*12/06/18 15:00*	*1*

Method: 8151A - Herbicides (GC/MS) (Continued)

Lab Sample ID: LCS 580-290141/2-A
Matrix: Solid
Analysis Batch: 290489

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290141

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Dalapon	333	183		ug/Kg		55	15 - 120
Dicamba	333	295		ug/Kg		88	36 - 134
Mecoprop	333	342		ug/Kg		103	48 - 150
MCPA	333	320		ug/Kg		96	51 - 150
Dichlorprop	333	362		ug/Kg		109	47 - 150
2,4-D	333	332		ug/Kg		100	51 - 150
Pentachlorophenol	333	340		ug/Kg		102	44 - 150
Silvex (2,4,5-TP)	333	389		ug/Kg		117	53 - 150
2,4,5-T	333	324		ug/Kg		97	56 - 150
Dinoseb	333	259		ug/Kg		78	38 - 150
2,4-DB	333	391		ug/Kg		117	47 - 150

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*91*		*53 - 150*

Lab Sample ID: LCSD 580-290141/3-A
Matrix: Solid
Analysis Batch: 290489

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290141

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dalapon	333	209		ug/Kg		63	15 - 120	13	40
Dicamba	333	321		ug/Kg		96	36 - 134	9	40
Mecoprop	333	362		ug/Kg		109	48 - 150	5	40
MCPA	333	337		ug/Kg		101	51 - 150	5	40
Dichlorprop	333	380		ug/Kg		114	47 - 150	5	40
2,4-D	333	307		ug/Kg		92	51 - 150	8	40
Pentachlorophenol	333	351		ug/Kg		105	44 - 150	3	40
Silvex (2,4,5-TP)	333	379		ug/Kg		114	53 - 150	3	40
2,4,5-T	333	341		ug/Kg		102	56 - 150	5	40
Dinoseb	333	273		ug/Kg		82	38 - 150	5	40
2,4-DB	333	395		ug/Kg		119	47 - 150	1	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*97*		*53 - 150*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 580-290094/1-A
Matrix: Solid
Analysis Batch: 290528

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290094

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
2-Methylnaphthalene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
1-Methylnaphthalene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Acenaphthylene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Acenaphthene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: MB 580-290094/1-A
Matrix: Solid
Analysis Batch: 290528

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290094

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluorene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Phenanthrene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Anthracene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Fluoranthene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Pyrene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Benzo[a]anthracene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Chrysene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Benzo[a]pyrene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*121*	*X*	*57 - 120*	*12/01/18 20:47*	*12/07/18 14:03*	*1*

Lab Sample ID: LCS 580-290094/2-A
Matrix: Solid
Analysis Batch: 290528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290094

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	1000	919		ug/Kg		92	70 - 120
2-Methylnaphthalene	1000	1010		ug/Kg		101	68 - 120
1-Methylnaphthalene	1000	986		ug/Kg		99	71 - 120
Acenaphthylene	1000	1020		ug/Kg		102	68 - 120
Acenaphthene	1000	928		ug/Kg		93	68 - 120
Fluorene	1000	972		ug/Kg		97	73 - 120
Phenanthrene	1000	933		ug/Kg		93	73 - 120
Anthracene	1000	1040		ug/Kg		104	73 - 125
Fluoranthene	1000	1070		ug/Kg		107	74 - 125
Pyrene	1000	1010		ug/Kg		101	70 - 120
Benzo[a]anthracene	1000	1050		ug/Kg		105	66 - 120
Chrysene	1000	908		ug/Kg		91	69 - 120
Benzo[b]fluoranthene	1000	925		ug/Kg		92	63 - 121
Benzo[k]fluoranthene	1000	936		ug/Kg		94	63 - 123
Benzo[a]pyrene	1000	988		ug/Kg		99	72 - 124
Indeno[1,2,3-cd]pyrene	1000	878		ug/Kg		88	65 - 121
Dibenz(a,h)anthracene	1000	970		ug/Kg		97	70 - 125
Benzo[g,h,i]perylene	1000	960		ug/Kg		96	63 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*109*		*57 - 120*

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 580-290091/1-A
Matrix: Solid
Analysis Batch: 290547

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290091

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		3.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
alpha-BHC	ND		2.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
beta-BHC	ND		5.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
delta-BHC	ND		3.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
4,4'-DDD	ND		2.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
4,4'-DDE	ND		2.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
4,4'-DDT	ND		2.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
Dieldrin	ND		2.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
Endosulfan I	ND		2.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
Endosulfan II	ND		2.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
Endosulfan sulfate	ND		2.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
Endrin	ND		2.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
Endrin aldehyde	ND		20		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
Heptachlor	ND		3.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
Heptachlor epoxide	ND		3.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
Methoxychlor	ND		10		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
Endrin ketone	ND		2.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
Toxaphene	ND		100		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
cis-Chlordane	ND		2.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1
trans-Chlordane	ND		3.0		ug/Kg		12/01/18 18:13	12/07/18 12:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*85*		*50 - 123*	*12/01/18 18:13*	*12/07/18 12:29*	*1*
DCB Decachlorobiphenyl	*86*		*43 - 129*	*12/01/18 18:13*	*12/07/18 12:29*	*1*

Lab Sample ID: LCS 580-290091/4-A
Matrix: Solid
Analysis Batch: 290547

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290091

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	20.0	16.5		ug/Kg		83	56 - 121
alpha-BHC	20.0	17.0		ug/Kg		85	62 - 120
beta-BHC	20.0	17.0		ug/Kg		85	62 - 120
delta-BHC	20.0	16.5		ug/Kg		82	53 - 124
gamma-BHC (Lindane)	20.0	15.9		ug/Kg		79	55 - 120
4,4'-DDD	20.0	17.3		ug/Kg		86	61 - 122
4,4'-DDE	20.0	17.2		ug/Kg		86	53 - 124
4,4'-DDT	20.0	17.7		ug/Kg		89	57 - 137
Dieldrin	20.0	17.0		ug/Kg		85	63 - 121
Endosulfan I	20.0	17.3		ug/Kg		87	64 - 121
Endosulfan II	20.0	16.5		ug/Kg		83	37 - 139
Endosulfan sulfate	20.0	16.5		ug/Kg		82	63 - 120
Endrin	20.0	20.9		ug/Kg		104	70 - 127
Endrin aldehyde	20.0	14.6	J	ug/Kg		73	36 - 150
Heptachlor	20.0	17.8		ug/Kg		89	64 - 124
Heptachlor epoxide	20.0	16.5		ug/Kg		82	62 - 120
Methoxychlor	20.0	17.1		ug/Kg		86	61 - 130

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 580-290091/4-A
Matrix: Solid
Analysis Batch: 290547

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290091

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Endrin ketone			20.0	16.4		ug/Kg		82	56 - 120		
cis-Chlordane			20.0	16.8		ug/Kg		84	62 - 120		
trans-Chlordane			20.0	16.9		ug/Kg		85	60 - 120		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*84*		*50 - 123*
DCB Decachlorobiphenyl	*88*		*43 - 129*

Lab Sample ID: LCSD 580-290091/5-A
Matrix: Solid
Analysis Batch: 290547

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290091

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin			20.0	16.3		ug/Kg		82	56 - 121	1	18
alpha-BHC			20.0	17.4		ug/Kg		87	62 - 120	2	15
beta-BHC			20.0	18.9		ug/Kg		95	62 - 120	10	19
delta-BHC			20.0	17.7		ug/Kg		89	53 - 124	7	18
gamma-BHC (Lindane)			20.0	16.3		ug/Kg		81	55 - 120	3	18
4,4'-DDD			20.0	17.3		ug/Kg		87	61 - 122	0	18
4,4'-DDE			20.0	17.3		ug/Kg		86	53 - 124	0	18
4,4'-DDT			20.0	17.5		ug/Kg		88	57 - 137	1	23
Dieldrin			20.0	17.0		ug/Kg		85	63 - 121	0	19
Endosulfan I			20.0	17.4		ug/Kg		87	64 - 121	0	20
Endosulfan II			20.0	16.5		ug/Kg		83	37 - 139	0	18
Endosulfan sulfate			20.0	16.7		ug/Kg		84	63 - 120	2	19
Endrin			20.0	20.6		ug/Kg		103	70 - 127	1	20
Endrin aldehyde			20.0	13.5	J	ug/Kg		67	36 - 150	8	24
Heptachlor			20.0	18.5		ug/Kg		92	64 - 124	4	17
Heptachlor epoxide			20.0	16.6		ug/Kg		83	62 - 120	1	20
Methoxychlor			20.0	17.4		ug/Kg		87	61 - 130	2	20
Endrin ketone			20.0	16.7		ug/Kg		84	56 - 120	2	18
cis-Chlordane			20.0	16.8		ug/Kg		84	62 - 120	0	18
trans-Chlordane			20.0	16.9		ug/Kg		85	60 - 120	0	19

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*84*		*50 - 123*
DCB Decachlorobiphenyl	*84*		*43 - 129*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 580-290091/1-A
Matrix: Solid
Analysis Batch: 290834

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290091

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		0.020		mg/Kg		12/01/18 18:13	12/11/18 14:08	1
PCB-1221	ND		0.020		mg/Kg		12/01/18 18:13	12/11/18 14:08	1

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 580-290091/1-A
Matrix: Solid
Analysis Batch: 290834

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290091

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1232	ND		0.020		mg/Kg		12/01/18 18:13	12/11/18 14:08	1
PCB-1242	ND		0.020		mg/Kg		12/01/18 18:13	12/11/18 14:08	1
PCB-1248	ND		0.020		mg/Kg		12/01/18 18:13	12/11/18 14:08	1
PCB-1254	ND		0.020		mg/Kg		12/01/18 18:13	12/11/18 14:08	1
PCB-1260	ND		0.020		mg/Kg		12/01/18 18:13	12/11/18 14:08	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
DCB Decachlorobiphenyl	*87*		*54 - 142*	*12/01/18 18:13*	*12/11/18 14:08*	*1*
Tetrachloro-m-xylene	*92*		*58 - 122*	*12/01/18 18:13*	*12/11/18 14:08*	*1*

Lab Sample ID: LCS 580-290091/2-A
Matrix: Solid
Analysis Batch: 290834

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290091

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016			0.100	0.0878		mg/Kg		88	64 - 120		
PCB-1260			0.100	0.0977		mg/Kg		98	63 - 130		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*87*		*54 - 142*
Tetrachloro-m-xylene	*90*		*58 - 122*

Lab Sample ID: LCSD 580-290091/3-A
Matrix: Solid
Analysis Batch: 290834

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290091

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016			0.100	0.0869		mg/Kg		87	64 - 120	1	21
PCB-1260			0.100	0.0966		mg/Kg		97	63 - 130	1	25

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*83*		*54 - 142*
Tetrachloro-m-xylene	*86*		*58 - 122*

Lab Sample ID: 580-81942-1 MS
Matrix: Solid
Analysis Batch: 290834

Client Sample ID: SS-04
Prep Type: Total/NA
Prep Batch: 290091

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits		
PCB-1016	ND		0.105	0.0857		mg/Kg	☼	82	64 - 120		
PCB-1260	ND		0.105	0.0820		mg/Kg	☼	78	63 - 130		

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
DCB Decachlorobiphenyl	*67*		*54 - 142*
Tetrachloro-m-xylene	*85*		*58 - 122*

Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: 580-81942-1 MSD
Matrix: Solid
Analysis Batch: 290834

Client Sample ID: SS-04
Prep Type: Total/NA
Prep Batch: 290091

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
PCB-1016	ND		0.106	0.0866		mg/Kg	☼	82	64 - 120	1	21
PCB-1260	ND		0.106	0.0822		mg/Kg	☼	78	63 - 130	0	25

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
DCB Decachlorobiphenyl	*64*		*54 - 142*
Tetrachloro-m-xylene	*80*		*58 - 122*

Method: NWTPH-Dx - Northwest - Semi-Volatile Petroleum Products (GC)

Lab Sample ID: MB 580-290093/1-A
Matrix: Solid
Analysis Batch: 290662

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290093

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
#2 Diesel (C10-C24)	ND		50		mg/Kg		12/01/18 19:40	12/10/18 19:26	1
Motor Oil (>C24-C36)	ND		50		mg/Kg		12/01/18 19:40	12/10/18 19:26	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
o-Terphenyl	*91*		*50 - 150*	*12/01/18 19:40*	*12/10/18 19:26*	*1*

Lab Sample ID: LCS 580-290093/2-A
Matrix: Solid
Analysis Batch: 290662

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290093

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
#2 Diesel (C10-C24)	500	448		mg/Kg		90	70 - 125
Motor Oil (>C24-C36)	500	481		mg/Kg		96	70 - 129

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
o-Terphenyl	*70*		*50 - 150*

Lab Sample ID: LCSD 580-290093/3-A
Matrix: Solid
Analysis Batch: 290662

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290093

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
#2 Diesel (C10-C24)	500	455		mg/Kg		91	70 - 125	2	16
Motor Oil (>C24-C36)	500	495		mg/Kg		99	70 - 129	3	16

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
o-Terphenyl	*76*		*50 - 150*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 580-289673/22-A
Matrix: Solid
Analysis Batch: 289839

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 289673

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.0		mg/Kg		11/26/18 16:43	11/28/18 09:50	1
Barium	ND		0.50		mg/Kg		11/26/18 16:43	11/28/18 09:50	1
Cadmium	ND		1.0		mg/Kg		11/26/18 16:43	11/28/18 09:50	1
Chromium	ND		1.3		mg/Kg		11/26/18 16:43	11/28/18 09:50	1
Lead	ND		1.5		mg/Kg		11/26/18 16:43	11/28/18 09:50	1
Selenium	ND		5.0		mg/Kg		11/26/18 16:43	11/28/18 09:50	1
Silver	ND		2.5		mg/Kg		11/26/18 16:43	11/28/18 09:50	1

Lab Sample ID: LCS 580-289673/23-A
Matrix: Solid
Analysis Batch: 289839

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 289673

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	52.9		mg/Kg		106	80 - 120
Barium	50.0	54.3		mg/Kg		109	80 - 120
Cadmium	50.0	49.7		mg/Kg		99	80 - 120
Chromium	50.0	52.7		mg/Kg		105	80 - 120
Lead	50.0	50.9		mg/Kg		102	80 - 120
Selenium	50.0	52.6		mg/Kg		105	80 - 120
Silver	50.0	53.0		mg/Kg		106	80 - 120

Lab Sample ID: LCSD 580-289673/24-A
Matrix: Solid
Analysis Batch: 289839

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 289673

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	50.0	52.3		mg/Kg		105	80 - 120	1	20
Barium	50.0	53.7		mg/Kg		107	80 - 120	1	20
Cadmium	50.0	49.3		mg/Kg		99	80 - 120	1	20
Chromium	50.0	52.1		mg/Kg		104	80 - 120	1	20
Lead	50.0	50.6		mg/Kg		101	80 - 120	1	20
Selenium	50.0	51.5		mg/Kg		103	80 - 120	2	20
Silver	50.0	52.2		mg/Kg		104	80 - 120	2	20

Lab Sample ID: MB 580-290009/22-A
Matrix: Solid
Analysis Batch: 290167

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290009

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.0		mg/Kg		11/30/18 09:57	12/03/18 11:49	1
Barium	ND		0.50		mg/Kg		11/30/18 09:57	12/03/18 11:49	1
Cadmium	ND		1.0		mg/Kg		11/30/18 09:57	12/03/18 11:49	1
Chromium	ND		1.3		mg/Kg		11/30/18 09:57	12/03/18 11:49	1
Lead	ND		1.5		mg/Kg		11/30/18 09:57	12/03/18 11:49	1
Selenium	ND		5.0		mg/Kg		11/30/18 09:57	12/03/18 11:49	1
Silver	ND		2.5		mg/Kg		11/30/18 09:57	12/03/18 11:49	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 580-290009/23-A
Matrix: Solid
Analysis Batch: 290167

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290009

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	52.1		mg/Kg		104	80 - 120
Barium	50.0	54.6		mg/Kg		109	80 - 120
Cadmium	50.0	49.3		mg/Kg		99	80 - 120
Chromium	50.0	52.8		mg/Kg		106	80 - 120
Lead	50.0	51.9		mg/Kg		104	80 - 120
Selenium	50.0	51.1		mg/Kg		102	80 - 120
Silver	50.0	53.3		mg/Kg		107	80 - 120

Lab Sample ID: LCSD 580-290009/24-A
Matrix: Solid
Analysis Batch: 290167

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290009

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	50.0	52.8		mg/Kg		106	80 - 120	1	20
Barium	50.0	55.9		mg/Kg		112	80 - 120	2	20
Cadmium	50.0	49.8		mg/Kg		100	80 - 120	1	20
Chromium	50.0	53.3		mg/Kg		107	80 - 120	1	20
Lead	50.0	52.4		mg/Kg		105	80 - 120	1	20
Selenium	50.0	50.7		mg/Kg		101	80 - 120	1	20
Silver	50.0	50.7		mg/Kg		101	80 - 120	5	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 580-289744/22-A
Matrix: Solid
Analysis Batch: 289777

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 289744

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.030		mg/Kg		11/27/18 12:00	11/27/18 15:08	1

Lab Sample ID: LCS 580-289744/23-A
Matrix: Solid
Analysis Batch: 289777

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 289744

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.169		mg/Kg		101	80 - 120

Lab Sample ID: LCSD 580-289744/24-A
Matrix: Solid
Analysis Batch: 289777

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 289744

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.167	0.171		mg/Kg		103	80 - 120	1	20

Lab Chronicle

Client: Cascade Earth Sciences Inc.
Project/Site: Shimanek Covered Bridge

TestAmerica Job ID: 580-81942-1

Client Sample ID: SS-04
Date Collected: 11/19/18 11:01
Date Received: 11/20/18 09:45

Lab Sample ID: 580-81942-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	289461	11/21/18 14:27	JCM	TAL SEA

Client Sample ID: SS-04
Date Collected: 11/19/18 11:01
Date Received: 11/20/18 09:45

Lab Sample ID: 580-81942-1
Matrix: Solid
Percent Solids: 93.4

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			289674	11/26/18 16:00	ASJ	TAL SEA
Total/NA	Analysis	8260C		1	289687	11/26/18 22:52	ASJ	TAL SEA
Total/NA	Prep	8151A			290141	12/03/18 12:34	BAH	TAL SEA
Total/NA	Analysis	8151A		1	290489	12/06/18 16:43	KFS	TAL SEA
Total/NA	Prep	3546			290094	12/01/18 20:47	BAH	TAL SEA
Total/NA	Analysis	8270C SIM		5	290647	12/10/18 16:07	W1T	TAL SEA
Total/NA	Prep	3546			290091	12/01/18 18:13	KMS	TAL SEA
Total/NA	Analysis	8081A		1	290606	12/09/18 15:42	APR	TAL SEA
Total/NA	Prep	3546			290091	12/01/18 18:13	KMS	TAL SEA
Total/NA	Analysis	8082A		1	290834	12/11/18 15:01	TL1	TAL SEA
Total/NA	Prep	3546			290093	12/01/18 19:40	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		10	290662	12/11/18 04:28	Z1R	TAL SEA
Total/NA	Prep	3050B			289673	11/26/18 16:43	JKM	TAL SEA
Total/NA	Analysis	6010B		1	289839	11/28/18 11:59	HJM	TAL SEA
Total/NA	Prep	7471A			289744	11/27/18 12:00	T1H	TAL SEA
Total/NA	Analysis	7471A		1	289777	11/27/18 15:50	T1H	TAL SEA

Client Sample ID: SS-05
Date Collected: 11/19/18 11:30
Date Received: 11/20/18 09:45

Lab Sample ID: 580-81942-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	289461	11/21/18 14:27	JCM	TAL SEA

Client Sample ID: SS-05
Date Collected: 11/19/18 11:30
Date Received: 11/20/18 09:45

Lab Sample ID: 580-81942-2
Matrix: Solid
Percent Solids: 93.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			289674	11/26/18 16:00	ASJ	TAL SEA
Total/NA	Analysis	8260C		1	289687	11/26/18 23:18	ASJ	TAL SEA
Total/NA	Prep	8151A			290141	12/03/18 12:34	BAH	TAL SEA
Total/NA	Analysis	8151A		1	290489	12/06/18 17:09	KFS	TAL SEA
Total/NA	Prep	3546			290094	12/01/18 20:47	BAH	TAL SEA
Total/NA	Analysis	8270C SIM		10	290647	12/10/18 16:33	W1T	TAL SEA
Total/NA	Prep	3546			290091	12/01/18 18:13	KMS	TAL SEA

Lab Chronicle

Client: Cascade Earth Sciences Inc.
Project/Site: Shimanek Covered Bridge

TestAmerica Job ID: 580-81942-1

Client Sample ID: SS-05

Date Collected: 11/19/18 11:30
Date Received: 11/20/18 09:45

Lab Sample ID: 580-81942-2

Matrix: Solid
Percent Solids: 93.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8081A		1	290606	12/09/18 16:00	APR	TAL SEA
Total/NA	Prep	3546			290091	12/01/18 18:13	KMS	TAL SEA
Total/NA	Analysis	8082A		1	290834	12/11/18 15:54	TL1	TAL SEA
Total/NA	Prep	3546			290093	12/01/18 19:40	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		20	290662	12/11/18 04:50	Z1R	TAL SEA
Total/NA	Prep	3050B			289673	11/26/18 16:43	JKM	TAL SEA
Total/NA	Analysis	6010B		1	289839	11/28/18 12:02	HJM	TAL SEA
Total/NA	Prep	7471A			289744	11/27/18 12:00	T1H	TAL SEA
Total/NA	Analysis	7471A		1	289777	11/27/18 15:53	T1H	TAL SEA

Client Sample ID: SS-02

Date Collected: 11/19/18 14:05
Date Received: 11/20/18 09:45

Lab Sample ID: 580-81942-3

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	289461	11/21/18 14:27	JCM	TAL SEA

Client Sample ID: SS-02

Date Collected: 11/19/18 14:05
Date Received: 11/20/18 09:45

Lab Sample ID: 580-81942-3

Matrix: Solid
Percent Solids: 91.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5035			289674	11/26/18 16:58	ASJ	TAL SEA
Total/NA	Analysis	8260C		1	289687	11/26/18 23:44	ASJ	TAL SEA
Total/NA	Prep	8151A			290141	12/03/18 12:34	BAH	TAL SEA
Total/NA	Analysis	8151A		1	290489	12/06/18 17:35	KFS	TAL SEA
Total/NA	Prep	3546			290094	12/01/18 20:47	BAH	TAL SEA
Total/NA	Analysis	8270C SIM		10	290647	12/10/18 16:59	W1T	TAL SEA
Total/NA	Prep	3546			290091	12/01/18 18:13	KMS	TAL SEA
Total/NA	Analysis	8081A		10	290606	12/09/18 16:18	APR	TAL SEA
Total/NA	Prep	3546			290091	12/01/18 18:13	KMS	TAL SEA
Total/NA	Analysis	8082A		1	290834	12/11/18 16:12	TL1	TAL SEA
Total/NA	Prep	3546			290093	12/01/18 19:40	BAH	TAL SEA
Total/NA	Analysis	NWTPH-Dx		20	290662	12/11/18 05:11	Z1R	TAL SEA
Total/NA	Prep	3050B			290009	11/30/18 09:57	JKM	TAL SEA
Total/NA	Analysis	6010B		1	290167	12/03/18 12:36	HJM	TAL SEA
Total/NA	Prep	7471A			289744	11/27/18 12:00	T1H	TAL SEA
Total/NA	Analysis	7471A		1	289777	11/27/18 15:55	T1H	TAL SEA

Laboratory References:
TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Cascade Earth Sciences Inc. TestAmerica Job ID: 580-81942-1
Project/Site: Shimanek Covered Bridge

Laboratory: TestAmerica Seattle

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-19
ANAB	DoD ELAP		L2236	01-19-19
ANAB	ISO/IEC 17025		L2236	01-19-19
California	State Program	9	2901	11-05-19
Montana (UST)	State Program	8	N/A	04-30-20
Nevada	State Program	9	WA000502019-1	07-31-19
Oregon	NELAP	10	WA100007	11-05-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-19

Sample Summary

Client: Cascade Earth Sciences Inc.
Project/Site: Shimanek Covered Bridge

TestAmerica Job ID: 580-81942-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-81942-1	SS-04	Solid	11/19/18 11:01	11/20/18 09:45
580-81942-2	SS-05	Solid	11/19/18 11:30	11/20/18 09:45
580-81942-3	SS-02	Solid	11/19/18 14:05	11/20/18 09:45

TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Phone (253) 922-2310 Fax (253) 922-5047

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Jo Peneras	Lab PM: Lewis, Nathan A	Carrier Tracking No(s):	COC No: 580-31424-10272.1
Client Contact: ~~Abe Izen~~ Jessica Peneras	Phone: 541-812-6621	E-Mail: nathan.lewis@testamericainc.com		Page: Page 1 of 1
Company: Cascade Earth Sciences Inc.				Job #:
Address: 3511 Pacific Blvd Sw	Due Date Requested:			
City: Albany	TAT Requested (days):			
State, Zip: OR, 97321				
Phone:	PO #: Purchase Order not required			
Email: jessica.peneras@valmont.com ~~abe.izen@cascade-earth.com~~	WO #:			
Project Name: General/Bridge Work	Project #: 58008847			
Site: Shimanek Covered Bridge	SSOW#:			

Analysis Requested

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 7471A, 8151A_MS, 8270C_SIM	8081A - Pesticides, standard list	VOC (w/ MTBE)	PCB	NWTPH Dx	Total Number of containers	Special Instructions/Note:
Preservation Code:							N	N					
SS-04	11/19/18	1101	C	Solid			X	X	X	X	X		Include Barium
SS-05	↓	1130	C	Solid			X	X	X	X	X		Barium
SS-02	↓	1405	C	Solid			X	X	X	X	X		" "
				Solid									

580-81942 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
1	Jessica Peneras	11/19/18 1500	CES		11/20/18 945	TAEK
2	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
3	Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: △ Yes △ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.4

Ver: 08/04/2016

12/12/2018

TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Phone (253) 922-2310 Fax (253) 922-5047

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information	Sampler: Jo Peretas	Lab PM: Lewis, Nathan A	Carrier Tracking No(s):	COC No: 580-31424-10272.1
Client Contact: ~~Abe Izen~~ Jessica Peretas	Phone: 541-812-6621	E-Mail: nathan.lewis@testamericainc.com		Page: Page 1 of 1
Company: Cascade Earth Sciences Inc.				Job #:
Address: 3511 Pacific Blvd Sw	Due Date Requested:	Analysis Requested		
City: Albany	TAT Requested (days):			
State, Zip: OR, 97321				
Phone:	PO #: Purchase Order not required			
Email: ~~abe.izen@cascade-earth~~.com Jessica.peretas@valmont.com	WO #:			
Project Name: General/Bridge Work	Project #: 58008847			
Site: Shimanek Covered Bridge	SSOW#:			

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6010B, 7471A, 8151A_MS, 8270C_SIM	8081A - Pesticides, standard list	VOC (w/ MTBE)	PCB	NWTPH Dx	Total Number of containers	Special Instructions/Note:
			Preservation Code:				N	N					
SS-04	11/19/18	1101	C	Solid			X	X	✓	X	X		Include Barium
SS-05	↓	1130	C	Solid			X	X	✓	X	X		Barium
SS-02	↓	1405	C	Solid			✓	X	X	X	✓		" "
				Solid									

580-81942 Chain of Custody

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☐ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

	Date/Time	Company		Date/Time	Company
Relinquished by:	11/19/18 1500	CES	Received by:	11/20/18 945	TAEK
Relinquished by:	11/20/18 1700	TAEK	Received by: Tom Blankenship	11/21/18 0945	TA-Sea
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 3.4 IR5 0.2/0.4 4=-45

Login Sample Receipt Checklist

Client: Cascade Earth Sciences Inc. Job Number: 580-81942-1

Login Number: 81942 **List Source: TestAmerica Seattle**
List Number: 1
Creator: O'Connell, Jason I

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

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Seattle
5755 8th Street East
Tacoma, WA 98424
Tel: (253)922-2310

TestAmerica Job ID: 580-82053-1
Client Project/Site: Shimanek Covered Bridge

For:
Cascade Earth Sciences Inc.
3511 Pacific Blvd Sw
Albany, Oregon 97321

Attn: Abe Izen

Authorized for release by:
12/10/2018 2:23:43 PM

Nathan Lewis, Project Manager I
(253)922-2310
nathan.lewis@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Case Narrative

Client: Cascade Earth Sciences Inc.
Project/Site: Shimanek Covered Bridge

TestAmerica Job ID: 580-82053-1

Job ID: 580-82053-1

Laboratory: TestAmerica Seattle

Narrative

Job Narrative
580-82053-1

Comments
No additional comments.

Receipt
The sample was received on 11/26/2018 8:10 AM; the sample arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 11.5º C.

Receipt Exceptions
Sample SS-03 was received at the laboratory outside the required temperature criteria and outside of the holding time for VOCs. Samples were shipped to the Service Center for Saturday Delivery but the Service Center is not open on weekends. The sample was received Monday morning via UPS.

Client canceled the VOC analysis, along with PCBs and NWTPHDx.

GC/MS Semi VOA
Method(s) 8270C SIM: The matrix spike / matrix spike duplicate / sample duplicate (MS/MSD/DUP) precision for preparation batch 580-290094 and analytical batch 580-290528 was outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample / laboratory control sample duplicate (LCS/LCSD) precision was within acceptance limits.

Method(s) 8270C SIM: Surrogate recovery for the method blank associated with preparation batch 290094 was above the acceptance criteria. Analytes in the method blank were non-detect, and surrogate recovery is acceptable in the sample, therefore data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Metals
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

General Chemistry
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Definitions/Glossary

Client: Cascade Earth Sciences Inc.
Project/Site: Shimanek Covered Bridge

TestAmerica Job ID: 580-82053-1

Qualifiers

GC/MS Semi VOA

Qualifier	Qualifier Description
F2	MS/MSD RPD exceeds control limits
X	Surrogate is outside control limits

GC Semi VOA

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Glossary

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

Client Sample ID: SS-03
Date Collected: 11/23/18 11:20
Date Received: 11/26/18 09:23

Lab Sample ID: 580-82053-1
Matrix: Solid
Percent Solids: 54.5

Method: 8151A - Herbicides (GC/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dalapon	ND		270		ug/Kg	☼	12/03/18 12:34	12/06/18 18:26	1
Dicamba	ND		150		ug/Kg	☼	12/03/18 12:34	12/06/18 18:26	1
Mecoprop	ND		150		ug/Kg	☼	12/03/18 12:34	12/06/18 18:26	1
MCPA	ND		150		ug/Kg	☼	12/03/18 12:34	12/06/18 18:26	1
Dichlorprop	ND		150		ug/Kg	☼	12/03/18 12:34	12/06/18 18:26	1
2,4-D	ND		150		ug/Kg	☼	12/03/18 12:34	12/06/18 18:26	1
Pentachlorophenol	ND		270		ug/Kg	☼	12/03/18 12:34	12/06/18 18:26	1
Silvex (2,4,5-TP)	ND		150		ug/Kg	☼	12/03/18 12:34	12/06/18 18:26	1
2,4,5-T	ND		150		ug/Kg	☼	12/03/18 12:34	12/06/18 18:26	1
Dinoseb	ND		270		ug/Kg	☼	12/03/18 12:34	12/06/18 18:26	1
2,4-DB	ND		150		ug/Kg	☼	12/03/18 12:34	12/06/18 18:26	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*72*		*53 - 150*	*12/03/18 12:34*	*12/06/18 18:26*	*1*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	**13**		9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1
2-Methylnaphthalene	ND		9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1
1-Methylnaphthalene	ND		9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1
Acenaphthylene	**12**		9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1
Acenaphthene	ND		9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1
Fluorene	ND		9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1
Phenanthrene	**120**		9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1
Anthracene	ND		9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1
Fluoranthene	**220**		9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1
Pyrene	**160**		9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1
Benzo[a]anthracene	**29**		9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1
Chrysene	**79**		9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1
Benzo[b]fluoranthene	**77**	**F2**	9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1
Benzo[k]fluoranthene	**28**		9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1
Benzo[a]pyrene	**47**		9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1
Indeno[1,2,3-cd]pyrene	**44**		9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1
Dibenz(a,h)anthracene	ND		9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1
Benzo[g,h,i]perylene	**49**		9.1		ug/Kg	☼	12/01/18 20:47	12/07/18 16:38	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*107*		*57 - 120*	*12/01/18 20:47*	*12/07/18 16:38*	*1*

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		5.5		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
alpha-BHC	ND		3.7		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
beta-BHC	ND		9.1		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
delta-BHC	ND		5.5		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
gamma-BHC (Lindane)	ND		3.7		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
4,4'-DDD	ND		3.7		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
4,4'-DDE	ND		3.7		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
4,4'-DDT	ND		3.7		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
Dieldrin	ND		3.7		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1

Client Sample ID: SS-03
Date Collected: 11/23/18 11:20
Date Received: 11/26/18 09:23

Lab Sample ID: 580-82053-1
Matrix: Solid
Percent Solids: 54.5

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Endosulfan I	ND		3.7		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
Endosulfan II	ND		3.7		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
Endosulfan sulfate	ND		3.7		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
Endrin	ND		3.7		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
Endrin aldehyde	ND		37		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
Heptachlor	ND		5.5		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
Heptachlor epoxide	ND		5.5		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
Methoxychlor	ND		18		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
Endrin ketone	ND		3.7		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
Toxaphene	ND		180		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
cis-Chlordane	ND		3.7		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1
trans-Chlordane	ND		5.5		ug/Kg	☼	12/04/18 14:42	12/06/18 17:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*81*		*50 - 123*	*12/04/18 14:42*	*12/06/18 17:57*	*1*
DCB Decachlorobiphenyl	*93*		*43 - 129*	*12/04/18 14:42*	*12/06/18 17:57*	*1*

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	**9.1**		4.3		mg/Kg	☼	11/30/18 11:36	12/03/18 14:44	1
Barium	**160**		0.72		mg/Kg	☼	11/30/18 11:36	12/03/18 14:44	1
Cadmium	ND		1.4		mg/Kg	☼	11/30/18 11:36	12/03/18 14:44	1
Chromium	**31**		1.9		mg/Kg	☼	11/30/18 11:36	12/03/18 14:44	1
Lead	**8.5**		2.2		mg/Kg	☼	11/30/18 11:36	12/03/18 14:44	1
Selenium	ND		7.2		mg/Kg	☼	11/30/18 11:36	12/03/18 14:44	1
Silver	ND		3.6		mg/Kg	☼	11/30/18 11:36	12/03/18 14:44	1

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.058**		0.053		mg/Kg	☼	12/03/18 10:39	12/03/18 20:21	1

General Chemistry

Analyte	Result	Qualifier	RL	RL	Unit	D	Prepared	Analyzed	Dil Fac
Percent Solids	**54.5**		0.1		%			12/03/18 09:38	1
Percent Moisture	**45.5**		0.1		%			12/03/18 09:38	1

Method: 8151A - Herbicides (GC/MS)

Lab Sample ID: MB 580-290141/1-A
Matrix: Solid
Analysis Batch: 290489

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290141

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dalapon	ND		160		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Dicamba	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Mecoprop	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
MCPA	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Dichlorprop	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
2,4-D	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Pentachlorophenol	ND		160		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Silvex (2,4,5-TP)	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
2,4,5-T	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
Dinoseb	ND		160		ug/Kg		12/03/18 12:34	12/06/18 15:00	1
2,4-DB	ND		90		ug/Kg		12/03/18 12:34	12/06/18 15:00	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
2,4-Dichlorophenylacetic acid	*110*		*53 - 150*	*12/03/18 12:34*	*12/06/18 15:00*	*1*

Lab Sample ID: LCS 580-290141/2-A
Matrix: Solid
Analysis Batch: 290489

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290141

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Dalapon			333	183		ug/Kg		55	15 - 120		
Dicamba			333	295		ug/Kg		88	36 - 134		
Mecoprop			333	342		ug/Kg		103	48 - 150		
MCPA			333	320		ug/Kg		96	51 - 150		
Dichlorprop			333	362		ug/Kg		109	47 - 150		
2,4-D			333	332		ug/Kg		100	51 - 150		
Pentachlorophenol			333	340		ug/Kg		102	44 - 150		
Silvex (2,4,5-TP)			333	389		ug/Kg		117	53 - 150		
2,4,5-T			333	324		ug/Kg		97	56 - 150		
Dinoseb			333	259		ug/Kg		78	38 - 150		
2,4-DB			333	391		ug/Kg		117	47 - 150		

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*91*		*53 - 150*

Lab Sample ID: LCSD 580-290141/3-A
Matrix: Solid
Analysis Batch: 290489

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290141

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dalapon			333	209		ug/Kg		63	15 - 120	13	40
Dicamba			333	321		ug/Kg		96	36 - 134	9	40
Mecoprop			333	362		ug/Kg		109	48 - 150	5	40
MCPA			333	337		ug/Kg		101	51 - 150	5	40
Dichlorprop			333	380		ug/Kg		114	47 - 150	5	40
2,4-D			333	307		ug/Kg		92	51 - 150	8	40
Pentachlorophenol			333	351		ug/Kg		105	44 - 150	3	40

Method: 8151A - Herbicides (GC/MS) (Continued)

Lab Sample ID: LCSD 580-290141/3-A
Matrix: Solid
Analysis Batch: 290489

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290141

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Silvex (2,4,5-TP)			333	379		ug/Kg		114	53 - 150	3	40
2,4,5-T			333	341		ug/Kg		102	56 - 150	5	40
Dinoseb			333	273		ug/Kg		82	38 - 150	5	40
2,4-DB			333	395		ug/Kg		119	47 - 150	1	40

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*97*		*53 - 150*

Lab Sample ID: 580-82053-1 MS
Matrix: Solid
Analysis Batch: 290489

Client Sample ID: SS-03
Prep Type: Total/NA
Prep Batch: 290141

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Dalapon	ND		573	ND		ug/Kg	☼	42	15 - 120
Dicamba	ND		573	440		ug/Kg	☼	77	36 - 134
Mecoprop	ND		573	496		ug/Kg	☼	87	48 - 150
MCPA	ND		573	417		ug/Kg	☼	73	51 - 150
Dichlorprop	ND		573	543		ug/Kg	☼	95	47 - 150
2,4-D	ND		573	457		ug/Kg	☼	80	51 - 150
Pentachlorophenol	ND		573	503		ug/Kg	☼	88	44 - 150
Silvex (2,4,5-TP)	ND		573	568		ug/Kg	☼	99	53 - 150
2,4,5-T	ND		573	493		ug/Kg	☼	86	56 - 150
Dinoseb	ND		573	556		ug/Kg	☼	97	38 - 150
2,4-DB	ND		573	614		ug/Kg	☼	107	47 - 150

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*74*		*53 - 150*

Lab Sample ID: 580-82053-1 MSD
Matrix: Solid
Analysis Batch: 290489

Client Sample ID: SS-03
Prep Type: Total/NA
Prep Batch: 290141

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dalapon	ND		606	ND		ug/Kg	☼	43	15 - 120	7	40
Dicamba	ND		606	437		ug/Kg	☼	72	36 - 134	1	40
Mecoprop	ND		606	499		ug/Kg	☼	82	48 - 150	1	40
MCPA	ND		606	468		ug/Kg	☼	77	51 - 150	11	40
Dichlorprop	ND		606	589		ug/Kg	☼	97	47 - 150	8	40
2,4-D	ND		606	494		ug/Kg	☼	82	51 - 150	8	40
Pentachlorophenol	ND		606	480		ug/Kg	☼	79	44 - 150	5	40
Silvex (2,4,5-TP)	ND		606	585		ug/Kg	☼	97	53 - 150	3	40
2,4,5-T	ND		606	492		ug/Kg	☼	81	56 - 150	0	40
Dinoseb	ND		606	569		ug/Kg	☼	94	38 - 150	2	40
2,4-DB	ND		606	622		ug/Kg	☼	103	47 - 150	1	40

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
2,4-Dichlorophenylacetic acid	*74*		*53 - 150*

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 580-290094/1-A
Matrix: Solid
Analysis Batch: 290528

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290094

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
2-Methylnaphthalene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
1-Methylnaphthalene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Acenaphthylene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Acenaphthene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Fluorene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Phenanthrene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Anthracene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Fluoranthene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Pyrene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Benzo[a]anthracene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Chrysene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Benzo[b]fluoranthene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Benzo[k]fluoranthene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Benzo[a]pyrene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Indeno[1,2,3-cd]pyrene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Dibenz(a,h)anthracene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1
Benzo[g,h,i]perylene	ND		5.0		ug/Kg		12/01/18 20:47	12/07/18 14:03	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Terphenyl-d14	*121*	*X*	*57 - 120*	*12/01/18 20:47*	*12/07/18 14:03*	*1*

Lab Sample ID: LCS 580-290094/2-A
Matrix: Solid
Analysis Batch: 290528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290094

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	1000	919		ug/Kg		92	70 - 120
2-Methylnaphthalene	1000	1010		ug/Kg		101	68 - 120
1-Methylnaphthalene	1000	986		ug/Kg		99	71 - 120
Acenaphthylene	1000	1020		ug/Kg		102	68 - 120
Acenaphthene	1000	928		ug/Kg		93	68 - 120
Fluorene	1000	972		ug/Kg		97	73 - 120
Phenanthrene	1000	933		ug/Kg		93	73 - 120
Anthracene	1000	1040		ug/Kg		104	73 - 125
Fluoranthene	1000	1070		ug/Kg		107	74 - 125
Pyrene	1000	1010		ug/Kg		101	70 - 120
Benzo[a]anthracene	1000	1050		ug/Kg		105	66 - 120
Chrysene	1000	908		ug/Kg		91	69 - 120
Benzo[b]fluoranthene	1000	925		ug/Kg		92	63 - 121
Benzo[k]fluoranthene	1000	936		ug/Kg		94	63 - 123
Benzo[a]pyrene	1000	988		ug/Kg		99	72 - 124
Indeno[1,2,3-cd]pyrene	1000	878		ug/Kg		88	65 - 121
Dibenz(a,h)anthracene	1000	970		ug/Kg		97	70 - 125
Benzo[g,h,i]perylene	1000	960		ug/Kg		96	63 - 120

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 580-290094/2-A
Matrix: Solid
Analysis Batch: 290528

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290094

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Terphenyl-d14	*109*		*57 - 120*

Lab Sample ID: 580-82053-1 MS
Matrix: Solid
Analysis Batch: 290528

Client Sample ID: SS-03
Prep Type: Total/NA
Prep Batch: 290094

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Naphthalene	13		1780	1600		ug/Kg	☼	89	70 - 120
2-Methylnaphthalene	ND		1780	1730		ug/Kg	☼	97	68 - 120
1-Methylnaphthalene	ND		1780	1700		ug/Kg	☼	95	71 - 120
Acenaphthylene	12		1780	1780		ug/Kg	☼	99	68 - 120
Acenaphthene	ND		1780	1610		ug/Kg	☼	90	68 - 120
Fluorene	ND		1780	1670		ug/Kg	☼	93	73 - 120
Phenanthrene	120		1780	1760		ug/Kg	☼	92	73 - 120
Anthracene	ND		1780	1870		ug/Kg	☼	105	73 - 125
Fluoranthene	220		1780	2110		ug/Kg	☼	106	74 - 125
Pyrene	160		1780	2000		ug/Kg	☼	103	70 - 120
Benzo[a]anthracene	29		1780	1950		ug/Kg	☼	108	66 - 120
Chrysene	79		1780	1620		ug/Kg	☼	87	69 - 120
Benzo[b]fluoranthene	77	F2	1780	1350		ug/Kg	☼	71	63 - 121
Benzo[k]fluoranthene	28		1780	1500		ug/Kg	☼	83	63 - 123
Benzo[a]pyrene	47		1780	1600		ug/Kg	☼	87	72 - 124
Indeno[1,2,3-cd]pyrene	44		1780	1690		ug/Kg	☼	92	65 - 121
Dibenz(a,h)anthracene	ND		1780	1630		ug/Kg	☼	91	70 - 125
Benzo[g,h,i]perylene	49		1780	1640		ug/Kg	☼	89	63 - 120

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
Terphenyl-d14	*103*		*57 - 120*

Lab Sample ID: 580-82053-1 MSD
Matrix: Solid
Analysis Batch: 290528

Client Sample ID: SS-03
Prep Type: Total/NA
Prep Batch: 290094

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Naphthalene	13		1770	1540		ug/Kg	☼	86	70 - 120	3	12
2-Methylnaphthalene	ND		1770	1670		ug/Kg	☼	94	68 - 120	3	12
1-Methylnaphthalene	ND		1770	1640		ug/Kg	☼	92	71 - 120	3	11
Acenaphthylene	12		1770	1750		ug/Kg	☼	98	68 - 120	1	12
Acenaphthene	ND		1770	1610		ug/Kg	☼	90	68 - 120	0	12
Fluorene	ND		1770	1650		ug/Kg	☼	93	73 - 120	1	13
Phenanthrene	120		1770	1710		ug/Kg	☼	89	73 - 120	3	11
Anthracene	ND		1770	1840		ug/Kg	☼	103	73 - 125	2	12
Fluoranthene	220		1770	2050		ug/Kg	☼	103	74 - 125	3	13
Pyrene	160		1770	1960		ug/Kg	☼	101	70 - 120	2	12
Benzo[a]anthracene	29		1770	1890		ug/Kg	☼	105	66 - 120	3	14
Chrysene	79		1770	1580		ug/Kg	☼	85	69 - 120	3	10
Benzo[b]fluoranthene	77	F2	1770	1520	F2	ug/Kg	☼	81	63 - 121	12	10
Benzo[k]fluoranthene	28		1770	1340		ug/Kg	☼	74	63 - 123	12	15

Method: 8270C SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: 580-82053-1 MSD
Matrix: Solid
Analysis Batch: 290528

Client Sample ID: SS-03
Prep Type: Total/NA
Prep Batch: 290094

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzo[a]pyrene	47		1770	1590		ug/Kg	☼	87	72 - 124	0	12
Indeno[1,2,3-cd]pyrene	44		1770	1660		ug/Kg	☼	91	65 - 121	2	15
Dibenz(a,h)anthracene	ND		1770	1620		ug/Kg	☼	91	70 - 125	1	13
Benzo[g,h,i]perylene	49		1770	1610		ug/Kg	☼	88	63 - 120	2	14

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
Terphenyl-d14	*102*		*57 - 120*

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 580-290263/1-A
Matrix: Solid
Analysis Batch: 290437

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290263

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		3.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
alpha-BHC	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
beta-BHC	ND		5.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
delta-BHC	ND		3.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
gamma-BHC (Lindane)	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
4,4'-DDD	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
4,4'-DDE	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
4,4'-DDT	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Dieldrin	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Endosulfan I	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Endosulfan II	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Endosulfan sulfate	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Endrin	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Endrin aldehyde	ND		20		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Heptachlor	ND		3.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Heptachlor epoxide	ND		3.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Methoxychlor	ND		10		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Endrin ketone	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
Toxaphene	ND		100		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
cis-Chlordane	ND		2.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1
trans-Chlordane	ND		3.0		ug/Kg		12/04/18 14:42	12/06/18 14:14	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Tetrachloro-m-xylene	*89*		*50 - 123*	*12/04/18 14:42*	*12/06/18 14:14*	*1*
DCB Decachlorobiphenyl	*97*		*43 - 129*	*12/04/18 14:42*	*12/06/18 14:14*	*1*

Lab Sample ID: LCS 580-290263/2-A
Matrix: Solid
Analysis Batch: 290437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290263

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	20.0	18.4		ug/Kg		92	56 - 121

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 580-290263/2-A
Matrix: Solid
Analysis Batch: 290437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290263

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
alpha-BHC	20.0	17.9		ug/Kg		90	62 - 120
beta-BHC	20.0	17.2		ug/Kg		86	62 - 120
delta-BHC	20.0	16.8		ug/Kg		84	53 - 124
gamma-BHC (Lindane)	20.0	17.1		ug/Kg		85	55 - 120
4,4'-DDD	20.0	16.4		ug/Kg		82	61 - 122
4,4'-DDE	20.0	17.0		ug/Kg		85	53 - 124
4,4'-DDT	20.0	19.1		ug/Kg		95	57 - 137
Dieldrin	20.0	19.0		ug/Kg		95	63 - 121
Endosulfan I	20.0	18.3		ug/Kg		92	64 - 121
Endosulfan II	20.0	18.2		ug/Kg		91	37 - 139
Endosulfan sulfate	20.0	18.3		ug/Kg		92	63 - 120
Endrin	20.0	21.9		ug/Kg		110	70 - 127
Endrin aldehyde	20.0	15.9	J	ug/Kg		80	36 - 150
Heptachlor	20.0	19.6		ug/Kg		98	64 - 124
Heptachlor epoxide	20.0	18.6		ug/Kg		93	62 - 120
Methoxychlor	20.0	19.3		ug/Kg		96	61 - 130
Endrin ketone	20.0	18.8		ug/Kg		94	56 - 120
cis-Chlordane	20.0	18.1		ug/Kg		91	62 - 120
trans-Chlordane	20.0	19.1		ug/Kg		96	60 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*82*		*50 - 123*
DCB Decachlorobiphenyl	*93*		*43 - 129*

Lab Sample ID: LCS 580-290263/4-A
Matrix: Solid
Analysis Batch: 290437

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290263

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Toxaphene	500	505		ug/Kg		101	57 - 126

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
Tetrachloro-m-xylene	*86*		*50 - 123*
DCB Decachlorobiphenyl	*93*		*43 - 129*

Lab Sample ID: LCSD 580-290263/3-A
Matrix: Solid
Analysis Batch: 290437

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290263

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Aldrin	20.0	19.7		ug/Kg		98	56 - 121	7	18
alpha-BHC	20.0	19.1		ug/Kg		96	62 - 120	6	15
beta-BHC	20.0	19.4		ug/Kg		97	62 - 120	12	19
delta-BHC	20.0	17.9		ug/Kg		89	53 - 124	6	18
gamma-BHC (Lindane)	20.0	18.4		ug/Kg		92	55 - 120	7	18
4,4'-DDD	20.0	19.2		ug/Kg		96	61 - 122	16	18
4,4'-DDE	20.0	19.5		ug/Kg		98	53 - 124	14	18
4,4'-DDT	20.0	20.2		ug/Kg		101	57 - 137	6	23

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCSD 580-290263/3-A
Matrix: Solid
Analysis Batch: 290437

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290263

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Dieldrin			20.0	20.4		ug/Kg		102	63 - 121	7	19
Endosulfan I			20.0	20.5		ug/Kg		103	64 - 121	11	20
Endosulfan II			20.0	19.8		ug/Kg		99	37 - 139	8	18
Endosulfan sulfate			20.0	19.4		ug/Kg		97	63 - 120	6	19
Endrin			20.0	23.1		ug/Kg		115	70 - 127	5	20
Endrin aldehyde			20.0	17.7	J	ug/Kg		88	36 - 150	10	24
Heptachlor			20.0	20.3		ug/Kg		101	64 - 124	3	17
Heptachlor epoxide			20.0	19.7		ug/Kg		99	62 - 120	6	20
Methoxychlor			20.0	20.6		ug/Kg		103	61 - 130	7	20
Endrin ketone			20.0	20.0		ug/Kg		100	56 - 120	6	18
cis-Chlordane			20.0	19.9		ug/Kg		100	62 - 120	9	18
trans-Chlordane			20.0	20.6		ug/Kg		103	60 - 120	8	19

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*93*		*50 - 123*
DCB Decachlorobiphenyl	*105*		*43 - 129*

Lab Sample ID: LCSD 580-290263/5-A
Matrix: Solid
Analysis Batch: 290437

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290263

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Toxaphene			500	502		ug/Kg		100	57 - 126	1	24

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
Tetrachloro-m-xylene	*88*		*50 - 123*
DCB Decachlorobiphenyl	*96*		*43 - 129*

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 580-290025/19-A
Matrix: Solid
Analysis Batch: 290167

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290025

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		3.0		mg/Kg		11/30/18 11:36	12/03/18 14:01	1
Barium	ND		0.50		mg/Kg		11/30/18 11:36	12/03/18 14:01	1
Cadmium	ND		1.0		mg/Kg		11/30/18 11:36	12/03/18 14:01	1
Chromium	ND		1.3		mg/Kg		11/30/18 11:36	12/03/18 14:01	1
Lead	ND		1.5		mg/Kg		11/30/18 11:36	12/03/18 14:01	1
Selenium	ND		5.0		mg/Kg		11/30/18 11:36	12/03/18 14:01	1
Silver	ND		2.5		mg/Kg		11/30/18 11:36	12/03/18 14:01	1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 580-290025/20-A
Matrix: Solid
Analysis Batch: 290167

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290025

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Arsenic	50.0	53.9		mg/Kg		108	80 - 120
Barium	50.0	57.3		mg/Kg		115	80 - 120
Cadmium	50.0	50.0		mg/Kg		100	80 - 120
Chromium	50.0	54.3		mg/Kg		109	80 - 120
Lead	50.0	54.2		mg/Kg		108	80 - 120
Selenium	50.0	51.6		mg/Kg		103	80 - 120
Silver	50.0	53.6		mg/Kg		107	80 - 120

Lab Sample ID: LCSD 580-290025/21-A
Matrix: Solid
Analysis Batch: 290167

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290025

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Arsenic	50.0	53.4		mg/Kg		107	80 - 120	1	20
Barium	50.0	56.6		mg/Kg		113	80 - 120	1	20
Cadmium	50.0	49.5		mg/Kg		99	80 - 120	1	20
Chromium	50.0	53.8		mg/Kg		108	80 - 120	1	20
Lead	50.0	53.8		mg/Kg		108	80 - 120	1	20
Selenium	50.0	50.4		mg/Kg		101	80 - 120	2	20
Silver	50.0	53.6		mg/Kg		107	80 - 120	0	20

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 580-290118/22-A
Matrix: Solid
Analysis Batch: 290200

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 290118

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.030		mg/Kg		12/03/18 10:39	12/03/18 19:32	1

Lab Sample ID: LCS 580-290118/23-A
Matrix: Solid
Analysis Batch: 290200

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 290118

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	0.167	0.166		mg/Kg		99	80 - 120

Lab Sample ID: LCSD 580-290118/24-A
Matrix: Solid
Analysis Batch: 290200

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 290118

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	0.167	0.153		mg/Kg		92	80 - 120	8	20

Lab Chronicle

Client: Cascade Earth Sciences Inc.
Project/Site: Shimanek Covered Bridge

TestAmerica Job ID: 580-82053-1

Client Sample ID: SS-03
Date Collected: 11/23/18 11:20
Date Received: 11/26/18 09:23

Lab Sample ID: 580-82053-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	D 2216		1	290114	12/03/18 09:38	BAH	TAL SEA

Client Sample ID: SS-03
Date Collected: 11/23/18 11:20
Date Received: 11/26/18 09:23

Lab Sample ID: 580-82053-1
Matrix: Solid
Percent Solids: 54.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	8151A			290141	12/03/18 12:34	BAH	TAL SEA
Total/NA	Analysis	8151A		1	290489	12/06/18 18:26	KFS	TAL SEA
Total/NA	Prep	3546			290094	12/01/18 20:47	BAH	TAL SEA
Total/NA	Analysis	8270C SIM		1	290528	12/07/18 16:38	DSO	TAL SEA
Total/NA	Prep	3546			290263	12/04/18 14:42	BAH	TAL SEA
Total/NA	Analysis	8081A		1	290437	12/06/18 17:57	TL1	TAL SEA
Total/NA	Prep	3050B			290025	11/30/18 11:36	T1H	TAL SEA
Total/NA	Analysis	6010B		1	290167	12/03/18 14:44	HJM	TAL SEA
Total/NA	Prep	7471A			290118	12/03/18 10:39	JKM	TAL SEA
Total/NA	Analysis	7471A		1	290200	12/03/18 20:21	T1H	TAL SEA

Laboratory References:
TAL SEA = TestAmerica Seattle, 5755 8th Street East, Tacoma, WA 98424, TEL (253)922-2310

Accreditation/Certification Summary

Client: Cascade Earth Sciences Inc. TestAmerica Job ID: 580-82053-1
Project/Site: Shimanek Covered Bridge

Laboratory: TestAmerica Seattle

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska (UST)	State Program	10	17-024	01-19-19
ANAB	DoD ELAP		L2236	01-19-19
ANAB	ISO/IEC 17025		L2236	01-19-19
California	State Program	9	2901	11-05-19
Montana (UST)	State Program	8	N/A	04-30-20
Nevada	State Program	9	WA000502019-1	07-31-19
Oregon	NELAP	10	WA100007	11-05-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-14-00126	02-10-20
Washington	State Program	10	C553	02-17-19

Sample Summary

Client: Cascade Earth Sciences Inc.
Project/Site: Shimanek Covered Bridge

TestAmerica Job ID: 580-82053-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
580-82053-1	SS-03	Solid	11/23/18 11:20	11/26/18 09:23

CHAIN of CUSTODY

TestAmerica

Client: CES

Address: 3511 Pacific Blvd SW
Albany, OR 97321

Client Contact: J. Penetar
541-812-6621

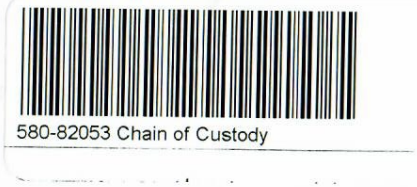
Date: 11/23/18

Page 1 of 1

Project: Shimanek Covered Bridge

Sampler: Jessica Penetar

Sample ID	Date	Time	Matrix	VOC	PCB	NWTPH Dx	PAH	RCRA Metals	Pesticides	Herbicides	Notes
SS-03	11/23/18	1120	Soil	X	X	X	X	X	X	X	Include Barium



Temp = 11.5°C

Relinquished by		Date	Time	Received by	Date	Time
Jessica Penetar	Jessica Penetar	11/23/18	1200	Joan O'Connell	11/26/18	0810

CHAIN of CUSTODY

TestAmerica

Client: CES
Address: 3511 Pacific Blvd SW
Albany, OR 97321

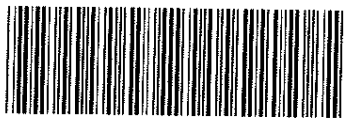
Client Contact: J. Penetar
541-812-6621

Date: 11/23/18
Page 1 of 1

Project: Shimanek Covered Bridge

Sampler: Jessica Penetar

Sample ID	Date	Time	Matrix	VOC	PCB	NWTPH Dx	PAH	RCRA metals	Pesticides	Herbicides	Notes
SS-03	11/23/18	1120	Soil	X	X	X	X	X	X	X	Include Barium



Temp = 11.5°C

Relinquished by		Date	Time	Received by		Date	Time
Jessica Penetar	Jessica Penetar	11/23/18	1200	Jason O'Connell		11/26/18	0810
	Jason O'Connell	11/26/18	1700		TASEA	11.27.18	1020

4.2.5.2

Login Sample Receipt Checklist

Client: Cascade Earth Sciences Inc. Job Number: 580-82053-1

Login Number: 82053 **List Source: TestAmerica Seattle**
List Number: 1
Creator: O'Connell, Jason I

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